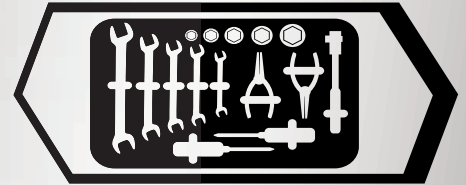
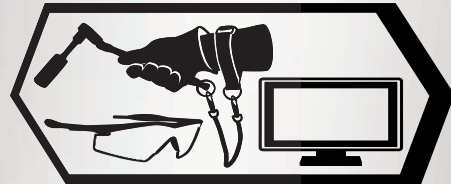
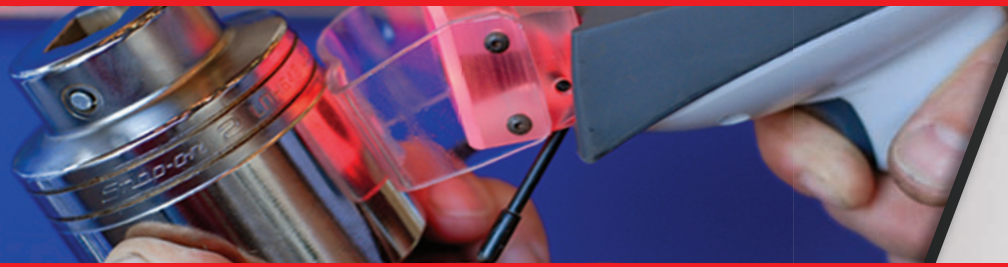


Snap-on®

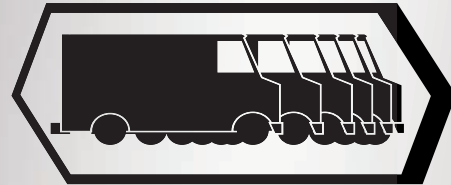
INDUSTRIAL



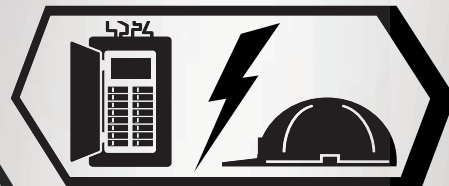
Tool Sets and Custom Kitting



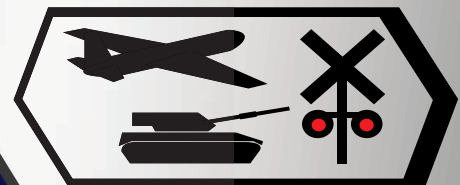
Tool Management & Safety



Fleet Repair



Construction and Maintenance



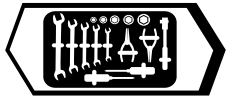
Industry Specific Applications



Heavy Duty Bolting

The Six Key Strategic Advantages Snap-on Industrial Brings

In any manufacturing or maintenance business the key challenges to profitability and success include cost control, downtime reduction, safety and problem solving. Snap-on Industrial addresses these challenges by focusing on six key initiatives:



1. Tool Sets and Custom Kitting

Off-the-shelf tools sets don't address specific business needs. We specialize in building and delivering custom kits in custom packages. Whether your scale is one-of-a-kind or a thousand identical kits shipped around the world, we have the technology to deliver.



2. Tool Management and Safety

Organization, security and trackability are three features of effective tool control and safety programs. From basic organizational products to secure tool boxes that track each item inside according to who uses and where, we can help you reduce downtime, lost tools and associated costs.



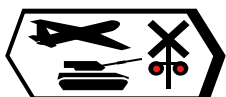
3. Fleet Repair Applications

Whether your fleet is trucks or tanks, a vehicle out of service is a big expense. Snap-on Industrial's complete line of diagnostic tools, including the industry's most advanced diesel diagnostic system combined with specialty tools for fleet-specific requirements is unmatched.



4. Construction and Maintenance

Ergonomic tools to reduce repetitive stress injuries, insulated tools to meet the toughest standards, job site tool boxes and kits, and a wide range of industry-specific power and torque tools give Snap-on Industrial the advantage in construction and maintenance.



5. Industry Specific Applications

New and specialized applications are developing constantly—whether in wind power or railroads, band saws or torque tools. We work with leading edge customers solving tough challenges every day, developing tool adaptations and applications that translate to a variety of additional situations—potentially, even yours.



6. Heavy-duty Bolting

High strength large assemblies can be a challenge, but we build the sockets, wrenches and torque tools for manufacturing and servicing power generation, construction equipment and other heavy-duty applications.

We are focused on your business challenges.

INDUSTRIAL QUICK REFERENCE

Tool Sets & Custom Kitting

Set Building Program U.S. Set Building, Metric Set Building, Tool Control Set Building	N006 - N017
Keyless Entry Set Building	N018
Specialized Tool Sets Portable Mechanic's Service Sets, General Mechanic's Tool Kits, Wind Power Tool Sets, General Industrial Maintenance Sets	N018 - N025
Aviation Tool Sets Military Kits, Commercial Kits, Aircraft Overhaul Set, Engine Overhaul Shop Set, Master Mechanical Set, Basic Mechanic's Set, All Purpose Mechanic's Set, Flight Line Mechanic's Set, Basic Maintenance Tool Set	N026 - N033
Portable Tool Cases Pelican® Micro, Medium, and Large Cases, Pelican Storm Cases	N034 - N036

Tool Management and Safety

Level 5™ Tool Control System ATC, NTC, Tool Control Software, Tool Control Hardware	N040 - N045
Drawer Control Tool Cabinets	N046
Build-a-Bay Custom Solutions, Basic Storage Solutions, Advanced Storage Solutions	N047 - N049
FOD & FME Prevention Flight Line Roll Cabinets, FOD Hand Tools, Aeroprobe®, and STARK Kit	N050 - N052
Tethered Tools Lanyards, Carabiners, Tethers, TAH Tool Set, Cordless Tools, Wrenches, Pliers, Screwdrivers, & Miscellaneous Tools	N053 - N058
Retention System Tools Torque Wrenches, Ratchets, Handles, Extensions, Adaptors, Sockets, Bit Driver Sockets, Crowfoot Wrenches, Pliers/Cutters, Pipe Wrenches, Hammers, Scrapers	N056 - N067
Industrial Finish Hand Tools Sockets, Wrenches, Screwdrivers, Torque Wrenches	N068 - N071
Safety Products Safety Approved Flashlights, Pelican Remote Area Lighting System, Safety Sledge Hammers	N072

Fleet Repair

Shop & Service Equipment Alignment & Service Lifts, Mobile Column Lifts, Collision Service Equipment, Tire Changers, Brake Lathes, Alignment Equipment, Wheel Balancers	N076 - N081
Pro-Link iQ™ Diagnostic Scan Tool Sets Pro-Link iQ Productivity Set, Military Scan Tool Set, "A la Carte" Set	N082
Military Fleet Battery Chargers	N083
ShopKey Repair and Information System	N083
Omega and Hein-Werner Hydraulics Floor Jacks, Wheel Lift System, Truck Air Jacks, Jack Stands, Air Bottle Jacks, Truck Ramps, Shop Press, Engine Stands, Engine Cranes	N084 - N086
Equipto® Shop Organization Solutions V-Grip™ Shelving, Workcenters, Work Benches, Storage Cabinets, Tire Racks, Mezzanines	N087 - N092

Construction and Maintenance

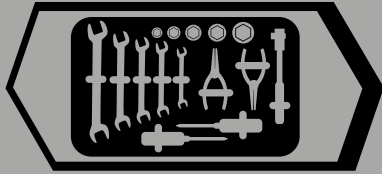
Snap-on Utility Specialties Manhole Cover Removal Tool, Ratchet Wrench, Composite Hand Tools	N096 - N097
Bahco® Insulated Hand Tools Screwdrivers, Pliers, Cable Cutter	N098
Bahco ergo® Hand Tools Screwdrivers and Sets, Hex Bits and Sets, Adjustable Joint Pliers, Linesman's Pliers, Cutting Pliers, Long Nose Pliers, Adjustable Wrenches	N099 - N103
Bahco® Power Tool Accessories Holesaw Sets, Bimetal Holesaws, Carbide-Tipped Holesaws, Reciprocating Saw Blades, Auger Bits, Spade Bits, Step Bits	N104 - N107
Bahco® Tradesman's Tools Hacksaws and Blades, Handsaws, Bowsaws, Bolt Cutters, Tool Pouches	N108 - N111
Williams Hydraulics Combination Sets, Pumps, Cylinders, Maintenance Sets, Bottle Jacks, Toe Jacks, Flat Body Cylinders and Kits, Spreaders, Shop Presses, Accessories, Hydraulic Oil	N112 - N119
ENERPAC Hydraulics Combination Sets, Cylinders, Pumps, Bench Vise, Shop Presses, Maintenance Sets	N120 - N123
ENERPAC Machine Lifts & Load Skates	N124
Columbus McKinnon Material Handling Electric Chain Hoists, Load Binders, Manual Chain Hoists, Beam Clamps, Trolleys, Chain, Slings	N125 - N128
TPI Electronic Measuring Instruments HVAC Gas, Pressure, and Airflow Test Equipment, Thermometers, Leak Detectors, Test Meters, Probes	N129 - N131
Wilton/JET Shop Equipment Horizontal and Vertical Bandsaws, Belt Sander, Bench Grinders, Drill Press, Pallet Trucks, Service Carts, Hammers and Sledge Hammers	N132 - N135
Equipto Spool & Reel Racks	N136

Industry Specific Applications

Aerospace Hand Tools Ratchets, Sockets, Drive Tools and Accessories, Wrenches	N140 - N143
ATI Airframe Tools Rivet Sets, Rivet Squeezers, Micro Stops, Bucking Bars, Vacuums, Angle Drills, Deburring Tools	N144 - N155
Zephyr Bits and Fastener Kits Torq-Set® Insert / Power Bits, HiTorq® Driver Bits, Hi-Lok® Tools, Jo-Bolt Fastener Tools	N156
Sioux Aerospace Air Tools Drills, Angle Drills, Rivet Shavers, Skin Clamp Runner	N157
Sioux Production Air Tools Pistol Grip, Straight, and Angle Air Drills, Air Screwdrivers, Die Grinders, Wheel Grinders, Scalers	N158 - N163
Bahco Easy-Cut Bandsaw Blades	N164
Starrett® Precision Tools Micrometers, Calipers, Dial Indicators, Depth Gauges, Height Gauges, Protractors, Levels, Pin Vises, Combination Squares Sets	N165 - N172
Snap-on Railroad Tools Lag Screw Sockets, Engine Specials, Cotter Key Tools, Signal Tools, Bridge and Building Tools	N173 - N174

Heavy-Duty Bolting

Snap-on Heavy-Duty Bolting Tools 2-1/2" Drive Impact Sockets, Tubular Handle Wrenches, Offset Striking Wrenches	N178 - N181
Sioux Industrial-Duty Impact Wrenches	N182
ENERPAC Hydraulic Heavy-Duty Bolting Tools Hydraulic Punches, Flange Alignment Tools and Spreaders, Industrial Spreaders, Nut Splitters, Hydraulic Cutters, Self-Contained Cutters	N183 - N186

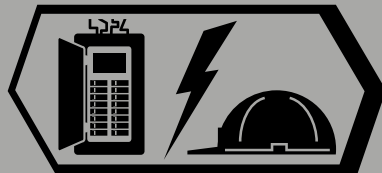
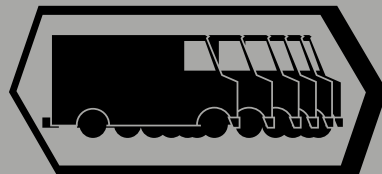


Snap-on Industrial works with you to make sure the tools you buy and use fit your business.

Our products, services, and capabilities help reduce downtime, control costs, solve tough problems in service and maintenance, and increase the safety of your operations.

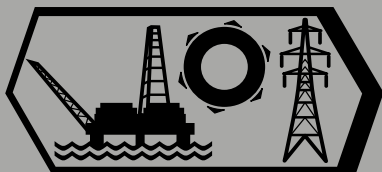
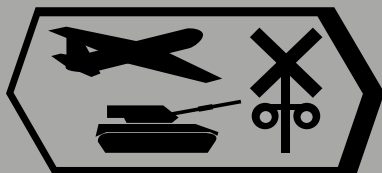
We do this by focusing on six important applications:

- **Tool Sets and Custom Kitting**
- **Tool Management and Safety**
- **Fleet Repair**
- **Construction and Maintenance**
- **Industry-Specific Applications**
- **Heavy-Duty Bolting**

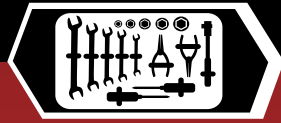


Let Snap-on Industrial work with you to:

- **Create custom service kits with the exact components you need, and deliver them anywhere in the world**
- **Implement tool security, control and tracking appropriate to your business**
- **Control costs, eliminate shrinkage, and meet strict FOD and FME requirements**
- **Provide a wide range of productivity-enhancing tools for:**
 - **Railroads**
 - **Aviation and Aerospace**
 - **Power generation**
 - **Military and Defense**
 - **Construction**
 - **Vehicles**
 - **Manufacturing**
 - **And Fleets and Education**



Begin with tools. End with solutions.



TOOL SETS AND CUSTOM KITTING

Our state-of-the-art kitting center can create sets ranging from one-of-a-kind kits to a thousand identical tool sets.

Overview N003

U.S. Set Building Program N006

Metric Set Building Program N012

Tool Control Set Building N017

Keyless Entry Set Building N018

Tool Control Foam Kits N019

Specialized Tool Sets N020

Aviation Tool Sets N026

Portable Tool Cases N034

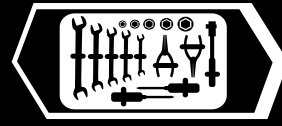
They can be developed for a specific industry like waste water treatment or power generation. And they can be developed along with OEM's to provide essential kits for specific machines or vehicles.

Some are stationary and stored by the machines they are meant to service; others are designed to be portable within a service facility; and some are required to be mobile and even transportable. Whatever your tool set challenge, Snap-on has the expertise to design, organize, and deliver everything from the smallest kit to a 40' container anywhere in the world.

Creating tool sets is at the heart of what we do. We offer a unique, modular set building program, an assortment of sets for specific applications, even ready-to-ship containers for disaster relief and plant outages. And the scale may surprise you, from small kits to service copy machines to hundreds of tool boxes completely outfitted for repairing military vehicles. Standard or custom, small to large, we do it all.

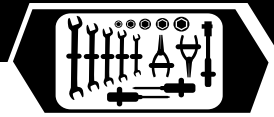


TOOL SETS AND CUSTOM KITTING



**Snap-on Industrial
thinks big enough
to consider an entire
tool room to be a kit.
We also do portable
cases & everything
in between.**





TOOL SETS AND CUSTOM KITTING

It took us years of development to become the leader in building custom tool kits. We have worked with thousands of customers to develop the logistics needed to do it right. We work with manufacturers to create OEM and product-specific service sets. And we work with the military to create sets to service vehicles like tanks and personnel carriers, and to repair aircraft ranging from helicopters to fighter jets to cargo planes.

The result is a robust, flexible, scalable kitting center exclusively focused on creating custom tool sets to meet the specific needs of a wide range of customers, all with unique requirements. We even build, equip, and rent mobile tool cribs—a complete tool room in a twenty or forty foot shipping container, fully equipped and operational, delivered to your site.



How do we do it? We focus on five key areas.

Organization Having the right tool at hand is only useful if you can find it. Snap-on Industrial has options for organizing tools ranging from kit bags, to shadow boards, to foam inserts for portable cases, to custom foam layouts to fit tool box drawers. You have tools? We can organize them.

Tool Management The next step after organizing is managing. Whether you require simple visual management or a program to meet FOD and FME requirements, we can tailor a management program for virtually any need.

Sourcing and Integration Suppose you need a tool kit that requires additional sourcing beyond our normal offerings. We do the sourcing for you, and integrate the components into your kit.

We have the reach to deploy these services anywhere in the world, with purchase, rental and leasing options.

At Snap-on Industrial, it's not just about tools. It's about having the right tools, the right kits, the right availability and the right understanding to get you the tools that you need, ready so you can use them.

Resetting Over time, kits can become worn, components lost, and updates required. We can reset, refurbish and renew your Snap-on tool kits on your schedule and as you require.

On-site Tool Management In some situations, you need someone to actually go on site, check inventories, manage updates, and handle replacements. Snap-on Industrial is ready to assist with all of your tool kit needs.



SET BUILDING

U.S. Sets



9100GSBO

U.S. Apprentice Set

9100GSBO Complete Apprentice Set.

- Includes 9100GSO and KRA2055A top chest

9100GSO Apprentice Set.

- More than 100 pieces for a well-balanced selection
- Tools only

9100GSM Metric Plus Apprentice Set.

- 9100GS set plus AWM110DK metric hex wrench Set (11 pcs), 212FMY Metric 12-point socket Set (12 pcs) and OEXM710B metric 12-point combination wrench set (10 pcs)
- Does not include top chest

An Unequaled Opportunity

When we introduced our set building program it revolutionized the industry — for the first time there was a planned way to expand tool sets as work and responsibilities evolved and grew. It is designed to provide the most used tools in the most likely progression. And as metric tools became the standard in the industry, we began offering a greatly expanded metric selection with a master set that tops anything else available. Ask your Snap-on® Industrial Account Manager for more information on how you can build exactly the right tool set for your specific needs.

How the Program Works

If you're building a set from the ground up, start with our 9100GSBO Apprentice Set. It includes a balanced selection of 1/4", 3/8" and 1/2" square drive tools, wrenches, screwdrivers, pliers, punches and chisels — a basic set for routine maintenance. We've also put increased emphasis on getting you all the metric tools you need, as they are increasingly becoming the standard in many industries.

When your needs grow, the second tool group provides more than 100 additional standard and specialty tools for more advanced work. Each new tool group offers recommendations on the appropriate storage chests and cabinets to help you stay organized and productive. Through this method of steady, planned expansion, you can continue building your tool set until you've achieved the ultimate selection of matched hand tools and storage units.



9200GSB

Warning: In the set illustrations on this page and following pages, storage unit drawers are shown open for display purposes only. In use, storage unit could tip and cause injury or damage if a number of loaded drawers are extended.

U.S. Set 2

9200GSB Complete U.S. Set 2.

- Includes 9100GSO, 9000GS2 plus KRA4059A top chest

9200AGSO U.S. Set 2.

- More than 200 pcs: includes all tools in 9100GSO and 9000GS2
- Does not include tool storage

9000GS2 Add-on Group 2.

- More than 100 pcs in the add-on to 9100GSO apprentice set
- Tools only

U.S. and metric set cabinetry and contents are subject to change and may not be exactly as illustrated. U.S. set listings are shown on pages N010 and N011. Metric sets are shown on pages N012 and N013. Metric listings are shown on pages N014 and N015.

U.S. Set 3

9300GSBO Complete U.S. Set 3.

- Includes 9200AGSO, 9000GS30 plus KRA4059A top chest and KRA4008E roll cab

9300GSO U.S. Set 3.

- More than 300 pcs: includes all tools in 9200AGSO and 9000GS30
- Does not include tool storage

9000GS30 Add-on Group 3.

- More than 100 pcs in the add-on to 9200AGSO U.S. Set 2
- Tools only



9300GSBO

U.S. Set 4

9400GSBO Complete U.S. Set 4.

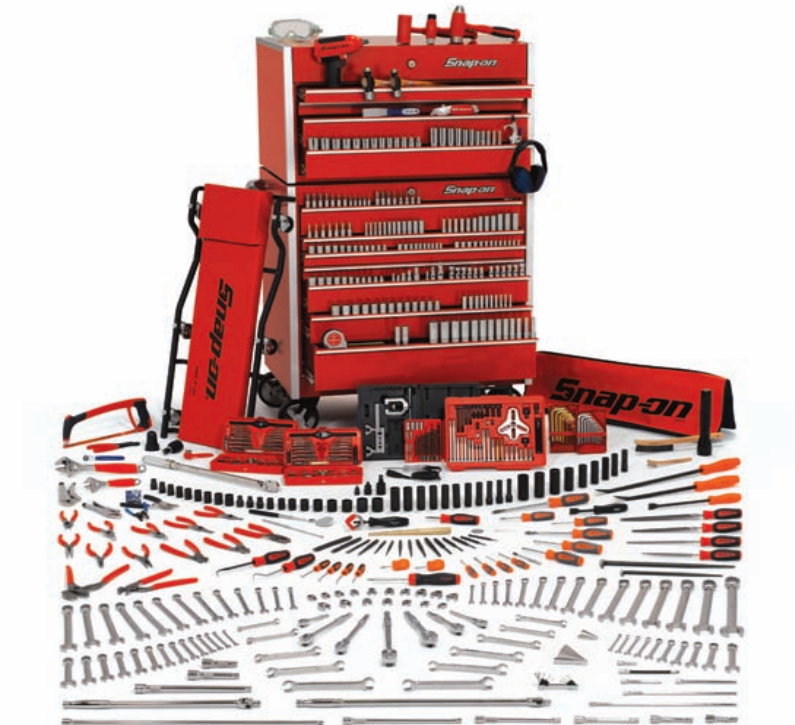
- Includes: 9300GSO, 9000GS40 plus KRL751PBO top chest and KRL756CPBO roll cab

9400GSO U.S. Set 4.

- More than 600 pcs: includes all tools in 9300GSO and 9000GS40
- Does not include tool storage

9000GS40 Add-on Group 4.

- More than 250 pcs in the add-on to 9300GSO U.S. Set 3
- Tools only



9400GSBO

- Do not open more than one loaded drawer at a time
- Keep children away
- Close lid, lock drawers and doors before moving
- Apply brakes on locking casters when not moving unit
- Do not step in or on drawers

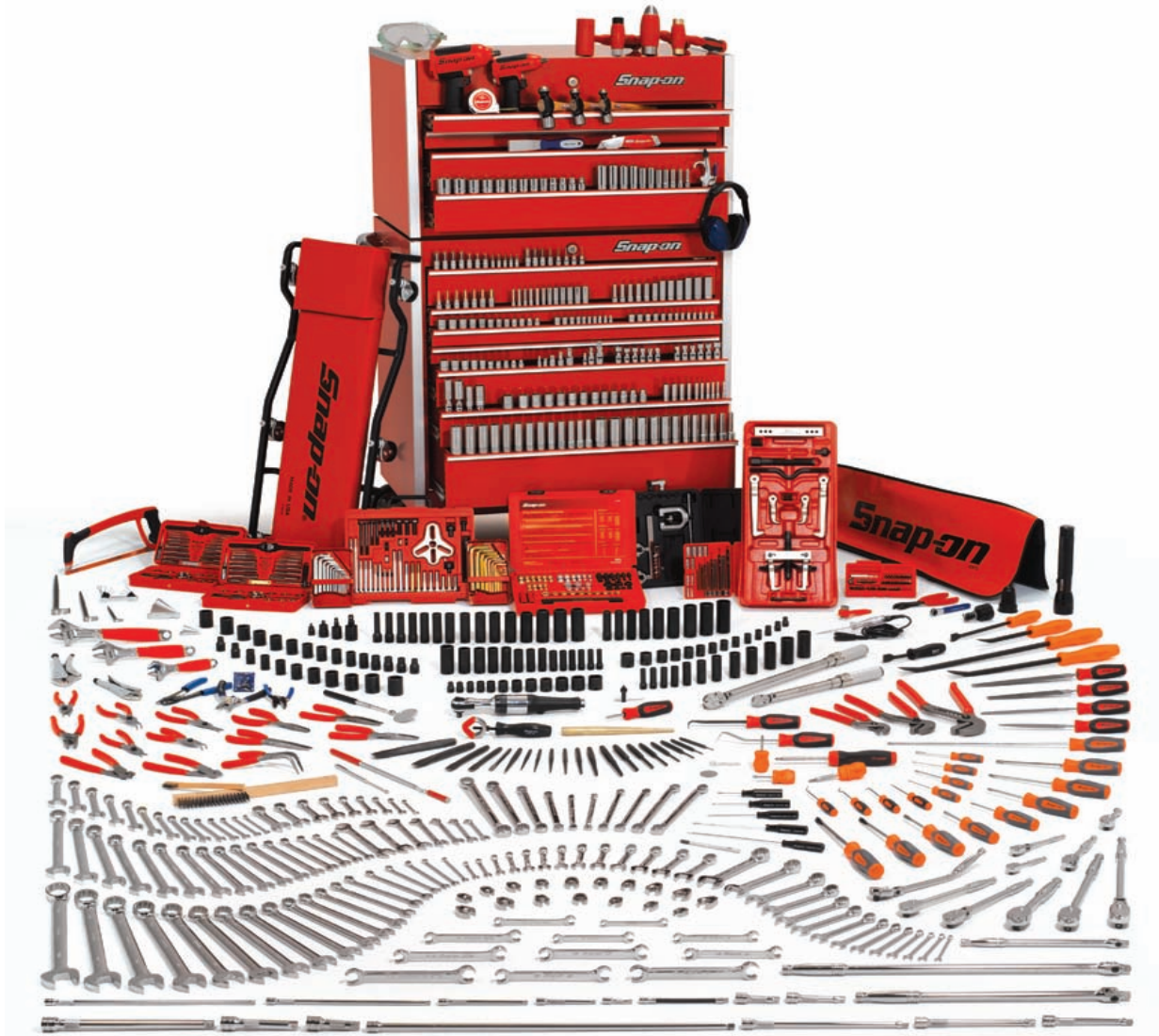
- Secure units together with fasteners
- Do not pull; push to move
- Wear gloves when lifting by edges
- Keep feet and fingers clear of edges when stacking, hanging, or moving units
- Read additional safety precautions on pages 586 to 589



WARNING

SET BUILDING

U.S. Sets



9500GSBO

U.S. Set 5

9500GSBO Complete U.S. Set 5.

- Includes 9400GSO, 9000GS50 plus KRL751PBO top chest and KRL756CPBO roll cab

9500GSO U.S. Set 5.

- More than 800 pcs: includes all tools in 9400GSO and 9000GS50
- Does not include tool storage

9000GS50 Add-on Group 5.

- More than 150 pcs in the add-on to 9400SGO U.S. Set 4
- Tools only

Warning: In the set illustrations on this page and following pages, storage unit drawers are shown open for display purposes only. In use, storage unit could tip and cause injury or damage if a number of loaded drawers are extended.

U.S. and metric set cabinetry and contents are subject to change and may not be exactly as illustrated. U.S. set listings are shown on pages N010 and N011. Metric sets are shown on pages N012 and N013. Metric listings are shown on pages N014 and N015.



9600GSBO

U.S. Set 6

9600GSBO Complete U.S. Set 6.

- Includes 9500GSO, 9000GS60 plus KRL791APB0 top chest, KRL722BPB0 roll cab and KRA276D wall cabinet

9600GSO U.S. Set 6.

- More than 1,000 pcs: includes all tools in 9500GSO and 9000GS60
- Does not include tool storage

9000GS60 Add-on Group 6.

- More than 250 pcs in the add-on to 9500GSO U.S. Set 5
- Tools only

- Do not open more than one loaded drawer at a time
- Keep children away
- Close lid, lock drawers and doors before moving
- Apply brakes on locking casters when not moving unit
- Do not step in or on drawers

- Secure units together with fasteners
- Do not pull; push to move
- Wear gloves when lifting by edges
- Keep feet and fingers clear of edges when stacking, hanging, or moving units
- Read additional safety precautions on pages 586 to 589



WARNING



SET BUILDING

U.S. Set Contents

9100GS0 Apprentice Set

Stock No.	Description	Page
114ATMP	1/4" Dr. General Service Set, 6-Point (14 pcs)	82
206EAU	3/8" Dr. Adaptor/Extension Set (6 pcs)	75
211FSY	3/8" Dr. Socket Set, 6-Point (11 pcs)	25
211SFSY	3/8" Dr. Deep Socket Set, 6-Point (11 pcs)	26
317MSPC	1/2" Dr. General Service Set, 6-Point (17 pcs)	88
91ACP	Adjustable Joint Pliers, 9 1/4"	153
AW1015DK	Hex Wrench Set (10 pcs) (7/250" to 3/8")	118
BP16B	Ball Peen Hammer, 16 oz.	175
CSA8C	Carbon Scraper	181
ECF201A	3 Watt, (2) D Cell, LED Flashlight	496
F80	3/8" Dr. Sealed Head Ratchet	8
GA295	Round Mirror (2 1/4" Diameter)	534
GAC1580	Goggles	584
HBPT16	Plastic Tip Hammer	174
HSG319	Deluxe Hacksaw (for 12" blades)	176
OEX709B	Combination Wrench Set, 12-Point (9 pcs)	98
PL300CF	Needle Nose/Diagonal Cutter/Pliers Set, 3 pcs.	153
PPC710BK	Punch and Chisel Set, 11 pcs	170
PRH57A	Retaining Ring Pliers	156
PT5C	Magnetic Pick Up Tool	535
PWC6	Wire Stripper/Cutter, 6"	155
SHDX800	Combination Screwdriver Set (8 pcs)	129
TPMA12	Tape Rule, U.S. (12')	533

9000GS2 Add-on Group

Stock No.	Description	Page
110STMY	1/4" Dr. Deep Socket Set, 6-Point (10 pcs)	19
112TMMY	1/4" Dr. Metric Shallow Socket Set, 6-Point (12 pcs)	18
2004BSKA	Battery Service Kit (4 pcs)	435
212EFTXY	1/4" and 3/8" Dr. Torx® Driver Set (12 pcs)	52
212FSMY	3/8" Dr. Metric Shallow Socket Set, 6-Point (12 pcs)	25
212SFSMY	3/8" Dr. Metric Deep Socket Set, 6-Point (12 pcs)	126
97CCP	Needle Nose Pliers, 8"	152
1650	Prybar, 16"	149
AC5B	Hand Scratch Brush	578
AWM110DHK	Metric Hex Wrench Set, L-Shaped	118
CT4G	Circuit Tester	409
FADH12A	Adjustable Wrench, Cushion Handle, 12"	120
FB303B	Wire Gap Gauge	532
FB316B	Spark/Ignition Gauge (18 blades)	531
FB325A	U.S./Metric Gauge (25 blades)	531
FB361A	Gapper Gauge	532
FLF80	3/8" Dr. Long Flex Head Sealed Ratchet	8
FXX11	3/8" Dr. Extension, 11"	67
GSAF1E	Square Drive Adaptor	77
LP10WR	Locking Pliers, 10"	161
OEX30B	Std. Length Combination Wrench, 15 1/16"	98
OEX32B	Combination Wrench, 12-Point, 1"	98
OEXM710B	Metric Combination Wrench Set (10 pcs)	97
PK53	Putty Knife/Scraper	182
RXFS605B	3/8" Dr. Double End Flare Nut Wrench Set (5 pcs)	110
S9704KR	3/8" Dr. Spark Plug Retention Socket, 6-Point, 13/16"	187
S9706KRA	Spark Plug Retention Socket, 6-Point, 5/8"	187
SGA173BR	Radiator Hose Pick	451
SGASA204A0	Miniature Pick Set, 4 pcs	145
SGDMRC44B	Ratcheting Soft Grip Screwdriver	136
SGT4BR	1/4" Dr. Standard Shank Driver	74
TMXK60	1/4" Dr. Extension, 6"	65

U.S. and metric set cabinetry and components are subject to change and may not be exactly as illustrated. U.S. sets are shown on pages N006-N009. Metric sets are shown on pages N012 and N013. Metric listings are shown on pages N014 and N015.

9000GS30 Add-on Group

Stock No.	Description	Page
112STMMY	1/4" Dr. Metric Deep Socket Set, 6-Point (12 pcs)	19
207EFAMY	3/8" Dr. Metric Hex Driver Set (7 pcs)	55
208EFAY	3/8" Dr. Hex Driver Set (8 pcs)	57
309SIMYA	1/2" Dr. Deep Impact Socket Set, 6-Point	41
310IMMYA	1/2" Dr. Metric Shallow Impact Socket Set, 6-Point	40
310SIMMYA	1/2" Dr. Metric Deep Impact Socket Set, 6-Point	41
311IMYA	1/2" Dr. Shallow Impact Socket Set, 6-Point	40
313TWMYA	1/2" Dr. Metric Socket Set, 6-Point (13 pcs)	36
AC58D	Wire Brush	578
GA3000A	Ear Protectors	582
IP80D	1/2" Dr. Impact Universal Joint	78
JCK7D	Fender Cover	525
JT13A	Blow Gun	298
MG725	1/2" Dr. Impact Wrench	265
OEXM6B	Metric Short Combination Wrench, 12-Point, 6mm	99
OEXM7B	Metric Short Combination Wrench, 12-Point, 7mm	99
OEXM8B	Metric Short Combination Wrench, 12-Point, 8mm	99
OEXM9B	Metric Short Combination Wrench, 12-Point, 9mm	99
QD3R250	1/2" Dr. Torque Wrench, 50-250 ft. lb.	231
RXFMS606B	Metric Double End Flare Nut Wrench Set (6 pcs)	110
S8	1/2" Dr. Universal Joint	77
SL80	1/2" Dr. Long Handle Sealed Ratchet	10
SPBS240	Prybar with Handle, 24", Orange	147
SXK3	1/2" Dr. Extension, 3 1/2"	69
TF72	1/4" Dr. Flex Head Sealed Ratchet	7
TMXK140	1/4" Dr. Extension, 14"	65

9000GS40 Add-on Group

Stock No.	Description	Page
1250	Prybar, 12"	149
206AFSA	3/8" Dr. Universal Shallow Socket, 12-Point (6 pcs)	34
206FSUMA	3/8" Dr. Metric Universal Shallow Socket Set, 6-Point (6 pcs)	34
207SFRH	3/8" Dr. Metric Crowfoot Wrench Set (7 pcs)	111
210FRHMA	3/8" Dr. Metric Crowfoot Wrench Set (10 pcs)	111
313TSYA	1/2" Dr. Deep Socket Set, 6-Point (13 pcs)	37
388CF	High Leverage Cutters	151
61ACP	Duck Bill Pliers	152
AWP160	Adjustable Joint, Tongue & Groove Pliers	160
BP24B	Ball Peen Hammer, 24 oz.	175
CJ2001P	Bolt Grip Puller Set	205
CSA12CO	Carbon Scraper, Orange	181
E1020	Extractor Set, 20 pcs	195
FADH8A	Adjustable Wrench, Cushion Handle, 8"	120
FL80	3/8" Dr. Long Handle Sealed Ratchet	8
FX24A	3/8" Dr. Extension, 24"	67
FXX4	3/8" Dr. Extension, 4"	67
FXX8	3/8" Dr. Extension, 8"	67
HBBD32	Ball Peen Dead Blow Hammer, 32 oz.	173
HBFE32	Dead Blow Hammer, 32 oz.	314
JCW60R	Creeper, Red	526
LP7WR	Locking Pliers, 7"	161
OEX080B	Short Combination Wrench, 12-Point, 1/4"	99
OEX10B	Combination Wrench, 12-Point, 5/16"	98
OEX34B	Combination Wrench, 12-Point, 1 1/16"	98
OEX36B	Combination Wrench, 12-Point, 1 1/8"	98
OEX40B	Combination Wrench, 12-Point, 1 1/4"	98
OEXM200B	Metric Combination Wrench, 12-Point, 20mm	97
OEXM210B	Metric Combination Wrench, 12-Point, 21mm	97
OEXM220B	Metric Combination Wrench, 12-Point, 22mm	98
OEXS709B	Short Combination Wrench Set, 12-Point (9 pcs)	99
OEXSM710B	Metric Short Comb. Wr. Set, 12-Point (10 pcs)	99
PPB1012A	Bronze Tapered Punch, 3/8"	171
PPC104A	Pin Punch, 1/8"	170
PPC108A	Pin Punch, 1/4"	170
PPC204A	Starter Punch, 1/8"	170
PPC208A	Starter Punch, 1/4"	170
PPC3A	Center Punch, 1/8"	170
PPC5A	Punch/Chisel Holder	170
SGCP1BR	Cotter Pin Puller	451
SGHBF500A	File Set with Handles (4 pcs)	183
SHDX400	Mini Combination Screwdriver Set, Orange	129
SN24C	1/2" Dr. Breaker Bar, 24"	16
SPBS180	Prybar w/Handle, 18" Orange	147
SRPC105	Retaining Ring Pliers Set (5 pcs)	155
SSM5A	Flat Tip Screw Starter	139
SX2	1/2" Dr. Extension, 2"	69
TA3	1/4" to 3/8" Adaptor	73
TD2425	Tap and Die Set (41 pcs)	192
TDM117A	Metric Tap and Die Set (41 pcs)	192
TF528D	Tube Cutting and Double Flaring Set	184
TM61A	1/4" Dr. Flexible Extension, 6"	66
TMX1	1/4" Dr. Extension, 1 1/4"	65
TMXK110	1/4" Dr. Extension, Knurled, 11"	65
UTK100	Utility Knife	180

9000GS50 Add-on Group

Stock No.	Description	Page
196CF	Needle Nose Pliers with Side Cutter, 7 1/8"	152
212IMFYA	3/8" Dr. Shallow Impact Socket Set, 6-Point (12 pcs)	31
212SIMFYA	3/8" Dr. Deep Impact Socket Set, 6-Point (12 pcs)	32
214IMFYA	3/8" Dr. Shallow Impact Socket Set, 6-Point (14 pcs)	31
214SIMFYA	3/8" Dr. Deep Impact Socket Set, 6-Point (14 pcs)	32
313TSMYA	1/2" Dr. Metric Deep Socket Set, 6-Point (13 pcs)	37
497CCP	Needle Nose Pliers (90° Angle Jaw) 6 5/8"	152
650	Prybar, 6"	149
AWP120	Adjustable Joint, Tongue & Groove Pliers	154
BP8B	Ball Peen Hammer, 8 oz.	175
C2201A	Kit Bag	—
CJ2002	Bar Type Gear Puller Set	204
F12LA	3/8" Dr. Breaker Bar	16
FADH10A	Adjustable Wrench, Cushion Handle, 10"	120
FAR7200	Super Duty Air Ratchet, 3/8" Drive	269
FBF80	3/8" Dr. Bent Flex Head Sealed Ratchet	8
FK80	3/8" Dr. Stubby Head Sealed Ratchet	8
HBBT24	Bronze Tip Hammer, 24 oz.	174
IMM200	1/2" Dr. Metric Shallow Impact Socket, 6-Point, 20mm	40
IMM210	1/2" Dr. Metric Shallow Impact Socket, 6-Point, 21mm	40
IMM220	1/2" Dr. Metric Shallow Impact Socket, 6-Point, 22mm	40
IMM230	1/2" Dr. Metric Shallow Impact Socket, 6-Point, 23mm	40
IMM240	1/2" Dr. Metric Shallow Impact Socket, 6-Point, 24mm	40
IPF800B	3/8" Dr. Impact Universal Joint	77
MG325	3/8" Dr. Air Impact Wrench	267
OEX11B	Combination Wrench, 12-Point, 1 1/32"	98
OEX260B	Short Combination Wrench, 12-Point, 1 3/16"	99
OEX280B	Short Combination Wrench, 12-Point, 7/8"	99
OEX300B	Short Combination Wrench, 12-Point, 1 5/16"	99
OEX320B	Short Combination Wrench, 12-Point, 1"	99
OEX38B	Combination Wrench, 12-Point, 1 3/16"	98
OEX42B	Combination Wrench, 12-Point, 1 5/16"	98
OEX8B	Combination Wrench, 12-Point, 1/4"	98
OEXM230B	Metric Standard Combination Wrench, 12-Point, 23mm	97
OEXM240B	Metric Standard Combination Wrench, 12-Point, 24mm	97
OEXM90B	Metric Standard Combination Wrench, 12-Point, 9mm	97
OX110B	Midget Combination Wrench, 12-Point, 5/16"	100
OX112B	Midget Combination Wrench, 12-Point, 3/8"	100
OX1706B	Fractional Midget Comb. Wrench Set, 12-point (6 pcs)	100
OX18B	Midget Combination Wrench, 12-Point, 1/4"	100
OXIM710B	Metric Midget Comb. Wrench Set, 12-Point (10 pcs)	100
OXIM7B	Metric Midget Combination Wrench, 12-Point, 7mm	100
OXIM8B	Metric Midget Combination Wrench, 12-Point, 8mm	100
OXIM9B	Metric Midget Combination Wrench, 12-Point, 9mm	100
PPC110A	Pin Punch, 5/16"	170
PPC112	Pin Punch, 3/8"	170
PPC210A	Starter Punch, 5/16"	170
PPC824B	Flat Chisel, 3/4"	170
PPC828B	Flat Chisel, 7/8"	170
PT28E	Pick Up Tool	535
PWC14	Wire Stripper/Cutter/Crimper/Bolt Cutter, 8 3/4"	155
QD2R100	3/8" Dr. Adj. Click Type Torque Wrench 20-100 lb. ft.	231
RTD48	Rethreading Kit (48 pcs)	189
S9704KFUA	3/8" Dr. Spark Plug Universal Socket, 13/16"	187
S9706KRFUA	3/8" Dr. Universal Spark Plug Socket, 6-Point, 5/8"	187
SDM400A	Screwdriver Bit Kit (37 pcs)	141
SF80	1/2" Dr. Flex Head Sealed Ratchet	10
SHDP1620	Phillips® Tip Screwdriver, #2, Orange, 16"	131
SHDP621RO	Phillips® Tip Screwdriver, #2, Orange, 6"	131
SHDP631RO	Phillips® Tip Screwdriver, #3, Orange, 6"	131
SIMM200	1/2" Dr. Deep Impact Socket, 6-Point, 20mm	41
SIMM210	1/2" Dr. Deep Impact Socket, 6-Point, 21mm	41
SIMM220	1/2" Dr. Deep Impact Socket, 6-Point, 22mm	41
SIMM230	1/2" Dr. Deep Impact Socket, 6-Point, 23mm	41
SIMM240	1/2" Dr. Deep Impact Socket, 6-Point, 24mm	41
SPBS120	Prybar with Handle, 12", Orange	147
SSDE42C	Flat, Thin Blade Electronic Screwdriver	132
SSDE43C	Flat, Thin Blade Electronic Screwdriver	132
SSDE44C	Flat, Thin Blade Electronic Screwdriver	132
SSDE46C	Flat, Thin Blade Electronic Screwdriver	132
SSDE48C	Flat, Thin Blade Electronic Screwdriver	132
SSDMR1A0	Ratcheting Magnetic Screwdriver, Orange	137
TC123C	Tube Cutter	184
VS807B	Open End Wrench Set (7 pcs)	108
XB605A	Fractional Offset Box Wrench Set, 12-Point (5 pcs)	102
XBM605A	Metric Box End Wrench Set, 12-Point (5 pcs)	102

9000GS60 Add-on Group

Stock No.	Description	Page
106ATMXWP	1/4" Dr. Wobble Extension Set (6 pcs)	66
106TMUSA	1/4" Dr. Universal Socket Set, 6-Point (6 pcs)	23
10SSD	Offset Flat Tip Screwdriver	135
110ETMAY	1/4" Dr. Hex Driver Set (10 pcs)	57
120SSDP	Offset Phillips® Screwdriver, #1 and #2	135
2050	Prybar, 20"	149
2051PF	Frac. 3/8" Dr. Swivel Impact Socket Set, 6-Point (5 pcs)	35
206AFXWP	3/8" Dr. Wobble Plus Extension Set (6 pcs)	68
20SSD	Offset Flat Tip Screwdriver	135
3071PLY	Frac. 1/2" Dr. Impact Swivel Socket Set, 6-Point (5 pcs)	44
AWP45	Adjustable Joint, Tongue & Groove Pliers, 4 3/4"	160
AWP65	Adjustable Joint, Tongue & Groove Pliers, 7"	160
BP12B	Ball Peen Hammer, 12 oz.	175
CHN480	Adjustable Joint Pliers, 20"	160
CJ2003A	Rear Axle Puller Set	204
CJ2004	Interchangeable Puller Set	204
CJ2005	Puller Accessory Set	204
CM6551	Miniature Screwdriver Set (5 pcs)	135
DBTR129	Drill Bit Set, 29 Bits	286
E703BCG	Electronic Needle Nose Pliers	158
E704BCG	Elec. Needle Nose Pliers, 60° Bent Tip, Non-Serrated	158
E710BCG	Electronic Taper Head Cutters, True Flush Cut	157
FADH6A	Adjustable Wrench, Cushion Handle, 6"	120
FAR25A	1/4" Dr. Air Ratchet	269
FS12B	3/8" Dr. Universal Shallow Socket, 6-Point, 3/8"	34
FSUM11A	3/8" Dr. Universal Shallow Socket, 6-Point, 11mm	34
FSUM16A	3/8" Dr. Universal Shallow Socket, 6-Point, 16mm	34
FSUM18A	3/8" Dr. Universal Shallow Socket, 6-Point, 18mm	34
FSUM19A	3/8" Dr. Universal Shallow Socket, 6-Point, 19mm	34
FX18	3/8" Dr. Extension, 18"	67
FX36	3/8" Dr. Extension, 36"	67
HBFI00	Mixed File Set (6 pcs)	183
HBFE48	Dead Blow Hammer, 48 oz.	173
IMTM10A	1/4" Dr. Shallow Impact Socket, 6-Point, 5/16"	22
IMTM12A	1/4" Dr. Shallow Impact Socket, 6-Point, 3/8"	22
IMTM14A	1/4" Dr. Shallow Impact Socket, 6-Point, 7/16"	22
IMTM16A	1/4" Dr. Shallow Impact Socket, 6-Point, 1/2"	22
IMTM18A	1/4" Dr. Shallow Impact Socket, 6-Point, 9/16"	22
IMTM8A	1/4" Dr. Shallow Impact Socket, 6-Point, 1/4"	22
IMTMM10	1/4" Dr. Metric Impact Socket, 6-Point, 10mm	21
IMTMM11	1/4" Dr. Metric Impact Socket, 6-Point, 11mm	21
IMTMM12	1/4" Dr. Metric Impact Socket, 6-Point, 12mm	21
IMTMM13	1/4" Dr. Metric Impact Socket, 6-Point, 13mm	21
IMTMM14	1/4" Dr. Metric Impact Socket, 6-Point, 14mm	21
IMTMM15	1/4" Dr. Metric Impact Socket, 6-Point, 15mm	21
IMTMM5	1/4" Dr. Metric Impact Socket, 6-Point, 5mm	21
IMTMM5.5	1/4" Dr. Metric Impact Socket, 6-Point, 5.5mm	21
IMTMM6	1/4" Dr. Metric Impact Socket, 6-Point, 6mm	21
IMTMM7	1/4" Dr. Metric Impact Socket, 6-Point, 7mm	21
IMTMM8	1/4" Dr. Metric Impact Socket, 6-Point, 8mm	21
IMTMM9	1/4" Dr. Metric Impact Socket, 6-Point, 9mm	21
LP6LN	Locking Long Nose Pliers, 6"	161
ND1070A	Fractional Nut Driver Set, 6-Point (7 pcs)	140
OEX44B	Combination Wrench, 12-Point, 1 3/8"	98
OEX46B	Combination Wrench, 12-Point, 1 7/16"	98
OEX48B	Combination Wrench, 12-Point, 1 1/2"	98
PDR3000A	Air Drill, 3/8"	271
PPR708BK	Roll Pin Punch Set (8 pcs)	171
R810C	Frac. Ratcheting Box Wrench, 12-Point, 1/4"-5/16"	104
RB604C	Frac. Ratcheting Box Wrench Set, 12-Point (4 pcs)	104
RXS605B	Flare Nut/Open End Wrench Set, 6-Point (5 pcs)	109
SHDXT3150	T15 Torx® Screwdriver, Orange	135
SHDXT3200	T20 Torx Screwdriver, Orange	135
SPBS80	Prybar with Handle, 8", Orange	147
SSDMR8A0	Ratcheting Magnetic Screwdriver, Orange	137
SX15	1/2" Dr. Extension, 15"	69
TD9902B	Tap and Die Set (25 pcs)	37
TS381	1/2" Dr. Deep Socket, 6-Point 1 3/16"	37
TS401	1/2" Dr. Deep Socket, 6-Point 1 1/4"	37
TS421	1/2" Dr. Deep Socket, 6-Point 1 5/16"	37
TW381	1/2" Dr. Socket, 6-Point 1 3/16"	36
TW401	1/2" Dr. Socket, 6-Point 1 1/4"	36
TW421	1/2" Dr. Socket, 6-Point 1 5/16"	36
TW441	1/2" Dr. Socket, 6-Point 1 3/8"	36
TW461	1/2" Dr. Socket, 6-Point 1 7/16"	36
TW481	1/2" Dr. Socket, 6-Point 1 1/2"	36
TWM25	1/2" Dr. Metric Socket, 6-Point, 25mm	36
TWM26	1/2" Dr. Metric Socket, 6-Point, 26mm	36
TWM27	1/2" Dr. Metric Socket, 6-Point, 27mm	36
TWM30	1/2" Dr. Metric Socket, 6-Point, 30mm	36
TWM32	1/2" Dr. Metric Socket, 6-Point, 32mm	36
VE200A	Tool Control Board	204
VS26B	Open End Wrench, 1 3/16"	108
VS28B	Open End Wrench, 7/8"	108
VS30B	Open End Wrench, 1 5/16"	108
VS32B	Open End Wrench, 1"	108
XO605	Fractional Offset Box Wrench Set, 12-Point (5 pcs)	103

SET BUILDING

Metric Sets



9100GMBO

Metric Set A

9100GMBO Complete Metric Set A.

- More than 150 pcs: includes 9100AGMO plus KRA4059A top chest

9100AGMO Metric Basic Set A.

- Tools only



9200GMBO

Metric Set B

9200GMBO Complete Metric Set B.

- Includes: 9100AGMO, 9000GM20 plus KRA4059A top chest and KRA4008E roll cab

9200GMO Metric Set B.

- More than 400 pcs

- Does not include tool storage

9000GM20 Add-on Group B.

- More than 200 pcs

- Tools only

U.S. and metric set cabinetry and components are subject to change and may not be exactly as illustrated. U.S. sets are shown on pages N006-N009. U.S. set listings are on pages N010 and N011. Metric listings are shown on pages N014 and N015.

Metric Set C

9300GMBO Complete Metric Set C.

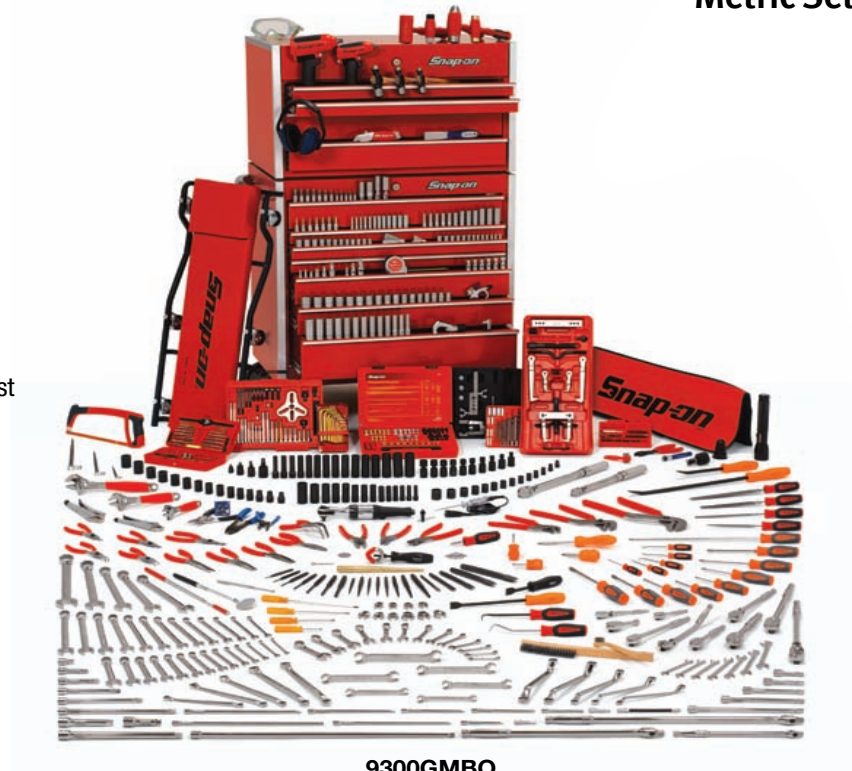
- Includes 9200GMO, 9000GM30 plus KRL751PBO top chest and KRL756CPBO roll cab

9300GMO Metric Set C.

- More than 600 pcs: includes all tools in 9200GMO and 9000GM30
- Does not include tool storage

9000GM30 Add-on Group C.

- More than 200 pcs in the add-on set to 9200GMO Set B
- Tools only



9300GMBO

Metric Set D

9400GMBO Complete Metric Set D.

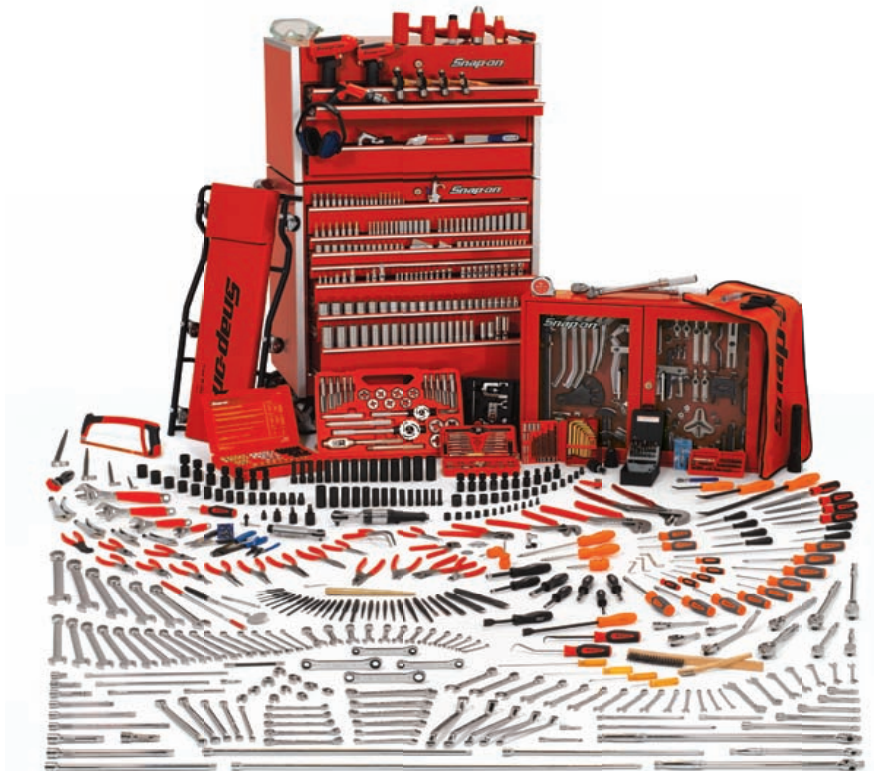
- Includes: 9300GMO, 9000GM40 plus KRL751PBO top chest, KRL756CPBO roll cab and KRA276D wall cabinet

9400GMO Metric Set D.

- More than 800 pcs: includes all tools in 9300GMO and 9000GM40
- Does not include tool storage

9000GM40 Add-on Group D.

- More than 175 pcs in the add-on set to 9300GMO Set C
- Tools only



9400GMBO

- Do not open more than one loaded drawer at a time
- Keep children away
- Close lid, lock drawers and doors before moving
- Apply brakes on locking casters when not moving unit
- Do not step in or on drawers

- Secure units together with fasteners
- Do not pull; push to move
- Wear gloves when lifting by edges
- Keep feet and fingers clear of edges when stacking, hanging, or moving units
- Read additional safety precautions on pages 586 to 589



WARNING

SET BUILDING

Metric Set Contents

9100AGMO Metric Basic Set A

Stock No.	Description	Page
112STMMY	1/4" Dr. Metric Deep Skt. Set, 6-Point (12 pcs)	19
117TMM	1/4" Dr. Metric Starter Set (17 pcs)	81
2004BSKA	Battery Service Kit (4 pcs)	435
206EAU	3/8" Dr. Adaptor Set (6 pcs)	75
212EFTXY	3/8" and 1/4" Dr. Torx® Driver Set (12 pcs)	52
212FSMY	3/8" Dr. Metric Socket Set, 6-Point (12 pcs)	25
212SFSMY	3/8" Dr. Metric Deep Socket Set, 6-Point (12 pcs)	26
317AMMPC	1/2" Dr. Metric Gen. Service Set, 6-Point (17 pcs)	88
91ACP	Adjustable Joint Pliers	153
97CCP	Needle Nose Pliers	153
1650	Prybar, 16" long	149
AC5B	Wire Brush	578
AWM110DHK	Metric Hex Wrench Set (11 pcs)	118
BP16B	Ball Peen Hammer, 16 oz.	175
CSA8C	Carbon Scraper	181
CT4G	Circuit Tester	409
ECF201A	3 watt LED Flashlight	496
F80	3/8" Dr. Sealed Ratchet	8
FADH12A	Adjustable Wrench, Cushion Handle, 12"	120
FB316B	Ignition/Spark Plug Gauge Set (18 blades)	531
FB360C	Feeler Gauge Set (6 blades)	532
FB361A	Gapper Gauge	532
FBM320	Metric Feeler Gauge Set (20 blades)	531
FLF80	3/8" Dr. Long Flex Head Sealed Ratchet	8
FXK11	3/8" 8" Dr. Extension, 11" long	67
GA295	Mirror	534
GSAF1E	Square Drive Adaptor	75
HBPT16	Plastic Tip Hammer, 16 oz.	174
HSG319	Hacksaw	176
LP10WR	Locking Pliers, 10" long	161
OEXM710B	Metric Combination Wrench Set, 12-Point (10 pcs)	97
PK53A	Scraper	182
PL300CF	Needle Nose/Diagonal Cutter/Pliers Set (3 pcs)	153
PPC710ABK	Punch and Chisel Set (11 pcs)	170
PRH57A	Retaining Ring Pliers, Convertible	156
PT5C	Telescopic Pick Up Tool	535
PWC6	Wire Stripper/Cutter Pliers	155
RXFMS606B	Metric Flare Nut Wrench Set, 6-Point (6 pcs)	110
S9704KR	3/8" Dr. Spark Plug Retention Socket, 6-Point, 13/16"	187
S9706KRA	3/8" Dr. Spark Plug Retention Socket, 6-Point, 5/8"	187
SGA173BR	Radiator Hose Tool	451
SGASA204AO	Miniature Awl/Pick Set, Orange	145
SGT4BR	Standard Shank Driver	74
SHDX800	Combination Screwdriver Set, Orange	129
SSDMR4BO	Ratcheting Magnetic Screwdriver, Orange	137
TMXK60	1/4" Dr. Extension, 6" long	65
TPMA25EM	Metric Tape Rule, 5M	533

9000GM20 Add-on Group

Stock No.	Description	Page
206FSUMA	3/8" Dr. Metric Shallow Universal Socket Set, 6-Point (6 pcs)	34
207EFAMY	3/8" Dr. Metric Hex Driver Set (7 pcs)	55
210FRHMA	3/8" Dr. Met. Flare Nut Wrench Set, 6-Point (10 pcs)	111
310IMMYA	1/2" Dr. Shallow Metric Impact Socket Set, 6-Point (10 pcs)	40
310SIMMYA	1/2" Dr. Deep Metric Impact Socket Set, 6-Point (10 pcs)	41
313TSMYA	1/2" Dr. Metric Deep Socket Set, 12-Point (13 pcs)	37
388CF	Hi Leverage Cutters, 7 3/4" long	151
61ACP	Duck Bill Pliers, 7 3/4" long	152
1250	Prybar, 12" long	149
AC58D	Wire Brush	578
AWP160	Adjustable Joint Tongue & Groove Pliers	160
BP24B	Ball Peen Hammer, 24 oz.	175
CJ2001P	Bolt Grip Puller Set	205
CSA12CO	Carbon Scraper	181
E1020	Extractor Set (20 pcs)	195
FADH8A	Adjustable Wrench, Cushion Handle, 8"	120
FL80	3/8" Dr. Long Handle Sealed Ratchet	8
FX24A	3/8" Dr. Extension, 24" long	67
FXK4	3/8" Dr. Extension, 4" long	67
FXK8	3/8" Dr. Extension, 8" long	67
GA3000B	Ear Protectors	582
HBFE32	Dead Blow Hammer, 32 oz.	173
IP80D	1/2" Dr. Impact Swivel Socket	78
JCK7D	Fender Cover	525
JT13A	Blow Gun	298
LP7WR	Locking Pliers, 7" long	161
MG725	Heavy Duty Air Impact Wrench, 1/2" Dr.	265
OEXM200B	Metric Combination Wrench, 12-Point, 20mm	97
MTK100	Utility Knife	97
OEXM210B	Metric Combination Wrench, 12-Point, 21mm	97
OEXM220B	Metric Combination Wrench, 12-Point, 22mm	97
OEXM6B	Metric Short Combination Wrench, 12-Point, 6mm	99
OEXM7B	Metric Short Combination Wrench, 12-Point, 7mm	99
OEXM8B	Metric Short Combination Wrench, 12-Point, 8mm	99
OEXM9B	Metric Short Combination Wrench, 12-Point, 9mm	99
OEXSM710B	Metric Short Combination Wrench Set 12-Point (10 pcs)	99
PPC104A	Pin Punch, 1/8"	170
PPC108A	Pin Punch, 1/4"	170
PPC204A	Starter Punch, 1/8"	170
PPC208A	Starter Punch, 1/4"	170
PPC3A	Center Punch, 5/16"	170
QD3RM30	1/2" Dr. Click Type Torque Wrench, 30 kg•m	231
S8	1/2" Dr. Universal Joint	77
SGCP1BR	Cotter Pin Puller	451
SGHBF500A	File Set with Handles (4 pcs)	183
SL80	1/2" Dr. Long Handle Sealed Ratchet	10
SN24C	1/2" Dr. Breaker Bar, 24" long	16
SPBS240	Prybar with Handle, 24" long, Orange	147
SRPC105	Retaining Ring Pliers	157
SXK3	1/2" Dr. Extension, 3" long	69
TA3	1/4" to 3/8" Dr. Adaptor	73
TC28C	Tube Cutter	184
TDM117A	Metric Tap and Die Set (41 pcs)	193
TF72	1/4" Dr. Flex Head Sealed Ratchet	7
TFM428	Flaring Tool	184
TMX1	1/4" Dr. Extension, 1" long	65
TMXK140	1/4" Dr. Extension, 14" long	65
UTK100	Utility Knife	180

9000GM30 Add-on Group

Stock No.	Description	Page
106ATMXWP	1/4" Dr. Wobble Extension Set (6 pcs)	66
196CF	Needle Nose Pliers with Cutter, 7 1/8"	152
206AFXWP	3/8" Dr. Wobble Plus Extension Set (6 pcs)	68
214IMFMYA	3/8" Dr. Shallow Impact Socket Set, 6-Point (14 pcs)	31
214SIMFMYA	3/8" Dr. Metric Deep Impact Socket Set, 6-Point (14 pcs)	32
497CCP	90° Angle Needle Nose Pliers, 6 5/8"	152
650	Prybar, 6"	149
AWP120	Adjustable Joint Tongue and Groove Pliers, 12 3/4"	154
BP8B	Ball Peen Hammer, 8 oz.	175
CJ2002	Puller Set	204
F12LA	3/8" Dr. Breaker Bar	16
FADH10A	Adjustable Wrench, Cushion Handle, 10"	110
FAR7200	Super Duty Air Ratchet, 3/8" Dr.	269
FBF80	3/8" Dr. Bent Flex Head Sealed Ratchet	8
FK80	3/8" Dr. Short Handle Ratchet	8
HBBD32	Dead Blow Ball Peen Hammer, 32 oz.	173
HBBT24	Bronze Tip Hammer, 24 oz.	174
IMM200	1/2" Dr. Shallow Impact Socket, 6-Point, 20mm	40
IMM210	1/2" Dr. Shallow Impact Socket, 6-Point, 21mm	40
IMM220	1/2" Dr. Shallow Impact Socket, 6-Point, 22mm	40
IMM230	1/2" Dr. Shallow Impact Socket, 6-Point, 23mm	40
IMM240	1/2" Dr. Shallow Impact Socket, 6-Point, 24mm	40
IPF800B	3/8" Dr. Impact Universal Joint	78
IPFM10C	3/8" Dr. Metric Shallow Swivel Impact Socket, 10mm	35
IPFM12C	3/8" Dr. Metric Shallow Swivel Impact Socket, 12mm	35
IPFM13C	3/8" Dr. Metric Shallow Swivel Impact Socket, 13mm	35
IPFM14C	3/8" Dr. Metric Shallow Swivel Impact Socket, 14mm	35
IPFM15C	3/8" Dr. Metric Shallow Swivel Impact Socket, 15mm	35
IPFM16C	3/8" Dr. Metric Shallow Swivel Impact Socket, 16mm	35
IPFM17C	3/8" Dr. Metric Shallow Swivel Impact Socket, 17mm	35
IPFM18C	3/8" Dr. Metric Shallow Swivel Impact Socket, 18mm	35
IPFM19C	3/8" Dr. Metric Shallow Swivel Impact Socket, 19mm	35
IPFM9C	3/8" Dr. Metric Shallow Swivel Impact Socket, 9mm	35
JCW60R	Creeper	526
KB2178	Kit Bag	170
MG325	3/8" Dr. Air Impact Wrench	267
OEXM230B	Metric Combination Wrench, 12-Point, 23mm	97
OEXM240B	Metric Combination Wrench, 12-Point, 24mm	97
OEXM270B	Metric Combination Wrench, 12-Point, 27mm	97
OEXM300B	Metric Combination Wrench, 12-Point, 30mm	97
OEXM90B	Metric Combination Wrench, 12-Point, 9mm	97
OXIM710B	Metric Midget Comb. Wrench Set, 12-Point (10 pcs)	100
OXIM7B	Metric Midget Combination Wrench, 12-Point, 7mm	100
OXIM8B	Metric Midget Combination Wrench, 12-Point, 8mm	100
OXIM9B	Metric Midget Combination Wrench, 12-Point, 9mm	100
PPB1012A	Bronze Tapered Punch, 3/8"	171
PPC110A	Pin Punch, 5/16"	170
PPC112	Pin Punch, 3/8"	170
PPC210A	Starter Punch, 5/16"	170
PPC5A	Punch and Chisel Holder	170
PPC824B	Flat Chisel, 3/4"	170
PPC828B	Flat Chisel, 7/8"	170
PT28E	Pick Up Tool	535
PWC14	Wire Stripper/Cutter/Bolt Cutter	155
QD2RM1000	Metric Adj. Click Type Torque Wrench 3/8"	231
RTD48	Rethreading Kit	189
S9704KFUA	3/8" Dr. Spark Plug Universal Socket, 11/16"	187
S9706KRFUA	3/8" Dr. Spark Plug Universal Socket, 6-Point, 5/8"	187
SDM400A	Screwdriver Bit Set (37 pcs)	141
SF80	1/2" Dr. Sealed Flex Head Ratchet	10
SGD304BR	Flat Tip Electronics Sc. Dr., .018" x 1/8" x 3"	130
SHDP1620	Phillips® Tip Screwdriver #2, Orange	131
SHDP621RO	Phillips® Screwdriver, #2, Orange	131
SHDP631RO	Phillips® Tip Screwdriver #3, Orange	131
SIMM200	1/2" Dr. Deep Impact Socket, 6-Point, 20mm	41
SIMM210	1/2" Dr. Deep Impact Socket, 6-Point, 21mm	41
SIMM220	1/2" Dr. Deep Impact Socket, 6-Point, 22mm	41
SIMM230	1/2" Dr. Deep Impact Socket, 6-Point, 23mm	41
SIMM240	1/2" Dr. Deep Impact Socket, 6-Point, 24mm	41
SPBS120	Prybar with Handle, 12", Orange	147
SSDE42C	Flat Tip Electronics Sc. Dr., .018" x 1/8" x 2"	132
SSDE44C	Flat Tip Electronics Sc. Dr., .018" x 1/8" x 4"	132
SSDE46C	Flat Tip Electronics Sc. Dr., .018" x 1/8" x 6"	132
SSDE48C	Flat Tip Electronics Sc. Dr., .018" x 1/8" x 8"	132
SSDMR1A0	Ratcheting Magnetic Screwdriver, Orange	137
SX2	1/2" Dr. Extension, 2"	69
TC123C	Tube Cutter	184
TM61A	1/4" Dr. Flexible Extension, 6"	66
TMXK110	1/4" Dr. Extension, 11"	65
TWM25	1/2" Dr. Metric Socket, 6-Point, 25mm	36
TWM26	1/2" Dr. Metric Socket, 6-Point, 26mm	36
TWM27	1/2" Dr. Metric Socket, 6-Point, 27mm	36
TWM30	1/2" Dr. Metric Socket, 6-Point, 30mm	36
VSM807B	Metric Open End Wrench Set (7 pcs)	108
XBM605A	Metric Long Offset Box Wrench Set (5 pcs)	102
XOM605	Metric Deep Offset Box Wrench Set (5 pcs)	103

9000GM40 Add-on Group

Stock No.	Description	Page
106ETMAMY	1/4" Dr. Metric Hex Driver Set (6 pcs)	55
10SSD	Offset Flat Tip Screwdriver	135
111TMUSMA	1/4" Dr. Metric U-Socket Set (11 pcs)	23
120SSDP	Phillips® Offset Screwdriver, #1-#2	135
20SSD	Offset Flat Tip Screwdriver	135
307IPLMY	1/2" Dr. Impact Swivel Sockets, 6-Point (7 pcs)	44
2050	Prybar, 20"	149
AWP65	Adjustable Joint Tongue & Groove Pliers	160
BP12B	Ball Peen Hammer, 12 oz.	175
CHN480	Adjustable Joint Pliers, 20"	160
CJ2003A	Rear Axle Puller Set	204
CJ2004	Interchangeable Puller Set	204
CJ2005	Puller Accessory Set	204
CM6551	Miniature Screwdriver Set	135
DBTR129	Drill Bit Set 1/16"-1/4" (29 pcs)	286
E703BCG	Elec. Needle Nose Pliers, Serrated Jaws	158
E704BCG	Elec. Needle Nose Pliers, 60° Bent Tip, Non-Serrated	158
E710BCG	Taper Head Electronic Cutters, True Flush Cut	159
FADH6A	Adjustable Wrench, Cushion Handle, 6"	120
FAR25A	1/4" Dr. Air Ratchet	269
FSM61	3/8" Dr. Metric Socket, 6-Point, 6mm	25
FSM71	3/8" Dr. Metric Socket, 6-Point, 7mm	25
FSUM11A	3/8" Dr. Shallow Universal Socket, 6-Point, 11mm	34
FSUM16A	3/8" Dr. Shallow Universal Socket, 6-Point, 16mm	34
FSUM18A	3/8" Dr. Shallow Universal Socket, 6-Point, 18mm	34
FSUM19A	3/8" Dr. Shallow Universal Socket, 6-Point, 19mm	34
FX18	3/8" Dr. Extension, 18"	67
FX36	3/8" Dr. Extension, 36"	67
HBF100	Mixed File Set (6 pcs)	183
HBFE48	Dead Blow Hammer, 48 oz.	173
IMTMM10	1/4" Dr. Metric Impact Socket, 6-Point, 10mm	21
IMTMM11	1/4" Dr. Metric Impact Socket, 6-Point, 11mm	21
IMTMM12	1/4" Dr. Metric Impact Socket, 6-Point, 12mm	21
IMTMM13	1/4" Dr. Metric Impact Socket, 6-Point, 13mm	21
IMTMM14	1/4" Dr. Metric Impact Socket, 6-Point, 14mm	21
IMTMM15	1/4" Dr. Metric Impact Socket, 6-Point, 15mm	21
IMTMM5	1/4" Dr. Metric Impact Socket, 6-Point, 5mm	21
IMTMM5.5	1/4" Dr. Metric Impact Socket, 6-Point, 5.5mm	21
IMTMM6	1/4" Dr. Metric Impact Socket, 6-Point, 6mm	21
IMTMM7	1/4" Dr. Metric Impact Socket, 6-Point, 7mm	21
IMTMM8	1/4" Dr. Metric Impact Socket, 6-Point, 8mm	21
IMTMM9	1/4" Dr. Metric Impact Socket, 6-Point, 9mm	21
LP5WR	Locking Pliers, 5"	161
LP6LN	Long Nose Pliers, 6"	161
NDDM1070	Metric Nut Driver Set, 6-Point (7 pcs)	140
OEXM250B	Metric Combination Wrench, 12-Point, 25mm	97
OEXM260B	Metric Combination Wrench, 12-Point, 26mm	97
OEXM290B	Metric Combination Wrench, 12-Point, 29mm	97
OEXM320B	Metric Combination Wrench, 12-Point, 32mm	97
PDR3000A	3/8" Reversible Air Drill	271
PPR708BK	Roll Pin Punch Set (8 pcs)	171
RBM604C	Metric Ratcheting Box Wrench Set, 12-Point (4 pcs)	104
RXSM605B	Metric Flare Nut/Open End Wrench Set, 6-Point (5 pcs)	109
SFSM6	1/4" Dr. Metric Deep Socket, 6-Point, 6mm	26
SFSM7	1/4" Dr. Metric Deep Socket, 6-Point, 7mm	26
SHDTX3150	T15 Torx® Screwdriver, Orange	135
SHDTX3200	T20 Torx Screwdriver, Orange	135
SPBS80	Prybar with Handle, Orange, 8"	147
SSDMR8A0	Ratcheting Magnetic Screwdriver, Orange	137
STMM4.5	1/4" Dr. Metric Deep Socket, 6-Point, 4.5mm	19
SX15	1/2" Dr. Extension, 15"	69
TDM99117B	Metric Tap and Die Set (25 pcs)	193
TMM4.5	1/4" Dr. Metric Socket, 6-Point, 4.5mm	18
TSM26	1/2" Dr. Metric Deep Socket, 6-Point, 26mm	37
TSM27	1/2" Dr. Metric Deep Socket, 6-Point, 27mm	37
TSM30	1/2" Dr. Metric Deep Socket, 6-Point, 30mm	37
TSM32	1/2" Dr. Metric Deep Socket, 6-Point, 32mm	37
TWM10A	1/2" Dr. Metric Socket, 6-Point, 10mm	36
TWM11A	1/2" Dr. Metric Socket, 6-Point, 11mm	36
TWM28	1/2" Dr. Metric Socket, 6-Point, 28mm	36
TWM29	1/2" Dr. Metric Socket, 6-Point, 29mm	36
TWM31	1/2" Dr. Metric Socket, 6-Point, 31mm	36
TWM32	1/2" Dr. Metric Socket, 6-Point, 32mm	36
VE200A	Puller Control Board	204

TOOL CONTROL SET BUILDING

U.S. Tool Control Sets



9600GSO Set in **KRL791APBO** Tool Chest and **KRL722BPBO** Roll Cab (U.S. Set 6)

Complete Set 3

Includes more than 300 pieces with complete Tool Control Foam System.

Stock No.	Description
KRA4059	Snap-on Top Chest
KRA4008E	Snap-on Roll Cab
9300GSO	9300 - Tools Only
FC9300GSB-UY	9300 - Foam Only (Blue over Yellow)

Complete Set 4

Includes more than 600 pieces with complete Tool Control Foam System.

Stock No.	Description
KRL751PBO	Snap-on Top Chest
KRL756CPBO	Snap-on Roll Cab
9400GSO	9400 - Tools Only
FC9400GSB-UY	9400 - Foam Only (Blue over Yellow)

Complete Set 5

Includes more than 800 pieces, with complete Tool Control Foam System.

Stock No.	Description
KRL751PBO	Snap-on Top Chest
KRL756CPBO	Snap-on Roll Cab
9500GSO	9500 - Tools Only
FC9500GSB-UY	9500 - Foam Only (Blue over Yellow)

Complete Set 6

Includes more than 1000 pieces with complete Tool Control Foam System.

Stock No.	Description
KRL791APBO	Snap-on Top Chest
KRL722BPBO	Snap-on Roll Cab
9600GSO	9600 - Tools Only
FC9600GSB-UY	9600 - Foam Only (Blue over Yellow)

Shown:

- Blue Over Yellow (-UY)

Other Foam Colors Available:

- Yellow Over Red (-YR)
- Black Over Red (-BR)
- Black Over Yellow (-BY)

Intermediate Sets (in blue over yellow tool control foam)

We offer many choices so you can find the system that best fits your exact needs.

Choose from a variety of ideas:

- Complete Tool Sets
- Tool Control Systems
- Tool Control Foam Inserts
- Portable Tool Control Systems
- High Visibility Tools
- Silhouetted Tool Boards
- Wall Cabinets
- Tool Cabinet Accessories



9200 Set in **KRA4059** Tool Chest (US Set 2)

Apprentice Set

Includes more than 100 pieces with complete Tool Control Foam System.

Stock No.	Description
KRA2055A	Snap-on Top Chest
9100GSO	9100 - Tools Only
FC9100GSB-UY	9100 - Foam Only (Blue over Yellow)

Complete Set 2

Includes more than 200 pieces with complete Tool Control Foam System.

Stock No.	Description
KRA4059	Snap-on Top Chest
9200AGSO	9200 - Tools Only
FC9200GSB-UY	9200 - Foam Only (Blue over Yellow)

TOOL CONTROL SET BUILDING

U.S. Tool Control Set Building: Complete Tool Set
 Configuration sets are available with tool storage and tool control foam
 See below for ordering information for each configuration

9100 SERIES	9100GSO	9100GSBO	9100GSBFMBRO	9100GSBFMBYO	9100GSBFMUYO	
DESCRIPTION	U.S. APPRENTICE SET TOOLS ONLY	U.S. APPRENTICE SET TOOLS AND TOOL STORAGE	U.S. APPRENTICE SET INCLUDING TOOL STORAGE WITH BLACK OVER RED TOOL CONTROL FOAM	U.S. APPRENTICE SET INCLUDING TOOL STORAGE WITH BLACK OVER YELLOW TOOL CONTROL FOAM	U.S. APPRENTICE SET INCLUDING TOOL STORAGE WITH BLUE OVER YELLOW TOOL CONTROL FOAM	
CONTENTS Refer to pages N040-N047 for descriptions and listings for all tool sets		KRA2055A	FC9100GSB-BR	FC9100GSB-BY	FC9100GSB-UY	
			KRA2055A	KRA2055A	KRA2055A	
9200 SERIES	9200GSO	9200GSBO	9200GSBFMBRO	9200GSBFMBYO	9200GSBFMUYO	9200GSBFMYRO
DESCRIPTION	U.S. SET 2 TOOLS ONLY	U.S. SET 2 INCLUDING TOOLS AND TOOL STORAGE	U.S. SET 2 INCLUDING TOOL STORAGE WITH BLACK OVER RED TOOL CONTROL FOAM	U.S. SET 2 INCLUDING TOOL STORAGE WITH BLACK OVER YELLOW TOOL CONTROL FOAM	U.S. SET 2 INCLUDING TOOL STORAGE WITH BLUE OVER YELLOW TOOL CONTROL FOAM	U.S. SET 2 INCLUDING TOOL STORAGE WITH YELLOW OVER RED TOOL CONTROL FOAM
CONTENTS Refer to pages N040-N047 for descriptions and listings for all tool sets		KRA4059	FC9200GSB-BR	FC9200GSB-BY	FC9200GSB-UY	FC9200GSB-YR
			KRA4059	KRA4059	KRA4059	KRA4059
9300 SERIES	9300GSO	9300GSBO	9300GSBFMBRO	9300GSBFMBYO	9300GSBFMUYO	9300GSBFMYRO
DESCRIPTION	U.S. SET 3 TOOLS ONLY	U.S. SET 3 INCLUDING TOOLS AND TOOL STORAGE	U.S. SET 3 INCLUDING TOOL STORAGE WITH BLACK OVER RED TOOL CONTROL FOAM	U.S. SET 3 INCLUDING TOOL STORAGE WITH BLACK OVER YELLOW TOOL CONTROL FOAM	U.S. SET 3 INCLUDING TOOL STORAGE WITH BLUE OVER YELLOW TOOL CONTROL FOAM	U.S. SET 3 INCLUDING TOOL STORAGE WITH YELLOW OVER RED TOOL CONTROL FOAM
CONTENTS Refer to pages N040-N047 for descriptions and listings for all tool sets		KRA4008E	FC9300GSB-BR	FC9300GSB-BY	FC9300GSB-UY	FC9300GSB-YR
		KRA4059	KRA4008E	KRA4008E	KRA4008E	KRA4008E
			KRA4059	KRA4059	KRA4059	KRA4059
9400 SERIES	9400GSO	9400GSBO	9400GSBFMBRO	9400GSBFMBYO	9400GSBFMUYO	9400GSBFMYRO
DESCRIPTION	U.S. SET 4 TOOLS ONLY	U.S. SET 4 INCLUDING TOOLS AND TOOL STORAGE	U.S. SET 4 INCLUDING TOOL STORAGE WITH BLACK OVER RED TOOL CONTROL FOAM	U.S. SET 4 INCLUDING TOOL STORAGE WITH BLACK OVER YELLOW TOOL CONTROL FOAM	U.S. SET 4 INCLUDING TOOL STORAGE WITH BLUE OVER YELLOW TOOL CONTROL FOAM	U.S. SET 4 INCLUDING TOOL STORAGE WITH YELLOW OVER RED TOOL CONTROL FOAM
CONTENTS Refer to pages N040-N047 for descriptions and listings for all tool sets		KRL751PBO	FC9400GSB-BR	FC9400GSB-BY	FC9400GSB-UY	FC9400GSB-YR
		KRL756BPBO	KRL751PBO	KRL751PBO	KRL751PBO	KRL751PBO
			KRL756CPBO	KRL756CPBO	KRL756CPBO	KRL756CPBO
9500 SERIES	9500GSO	9500GSBO	9500GSBFMBRO	9500GSBFMBYO	9500GSBFMUYO	9500GSBFMYRO
DESCRIPTION	U.S. SET 5 TOOLS ONLY	U.S. SET 5 INCLUDING TOOLS AND TOOL STORAGE	U.S. SET 5 INCLUDING TOOL STORAGE WITH BLACK OVER RED TOOL CONTROL FOAM	U.S. SET 5 INCLUDING TOOL STORAGE WITH BLACK OVER YELLOW TOOL CONTROL FOAM	U.S. SET 5 INCLUDING TOOL STORAGE WITH BLUE OVER YELLOW TOOL CONTROL FOAM	U.S. SET 5 INCLUDING TOOL STORAGE WITH YELLOW OVER RED TOOL CONTROL FOAM
CONTENTS Refer to pages N040-N047 for descriptions and listings for each set		KRL751PBO	FC9500GSB-BR	FC9500GSB-BY	FC9500GSB-UY	FC9500GSB-YR
		KRL756BPBO	KRL751PBO	KRL751PBO	KRL751PBO	KRL751PBO
			KRL756CPBO	KRL756CPBO	KRL756CPBO	KRL756CPBO
9600 SERIES	9600GSO	9600GSBO	9600GSBFMBRO	9600GSBFMBYO	9600GSBFMUYO	9600GSBFMYRO
DESCRIPTION	U.S. SET 6 TOOLS ONLY	U.S. SET 6 INCLUDING TOOLS AND TOOL STORAGE	U.S. SET 6 INCLUDING TOOL STORAGE WITH BLACK OVER RED TOOL CONTROL FOAM	U.S. SET 6 INCLUDING TOOL STORAGE WITH BLACK OVER YELLOW TOOL CONTROL FOAM	U.S. SET 6 INCLUDING TOOL STORAGE WITH BLUE OVER YELLOW TOOL CONTROL FOAM	U.S. SET 6 INCLUDING TOOL STORAGE WITH YELLOW OVER RED TOOL CONTROL FOAM
CONTENTS Refer to pages N040-N047 for descriptions and listings for all tool sets		KRL722BPBO	FC9600GSB-YR	FC9600GSB-BR	FC9600GSB-BY	FC9600GSB-UY
		KRL791BPBO	KRL722BPBO	KRL722BPBO	KRL722BPBO	KRL722BPBO
			KRL791APBO	KRL791APBO	KRL791APBO	KRL791APBO

Complete Tool Sets

(Please refer to pages N006-N015 for the complete tool listings and add-on options)

See Tool Storage section for available color options.

Sets Subject to Change.

- Storage units can tip or strike you
- Do not open more than one loaded drawer at a time
- Keep children away
- Apply brakes on locking casters when not moving unit

- Do not step in or on drawers
- Secure units together with fasteners
- Read safety precautions on pages 586 to 589



WARNING

N017

TOOL CONTROL SET BUILDING

Complete Tool Control Tool Sets

Complete Tool Control Tool Sets offer the ease and convenience of single part number ordering for our most popular tool sets, roll cabinets, and tool control systems. Sets are available in standard roll cabinets or in our Level 5™ NTC keyless entry cabinets for added security and control. All sets include tool sets, blue over yellow foam, and roll cabinet.

Snap-on
LEVEL 5 NTC
 Tool Control System™



L5M7023PBO NTC Roll Cabinet
 Shown with Mag Strip Access Panel



KRL7023APBO
 Standard Roll Cabinet

Complete Keyless Entry Tool Control Tool Sets in Red NTC Roll Cabinets

- All sets feature Blue over Yellow Foam in NTC Tool Control System Roll Cabinet
- See pages N007 through N011 for full tool set information
- One copy of Lockview software, Stock Number **L5LVSG3**, is required per administrator; see page N043 for complete NTC product information
- See Pages 315 - 316 for complete Roll Cabinet specifications
- Other colors of foam and roll cabinets are available, contact your Snap-on Industrial Representative for more information

Stock Number	Description / Access Reader Included	Tool Set Included	Foam Included	Roll Cabinet Included
9300GSOKETCP	Set 3 in foam / NTC Roll Cabinet with HID Prox Access reader	9300GSO	L5UY93K722	L5P722PBO
9300GSOKETCI	Set 3 in foam / NTC Roll Cabinet with HID I Class Access reader	9300GSO	L5UY93K722	L5I722PBO
9300GSOKETCM	Set 3 in foam / NTC Roll Cabinet with HID Mag Strip Access reader	9300GSO	L5UY93K722	L5M722PBO
9400GSOKETCP	Set 4 in foam / NTC Roll Cabinet with HID Prox Access reader	9400GSO	L5UY94K7022	L5P7022PBO
9400GSOKETCI	Set 4 in foam / NTC Roll Cabinet with HID I Class Access reader	9400GSO	L5UY94K7022	L5I7022PBO
9400GSOKETCM	Set 4 in foam / NTC Roll Cabinet with HID Mag Strip Access reader	9400GSO	L5UY94K7022	L5M7022PBO
9500GSOKETCP	Set 5 in foam / NTC Roll Cabinet with HID Prox Access reader	9500GSO	L5UY95K7023	L5P7023PBO
9500GSOKETCI	Set 5 in foam / NTC Roll Cabinet with HID I Class Access reader	9500GSO	L5UY95K7023	L5I7023PBO
9500GSOKETCM	Set 5 in foam / NTC Roll Cabinet with HID Mag Strip Access reader	9500GSO	L5UY95K7023	L5M7023PBO
9600GSOKETCP	Set 6 in foam / NTC Roll Cabinet with HID Prox Access reader	9600GSO	L5UY96K1023	L5P1023PBO
9600GSOKETCI	Set 6 in foam / NTC Roll Cabinet with HID I Class Access reader	9600GSO	L5UY96K1023	L5I1023PBO
9600GSOKETCM	Set 6 in foam / NTC Roll Cabinet with HID Mag Strip Access reader	9600GSO	L5UY96K1023	L5M1023PBO

Complete Tool Control Tool Sets in Standard Red Roll Cabinets

- All sets feature Blue over Yellow Foam in standard Red roll cabinet
- See pages N007 through N011 for full tool set information
- See Pages 315 - 316 for complete Roll Cabinet specifications
- Other colors of foam and roll cabinet are available, contact Snap-on Industrial for more information

Stock Number	Description	Tool Set Included	Foam Included	Roll Cabinet Included
9300GSOTCF	Complete U.S. Set 3 in foam / Standard red roll cabinet	9300GSO	L5UY93K722	KRL722BPBO
9400GSOTCF	Complete U.S. Set 4 in foam / Standard red roll cabinet	9400GSO	L5UY94K7022	KRL7022BPBO
9500GSOTCF	Complete U.S. Set 5 in foam / Standard red roll cabinet	9500GSO	L5UY95K7023	KRL7023BPBO
9600GSOTCF	Complete U.S. Set 6 in foam / Standard red roll cabinet	9600GSO	L5UY96K1023	KRL1023BPBO

TOOL CONTROL SET BUILDING

Foam Tool Control Kits



TCK1827BR



TCK1827UY

Complete Pre-cut Tool Control Foam Kits KRL Series

Storage Model	Royal Blue Over Yellow	Black Over Red
KRL1033	L5A1033RBY	L5A1033BRD
KRL1023A	L5A1023ARBY	L5A1023ABRD
KRL7023A	L5A7023ARBY	L5A7023ABRD
KRL1032A	L5A1032ARBY	L5A1032ABRD
KRL1022A	L5A1022ARBY	L5A1022ABRD
KRL7022A	L5A7022ARBY	LYA7022ABRD
KRL722A	L5A722ARBY	L5A722ABRD
KRL1056B	L5A1056ARBY	L5A1056ABRD
KRL756B	L5A756BRBY	L5A756BBRD

Complete Pre-cut Tool Control Foam Kits KRA Series

Storage Model	Royal Blue Over Yellow	Black Over Red
KRA5319D	L5A5319DRBY	L5A5319DBRD
KRA5213D	L5A5213DRBY	L5A5213DBRD
KRA4813D	L5A4813DRBY	L5A4813DBRD
KRA4107D	L5A4107DRBY	L5A4107DBRD
KRA4008E	L5A4008ERBY	L5A48008EBRD
KRA2418	L5A2418RBY	L5A2418BRD
KRA2432	L5A2432RBY	L5A2432BRD
KRA2407	L5A2407RBY	L5A2407BRD
KRA2411	L5A2411RBY	L5A2411BRD
KRA2306	L5A2306RBY	L5A2306BRD
KRA2007	L5A2007RBY	L5A2007BRD
KRA2005	L5A2005RBY	L5A2005BRD

Pre-cut Tool Control Foam for Individual Drawers KRL Series

Royal Blue Over Yellow	Black Over Red	Drawer Size
L5A6726RBY	L5A6726BRD	67 1/8" X 26 31/32"
L5A4926RBY	L5A4926BRD	49 1/8" X 26 31/32"
L5A3026RBY	L5A3026BRD	30 1/2" X 26 31/32"
L5A1426RBY	L5A1426BRD	14 5/8" X 26 31/32"
L5A3021RBY	L5A3021BRD	30 31/32" X 21 29/32"

1/2" Tool Control Foam Over 1/8" Base

Pre-cut Tool Control Foam for Individual Drawers KRA Series

Royal Blue Over Yellow	Black Over Red	Drawer Size
L5A1117RBY	L5A1117BRD	11 7/32" X 17 1/2"
L5A2117RBY	L5A2117BRD	21 13/32" X 17 1/2"
L5A3417RBY	L5A3417BRD	34 23/32" X 17 1/2"
L5A4921RBY	L5A4921BRD	49 1/8" X 21 29/32"
L5A1421RBY	L5A1421BRD	14 19/32" X 21 29/32"
L5A3021RBY	L5A3021BRD	30 17/32" X 21 29/32"

1/2" Tool Control Foam Over 1/8" Base

Custom Foam Kits

Each foam kit includes: Six sheets of top and base foam material, one cutting tool, one 24 oz. can spray glue, one roll of tracing paper — to custom design and organize your tool drawers.

Royal Blue Over Yellow	Black Over Red	Size
TCK1827BUY	TCK1827BBR	18" X 27"
TCK4020BUY	TCK4020BBR	40" X 20"
TCK3627BUY	TCK3627BBR	36" X 27"



WARNING



• Read safety precautions on pages 586 to 589

SPECIALIZED TOOL SETS

Portable Mechanics' Service Sets

Maximum Mobility Tool Sets

- Designed specifically for the mechanic on the go
- Rapid tool access and accountability helps protect valuable vehicles and equipment
- Snap-on tool control foam system measurably increases productivity
- Tools are furnished in custom foam and loaded into removable drawers
- Sets are offered in two configurations: tools only, or complete with tools, foam, and case
- The extremely rugged and durable Pelican 0450 case features:
 - Rugged trolley handle and wheels for easy and secure mobility
 - Seven removable drawers plus foam tray in top of case
 - Two automatic pressure equalization valves
 - Water, temperature, drop, and impact resistant design and construction



9050MTB

9050MTB (pictured)	9060MTB (not pictured)
• Includes 206 pieces:	• Includes 215 pieces:
• 102 drive tools and sockets	• 105 drive tools and ratchets
• 9 screwdrivers	• 10 screwdrivers
• 50 wrenches	• 60 wrenches
• 7 pliers	• 7 pliers
• 38 miscellaneous tools	• 33 miscellaneous tools
• 9050VMTB: Tool set, case & foam	• 9060VMTB: Tool set, case & foam
• 9050VMT: Tool set, tools only	• 9060VMT: Tool set, tools only
• VF113365: Foam only	• VF111750: Foam only

Contents subject to change. Complete contents can be viewed at www.snapon.com/industrial/sets.html

SPECIALIZED TOOL SETS

General Mechanic's Tool Kit

Now available in choice of:
 Metal tool chest **KRA4059**, tools & foam or
 New soft-sided tool bag with tools & foam

GMTK Tool Set includes:

Sockets	55
Wrenches	26
Pliers	6
Screwdrivers	5
Miscellaneous / Specialty Tools	50
Total = 142 tools	



GMTKBOXWT

GMTKBOXWT Tool Set In Metal Tool Chest.

Metal Tool Chest dimensions:
 26"W x 17-3/16"H x 14-23/32"D

GMTKTLBAGWT Tool Set In Soft Sided Bag.

Take your tool control programs all the way to the work area, flightline, deployment or anywhere! User-friendly, lightweight & rugged.

- Tool pallets designed for outdoor use
- Improves tool control, FOD & productivity
- Satisfies the Army GMTK Specification
- Tool kits contain individual tool compartments
- Tool compartments include tool stock number for positive tool identification

Features of Soft-sided Bag:

- Easy to carry & easy to stow
- Zips open at top or end to allow individual tool pallets to be removed
- No sharp edges
- Rugged, heavy-duty materials can outperform & outlast metal
- Made from 100% polyester-coated Cordura
- Contains five individual tools pallets inside see-through, zippered, protective vinyl pouches

Security/Convenience Features:

- Two clear vinyl I.D. pockets – on outer surface – top and end
- Additional I.D. pockets – to contain tool inventory lists, pallet bills of material, DA form 2404, etc.
- Zippers align – for easy padlocking



GMTKTLBAGWT



GMTKT BAGWT



PALLETS FROM SOFT-SIDED BAG

Soft-sided bag available in standard Olive Green or "Flightline Black"

Standard Tool Sets

Model No.	Description	Standard Color	Box/Bag Size (W x H x D)	Pallet Size (WxH)	Loaded with Tools* – Weight
A. GMTKBOXWT	Snap-on Metal Chest with Tools General Mechanic's Tool Kit w/ tools & Foam in a 9 drawer KRA4059A Snap-on Metal Chest	Snap-on Red	26" x 14 23/32" x 17 3/16"	(See p. 74 for inner dim. on top chest)	107 lbs.
B. GMTKTLBAGWT	XXL Standard 5 Pallet GMTK Standard, 5 Pallet, General Mechanic's Tool Kit w/tools – Flightline Black	Flightline Black	24" x 18" x 11"	20" x 16"	67 lbs.

* Tool weight may vary.
 Snap-on reserves the right to change tool content.



WARNING



• Read safety precautions on pages 586 to 589

SPECIALIZED TOOL SETS

Wind Power Tool Sets



Wind Power Technician Sets

- Specifically designed to cover standard maintenance applications on GE® 1.5 Turbines
- 68 piece tool sets available in soft-sided or hard case

Contents include:

- 1/4" drive metric sockets and drive set
- 5 in 1 screwdriver
- 6" and 10" adjustable wrenches
- 5 pair of pliers
- Metric and fractional hex wrench sets
- 3/16" - 1/2" 7 piece nutdriver set
- 1/8" tip VDE tweaker
- Multimeter and lead set
- and more...



WPTECH-2

WPTECH-2

- 68 piece GE 1.5 tool set in hard case
- Tools mounted on four pallets of tool control foam (included)
- Hard case is rugged, waterproof, and virtually unbreakable



WPTECH-1

WPTECH-1

- 68 piece GE 1.5 tool set in soft case
- Tools mounted on two pallets of tool control foam (included)

Contents subject to change. Complete contents can be viewed at www.snapon.com/industrial/sets.html

Wind Power Tool Sets



WPGENERAL-1

WPGENERAL-1

General Service Wind Power Tool Set

- Ideal selection of high-quality tools for general service in and around the wind farm
- 106 piece tool set comes in a rugged, waterproof, and virtually unbreakable hard case, packed in tool-control foam

Contents include:

- 1/4" drive SAE shallow & deep sockets and drive tools
- 3/8" drive SAE deep and shallow sockets and drive tools
- 5 piece screwdriver set
- Midget, combination, and ratcheting box wrenches
- 5 pair of pliers
- Hammers, punches, hacksaw, and more...



Vestas V82 Turbine Tool Set

WPTECH-AO-S1

Vestas V82 Turbine Tool Set

- Specifically configured to provide required tools for servicing the V82 turbine
- 77 piece set comes in a rugged, waterproof, and virtually unbreakable hard case, packed in tool-control foam

Contents include:

- 1/4" drive and 1/2" drive metric sockets and drive tools
- Ratcheting box, adjustable, and hex wrenches
- Pliers, screwdrivers, multimeter, and more...



WPTECH-AO-S1

Contents subject to change. Complete contents can be viewed at www.snapon.com/industrial/sets.html



WARNING



• Read safety precautions on pages 586 to 589

Industrial Maintenance Tool Sets



4000 Series
Metric Add-On
4102GM1

Metric Set Building

Nothing else gets the job done as safely and efficiently as having the right tools and having them when needed. To assist you in bringing this about, our many years of close association with the industry have been consolidated into these expertly compiled add-on sets.

4000 Series Metric Add-On Set 1

4102GM1. Build on your existing metric set to achieve a complete inventory of metric tools essential for servicing today's industrial maintenance needs.

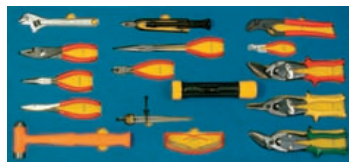
Set includes: Metric Nut drivers, L-Type Hex Wrenches, 1/4" Dr. 12-Point Deep and Shallow Sockets to 14mm, 3/8" Dr. 12-Point Deep and Shallow Sockets to 19mm, 12-Point Combination Wrenches to 22mm, Standard sizes in the Four-Way Angle Head Wrenches, Double End Flare Nut Wrenches, and Box Wrenches. Hex Socket Drivers are also included.

4000 Series Metric Add-On Set 2

4086GM2. Expand your metric tool inventory with this set including 12-Point Ratcheting Box Wrenches, Open End Wrenches to 32mm, 3/8" Dr. 6-Point Deep and Shallow Impact Sockets to 24mm, 1/2" Dr. 12-Point Shallow Sockets to 32mm, 1/2" Dr. 6-Point Deep and Shallow Impact Sockets and 1/2" Dr. 12-Point Metric Sockets. We have also expanded the 12-Point Combination Wrenches, Four-Way Angle Head Wrench line, along with the 12-Point Offset Box Wrench Set. The 1/2" Dr. Hex Socket Set has also been added to complete this set.



Contact your Snap-on Account Manager to choose your Roll Cab and to add a custom foam insert.



4000 Series
Maintenance
Add-On Set



4000 Series Maintenance Add-On Set

4023GSACC. Our Maintenance Accessory Add-On Set includes Tap and Dies, Rethreading Tap and Dies, Extractors, Pipe Wrenches, Strap Wrenches, Awls, Nut Splitter, Ruler, Mirror and Pick Up Tools. In this kit we have also expanded the Files, Pliers (Snap Ring), Scrapers, Pry Bars, Saws and Hammers.

Contact Your Snap-on Industrial sales representative for complete details and ordering information.

- Do not open more than one loaded drawer at a time
- Keep children away
- Close lid, lock drawers and doors before moving
- Apply brakes on locking casters when not moving unit
- Do not step in or on drawers

- Secure units together with fasteners
- Do not pull; push to move
- Wear gloves when lifting by edges
- Keep feet and fingers clear of edges when stacking, hanging, or moving units
- Read additional safety precautions on pages 586 to 589



WARNING

AVIATION TOOL SETS

Military Aviation Tool Sets

Over 30 years of experience and tens of thousands of kits – all custom tailored to suit your needs. Snap-on continues to set the bar for maximum productivity and flight safety.

No one offers you more. More selection. More sets. More experts to assist you. More understanding of your needs. Whether you need one kit or one thousand kits, Snap-on can provide the kit you need for any application.



Army Kits:

Power Plant
 Technical Inspection
 General Mechanical
 Sheet Metal
 Electrical
 Hydraulic
 Powertrain

USAF Kits:

APG CTK
 APG Launch CTK
 Custom TDY CTK
 Engine CTK
 E7E CTK
 C130 Mobility

Army Aviation Kits:

AH6, AH7 Crew Chief
 Airframe
 Blackhawk Phase
 Chinook Crew Chief
 Crew Chief
 Electronics
 Engine Shop
 Hydraulics Shop
 Prop and Rotor
 Small Arms

Marine Kits:

Marine Common 1

Navy Kits:

LM2500 Contents

Contact your Snap-on Industrial sales representative who will be glad to help you select the right tools, tool sets and tool control to meet your specific needs.

Acronym	Full Nomenclature
TAMS/APG	Technical Aircraft Maintenance Specialists/ Air Power Generation
AVIONICS	Radar, Instruments, Communications, Navigation, Flight Controls and Electronic Counter Measurers
WEAPONS	Conventional Munitions and Maintenance
APG TDY KIT	Air Plane General Temporary Duty Maintenance
ARMAMENT	Gun, pylon, and launcher Maintenance
PHASE Dock Box	Chronological Inspection and Maintenance
ENGINE BOX	Power Plant, Start Systems and Gear Box Maintenance
DEMO TEAM	F-16/F-15/F-22 Demonstration Minor maintenance Launch and Recover Kit
CANN DOCK BOX	Cannibalization Dock Box
JEIM	Jet Engine Intermediate Maintenance
E & E Box	Electric and Environmental Control Systems
POD Box	Electronic Counter Measurer
Weapons Line Kit	Weapons

Acronym	Full Nomenclature
SPEC BOX	Radar, Instruments, Communications, Navigation, Flight Controls and Electronic Counter Measurers
AGE	Aerospace Ground Equipment
PMEL	Precision Measurement Equipment Laboratory
TRANS	Transportation Vehicle maintenance
E&E In Shop	Electric and Environmental Control Systems
R&R/ RECOVERY	Repair and Reclamation
EGRESS	Ejection Seat Maintenance
Sheet Metal	Structural Repair
LO BARN	LOW Observance Coating Maintenance
Fuel Shop	Fuel System maintenance
TM	Trailer Maintenance
PGM	Precision Guidance munitions
Conventional	Conventional Air to Ground munitions

Commercial Aviation Tool Sets

Our OEM and commercial aviation customers agree: Snap-on is the world leader in custom kits. Whether you're managing a small operation or large fleet, Snap-on can deliver a kitting solution to increase productivity and flight safety; no one offers more. The following is a partial list of the many kits that have been developed with our customers for specific commercial aviation requirements.

For a complete listing of all available kits, or to develop a custom kit, contact your Snap-on Industrial representative.

Boeing:

- A-Check Mechanical – all aircraft
- A-Check Electrical – all aircraft
- B-C-D-Check General Mechanical – all
- B-C-D Check Electrical – all aircraft
- Boeing and Airbus General Mechanic
- Engine Change kits
- Sheet Metal kits
- Flight Line (FOD bag)
- B737 General Mechanic

Airbus:

- A-Check Mechanical – all aircraft
- A-Check Electrical – all aircraft
- B-C-D-Check General Mechanical – all
- A350 General Mechanic Kit
- A380 Torque Tool & Accessories kit
- A380 Bolter kit
- A380 Structure kit
- A380 Drillers kit
- A319, A340, & B737 A-Check General Mechanic
- A319, A340, & B737 to B767 A-B-Check General Mechanic kit
- A319, A340, & B737 to B767 Electrical
- Engine Change kit
- Flight Line (FOD bag)



OEM and airline-determined kits:

- BAE Systems
- Beechcraft
- Bombardier
- Cessna
- Embraer
- Falcon
- Fokker
- Gulfstream
- Lear

Helicopter:

- Agusta
- Bell
- Boeing
- Eurocopter
- Robinson

Propulsion:

- GE
- Pratt & Whitney
- Rolls Royce

From OEM assembly to flight line maintenance, Snap-on has your solution. Contact your Snap-on Industrial sales representative who will be glad to help you select the right tools, tool sets and tool control to meet your specific needs.



WARNING



• Read safety precautions on pages 586 to 589

AVIATION TOOL SETS

Aircraft Overhaul Set

Table of Federal Specs

The following symbols and letters are used in the set listings to denote those tools and sets that meet or exceed required federal specifications.

- See individual set components in current Product Catalog for specs.
- a. Federal Spec. GGG-H86C: ANSI Spec B173.2
- b. Federal Spec. GG-P-831
- c. Military Spec. NSN2630-00-269-3034, F-3747, MX992/U, Type II Style 1
- d. Federal Spec. GGG-S291E
- e. Federal Spec. GGG-W-636E: ANSI B107.6
- f. Federal Spec. GGG-W-001405
- g. Federal Spec. GGG-W-641
- h. Federal Spec. GGG-W-1437: ANSI Spec. B107.10M82
- i. Federal Spec. GGG-C-313C

- j. Federal Spec. GGG-W-641: ANSI Spec. B107.10M82: Aerospace Spec. AS954D
- k. Federal Spec. GGG-W-641E & GGG-W-1437: AS 954D
- l. Federal Spec. GGG-W-636
- m. Federal Spec. GGG-W-657C
- n. Federal Spec. GGG-W-686C: ANSI Spec. B107.14M
- o. Federal Spec. GGG-W-641: ANSI Spec. B107.10M-82
- p. Federal Spec. GGG-W-636E & GGG-W-1437: AS954D
- q. Federal Spec. GGG-C-1507A, Type 2
- r. Federal Spec. GGG-C-1507A, Type 1, Class 1
- s. Federal Spec. GGG-C-001507, Type 1, Class 3
- t. Federal Spec. GGG-W-641E & GGG-W-1437: ANSI Spec. B107.10M-82
- u. Federal Spec. GGG-W-631A
- v. Federal Spec. ANSI B107.9

Aircraft Overhaul Set 2094AOB

Tool	Spec.	Description
Pliers		Diagonal Cutters, 3/4" Jaw Length Duckbill, 1 5/16" Jaw Length Combination, 7 1/2" Long Adjustable Joint, 9 1/4" Needle Nose w/Cutter, 2 1/4" Jaw 7" VISE-GRIP®, 1 3/8" Jaw Capacity Curved, Long Serrated Needle Nose, 1/16" Tip Long Serrated Needle Nose, 1/16" Tip
Hammers	a	Ball Peen, 2 oz., 4oz., 8 oz., 12 oz. Plastic Tip, 16 oz. 1/ 1/2 lb. Dead Blow
Punches & Chisels	• b	Punch & Chisel Set Long Tapered Punch Set
Screwdrivers		PHILLIPS®, Standard Offset Screwdriver Set #1 PHILLIPS®, 6" Blade, 9 1/4" Long #2 PHILLIPS®, 8" Blade, 12" Long; 1 1/2" Blade, 3 1/4" Long #3 PHILLIPS®, 6 1/8" Blade, 10 3/8" Long Short, .025 x 1/8", 2" Blade, 4 3/4" Long Elec. Thin Blade, .018" x 1/8", 3" Blade Elec. Thin Blade, .028" x 3/16", 3" Blade Elec. Thin Blade, .028" x 3/16", 6" Blade Flat Tip, .032" x 3/16", 6 1/8" Long Flat Tip, .046" x 5/16", 10 1/4" Long Flat Tip, .050" x 3/8", 12 3/4" Long Flat Tip, .060" x 15/32", 17 13/16" Long
Measuring Tools		Feeler Gauge (35 blades), .0015" thru .035 8' Steel Rule Tape Machinist Dividers, 6" 12" Combo. Sq.-Protractor Level Torpedo Level Micrometer, 0" - 1" Range Spring Divider, 6" 6" Pocket Rule
Inspection Tools	c	Flashlight, Explosion Proof Optical Magnifier Light 2 1/4" Dia. Mirror, 14" Round Mirror, 17" Long
Metal Working Tools	d •	High Speed 5/16" Drill Bit High Speed 1/4" Drill Bit Wire Gauge Drill Set (60 pcs.), .2280"-.0400" Mixed File Set (6 pcs.) Mill File Set (8 pcs.) Half Round File Set (4 pcs.) Misc. File Set (4 pcs.) Swiss Needle File Set (12 pcs.) in Pouch Hacksaw, 10 - 12" Blades Aviation Snips, Right, 9 1/2" Long; Left, 9 1/2" Long Tiners Snips, 12" Long Tap & Die Set (24 pcs.), #4 thru 1/2" Tapered Reamer, 1/8" to 1/2"
Hex Wrenches		Hex Wrench Set (15 pcs.), .028" thru 3/8" in BHK15 Metal Index

Tool	Spec.	Description
Open End Wrenches	e	Open End Wrench, 19/32" x 11/16" Open End Wrench, 25/32" x 13/16" Open End Wrench Set (12 pcs.), 1/4" thru 1"
12-Point Combination Wrenches	e	Short Combination, 1/4" Combination, 5/16", 11/32" Combination Wrench Set (14 pcs.), 3/8" thru 1 1/4"
Adjustable Wrenches & Misc. Wrenches	f f	Adjustable Wrench Set (4 pcs.) 3/4", 15/16", 1 1/8", and 1 15/16" Jaw Capacity, 6", 8", 10", and 12" Long 12-Point Ratcheting Box Wr., 3/8" - 7/16" 12-Point Ratcheting Box Wr., 5/16" - 11/32"
1/4" Drive Tools	g g g g g g g g g g	12-Point Standard Length Socket (10 pcs.), 3/16" thru 9/16" 12-Point Deep Socket Set (10 pcs.), 3/16" thru 9/16" Std. Hex Driver, 1/16", 5/64", 3/32", 7/64" Standard Ratchet, 20 - Teeth Long Shank Driver, 5 3/4" Universal Joint, 1 15/64" Breaker Bar, 6" Long Extension Bar, 2" Long, 4" Long, 6" Long Slide Bar, 6" Long Speeder, 3" Sweep, 18" Long
3/8" Drive Tools	g g g g g	12-Point Standard Length Socket Set, (14 pcs.) 1/4" thru 1" 12-Point Deep Socket Set (14 pcs.) 1/4" thru 1" Hex Head Driver Set (8 pcs.), 1/8" thru 3/8" 12-Point Std. Length Univer. Socket, 5/16", 3/8" Speeder, 3 1/4" Sweep, 17 5/8" Long Breaker Bar, 9 1/2" Long Standard Ratchet, 20-Teeth Universal Joint, 1 15/16" Long Extension Bar, 3", 6", 12" Long Sliding "T" Handle, 8" Long Adaptor, 3/8" Female x 1/2" Male
1/2" Drive Tools		Hex Head Driver Set (7 pcs.), 5/16" thru 3/4"
Misc. Tools		Pocket Knife Scraper Putty Knife Magnet Mechanical Finger Awl, 7" Long, 8 1/2" Long Sanding Block, 5", 9" C-Clamp, 0" - 2" Range (3), 0" - 3" Range (3), 2" Capacity 3/8" Var. Speed, Reversible Drill Scriber-Magnet
Tool Storage		Tote Tray Tool Chest, 26" x 14 3/4" x 21 1/8"

Engine Overhaul Shop Set 2084EOB

Tool	Spec.	Description
Pliers		Diagonal Cutters, 13/32" Jaw Duckbill, 1 5/16" Jaw Length Combination Pliers, 6" Long Grooved Joint, 1 3/8" Needle Nose w/Cutter, 2 1/4" Jaw High Leverage Diagonal Cutters, 1 9/16" Jaw Combination, 7 1/2" Long VISE-GRIP®, 7" Long 1 3/8" Jaw Capacity VISE-GRIP®, 10" Long 1 5/8" Jaw Capacity Mini-Needle Nose, -Straight, 1/16" Tip Mini-Needle Nose, -Curved, 1/4" Tip
Hammer	a	Ball Peen, 4 oz., 8 oz., 12 oz., Fiberglass Handle Compothane®, 24 oz. Plastic Tip, 16 oz. Bronze Tip Hammer, 32 oz.
Punches & Chisels	• b	Midget Punch & Chisel Set Punch & Chisel Set Center Punches, 1/8", 3/16", 5/16" points Midget Center Punch, 3/32" point Automatic Center Punch Long Tapered Punch Set (3 pcs.)
Metal Working Tools	•	Mixed File Set w/Handles (4 pcs.) Mill File Set w/Handles (4 pcs.) Half Round File Set (4 pcs.) Mixed File Set (4 pcs.) Swiss Needle File Set (12 pcs.) in Pouch High Speed Drill Bit, 5/16" Wire Ga. Drill Set, .2280-.0400, 60 pcs. Hacksaw, 10 or 12" Blade Scriber w/Magnet Aviation Snips, Right Cut, Left Cut, Straight Tap & Die Set
Measuring Tools		Pocket Rule, 6" Feeler Gauge, .0015-.035, 35 Blades Micrometers, 0" - 1", 1" - 2" Range Spring Calipers 6" Dividers Dial Calipers Dividers Small Hole Ga. Set, .125" - .500" Thread Pitch Gauge Micrometer, 0" - 1" Range, 2" - 3" Range, 3" - 4" Range Insider Micrometer, 2" - 12 1/2" Range Depth Micrometer, 0" - 3" Range Protractor Digital Calipers Steel Tape Rule, 8' 12" Dual Scale Rule
Screwdriver		#1 PHILLIPS®, 10" Blade, 13 1/4" Long #2 PHILLIPS®, 9 5/8" Blade, 13 1/4" Long #2 PHILLIPS®, 16" Blade, 19 15/16" Long #2 PHILLIPS®, 6" Blade, 9 15/16" Long #3 PHILLIPS®, 6 1/8" Blade, 10 3/8" Long Heavy Duty, .075" x 1/2", 18" Blade Flat Tip, .032" x 3/16", 2 7/8", Flat Tip, .050" x 3/8", 8" Blade Flat Tip, .046" x 5/16", 6" Blade Flat Tip, .055" x 7/16", 10" Blade Flat Tip, .060" x 15/32", 12" Blade Flat Tip, .032" x 11/64", 3" Blade Flat Tip, .032" x 11/54", 6" Blade Flat Tip, .032" x 1/4", 6" Blade Offset Screwdriver Set, PHILLIPS® & Std. #1 PHILLIPS®, 6" Blade, 9 1/4" Long #1 PHILLIPS®, 3" Blade, 6 1/4" Long
Inspection Tools		Flashlight, Explosion Proof Penlight Optical Magnifier Flashlight Round Mirror, 360° Swivel Round Pocket Mirror, 4 1/2" - 17" Long
Hex Wrenches		Hex Wrench Set (15 pcs.), .028" thru 3/8" in BHK15 Metal Index

Tool	Spec.	Description
Adjustable Wrenches		1/2" Jaw Capacity, 4" Long Adjustable Wrench Set (4 pcs.) 3/4", 15/16", 1 1/8", and 1 15/16" Jaw Capacity, 6", 8", 10", and 12" Long 1 11/16" Jaw Capacity, 15" Long
12-Point Combination Wrenches	e e	Combination Wrenches, 5/16", 11/32", and 1 3/8" Combination Wrench Set (14 pcs.), 3/8" thru 1 1/4" Short Combination Wrenches, 1/4", and 9/32"
Open End Wrenches	e e	Standard Length Open End Wrench Set, 1/4" x 1 5/16" Open End Wrench, 1 1/16" x 1 1/4"
Box Wrenches	f f f f f	12-Point Offset Box Wrench Set, 3/16" thru 13/16" 12-Point Ratcheting Box, 1/4" x 5/16" 12-Point Ratcheting Box, 5/16" x 11/32" 12-Point Ratcheting Box, 5/16" x 3/8" 12-Point Ratcheting Box, 3/8" x 7/16" 12-Point Ratcheting Box, 1/2" x 9/16"
1/4" Drive Tools	g g g g g g g g g	12-Point Standard Length Socket (10 pcs.), 3/16" thru 9/16" 12-Point Deep Socket Set (10 pcs.), 3/16" thru 9/16" Std. Hex Drivers, 1/16", 5/64", 3/32", and 7/64" Ratchet, 20 - Teeth Universal Joint, 1 15/64" Long Long Shank Drive, 5 3/4" Long Breaker Bar, 6" Long Extension Bars, 2", 4", and 6" Long 12-Point Universal Sockets, 5/16" and 1/4" 12-Point Crowfoot Wrenches, 1/4", 5/16", and 3/8" Adaptors, 3/8" Female x 1/4" Male & 1/4" Female x 3/8" Male Speeder, 3" Sweep, 17 29/32" Long
3/8" Drive Tools	g g g g g g j g	12-Point Standard Length Socket, (14 pcs.) 1/4" thru 1" 12-Point Deep Socket Set 1/4" thru 15/16" 12-Point Universal Sockets, 3/16" and 3/8" 12-Point Universals, 7/16", 1/2", and 9/16" Hex Head Driver Set (8 pcs.), 1/8" thru 3/8" Adaptor, 3/8" Female x 1/2" Male Speeder, 3 1/4" Sweep, 17 5/8" Long Breaker Bar, 9 1/2" Long Ratchet, 20-Teeth Extension Bars, 3" Long, 6" Long, and 12" Long Flexextension, 6" Long Universal Joint, 1 15/16" Long
1/2" Drive Tools	j	12-Point Standard Length Socket Set (13 pcs.), 3/8" thru 1 1/8" 12-Point Deep Socket Set (19 pcs.), 3/8" thru 1 1/2" Hex Head Driver Set (7 pcs.), 5/16" thru 3/4" Ratchet, 32-Teeth, 10 1/4" Long Breaker Bar, 18" Long Extension Bars, 5" Long and 10" Long Universal, 2 11/16" Long
Misc. Tools		Pinch Bar, 15" Long 40 Watt Soldering Kit C-Clamps, 0" - 2", 0" - 3", and 0" - 4" Pick-up Tool, Magnet Pocket Knife Awl, 7" Long Pick Set Tweezer Kit Mechanical Fingers Scraper
Tool Storage		Tote Tray Tool Chest, 31 3/32" x 20 5/16" x 21 1/8"



WARNING



• Read safety precautions on pages 586 to 589

Basic Mechanic's Set (Portable) 2038BAMTB

Tool	Spec.	Description
Pliers		Combination, 9 1/8" Long Needle Nose, 1 11/16" Jaw Length
Hammers	a	Ball Peen, 12 oz. Plastic Tip, 16 oz.
Punches & Chisels	b	Pin Punch, 3/16" point Punch & Chisel Set with chisel gauge
Measuring Tools		Steel Rule, 6" Long Tape Measure, 12' Long Aviation Wire Gap Gauge 8 wires with electrode bender, .010" - .030"
Screwdrivers		Flat Tip, 1/4" x 1 1/2" Blade, 3 1/4" Flat Tip, 1/4" x 4" Blade, 7 15/16" Offset Flat Tip, .030" x 5/16" Blade Offset PHILLIPS®, #1 and #2 Tips Flat Tip Screw Starter, 5" Long
Inspection Tools		Heavy Duty Flashlight Hinged Rectangular Mirror, 16 1/2" Long
Hex Wrenches		Hex Wrench Set (13 pcs.), 3/64" thru 3/8"
Open End Wrenches	e	Open End, 1/4" x 5/16", 3/8" x 7/16", 1/2" x 9/16"
Box Wrenches	p	12-Point High Performance Box, 3/8" x 7/16", 1/2" x 9/16"
1/4" Drive Tools	g	12-Point Standard Length Socket Set, (10 pcs.), 3/16" thru 9/16" Flex Head Ratchet, 5 63/64" Long Flexible Extension, 6" Long Universal Joint, 1 15/64" Long Extension Bars, 2" Long, 4" Long, 14" Long Medal Box for 1/4" Drive Tools
3/8" Drive Tools	g	12-Point Deep Sockets, 3/8", 7/16", 1/2", 9/16", 5/8", 1 1/16", 3/4" 12-Point Universal Socket, 3/8", 7/16"
Misc. Tools		Awl, 8 1/2" Long Cotter Pin Puller, 8" Long
Storage Unit		Hand Carry Metal Box, 19 7/8" x 7 3/4" x 7 1/2"

All Purpose Mechanic's Set 2051CAMB

Tool	Spec.	Description
Pliers		Combination, 7 1/2" Long Needle Nose w/Side Cutter, 2 1/4" Jaw Duckbill, 1 5/16" Jaw Length Diagonal Cutters, 15/16" Jaw Length Grooved Joint, 2 1/8" Max. Capacity Wire Stripper, 6 1/4" Long Internal Retaining Ring, .070" Tip External Retaining Ring, .070" Tip VISE-GRIP®, 1 5/8" Jaw Capacity
Hammers	a	Ball Peen, 4 oz., 12 oz. Plastic Tip, 16 oz.
Punches & Chisels	b	Center Punches, 1/8" Point, 3/16" Point Punch & Chisel Set with Chisel Gauge
Metal Working Tools		Straight Cut Shears, 10" Long Drill Bit Set (13 pcs.), 1/16" thru 1/4" Hacksaw, uses 10" or 12" Blades Hacksaw Blades, 12" x 32 Teeth (10 each) Mill File Set (4 pcs.) in C46C Kit Bag Round File Set (4 pcs.) in C46C Kit Bag File Handle, 4 1/2" Long
Measuring Tools		Feeler Gauge (25 blades), .002" thru .023" Tape Measure, 12' Long
Screwdrivers		Elec. Thin Blade Screwdriver Set (5 pcs.) PHILLIPS® Screwdriver Set (5 pcs.) Flat Tip Screwdriver Set (5 pcs.) Ratchet and Screwdriver Bit Set (5 pcs.)
Inspection Tools	c	Heavy Duty Flashlight Hinged Rectangular Mirror, 16 1/2" Long Replacement Mirror for GA53

Tool	Spec.	Description
Torque Measuring Tools	n	Torque Wrench, 3/8" Square Drive, 0 - 600 lb.in. Torque Wrench, 1/2" Square Drive, 0 - 175 lb.ft.
Hex Wrenches		Hex Wrench Set (20 pcs.), .028" thru 3/4"
Tappet Open End Wrenches		Low-Torque Slimline Open End, 7/16" x 1/2", 1/2" x 9/16" 5/16" x 11/16", and 3/4" x 7/8"
Combination Wrenches	e	12-Point Combination Wrench Set (11 pcs.), 3/8" thru 1"
Box Wrenches	e	12-Point Offset Box Wrench Set (8 pcs.) 3/8" thru 1 5/16" 12-Point Offset Dwarf Box Wrench Set (9 pcs.) 3/16" thru 13/16"
Flare Nut Wrenches	l	6-Point Double End Flare Nut Wrench Set (5 pcs.), 1/4" thru 13/16" in a plastic tray 6 -Point Double End Flare Nut, 5/16" x 3/8", and 7/16" x 1/2"
1/4" Drive Tools	g	6-Point Sockets, 1/8" and 5/32" 12-Point Standard Length Socket Set, (10 pcs.), 3/16" thru 9/16" 12-Point Deep Socket Set, (10 pcs.), 3/16" thru 9/16" 12-Point Universal Sockets, 1/4", 5/16", 3/8", 7/16", 1/2", 9/16" Double Square Sockets, 1/4", 5/16", 3/8" Hex Head Drivers, (9 pcs.) from 5/64" to 1/4" (5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4") Clutch Head Drivers, 11/64", 15/64", 5/32" Carburetor Screwdrivers, 1/32" x 23/64", and 1/32" x 7/16" Flat Tip Short Driver, 1/4" x .032" tip Flat Tip Driver, 3/16" x .033" tip Flat Tip Driver, 1/4" x .033" tip Standard Driver, 3/8" x .042" tip #1 PHILLIPS® Driver #2 PHILLIPS® Driver #2 PHILLIPS® Driver Standard Length Ratchet, 20 Teeth, 4 27/64" Long Breaker Bar, 6" Long Long Shank Driver, 5 3/4" Long Speeder, 3" Sweep, 17 29/32" Long Sliding T-Handle, 4 1/2" Handle Flexible Extension, 6" Long Flexible Driver, 6 3/4" Long Flexible Adaptor, 19 3/4" Long Ratchet Adaptor, 1 3/8" Long Ratchet Spinner, 27/32" Long Universal Joint, 1 15/64" Long Extension Bar, 2" Long Extension Bars, 4" Long, 6" Long, 14" Long
3/8" Drive Tools	g	12-Point Standard Length Socket Set, (12 pcs.), 1/4" thru 7/8" on A269 Socket Rail w/clips 12-Point Deep Socket Set (11 pcs.) 1/4" thru 7/8" on A269 Socket Rail w/clips 12-Point Universal Socket Set (11 pcs.) 5/16" thru 15/16" on A267 Socket Rail w/clips Weatherhead Sockets, 3/8" 7/16", 1/2", 9/16", 11/16", 3/4" Standard Length Ratchet, 20-Teeth, 7 9/16" Long Breaker Bar, 9 1/2" Long Plastic Handle Driver, 5 1/4" Long Speeder, 3 1/4" Sweep, 17 5/8" Long Sliding "T" Handle, 8" Handle Length Ratchet Adaptor, 2 1/16" Long Ratchet Spinner, 1 9/32" Long Universal Joint, 1 15/16" Long Extension Bars, 3", 4 9/16", 6" and 12" Long Flexible Extension, 8" Long Metal Box for 3/8" Drive Tools
1/2" Drive Tools		12-Point Socket and Accessory Set, (25 pcs.), 3/8" thru 1 5/16"
Misc. Tools		Wire Brush, 14" Long Cotter Pin Puller, 8" Long Flexible Pick-up Tool, 17 3/4" Long Magnet Pick-up Tool, 26 3/4" Extension Pry Bar, 16" Long
Storage Unit		Tool Chest, 9 Drawer, 26" x 14 3/4" x 17 3/8"



WARNING



• Read safety precautions on pages 586 to 589

PORTABLE TOOL CASES



Pelican Micro and Medium Cases



Micro Cases

Stock Number	PCD1020100	PCD1040100	PCD1060100
Exterior Dimensions (L x W x D)	6.82" x 4.75" x 2.12" (17.3 x 12.1 x 5.4 cm)	7.50" x 5.06" x 2.12" (19 x 12.8 x 5.4 cm)	9.37" x 5.56" x 2.62" (23.8 x 14.1 x 6.7 cm)
Interior Dimensions (L x W x D)	5.31" x 3.56" x 1.68" (13.5 x 9 x 4.3 cm)	6.50" x 3.87" x 1.75" (16.5 x 9.8 x 4.4 cm)	8.25" x 4.25" x 2.25" (20.9 x 10.8 x 5.7 cm)
Weight	0.55 lbs. (0.25 kg)	0.7 lbs. (0.32 kg)	1 lbs. (0.45 kg)

GREAT FOR RUGGED SPORTS - NOT FOR SWIMMING OR SUBMERGING

- Easy open latch, includes carabiner
- Stainless steel hardware with rubber liner that doubles as o-ring seal
- Water resistant, crushproof, and dust proof
- Automatic Pressure Equalization Valve - balances interior pressure, keeps water out

Medium Cases

Model	Stock Number	Color	Exterior Diminsions	Interior Dimensions	Lid / Bottom Depth	Weight
1450	PCD1450110	Black	16.00" X 13.00" X 6.87" (40.6 X 33 X 17.4 cm)"	14.62" X 10.18" X 6.00" (37.1 X 25.8 X 15.2 cm)"	1.75" / 4.25" (4.4 cm / 10.8 cm)"	5.51 LBS. (2.5 KG)"
	PCD1450130	OD Green				
	PCD1450240	Yellow				
1510	PCD1510110	Black	22.00" X 13.81" X 9.00"(55.9 X 35.1 X 22.9 cm)"	19.75" X 11.00" X 7.60" (50.1 X 27.9 X 19.3 cm)"	1.79" / 5.79" (4.5 cm / 14.7 cm)"	11.99 LBS. (5.44 KG)"
	PCD1510130	OD Green				
1520	PCD1520110	Black	19.78" X 15.77" X 7.41" (50.2 X 40 X 18.8 cm)"	18.06" X 12.89" X 6.72" (45.9 X 32.7 X 17.1 cm)"	1.79" / 4.93" (4.5 cm / 12.5 cm)"	8.29 LBS. (3.76 KG)"
	PCD1520130	OD Green				
	PCD1520240	Yellow				
1550	PCD1550110	Black	20.62" X 16.87" X 8.12" (52.4 X 42.8 X 20.6 cm)"	18.43" X 14.00" X 7.62" (46.8 X 35.5 X 19.3 cm)"	1.75" / 5.87" (4.4 cm / 14.9 cm)"	10.58 LBS. (4.8 KG)"
	PCD1550130	OD Green				
	PCD1550240	Yellow				



Model 1450



Model 1510*



Model 1520



Model 1550

- Open cell core with solid wall design is strong, light weight, watertight, crushproof, and dust proof
- Easy open Double Throw latches and O-ring seal with Automatic Pressure Equalization Valve
- Comfortable rubber over-molded handle and stainless steel hardware and padlock protectors
- Cases do not include tools or foam inserts

* Model 1510 Carry-On Case is the FAA maximum carry-on size, and includes retractable handle and wheels with stainless steel bearings



OD Green



Yellow

See product specifications chart for available colors for each case. Call your Snap-on Industrial Representative or Customer Service for more information

Large Cases

Model	Stock Number	Color	Exterior Diminsions	Interior Dimensions	Lid / Bottom Depth	Weight
1600	PCD1600110	Black	24.25" X 19.43" X 8.68" (61.6 X 49.3 X 22 cm)	21.43" X 16.50" X 7.87" (54.4 X 41.9 X 20 cm)	1.75" / 6.12" (4.4 cm / 15.5 cm)	13 LBS. (5.9 KG)
	PCD1600130	OD Green				
	PCD1600240	Yellow				
1610	PCD1610110	Black	24.83" x 19.69" x 11.88" (63 x 50 x 30.2 cm)	21.78" x 16.69" x 10.62" (55.3 x 42.4 x 27 cm)	2.05" / 8.57" (5.2 cm / 21.8 cm)	19.5 lbs. (8.85 kg)
	PCD1610130	OD Green				
1620	PCD1620110	Black	24.64" x 19.39" x 13.78" (62.6 x 49.2 x 35 cm)	21.48" x 16.42" x 12.54" (54.5 x 41.7 x 31.8 cm)	2.01" / 10.53" (5.1 cm / 26.7 cm)	21.2 lbs. (9.62 kg)
	PCD1620130	OD Green				
1650	PCD1650110	Black	31.59" x 20.47" x 12.45" (80.2 x 52 x 31.6 cm)	28.57" x 17.52" x 10.62" (72.5 x 44.5 x 27 cm)	1.81" / 8.84" (4.6 cm / 22.4 cm)	24.03 lbs. (10.9 kg)
	PCD1650130	OD Green				



Model 1600*



Model 1610



Model 1620



Model 1650

- Retractable extension handle and strong polyurethane wheels with stainless steel bearings***
- Open cell core with solid wall design is strong, light weight, watertight, crushproof, and dust proof
- Easy open Double Throw latches and O-ring seal with Automatic Pressure Equalization Valve
- Comfortable rubber over-molded handle and stainless steel hardware and padlock protectors
- Cases do not include tools or foam inserts

* Model 1600 does not include retractable handle or wheels

0450 Mobile Tool Chest



- Heavy duty buttress hinges and two way handles
- Auto Pressure Equalization Valves
- Stable, wide track mobility
- Includes 7 drawers
- Hybrid double throw butterfly latches
- Graduated deflector ribs and secure stack design
- Trolley handle & wheel system
- Easy access beneath the top lid for extra storage space
- Three unsealed pockets on the left side for storing smaller items
- Exterior dimensions: 23.95" x 14.75" x 17.95" (60.8 x 37.5 x 45.6 cm)
- Interior Dimensions: 20.56" x 10.97" x 12.65" (52.2 x 27.9 x 32.1 cm)
- Weight: 41.5 LBS. (18.82 KG)
- Tools and foam shown are not included
- Stock Number **PCD0450110**

Snap-on Industrial offers complete custom tool set and tool control services for this and all Pelican cases shown. Contact your Snap-on Industrial Representative for more information, or call our Customer Service Center at (877) 740-1900

PORTABLE TOOL CASES

Pelican Storm Cases



Stock #	Interior Dimensions L x W x H (inches)	Exterior Dimensions L x W x H (inches)	Empty Weight (lbs.)	Wheels	Retractable Handle	Airline Carry-on	NSN Available
HIM20500000	9.5 x 7.5 x 4.25	11.8 x 9.8 x 4.7	2.7	N	N	Y	Y
HIM21000000	13.0 x 9.2 x 6.0	14.2 x 11.4 x 6.5	4.2	N	N	Y	Y
HIM22000000	15.0 x 10.5 x 6.0	16.2 x 12.7 x 6.6	4.9	N	N	Y	Y
HIM23000000	17.0 x 11.7 x 6.2	18.2 x 13.4 x 6.7	5.8	N	N	Y	Y
HIM23700000	18.2 x 12.1 x 5.2	20.0 x 14.7 x 5.8	5.7	N	N	Y	Y
HIM24000000	18.0 x 13.0 x 6.7	19.2 x 15.2 x 7.3	6.5	N	N	Y	Y
HIM25000000	20.5 x 11.5 x 7.2	21.7 x 14.1 x 8.9	11	Y	Y	Y	Y
HIM26000000	20.0 x 14.0 x 7.7	21.2 x 16.0 x 8.3	8.5	N	N	N	Y
HIM27000000	22.0 x 17.0 x 8.0	24.6 x 19.7 x 8.6	11.1	N	N	N	Y
HIM27200000	22.0 x 17.0 x 10.0	24.6 x 19.7 x 11.7	16.8	Y	Y	N	Y
HIM27500000	22.0 x 17.0 x 12.7	24.6 x 19.7 x 14.4	18.5	Y	Y	N	Y
HIM29500000	29.0 x 18.0 x 10.5	31.3 x 20.4 x 12.2	20.8	Y	Y	N	Y
HIM29750000	29.0 x 18.0 x 13.8	31.3 x 20.4 x 15.5	22.5	Y	Y	N	Y
HIM31000000	36.5 x 14.0 x 6.0	39.8 x 16.5 x 6.7	15.2	Y	N	N	Y
HIM33000000	50.5 x 14.0 x 6.0	53.8 x 16.5 x 6.7	19	Y	N	N	Y

- Press & Pull Latches, double-layered, soft-grip handle, padlockable hasps, and Vortex® Valve
- Built to withstand impact, temperature, moisture, and rough transit
- Anti-shear teeth keep lids from shifting during impact
- Uniquely designed hinges with feet to allow sturdy upright standing
- Cases furnished in black. For other color options, contact your Snap-on Industrial Representative



TOOL MANAGEMENT AND SAFETY

At Snap-on, we created scalable tool management & safety programs to deliver simple, cost-effective & practical solutions to fit virtually any need.

We believe in systems that are simple enough that people will actually use them, and design them to encourage people to be responsible for what they do. We deliver systems that give organizations the information they need based on their business requirements to control expenses, reduce downtime, and promote safety.

Organization, Security, and Trackability are only three of the five essential keys to successful tool management and safety programs. Snap-on adds Visibility and Accountability to create the most robust tool control systems in the industry.

On a basic level, we offer shadow boards, wall cabinets, and foam tool box drawer inserts that show where tools belong, and what tools are missing. Beyond that we provide additional products to control access and manage tools to address issues with shrinkage, availability, and lost tools that can cause damage in machinery or engines.

Our safety programs are designed to help reduce repetitive stress injuries, reduce unnecessary noise and prevent injuries from tools falling when used in high places.



Overview N037

Level 5™ ATC N040

Level 5™ NTC N042

Level 5™ TcMax® Tool Control Systems N044

Drawer Control Tool Cabinets N046

Build-a-Bay N047

Flight Line Roll Cabinets N050

FOD Hand Tools N051

Aeroprobe® and STARK Kit N052

Tethered Tools N053

Retention System Tools N058

Industrial Finish Hand Tools N068

Safety Products N072



**We can help
you manage your
tools. We can even
micro-manage your
tools. It's your call.**





TOOL MANAGEMENT AND SAFETY

Keeping tools where they belong isn't just a matter of being neat. Lost or missing tools can lead to extended downtime when you're searching for tools instead of making repairs. They can add up to unnecessary expense, replacing tools that are simply lost or even stolen. And they can even become life threatening if they are accidentally left behind in critical areas like aircraft engines or nuclear reactors.

That's where Snap-on Industrial comes in. We have been working with manufacturers, government agencies, utilities and service providers to develop and implement tool control and safety programs ranging from simple visual inspection to authenticated check-out and return systems.

Organization and Visibility are the first steps. For a quick visual inventory, nothing beats custom foam drawer liners, with precise cavities precision laser cut for every tool. Our True-Fit® layout software is the first step in developing a comprehensive tool control program. It easily and quickly creates custom drawer layouts from any set of tools, for virtually any Snap-on tool box.

The next step is security, controlling access to the tool box. The Snap-on Level 5™ NTC system uses authenticated access and networking software to control and track who gets into what tool box and when. Turn the page for more details on Level 5™ NTC.

Even more control comes with Snap-on's Level 5™ ATC system which builds on authenticated access and uses advanced imaging technology to monitor tools in and out of the tool box, tracking them seamlessly by user. For more on Level 5™ ATC, turn the page.

For absolutely critical applications, our TC Max® solution adds the ability to scan individual tools and check them in and out by user. All of the same reports, data audits, and other features found in the Level 5™ NTC and Level 5™ ATC system are also available.

Tool Control and Safety Tool control is the first step in building a safety program, but safety brings its own additional issues.

Using tools safely without interfering with their basic function is the big idea. Our Tools at Height program uses unique tethering concepts to attach lanyards and keep tools from falling and causing injuries below—all without changing the basic operations of the tools themselves.

Snap-on tool management and control is built around the Level 5™ concept: **Organization, Visibility, Security, Trackability and Accountability.**



Safety includes ergonomics—tools that fit right and work naturally with hands, tools engineered to meet noise reduction requirements, and protective gear like safety goggles and hearing protection. For more information, look in the specific sections of this catalog or ask your Snap-on Industrial Account Manager.



Simple, scalable tool control starts with centralized access control.

Tool control systems control tool shrinkage and replacement cost. They also help reduce lost-tool downtime. In critical industries and applications such as aviation and nuclear power, tool control is an essential step toward eliminating FOD (Foreign Object Damage in aviation) and implementing FME (Foreign Material Exclusion in the power industry). Unlocked and open access tool boxes can result in FOD/FME problems. Snap-on puts you in control with two choices. Our Level 5™ NTC system (N042-N043) allows you to specify access to boxes, audit when they are used, and manage it all over a network.

LEVEL 5 ATC Tool Control System™

Level 5™ ATC Advanced technology that makes tracking tools simple. Level 5™ ATC is a true tool control system. Based on the tool list that you supply, each drawer in the tool box is organized and each tool assigned to a unique space in the foam drawer liner. That information is then programmed into the scanning hardware fitted to the top of the box. As each drawer is opened and closed it is scanned digitally, and the image is instantly compared with the baseline stored image of that drawer. Any tool that has been removed or returned is identified and the computer makes an audible announcement: a tool has been removed or replaced.

Additionally, the computer tracks each tool removed and replaced by its part number and by user, and creates an audit trail in database format. Both the digital images and the data entries are stored for review in an audit trail of the last 15,000 transactions. Not only do you get detailed information, but you have access to the actual pictures of the drawer contents for verification.

Plug and Play vs. Some Assembly Required
Some solutions to FOD and FME problem involve attaching RFID tags, sensors or bar codes to the tools to track them. Additional operations and attachments can create significant additional cost and limitations by:

- Interfering with the normal use of the tool
- Using up additional real estate in the drawers
- Having limited usability on small tools like sockets
- Dislodging and becoming a new source of FOD

Our Level 5™ ATC system provides the simplest and most user-friendly solution for detecting tools issued from and returned to a tool box, providing a critical enhancement to your FOD/FME program. Using advanced digital imaging technology and proprietary software, the tool box automatically keeps track of its inventory by user, and records which tools are removed and replaced, and when.



Level 5™ ATC Features

- No individual tool scanning required
- No RFID tags to install or replace
- No limitations on tool size—if it fits in the drawer, it works
- Intuitive interface—easy-to-use touchscreen
- Audible voice confirmation of tool removal and replacement
- Automatic locking
- Errors announced and displayed for incorrect tool position or drawer not closed

The Snap-on Level 5™ ATC system is delivered with your predetermined set of tools already installed in one of two basic platforms, the KRL1056 36" framework, or the KRL1021 54" framework. Each is offered in eleven color choices, three different drawer configuration options, with and without casters, and in 110V or 230V European power options. To order, work with your Snap-on Industrial Account Manager or Customer Service Center to determine:

- Tool Set Contents
- 36" or 54" platform
- Color choice
- Drawer configuration
- Casters/no casters
- Voltage 110V/230V
- Standard or extended warranty
- Administrative software, with or without remote HID scanner



LEVEL 5 ATC

Tool Control System™

Selection Guide

How to Order

The Snap-on Level 5™ ATC system is delivered with your predetermined set of tools already installed in one of two basic platforms, 36" or 54". Each is offered in eleven color choices, three different drawer configuration options, with and without casters, and in 110V or 230V European power options.

To order, work with your Snap-on Industrial Account Manager or Customer Service Center to determine:

- 1 **Tool Set Contents**—pick the tools you need and we will lay out the drawer arrangements
- 2 **36" or 54" Platform**—we'll help you pick the right platform based on the number of tools in your set
- 3 **Color Choice**—pick one of eleven
- 4 **Drawer Configuration**—pick one of three
- 5 **Casters**—with or without, depending on mobility requirements
- 6 **Voltage**—110V or 230V European
- 7 **Warranty**—standard or extended
- 8 **Order Administrative Software, with Remote HID Scanner**

Configuration		36" w/ Casters			36" w/out Casters			54" w/ Casters			54" w/out Casters		
Number of Drawers		6	7	8	6	7	8	6	7	8	6	7	8
Color	V												
Green Mica	110V	L5AA363AW	L5AA362AW	L5AA361AW	L5AA3S3AW	L5AA3S2AW	L5AA3S1AW	L5AA543AW	L5AA542AW	L5AA541AW	L5AA5S3AW	L5AA5S2AW	L5AA5S1AW
	230V	L5AE363AW	L5AE362AW	L5AE361AW	L5AE3S3AW	L5AE3S2AW	L5AE3S1AW	L5AE543AW	L5AE542AW	L5AE541AW	L5AE5S3AW	L5AE5S2AW	L5AE5S1AW
Red	110V	L5AA363BO	L5AA362BO	L5AA361BO	L5AA3S3BO	L5AA3S2BO	L5AA3S1BO	L5AA543BO	L5AA542BO	L5AA541BO	L5AA5S3BO	L5AA5S2BO	L5AA5S1BO
	230V	L5AE363BO	L5AE362BO	L5AE361BO	L5AE3S3BO	L5AE3S2BO	L5AE3S1BO	L5AE543BO	L5AE542BO	L5AE541BO	L5AE5S3BO	L5AE5S2BO	L5AE5S1BO
Royal Blue	110V	L5AA363CM	L5AA362CM	L5AA361CM	L5AA3S3CM	L5AA3S2CM	L5AA3S1CM	L5AA543CM	L5AA542CM	L5AA541CM	L5AA5S3CM	L5AA5S2CM	L5AA5S1CM
	230V	L5AE363CM	L5AE362CM	L5AE361CM	L5AE3S3CM	L5AE3S2CM	L5AE3S1CM	L5AE543CM	L5AE542CM	L5AE541CM	L5AE5S3CM	L5AE5S2CM	L5AE5S1CM
Ultra Yellow	110V	L5AA363ES	L5AA362ES	L5AA361ES	L5AA3S3ES	L5AA3S2ES	L5AA3S1ES	L5AA543ES	L5AA542ES	L5AA541ES	L5AA5S3ES	L5AA5S2ES	L5AA5S1ES
	230V	L5AE363ES	L5AE362ES	L5AE361ES	L5AE3S3ES	L5AE3S2ES	L5AE3S1ES	L5AE543ES	L5AE542ES	L5AE541ES	L5AE5S3ES	L5AE5S2ES	L5AE5S1ES
Deep Purple	110V	L5AA363EV	L5AA362EV	L5AA361EV	L5AA3S3EV	L5AA3S2EV	L5AA3S1EV	L5AA543EV	L5AA542EV	L5AA541EV	L5AA5S3EV	L5AA5S2EV	L5AA5S1EV
	230V	L5AE363EV	L5AE362EV	L5AE361EV	L5AE3S3EV	L5AE3S2EV	L5AE3S1EV	L5AE543EV	L5AE542EV	L5AE541EV	L5AE5S3EV	L5AE5S2EV	L5AE5S1EV
Candy Apple Red	110V	L5AA363JH	L5AA362JH	L5AA361JH	L5AA3S3JH	L5AA3S2JH	L5AA3S1JH	L5AA543JH	L5AA542JH	L5AA541JH	L5AA5S3JH	L5AA5S2JH	L5AA5S1JH
	230V	L5AE363JH	L5AE362JH	L5AE361JH	L5AE3S3JH	L5AE3S2JH	L5AE3S1JH	L5AE543JH	L5AE542JH	L5AE541JH	L5AE5S3JH	L5AE5S2JH	L5AE5S1JH
Extreme Green	110V	L5AA363JJ	L5AA362JJ	L5AA361JJ	L5AA3S3JJ	L5AA3S2JJ	L5AA3S1JJ	L5AA543JJ	L5AA542JJ	L5AA541JJ	L5AA5S3JJ	L5AA5S2JJ	L5AA5S1JJ
	230V	L5AE363JJ	L5AE362JJ	L5AE361JJ	L5AE3S3JJ	L5AE3S2JJ	L5AE3S1JJ	L5AE543JJ	L5AE542JJ	L5AE541JJ	L5AE5S3JJ	L5AE5S2JJ	L5AE5S1JJ
Electric Orange	110V	L5AA363JK	L5AA362JK	L5AA361JK	L5AA3S3JK	L5AA3S2JK	L5AA3S1JK	L5AA543JK	L5AA542JK	L5AA541JK	L5AA5S3JK	L5AA5S2JK	L5AA5S1JK
	230V	L5AE363JK	L5AE362JK	L5AE361JK	L5AE3S3JK	L5AE3S2JK	L5AE3S1JK	L5AE543JK	L5AE542JK	L5AE541JK	L5AE5S3JK	L5AE5S2JK	L5AE5S1JK
Arctic Silver	110V	L5AA363KS	L5AA362KS	L5AA361KS	L5AA3S3KS	L5AA3S2KS	L5AA3S1KS	L5AA543KS	L5AA542KS	L5AA541KS	L5AA5S3KS	L5AA5S2KS	L5AA5S1KS
	230V	L5AE363KS	L5AE362KS	L5AE361KS	L5AE3S3KS	L5AE3S2KS	L5AE3S1KS	L5AE543KS	L5AE542KS	L5AE541KS	L5AE5S3KS	L5AE5S2KS	L5AE5S1KS
Gloss Black	110V	L5AA363PC	L5AA362PC	L5AA361PC	L5AA3S3PC	L5AA3S2PC	L5AA3S1PC	L5AA543PC	L5AA542PC	L5AA541PC	L5AA5S3PC	L5AA5S2PC	L5AA5S1PC
	230V	L5AE363PC	L5AE362PC	L5AE361PC	L5AE3S3PC	L5AE3S2PC	L5AE3S1PC	L5AE543PC	L5AE542PC	L5AE541PC	L5AE5S3PC	L5AE5S2PC	L5AE5S1PC
Deep Cranberry	110V	L5AA363PM	L5AA362PM	L5AA361PM	L5AA3S3PM	L5AA3S2PM	L5AA3S1PM	L5AA543PM	L5AA542PM	L5AA541PM	L5AA5S3PM	L5AA5S2PM	L5AA5S1PM
	230V	L5AE363PM	L5AE362PM	L5AE361PM	L5AE3S3PM	L5AE3S2PM	L5AE3S1PM	L5AE543PM	L5AE542PM	L5AE541PM	L5AE5S3PM	L5AE5S2PM	L5AE5S1PM

Software

- Administrative Software - **L5ADMIN**
- Administrative Software with Employee Badge Scanner - **L5ADMINSCAN**
- Employee Badge Scanner Only - **L5ASCAN**

Platforms available:

- 36" single bank roll cab, approximate capacity 450 tools
- 54" single bank roll cab, approximate capacity 750 tools

Features and Specifications

- 1 year electronics warranty
- Extended warranty available
- 110V/230V AC power required
- Unlimited number of assigned users
- Networking through Ethernet or wireless
- 1 copy of ATC software required for each administrator



LEVEL 5 NTC Tool Control System™

Key Level 5™ NTC Features

- Access by time, user and date
- How long the user was in the box
- Records unauthorized access attempts by date, time and user
- It records the date, time, and user who performed a physical or visual inventory with findings

Additional Level 5™ NTC features:

Power

- 12 V rechargeable battery for extended portability
- Battery level (fuel) gauge in LCD screen
- Messages alert users to recharge
- Indicates charging mode: plugged in, fast-charge or standby mode

Multi-Function Buttons

- Allow programming at the box
- View all settings, make changes
- View audit trails
- Record visual or physical inventories
- Add and delete users easily

Networking

- Networking allows easy system management from a central location LCD Screen
- Show date, time, user name, battery and system status

Level 5™ NTC is offered in eight base unit configurations built on Snap-on KRL Roll Cab platforms. Complete specifications and options are detailed in the following pages.

- Network-ready with your choice of Ethernet or wireless.
- Works with your existing badge system, HID or magnetic strip card
- Connects to other boxes with slave units to create customized workstations
- Easy-to-use wizard-driven software

Additional Features

- Programmable auto-relock time
- Auto-relock on box movement for safety
- Drawer ajar alarm
- Programmable alarm system
- System upgradeable to 802.11N
- Supports up to 999 active users per box

Technical Support

- Technical Support is provided through your Industrial Account Manager





LEVEL 5 NTC

Tool Control System™

Selection Guide

How to Order

Level 5™ NTC is offered in eight base unit configurations built on Snap-on KRL Roll Cab platforms.

For complete specifications, please see the full-line Snap-on Industrial Catalog.

Step 1. Determine the base unit requirement based on footprint, capacity and color from the chart.

Step 2. Choose your Level 5™ NTC access method, either HID proximity badge reader or magnetic strip card reader.

Step 3. Choose your networking connections, either Ethernet or wireless.

Step 4. Order 1 copy of Level 5™ NTC software per administrator (usually 1 copy per site).

Step 5. Choose the accessories that you need for your installation.

If you plan to add and connect tool chests, drawer sections and side cabinets to create networked workstations, contact your Snap-on Industrial Account Manager or Customer Service Center for information on slave modules and latches.

1		2					
Platform	Footprint	Drawer Banks	No. Drawers	Color	HID Prox Access	HID I Class Access	Mag Strip Access
	35-58" X 24"	1	7	Red	L5P756PBO	L5I756PBO	L5M756PBO
				Blue	L5P756PCM	L5I756PCM	L5M756PCM
				Black	L5P756PC	L5I756PC	L5M756PC
				Yellow	L5P756PES	L5I756PES	L5M756PES
				Arctic Silver	L5P756PKS	L5I756PKS	L5M756PKS
	35-58" X 29"	1	8	Red	L5P1056PBO	L5I1056PBO	L5M1056PBO
				Blue	L5P1056PCM	L5I1056PCM	L5M1056PCM
				Black	L5P1056PC	L5I1056PC	L5M1056PC
				Yellow	L5P1056PES	L5I1056PES	L5M1056PES
				Arctic Silver	L5P1056PKS	L5I1056PKS	L5M1056PKS
	54-1/4" X 24"	2	11	Red	L5P722PBO	L5I722PBO	L5M722PBO
				Blue	L5P722PCM	L5I722PCM	L5M722PCM
				Black	L5P722PC	L5I722PC	L5M722PC
				Yellow	L5P722PES	L5I722PES	L5M722PES
				Arctic Silver	L5P722PKS	L5I722PKS	L5M722PKS
	54-1/4" X 29"	2	13	Red	L5P1022PBO	L5I1022PBO	L5M1022PBO
				Blue	L5P1022PCM	L5I1022PCM	L5M1022PCM
				Black	L5P1022PC	L5I1022PC	L5M1022PC
				Yellow	L5P1022PES	L5I1022PES	L5M1022PES
				Arctic Silver	L5P1022PKS	L5I1022PKS	L5M1022PKS
	54-1/4" X 29"	2	16	Red	L5P1032PBO	L5I1032PBO	L5M1032PBO
				Blue	L5P1032PCM	L5I1032PCM	L5M1032PCM
				Black	L5P1032PC	L5I1032PC	L5M1032PC
				Yellow	L5P1032PES	L5I1032PES	L5M1032PES
				Arctic Silver	L5P1032PKS	L5I1032PKS	L5M1032PKS
	54-1/4" X 29"	2	11	Red	L5P7022PBO	L5I7022PBO	L5M7022PBO
				Blue	L5P7022PCM	L5I7022PCM	L5M7022PCM
				Black	L5P7022PC	L5I7022PC	L5M7022PC
				Yellow	L5P7022PES	L5I7022PES	L5M7022PES
				Arctic Silver	L5P7022PKS	L5I7022PKS	L5M7022PKS
	72-7/8" X 29"	3	22	Red	L5P1023PBO	L5I1023PBO	L5M1023PBO
				Blue	L5P1023PCM	L5I1023PCM	L5M1023PCM
				Black	L5P1023PC	L5I1023PC	L5M1023PC
				Yellow	L5P1023PES	L5I1023PES	L5M1023PES
				Arctic Silver	L5P1023PKS	L5I1023PKS	L5M1023PKS
	72-7/8" X 29"	3	19	Red	L5P7023PBO	L5I7023PBO	L5M7023PBO
				Blue	L5P7023PCM	L5I7023PCM	L5M7023PCM
				Black	L5P7023PC	L5I7023PC	L5M7023PC
				Yellow	L5P7023PES	L5I7023PES	L5M7023PES
				Arctic Silver	L5P7023PKS	L5I7023PKS	L5M7023PKS

3 Network Connection		
Wireless 802.11 Module	Wifi module with cable one required per box	L580211G
Ethernet Module, Cable	Module with cable one required per box	L5ETHERG3

4 NTC Software		
	One copy per administrator not one per box	L5LVSG3

5 Accessories		
Slave Unit Control	One required per top box or side cabinet	L5SUG3
HID Access Panel		L5PROXG3
HID I Class Access Panel		L5ICLG3
Mag Strip Access Panel		L5MSG3
Battery Box & Batteries	Battery box with batteries and cable	L5BPG3
Power Supply	Replacement power supply with cable	L5PSG3
Power Connector (back)		L5YPSG3
HID Retrofit Kit	Complete kit to retrofit a KRL bottom box with HID reader	L5PROXKITG3
Mag Strip Retrofit Kit	Complete kit to retrofit a KRL bottom box with magstrip reader	L5MAGSKITG3
Auxiliary Latch Module		L5SUAUXG3

To order contact your Industrial Account Manager or call the Snap-on Industrial Customer Service Center 1-877-740-1900

TOOL CONTROL SYSTEMS

Level 5™ TCMa[®]



SS2763

Level 5™ TCMa[®] is Tool Control Software that talks™, eliminating the need to repeatedly look at the computer screen between barcode scans. It is the fastest, most accurate way to check tools in and out. TCMa can communicate with the Snap-on® Keyless Entry System for the ultimate in positive tool control. Provides audible and visual verification of items and function. It's easy to use, smart and secure.

Stock Number	Description
SS2763	TCMa Demo Disc
L5CAP1	TCMa 1 seat maintenance agreement and updates for one year
L5CAP3	TCMa 3 seats maintenance agreement and updates for one year
L5CAP5	TCMa 5 seats maintenance agreement and updates for one year
L5CSL1P	TCMa 1 Seat License
L5CSL3P	TCMa 3 Seat License
L5CSL5P	TCMa 5 Seat License
L5CPP1	TCMa 1 Seat Mobile Pocket PC License
L5CPP3	TCMa 3 Seat Mobile Pocket PC License
L5CPP5	TCMa 5 Seat Mobile Pocket PC License



Contact your Snap-on Industrial Representative for more information, or call our Customer Service Center at (877) 740-1900



L5CHHP7600

The TCMa Mobile Pocket PC

Handle physical inventories quickly and simply. From anywhere in the plant or facility.

L5CHHP7600 with a built-in imager for both 1-D and 2-D barcodes. It talks to you just like TCMa on a PC. It's perfect for performing physical inventories of assets or for issuing and turning in items at a remote location.

Text DataMatrix Barcoding. Higher Security. Broader Flexibility.

Today's most advanced, most secure barcoding system. Up to nine characters of information encoded in small square or rectangular marks.

Identify, track and control every tool, instrument and piece of equipment in your inventory. The marks are permanent and can be placed and read on almost any metal or plastic surface – even curved surfaces.

There is no better way to protect and control your assets and your costs than DataMatrix Barcoding from Snap-on.

- Laser engraving application
- Encode both text and raw data
- Wear and tamper-proof
- Flat and curved surfaces
- Limit of 9 characters for laser marks

Tool Chits

Problem: FOD

Foreign Object Debris costs the aerospace industry millions of dollars each year in damage to equipment and personnel.

Solution: Tool Chits

A Personalized Tool Management System

- Tool Chits allow an immediate visual accounting for all tools in a drawer
- Tool Chits promote personal accountability
- Tool Chits are simple to implement and use
- Tool Chits reduce and minimize tool loss
- A Tool Chit program is easy to tie into an existing system
- Custom Tool Chits are available with sequential numbers, employee photos, and your logo



Ordering Tool Chits Is easy!

1. Send your logo in jpg or bmp format.
2. Send photos in jpg or bmp format with unique file names.
3. Send data for text in an Excel, Access, or comma-delimited ASCII format.

For more information contact your Snap-on Industrial representative.

Stock Number	Description	Pack Quantity
L5C019BT10	Tool Chit Broken Tool	10
L5C019CC10	Tool Chit Cal-Cert	10
L5C019NT10	Tool Chit No Tool	10
L5C019 TR10	Tool Chit Tool Repair	10
L5C019TT45	Tempoary Tool Chits	45



L5CTLP3844Z

L5CTSP743U



L5CPWRSCN

L5CHHP4620

Label & Receipt Printers

L5CLBLPRT38 Easy to install and set up. Label cost is about 25 cents per label to the end user. It makes a plastic label that sticks well and is easy to read. Switching label material size is easy. We include 5 rolls of industrial grade white 3/8" tape; will give the user about 500 labels. Use this printer to print individual replacement labels or labels in small quantities. Appearance may vary.

To print 1/2" wide labels, order **L5CLBLPRT12** printer. Includes 5 rolls of 1/2" industrial grade label tape.

L5CTZS221 3/8" Label Tape Roll

L5CTZS231 1/2" Label Tape Roll

L5CTLP3844Z Prints on tamper proof label material that is very difficult to pick off anything. With other labels, once the label starts to peel off, the rest of the label soon follows. This label will only chip and will not peel off. Label costs are rather low, 4 cents per label, and the 3/8" x 1 1/2" label is utilized by pocket badges.

L5CZDESTR Replacement Tape for L5TCP3844Z.

L5CWP0517 Polyester label material for your laser printer, 1/2" x 1 3/4", 80 labels per sheet, 50 sheets/pack.

L5CTSP743U Thermal receipt printer with USB interface, 208 dpi. Barcodes on the receipts expedite the turn-in process at a busy tool crib and can be used on the job to show what tools you should have at this time.

L5CWP3R8 Polyester label material 8 1/2" x 11", 135 labels per sheet, 10 sheets/pack.

Signature Pad

L5CSIGPAD Required to support electronic capture of signature, provide proof of delivery and return by a specified individual.

Level 5 Box Adaptor

L5CADA RS232 adaptor box, cable and USB to RS232 adaptor to connect Level 5 Tool Box to a PC and TCMa^x for Level 5™ Gen 3 boxes only.

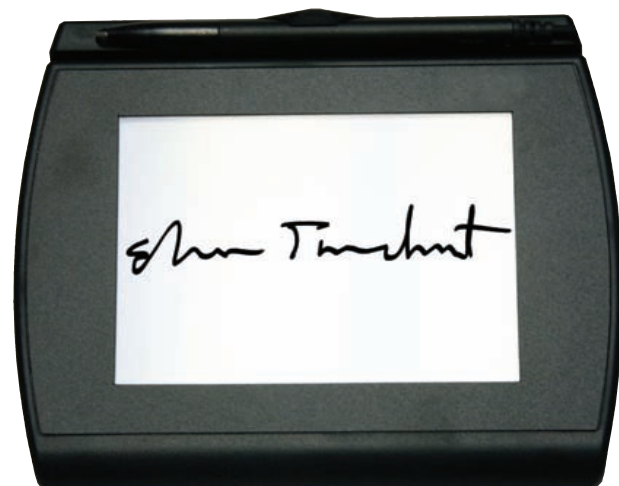
Barcode Scanners

L5CPWRSCN is a wireless barcode scanner, with a keypad on the top and is our most popular scanner. It does NOT do 2-D PDF417 or DataMatrix barcodes, but it is great for all 1-D applications. Keypad on the top allows you to easily enter quantities of items without having to return to the computer keyboard.

L5CLS2208 has a six foot USB cable that plugs into the PC or laptop. Works best when all items to be scanned are within 5 feet of the PC.

L5CHHP4620 is a wireless 2-D scanner that can read all linear barcodes plus 2-D barcodes like PDF417 and DataMatrix, but NOT on laser engraved chrome plated tools. Great for 2-D labels but does not have a keypad. Also available is the **L5C4600SF** which has a 6 foot USB cable (not wireless).

L5CHHP46LEN can read a DataMatrix laser engraved barcode on a chrome plated tool! This special modification is available on this scanner with a 6 foot USB cord and on the Pocket PC. Requires that tools be laser engraved with a DataMatrix barcode, with our specifications.



L5CSIGPAD



WARNING



• Read safety precautions on pages 586 to 589

TOOL STORAGE SYSTEMS

Drawer Control



Safety At Your Fingertips.

Snap-on® Drawer Control is an interlocking mechanism that prevents you from opening more than one drawer at a time in each drawer bank. This valuable safety feature helps prevent fully loaded roll cabs from tipping over.

Drawer Control is available for all Snap-on Masters Series products. Call your Snap-on Industrial sales representative for additional information.

How It Works

What makes Drawer Control work? A special interlocking mechanism connects all drawer slides within a given drawer bank. When one drawer is opened the interlocking shaft locks all the other drawer slides in the drawer bank, preventing them from opening. When all drawers are closed, the special interlocking mechanism releases all the drawer slides, allowing you to open any single drawer in the drawer bank. Smart AND safe.

When all drawers are closed the special interlocking mechanism releases the drawer slides, allowing you to open any single drawer in the drawer bank.



When one drawer is opened the special interlocking mechanism connects the remaining drawer slides, preventing them from opening.



Easy To Order.

STANDARD UNITS with One-Drawer-at-a-Time Feature

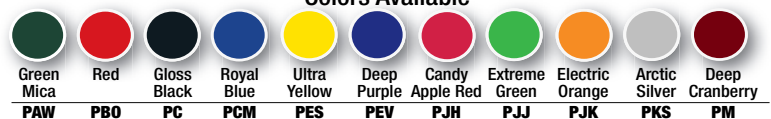
Other boxes and colors available through Industrial Customer Service Center.

Drawer Control helps ensure a safer work environment.

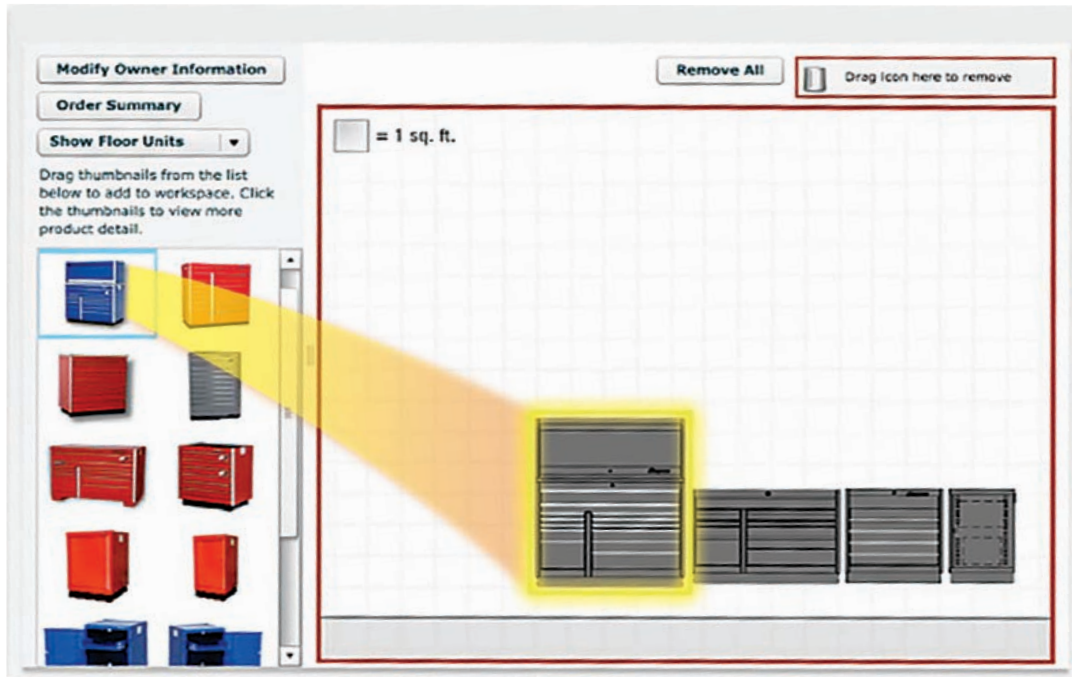
You can order this feature on all new Snap-on Masters series roll cabs and top chests. To order Drawer Control, simply contact our Industrial Customer Service Center (ICSC).

Drawer Control Stock Number	Base Unit
KRDC711	KRL711A
KRDC722	KRL722B
KRDC751	KRL751
KRDC756	KRL756B
KRDC1011	KRL1011A
KRDC1022	KRL1022B
KRDC1023	KRL1023B
KRDC1056	KRL1056C
KRDC1203	KRL1203B
KRDC1251	KRL1251
KRDC7022	KRL7022B
KRDC7023	KRL7023B

Colors Available



See pages 314 - 333 for the complete selection and specifications for Snap-on Master Series tool storage



Contact your Snap-on Industrial Representative for more information, or call our Customer Service Center at (877) 740-1900.

Custom Solutions

Our new interactive website is a powerful tool that can help you build your own custom installation quickly and easily – right from your own computer. And the possibilities are virtually unlimited.

Simply choose components based on capacity and functionality. You can create different configurations, with the options and floor plans, compare capacities, and arrive at your own perfectly matched Snap-on Industrial Stationary Storage System.

Create a custom workspace based on your needs. Just "Drag And Drop." Easy user interface lets you select specific products with a single mouse click. Evaluate product specifications and then drag the product image onto your workspace. The right system – fast and efficiently.

Getting It Right The First Time

Your Snap-on Industrial Solutioneer is an incredible resource. And the best time to bring him in is during the earliest planning. It's our way of ensuring that the custom solution matches your needs. Perfectly.

Interactive Website

Just "Drag And Drop." Easy user interface lets you select specific products with a single mouse click. Evaluate product specifications and then drag the product image onto your workspace.

For details, visit: www.snapon.com/buildabay



WARNING



• Read safety precautions on pages 586 to 589

TOOL STORAGE SYSTEMS

Build-a-Bay™

A complete selection of base cabinets for complete design flexibility. Choose from single, double and triple bank configurations. All base units come standard with bottom skids for forklift access and 4" flat black kick plates. Best of all, everything, from top to bottom, is Snap-on.



Double Bank KRS1032
Width: 72.87"
Height: 40.00"
Depth: 29.09"
Case height: 37.31"



Single Bank KRS1501
Width: 35.68"
Height: 54.60"
Depth: 29.09"
Case height: 50.67"



Double Bank KRS1502
Width: 54.28"
Height: 54.60"
Depth: 29.09"
Case height: 50.67"



Single Bank KRS756
Width: 35.68"
Height: 36.82"
Depth: 24.09"
Case height: 32.89"



Double Bank Work Center KRS1022WC
Width: 54.28"
Height: 64.00"
Depth: 29.09"
Case height: 37.31"



Double Bank KRS7022
Width: 54.28"
Height: 36.82"
Depth: 29.09"
Case height: 32.89"



Triple Bank KRS1023
Width: 72.87"
Height: 40.00"
Depth: 29.09"
Case height: 37.31"



Double Bank KRS1022
Width: 54.28"
Height: 40.00"
Depth: 29.09"
Case height: 37.31"



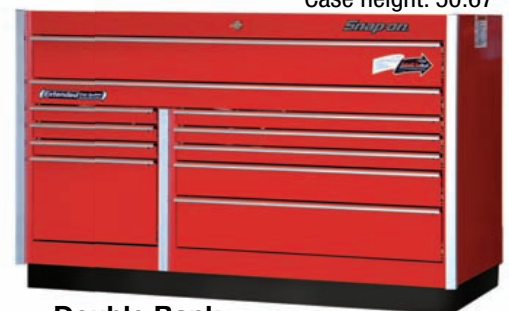
Single Bank KRS1502W
Width: 54.28"
Height: 54.60"
Depth: 29.09"
Case height: 50.67"



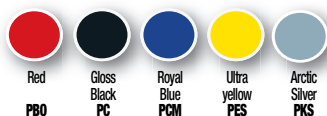
Triple Bank KRS7023
Width: 72.87"
Height: 36.82"
Depth: 29.09"
Case height: 32.89"



Single Bank KRS1056
Width: 35.68"
Height: 40.00"
Depth: 29.09"
Case height: 37.31"



Double Bank KRS722
Width: 54.28"
Height: 36.82"
Depth: 24.09"
Case height: 32.89"



TOOL STORAGE SYSTEMS

Build-a-Bay™

Have a special need? Snap-on has the answer. For example, our innovative Docker Locker™ allows technicians to bring their tools to the job and secure them overnight. Our under-bench cart port provides safe, easy overnight tool storage for your technicians.

24" Wall Mounted Overhead KRS 2416

(not shown)
Width: 24.00"
Height: 19.70"
Depth: 18.00"

36" Wall Mounted Overhead KRS3616

(not shown)
Width: 36.00"

48" Wall Mounted Overhead KRS4816

(above left)
Width: 48.00"

Docker Locker for KRS 1500 Series KRS1518

(not shown)
Width: 24.00"
Height: 54.60"
Depth: 29.09"
Case height: 50.67"

For KRS 700 and 7000 Series KRS7018

(not shown)
Width: 24.00"
Height: 57.90"
Depth: 29.09"
Case height: 57.89"

For KRS 1000 Series KRS1018

(shown left)
Width: 24.00"
Height: 63.375"
Depth: 29.09"
Case height: 62.375"



18" Bulk Storage KRS1815

(not shown)
Width: 18.00"
Height: 36.82"
Depth: 24.00"
Case height: 32.89"

24" Computer Cabinet KRS2413L

Left Hand Door
Width: 24.00"
Height: 36.82"
Depth: 24.00"
Case height: 32.89"

KRS2413R

(not shown)
Right Hand Door



All docker lockers include tool cart KR7088A

24" Bulk Storage KRS2415

(above)
Width: 24.00"

48" Bulk Storage w/2 Doors KRS4815

(not shown)
Width: 48.00"

72" Bulk Storage w/4 Doors KRS7215

(below)
Width: 73.50"



Under Bench Cart Port KRS2417

(left)
Width: 24.00"
Height: 36.82"
Depth: 29.09"
Case height: 32.89"
(Shown with KRS 2415 Bulk Storage, can also be used with 700 and 7000 series tool storage units).

In Ground Challenger Lift Controls KRS1214CC

(left)
Width: 12.00"
Height: 36.82"
Depth: 24.00"
Case height: 32.89"

In Ground Rotary Lift Controls KRS1214BR

(not shown)
Width: 12.00"
Height: 36.82"
Depth: 24.00"
Case height: 32.89"



WARNING



• Read safety precautions on pages 586 to 589

N049

FOD PREVENTION

Flight Line Roll Cabinets



Designed to Reduce Potential Sources of FOD

- Laser-cut logo eliminates nameplates and decals
- 14 ga. base pan helps seal bottom of cabinet to reduce possibility of objects falling out, and provides lifting point for forklift truck
- T-bar easily allows drawers to be locked for movement without using a key, eliminating another potential FOD source
- Stainless steel cap has no wood core and wraps around all four sides of the boxes to keep the elements and debris out
- Phantom Casters are “Kingpinless”, FOD free, rated at 600 lb capacity, and whisper quiet

Exclusive FOD free “Kingpinless” caster design

- Wheel is solid rubber for maximum shock absorption
- Can be used to retrofit KRL756, KRL722, KRL1056, KGV756, KGV722, and all Classic and Heritage series boxes:



- Swivel caster: 8-21839A
- Fixed caster: 8-21939A

Drawer Configurations

Drawer Depth (number each)	KGVFL756	KGVFL758
2"	0	3
4"	4	2
8"	1	0
10"	0	1
TOTAL	5	6

- Easier to roll over long distances and hangar tracks
- All surfaces are powder-coated inside and out for maximum corrosion resistance
- Double-wall construction and precision welding for rugged durability
- Piano hinge lock bar for security
- Flat finish reduces glare in harsh lighting
- All colors come standard with black trim
- Available in six colors and two standard configurations — 5-drawer and 6-drawer, with 8” or 10” deep bottom drawer
- Available in Snap-on Red (PND), Ultra Yellow (PBU), Olive Drab (PHG), Matte Black (POT), Putty (POS), and Texture Grey (PHY)
- Made in the U.S.A.



Overall Dimensions

- Width: 35-5/8"
- Height: 40"
- Depth: 24"
- Weight: 415 lbs.
- 16,368 cubic inches
- 3,410 square inches

Available Colors

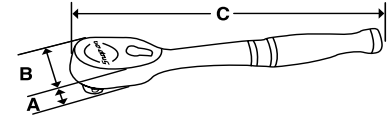
Color	5-DRAWER	6-DRAWER
Snap-on Red	KGVFL756CPND	KGVFL758PND
Ultra Yellow	KGVFL756CPBU	KGVFL758PBU
Olive Drab	KGVFL756CPHG	KGVFL758PHG
Matte Black	KGVFL756CPOT	KGVFL758POT
Desert Tan	KGVFL756CPOS	KGVFL758POS
Texture Gray	KGVFL756CPHY	KGVFL758PHY



F936FOD



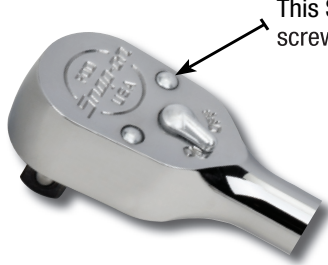
S936FOD



FOD (Foreign Object Damage) Ratchets

- Designed to help prevent foreign object damage in sensitive work environments
- Coverplate and reverse lever permanently affixed to ratchet head with rivets to prevent chance of small parts debris

Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
T936FOD	1/4	Standard Handle	36	10°	3/8	1 7/32	4 7/16	—
F936FOD	3/8	Standard Handle	36	10°	5/8	1 3/16	7 7/16	—
S936FOD	1/2	Standard Handle	36	10°	3/4	1 5/8	17 5/8	—



This Snap-on Industrial FOD ratchet features rivets instead of screws for maximum FOD and FME program conformance.



No one offers more FOD and FME solutions than Snap-on Industrial!

FOD (Foreign Object Damage) Tape Measure

TPMA12FP

- Recessed rivets for FOD prevention
- Clasp on rear of case for use with universal tether



FOD (Foreign Object Damage) Mirror

This telescoping mirror was designed in conjunction with a major aircraft manufacturer. The extension shaft has been modified to reduce the chance of the sections pulling apart. This substantially reduces the likelihood of breakage and, ultimately, FOD.

- 2-1/4" diameter mirror
- 6-1/2" long collapsed
- 35" maximum extended length



UIM225HD



WARNING



• Read safety precautions on pages 586 to 589

FOD PREVENTION

Aeroprobe® & Stark Kit

Aeroprobe® Electronic Tool Detection System

Aeroprobe can be easily integrated into your present aircraft technician safety program to minimize aircraft downtime and danger of foreign object damage from misplaced tools. As a supplement to visual inspection, the Aeroprobe is a completely portable self-contained system for locating misplaced tools in and around aircraft.

- Save lives by preventing accidents
- Save man-hours searching for misplaced tools
- Reduce aircraft downtime
- Prevent tear downs
- Prevent damage to aircraft



Activator

Simply pass your existing tools over the activator and they are magnetically sensitized.

Validator

The Validator is used to verify that a tool has sufficient sensitivity for detection.

Detector & Probe Assembly

The portable detector pinpoints the location of misplaced tools and is powered by regular or rechargeable batteries. Small enough to fit into confined areas, yet provides wide area scanning capability.

Head Set

A headset is used to receive audio signals from the detector indicating the presence of a sensitized tool.

STARK Search Tool And Recovery Kit

The exclusive Snap-on® Industrial STARK contains what you need to find and recover misplaced tools. The kit begins with Aeroprobe Detection components and adds the most commonly used items for searching out and removing any misplaced tools.

Includes the BK5500 Digital Imaging Video Inspection Scope for maximum versatility. See page 403 for full details on the BK5500 and for additional accessories. The STARK kit comes ready to travel, packed in a Pelican Storm® case with custom fitted Tool Control Foam inserts.

Aeroprobe Kit Contents

Stock Number	Description	L5DAK-1 Activation Kit	L5DDK-1 Detection Kit	L5DAVI-I-II Aeroprobe Tool Detection & Recovery System	STRK01 STARK Kit
L5DAC-2	Aeroprobe Activator	•		•	
L5DVL-1	Aeroprobe Validator	•		•	
L5DDT-3	Aeroprobe Detector		•	•	•
L5DHS-1	Aeroprobe Head Set		•	•	•
L5DPR-2	Aeroprobe Probe Assembly		•	•	•
L5DBH-1	Aeroprobe Belt Carrying Harness		•	•	•
L5DSC-3	Aeroprobe High Impact Case	•	•	•	•
BK5500	Snap On Video Inspection Scope				•
BK5500-7	8.5 mm 72 in. Straight View Image				•
DPTC24	24" Four-Claw Flexible Pick-Up Tool				•
DPTM24	24" Flexible Shaft Magnetic Pick-Up Tool				•
ECF1600	16" Light, Bendable w/ 10" Flexible Shaft				•
ECF975A	5.8 Watt 95 Lumen Flashlite				•
GA294	2 1/8" X 3 1/2" Mirror w/ 15" Shaft				•
GA295	2-1/4" Round Mirror w/ 14" Shaft				•
HIM272000000	Pelican Storm Case				•
VF110561	FOD Foam Tool Control Inserts				•

Aeroprobe Tool Detection & Recovery System: L5DAVI-I-II

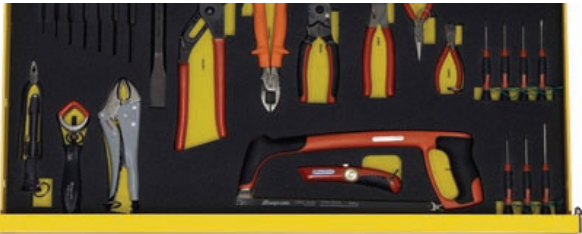
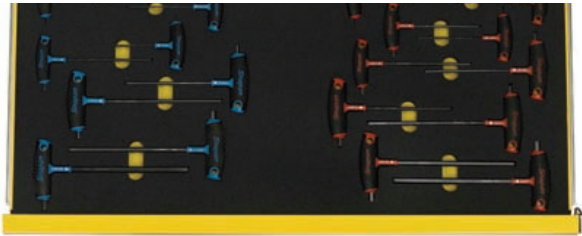
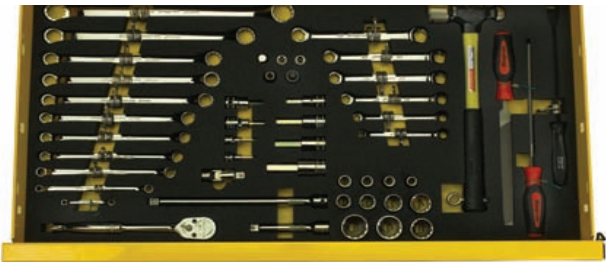


Snap-on
LEVEL 5
Tool Control System™
Contact Your Snap-on Industrial sales representative for complete details and ordering information.



THKITUS500 General Purpose Tethered Tool Maintenance Set

THKITUS500 includes Snap-on Industrial's most popular Tethered Tools for the offshore oil extraction industry. It consists of a rugged Snap-on KRA4107 seven-drawer roll cab complete with high-density foam drawer inserts pre-cut to fit the 180 tools included in the set. Six drawers are fitted with foam as pictured above, and there is a spare drawer for storage of other miscellaneous tools not included with the set. Both SAE and metric tools are included, as well as lanyards, and wrist straps.



Set Contents are subject to change. Complete set contents can be viewed at www.snapon.com/industrial/sets.html

- Any tool that weighs more than 5 pounds should be attached to an anchor point such as a work platform or utility bucket rather than the operator. Tool weights are available in the Snap-on Industrial printed price list.
- Read safety precautions on pages 586 to 589



TETHERED TOOLS

Lanyards

Snap-on® industrial's Level 5™ TAH retention system increases safety and productivity wherever tools are used. Attaching tools to a lanyard or tether can keep them from falling when used in high places, can help prevent foreign material, and can reduce loss of valuable tools in environments like ocean platforms. Snap-on tethers can be used on a wide range of hand tools and cordless power tools. Lanyards can be attached to wrist, belt, harness or other location based on usage and weight. Be sure to use a lanyard with capacity that exceeds the weight of the tool you are attaching because drop forces are often greater than the actual tool weight.



Snap-on stainless steel carabiner with screwlocking connector

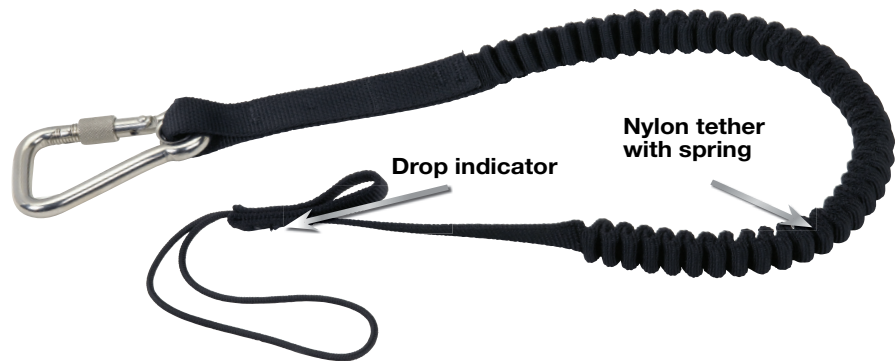


Competitive aluminum carabiner



All Retention Systems Are Not Created Equal

Snap-on Industrial uses a stainless steel, screw-locking carabiner connector while many competitors use aluminum connectors that are not load rated. Snap-on also gives you a nylon tether that has a spring inside to absorb the shock of a dropped tool and built in drop indicator. Lanyards that have been involved in a drop should be replaced. The drop indicator identifies that for you.



Tethers, Lanyards, and Carabiners

Stock Number	Size / Description	Extension Length	Capacity
THCARA15	3/4" Super Coil Personal Duty Tether w/ 2 SST Carabiners	42"	15#
THCARA25 **	1" Super Coil Anchor Nylon Tether w/ 2 SST Carabiners	10'	25#
TCL1	Snap-Hook Tether for Attachment to Safety Coils, Key Rings, or Cable Loops	12"	5#
TCL2	Universal Tether with One Snap Hook and One Adjustable Loop	12"	5#
TCWS1	Adjustable Wrist Strap with Velcro Closure & D-Ring	—	—
THUNI12 **	1" Super Coil Anchor Tool Tether w/1 SST Carabiner & 1 Fixed Loop	10'	12#
THUNI15	3/4" Super Coil Personal Duty Tether w/1 SST Carabiner & 1 Fixed Loop	46"	15#
THUNI6	3/4" Super Coil Personal Duty Tether w/1 SST Carabiner & 1 Fixed Loop	46"	6#
THUNIRET16OZ	Personal Duty Retractable Tether w/ Universal Attachment	36"	16 oz.
THUNIRET32OZ	Personal Duty Retractable Tether w/ Universal Attachment	42"	32 oz.
THWSRET1	Personal Duty Retractable Tether w/ Universal Attachment and Wrist Strap	36"	16 oz.
THTOOLPOUCH	Tool Pouch with Attachment Points	—	—

** Note: 1" Super Coils are designed to be attached to an anchor point such as a utility bucket or work platform. Due to length and capacity we do not recommend attaching these to an individual.

WARNING: Any tool that weighs more than 5 pounds should be attached to an anchor point such as a work platform or utility bucket rather than the operator. Tool weights are available in the Snap-on Industrial price list.

Cordless Impact Wrenches

Tetherable Heavy Duty Cordless Impact Wrenches

- Complete program of 14.4v and 18v Impact Wrenches
- Tools include heavy duty steel bracket secured at (4) points and stainless steel carabiner with screw link for high security and corrosion free use
- Carabiner allows tools to be quickly secured or released to a tether, hand line or tool belt when climbing
- Retrofit Tools at Height System kits available for 14.4v (CT4410 / CT4450 series) and 18v (CT4850 / CT6850 / CT6855 series) Impact Wrenches



	Stock Number	Description	Voltage	Battery Type	Drive Size	Socket Retention	Battery Qty Included	Charger Type
14.4v Compact Cordless Impact Wrenches with TAH System	THCT4410A	14.4v 3/8" Friction Ring Impact Wrench Kit w/ TAH System	14.4v	2.5 Amp Hr Ni-Cad	3/8"	Friction Ring	2	120 VAC
	THCT4410AP	14.4v 3/8" Pinned Anvil Impact Wrench Kit w/ TAH System			3/8"	Pin		
	THCT4450A	14.4v 1/2" Friction Ring Impact Wrench Kit w/ TAH System			1/2"	Friction Ring		
	THCT4450AP	14.4v 1/2" Pinned Anvil Impact Wrench Kit w/ TAH System			1/2"	Pin		
	THCT4410AQC	14.4v 1/4" QC Chuck Impact Driver Kit w/ TAH System			1/4" Hex	Quick Change		
18v High Torque Cordless Impact Wrenches with TAH System	THCT6850	18v 1/2" Friction Ring Impact Wrench Kit w/ TAH System	18v	2.5 Amp Hr Ni-Cad	1/2"	Friction Ring	2	120 VAC
	THCT6850P	18v 1/2" Pinned Anvil Impact Wrench Kit w/ TAH System			1/2"	Pin		
	THCT6850QC	18v 7/16" QC Chuck Impact Driver Kit w/ TAH System			7/16" Hex	Quick Change		
	THCT6850M	18v 1/2" Friction Ring Impact Wrench Mobile Kit w/ TAH System			1/2"	Friction Ring		
	THCT6850PM	18v 1/2" Pinned Anvil Impact Wrench Mobile Kit w/ TAH System			1/2"	Pin		
	THCT6850QCM	18v 7/16" QC Chuck Impact Driver Mobile Kit w/ TAH System	7/16" Hex	Quick Change	1	120 VAC		
	THCT6855	18v Li-Ion 1/2" Friction Ring Impact Wrench Kit w/ TAH System	1/2"	Friction Ring				
	THCT6855P	18v Li-Ion 1/2" Pinned Anvil Impact Wrench Kit w/ TAH System	1/2"	Pin				
	THCT6855QC	18v Li-Ion 7/16" QC Chuck Impact Driver Kit w/ TAH System	7/16" Hex	Quick Change				
	THCT6855M	18v Li-Ion 1/2" Friction Ring Impact Wrench Mobile Kit w/ TAH System	1/2"	Friction Ring				
THCT6855PM	18v Li-Ion 1/2" Pinned Anvil Impact Wrench Mobile Kit w/ TAH System	1/2"	Pin	12v Mobile Charger				
THCT6855QCM	18v Li-Ion 7/16" QC Chuck Impact Driver Mobile Kit w/ TAH System	7/16" Hex	Quick Change					

See pages 251 to 259 for the complete assortment of Snap-on Cordless Tools

Tools at Height System Retro Fit Kits

- Includes everything needed to quickly and easily convert existing Snap-on cordless tools to the TAH Retention System

TH14VKIT	Tools at Height System Retro Fit Kit for 14.4v Compact Impact Wrenches Fits CT4410 / CT4450 Series Impact Wrenches - (Incl. Bracket, Caribiner & T20 Torx Bit)
TH18VKIT	Tools at Height System Retro Kit for 18v High Torque Impact Wrenches Fits CT4850 / CT6850 / CT6855 Series Impact Wrenches - (Incl. Bracket, Caribiner & T20 Torx Bit)



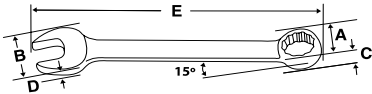
Be sure to use a lanyard that has more weight capacity than the tool you are attaching because drop forces are greater than actual tool weight.

- Any tool that weighs more than 5 pounds should be attached to an anchor point such as a work platform or utility bucket rather than the operator. Tool weights are available in the Snap-on Industrial printed price list.
- Read safety precautions on pages 586 to 589



TETHERED TOOLS

Wrenches



Standard Length, mm, Combination

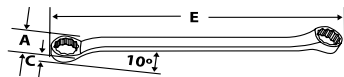
mm	12	A	B	C	D	E
8	THOEXM80B	13	17	6	4	146
9	THOEXM90B	14	19	6	5	159
10	THOEXM100B	15	21	7	5	171
11	THOEXM110B	17	23	8	6	184
12	THOEXM120B	18	25	8	6	195
13	THOEXM130B	20	27	9	6	207
14	THOEXM140B	21	29	9	7	219
15	THOEXM150B	22	31	10	7	231
16	THOEXM160B	24	33	10	7	242
17	THOEXM170B	25	35	11	8	255
18	THOEXM180B	27	37	12	8	267
19	THOEXM190B	28	39	12	9	279
20	THOEXM200B	30	41	13	9	292
21	THOEXM210B	31	43	13	9	304
22	THOEXM220B	33	46	14	10	318
23	THOEXM230B	34	47	14	10	327
24	THOEXM240B	35	49	15	11	337
25	THOEXM250B	37	52	16	11	356
26	THOEXM260B	38	53	16	11	363
27	THOEXM270B	39	55	17	12	375
29	THOEXM290B	42	58	18	12	394
30	THOEXM300B	44	61	19	13	413
32	THOEXM320B	46	65	19	14	432
34	THOEXM340B	48	68	19	14	452
36	THOEXM360B	53	74	22	15	489

ASME/ANSI B107.100

Standard Length, inches, Combination

11	12	A	B	C	D	E
1/4	THOEX8B	13/32	17/32	3/16	5/32	5
5/16	THOEX10B	1/2	21/32	7/32	5/32	5 3/4
11/32	THOEX11B	17/32	3/4	1/4	3/16	6 1/8
3/8	THOEX12B	19/32	13/16	5/16	3/16	6 1/2
7/16	THOEX14B	21/32	29/32	5/16	7/32	7 1/4
1/2	THOEX16B	3/4	11/16	11/32	1/4	8
9/16	THOEX18B	27/32	13/16	3/8	9/32	8 3/4
5/8	THOEX20B	15/16	1 5/16	13/32	9/32	9 1/2
11/16	THOEX22B	1 1/32	1 13/32	7/16	5/16	10 1/4
3/4	THOEX24B	1 1/8	1 9/16	15/32	11/32	11
13/16	THOEX26B	1 3/16	1 21/32	17/32	3/8	11 3/4
7/8	THOEX28B	1 9/32	1 13/16	9/16	3/8	12 1/2
15/16	THOEX30B	1 3/8	1 29/32	19/32	13/32	13 1/4
1	THOEX32B	1 15/32	2 1/32	21/32	7/16	14
1 1/16	THOEX34B	1 9/16	2 3/16	11/16	15/32	14 3/4
1 1/8	THOEX36B	1 5/8	2 5/16	11/16	17/32	15 7/16
1 3/16	THOEX38B	1 3/4	2 7/16	3/4	1/2	16 5/16
1 1/4	THOEX40B	1 13/16	2 9/16	3/4	17/32	17 1/16
1 5/16	THOEX42B	1 29/32	2 21/32	3/4	9/16	17 13/16
1 3/8	THOEX44B	2	2 13/16	3/4	19/32	18 9/16
1 7/16	THOEX46B	2 1/16	2 29/32	7/8	19/32	19 1/32
1 1/2	THOEX48B	2 5/32	3 1/16	7/8	5/8	20 1/16
1 9/16	THOEX50B	2 1/4	3 3/16	7/8	23/32	20 13/16
1 5/8	THOEX52B	2 11/32	3 11/32	7/8	11/16	21 9/16

Flank Drive® Double Box



Standard Length, 10° Offset, mm

mm	12	A	C	E
8 - 10	THXBM810A	12.3 - 15	6.7 - 7.7	185
11 - 13	THXBM1113A	16.4 - 19.1	8.3 - 9.3	219
12 - 14	THXBM1214A	17.7 - 20.4	8.8 - 9.7	230
13 - 15	THXBM1315A	19.1 - 21.8	9.3 - 10.2	241
14 - 17	THXBM1417A	20.4 - 24.5	9.8 - 11.4	248
16 - 18	THXBM1618A	23.1 - 25.9	10.9 - 11.9	275
17 - 19	THXBM1719A	24.5 - 27.2	11.4 - 12.3	286
18 - 21	THXBM1821A	25.9 - 29.9	11.9 - 13.3	303
22 - 24	THXBM2224A	31.3 - 34	13.7 - 14.7	342
27 - 30	THXBM2730A	38.1 - 42.2	16 - 17.3	404

Midget, 10° Offset, inches

11	12	A	C	E
1/4 - 9/32	THXID1618A	13/32 - 7/16	5/32 - 3/16	3 13/32
5/16 - 11/32	THXID2022A	15/32 - 1/2	3/16 - 7/32	3 31/32

ASME/ANSI B107.6-1994

Short Handle, 10° Offset, mm

mm	12	A	B	C
6 - 7	THXSM67A	9.6 - 10.9	5.7 - 6.2	86

Standard Length, 10° Offset, inches

11	12	A	C	E
3/8 - 7/16	THXB1214A	9/16 - 21/32	5/16 - 11/32	7 19/32
1/2 - 9/16	THXB1618A	3/4 - 13/16	11/32 - 3/8	8 11/16
5/8 - 11/16	THXB2022A	29/32 - 1	7/16 - 15/32	10 5/32
3/4 - 13/16	THXB2426A	1 1/16 - 1 5/32	1/2 - 17/32	11 21/32
7/8 - 15/16	THXB2830A	1 1/4 - 1 11/32	17/32 - 9/16	13 1/8
1 - 1 1/16	THXB3234A	1 13/32 - 1 1/2	19/32 - 5/8	14 19/32
1 1/4 - 1 5/16	THXB4042A	1 3/4 - 1 27/32	23/32 - 3/4	17 19/32

Flare Nut Double End, mm

mm	6	A	C	E
9 - 11	THRXFMS911B	18 - 21	7 - 8	145
10 - 12	THRXFMS1012B	20 - 22	8 - 9	153
13 - 14	THRXFMS1314B	24 - 25	9 - 10	173
15 - 17	THRXFMS1517B	26 - 29	10 - 11	193
16 - 18	THRXFMS1618B	28 - 30	11 - 12	200
19 - 21	THRXFMS1921B	32 - 34	12 - 13	223

Tethered Pliers & Cutters

Stock Number	Description / Style	Overall Length (inches)	Jaw Opening / Capacity	Jaw Length (inches)	Jaw Positions
TH388CF	High Leverage PowerEdge™ Cutter	8 5/16	-	1 1/16	-
TH85BCP	Diagonal Cutter	5	-	9/16	-
TH95BCP	Needle Nose Pliers	6	-	1 11/16	-
THAWP120	Tongue and Groove Adjustable Joint Pliers	12 3/4	2 3/16	-	7
THLP10WR	LP Series Locking Pliers	10	2 7/16	-	-
THPWCS9	Wire Stripper/Cutter/Crimper/Bolt Cutter	8 3/4	"AWG20 - AWG10 - Stranded Wire AWG16 - AWG8 - Solid Wire"	-	-
THWTR1A	Reversible Wire Twister	8 3/4	0.041	-	-

Tethered Pipe Wrenches

Stock Number	Description / Style	Overall Length (inches)	Jaw Opening / Capacity
THPW10C	Cast Iron Pipe Wrench	10	1 1/2
THPWA24A	Aluminum Pipe Wrench	24	3

Tethered Hammers

Stock Number	Description / Style	Weight (lbs)	Overall Length (inches)	Face Diameter (inches)
THBPN32B	Fiberglass Handle Ball-Pien Hammer	2	16	-
THBC110B	Dead Blow Sledge Hammer	8	30	2 3/4
THBD6ESG	Heavy-Duty Fiberglass Handle Sledge Hammer	6	18	1 5/8
THBD10ESG	Heavy-Duty Fiberglass Handle Sledge Hammer	10	32	2



TH85BCP

Tethered Scrapers

Stock Number	Description / Style	Overall Length (inches)	Blade Width (inches)
THCSA8C	Rigid Carbon Scraper	7 5/8	7/8
THCSA12C	Rigid Carbon Scraper	12 7/8	1
THCSA14C	Rigid Carbon Scraper	14	1 1/2

Miscellaneous Tethered Tools

Stock Number	Description / Style	Overall Length (inches)
THHSG319	12" Bi-Mold Handle Hacksaw	14 3/4
THNPB124B	Claw-Type Wrecking Bar (3/4" Stock)	24
THPPC5A	Punch & Chisel Holder	6 15/16
THUTK100	Retractable Blade Quick Change Utility Knife	5
THYA728A	6000 PSI Lever-Type Grease Gun W/18" Hose	-



TH388CF (shown with lanyard, not included)

- The mission of the Snap-on Industrial Level 5™ TAH Tool Retention System is to deliver the best possible solution for Safety, FOD, and FME problems. We address the issues, but don't compromise the functionality of the tools.
- Snap-on® FOD-compliant and Retention System tools are delivered ready-to-use.
- We offer a wide selection of hand and power tools that are ready to tether, and the lanyards and carabiners required to safely attach them to a fixture (tools over five pounds) or operator (tools under five pounds).
- All Snap-on TAH ratchets and accessories feature a pin which mates with the socket hole for positive retention.

- Any tool that weighs more than 5 pounds should be attached to an anchor point such as a work platform or utility bucket rather than the operator. Tool weights are available in the Snap-on Industrial printed price list.
- Read safety precautions on pages 586 to 589

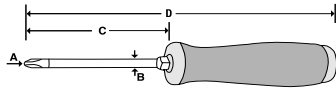


WARNING



TETHERED & RETENTION SYSTEM TOOLS

Screwdrivers, Torque Wrenches, and Miscellaneous



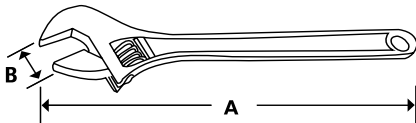
THSHDP31IRR

Tethered Hard Handle Instinct™ Screwdrivers

	Stock Number	A	B	C	D
Flat Tip	THSHD2R	.035	7/32	2 13/16	6-15/16
	THSHD4R	.040	1/4	3 15/16	8 27/32
	THSHD6R	.050	5/16	5 15/16	10 27/32
	THSHD8R	.055	3/8	7 29/32	13 13/32
Phillips	THSHDP31IRR	#1	3/16	2 31/32	7 1/8
	THSHDP42IRR	#2	1/4	3 31/32	8 7/8
	THSHDP63IRR	#3	5/16	5 29/32	10 13/16
	THSHDP64IRR	#4	3/8	6	11 1/2

Tethered Adjustable Wrenches

Stock Number	A Inches (mm)	B Inches (mm)
THGAJ10	10 (254)	1 1/8 (29)
THGAJ18	18 (457)	2 5/32 (55)



Tethered Soft Grip File Handles

- Featuring twist-on threads for securely holding files

Stock Number	For Files
THSGHF614BR	4MA, 6R, 6T, 6MA, 6HR, 8CR, 8R
THSGHF615BR	8T, 8MA, 8HR, 10R

Tethered Electronic Miniature Screwdrivers

- Feature rotating handles making them ideal for precise detail work

Stock Number	A	B	C	D
THSGDE215	1.5	3/32	2	5 3/4
THSGDE220	2.0	3/32	2	5 3/4
THSGDE225	2.5	3/32	2	5 3/4
THSGDE230	3.0	1/8	2	5 3/4
THSGDEP20	#00	1/8	2	5 3/4
THSGDEP200	#0	1/8	2	5 3/4

Retention System Adjustable Click-Type Torque Instrument (± 4% Accuracy)

Stock Number	Square Drive	Head Style	Gear Teeth	Swing Arc	Range, Minimum	Range, Maximum	Increments
THQD3R250	1/2"	Fixed Ratchet	36	10°	50 ft. lb.	250 ft. lb.	1 ft. lb.

The certification of accuracy provided per ASME and ISO standards is at 20% to 100% of full scale



Snap-on® Retention System sockets positively lock onto ratchets and handles with a secure pin and hole design

THTECH2R100

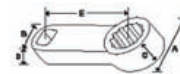


THQD3R250

Retention System Techwrench Torque Wrenches Standard Models / ± 2% Accuracy / Fixed Head

Stock Number	THTECH2R100	THTECH3R250
Square Drive	3/8"	1/2"
Head Type	Sealed Fixed Ratchet	Sealed Fixed Ratchet
Gear Teeth	36	36
Swing Arc	10°	10°
Range, in. lb.	60 - 1,200	300 - 3,000
Range, ft. lb.	5 - 100	25 - 250
Range, Nm	6.7 - 135	34 - 339
Head Depth, inches	5/8	3/4
Head Width, inches	1 5/32	1 5/8
Length, inches	17 1/4	26 1/4

The certification of accuracy provided per ASME and ISO standards is at 20% to 100% of full scale



3/8" Drive Torque Adaptors, Non-Spline

Stock Number	Size	A	B	C	D	E
THFRDH101	5/16"	.475	.750	1/4	7/16	2
THFRDH121	3/8"	.570	.750	5/16	7/16	2
THFRDH141	7/16"	.655	.750	11/32	7/16	2
THFRDH161	1/2"	.740	.750	11/32	7/16	2
THFRDH181	9/16"	.825	.750	3/8	7/16	2

RETENTION SYSTEM DRIVE TOOLS

Ratchets & Drive Tools

Snap-on Level 5™ TAH Ratchets

Stock Number	Drive Size (inches)	Description	Overall Length (inches)	Repair Kit
THT72	1/4	72 Tooth Standard Handle Ratchet	4 7/16	THRKR72LB
THTL72	1/4	72 Tooth Long Handle Ratchet	6 1/2	THRKR72LB
THTFY936	1/4	Hy-Lok Ratchet	6 1/4	
THF80	3/8	80 Tooth Standard Handle Ratchet	7 7/16	THRKR80LB
THFL80	3/8	80 Tooth Long Handle Ratchet	10 5/16	THRKR80LB
THFN100	3/8	Round Head, Standard Length	7 7/16	
THRAF80	3/8	Low Profile Ratchet	7 1/2	
THS80	1/2	80 Tooth Standard Handle Ratchet	10 5/16	THRKR80LB
THSL80	1/2	80 Tooth Long Handle Ratchet	15	THRKR80LB



Snap-on Retention System sockets positively lock onto ratchets and handles with a secure pin and hole design



THF10LC



THFU8A



THT72



THF80



THTMR4

- Our mission is to deliver the best possible solution for Safety, FOD, and FME problems. We address the issues, but don't compromise the functionality of the tools.
- Snap-on FOD-compliant and Retention System tools are delivered ready-to-use.
- We offer a wide selection of hand and power tools that are ready to tether, and the lanyards and carabiners required to safely attach them to a fixture (tools over five pounds) or operator (tools under five pounds).
- Snap-on TAH ratchets and accessories feature a pin which mates with the socket hole for positive retention.



Snap-on Level 5™ TAH Drive Tools

Stock Number	Drive Size (inches)	Description	Overall Length (inches)
THTMU8B	1/4	1/4" Drive Universal Joint	1 5/16
THTMUL8	1/4	1/4" Drive Locking Universal.	2 1/4
THTM62B	1/4	Driver, Flexible,	6 3/4
THTMR4	1/4	Driver, Ratcheting	8 31/32
THTM65	1/4	Adjusting Tool, Flexible	15
THTM10G	1/4	Breaker Bar	6
THTMS70A	1/4	Spinner, Ratchet	7/8
THTMRT8	1/4	Driver, T-Handle, Ratcheting	10
THTM5	1/4	T-Handle, Sliding	4 1/2
THTMS4E	1/4	Speeder	16
THTMS4EK	1/4	Speeder With Swivel Knob	15 1/32
THTM77	1/4	Ratcheting Adaptor	1 5/8
THT9TURBO	1/4	Turbo-T Spd Drvr 1/4 In Sq Dr	
THFU8A	3/8	3/8" Drive Universal Joint	2 1/16
THF10L	3/8	Breaker Bar	9 9/16
THFRS70A	3/8	Spinner, Ratchet	1 5/16
THF5L	3/8	T-Handle, Sliding	8
THF4LB	3/8	Speeder	17 27/32
THF4LBK	3/8	Speeder With Comfort Knob	16 5/8
THF11TURBO	3/8	Turbo-T Spd Drvr 3/8 In Sq Dr	
THS8	1/2	1/2" Drive Universal Joint	2 11/16
THSN15	1/2	Breaker Bar 1/2" Dr	15
THSN18	1/2	Breaker Bar 1/2" Dr	18
THSN24	1/2	Breaker Bar 1/2" Dr	24
THS12L	1/2	Sliding T-Handle	12
THS4	1/2	Speeder	18 7/8
THS77A	1/2	Ratcheting Adaptor	3

- Any tool that weighs more than 5 pounds should be attached to an anchor point such as a work platform or utility bucket rather than the operator. Tool weights are available in the Snap-on Industrial printed price list.
- Read safety precautions on pages 586 to 589

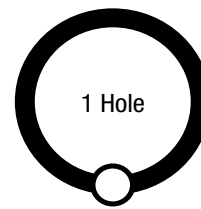


RETENTION SYSTEM DRIVE TOOLS

Extensions & Adapters

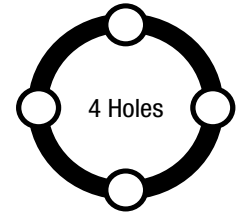


THFXK11



1 Hole

Competitor's socket



4 Holes

Snap-on socket



Snap-on Level 5™ TAH sockets, extensions, and adaptors feature a locking hole on all four sides, not just one. Snap-on TAH ratchets and drive tools feature a locking pin which mates with the side lock hole for positive retention. This reduces the risk of misaligning the socket that typical competitor's sockets with just one side hole create.

Snap-on Level 5™ TAH Extensions

Stock Number	Drive Size (inches)	Overall Length (inches)
THTMXK2	1/4	2
THTMXK4	1/4	4
THTMXK60	1/4	6
THTMXK80	1/4	8
THTMXK110	1/4	11
THTMXK140	1/4	14
THTMX240	1/4	24
THFX1	3/8	1 1/2
THFXK3	3/8	3
THFXK4	3/8	4
THFXK6	3/8	6
THFXK8	3/8	8
THFXK11	3/8	11
THSX2	1/2	2 1/8
THSXK3	1/2	3 1/2
THSXK5	1/2	5
THSXK8	1/2	8
THSXK11	1/2	11
THSX15	1/2	15



THFXK6



THSXK3

Snap-on Level 5™ TAH Adaptors

Stock Number	Female Drive Size (IN.)	Male Drive Size (IN.)	Description	Length (IN.)
THTA3	1/4	3/8	ADAPTOR	15/16
THTMXM17	1/4	1/4	Adaptor, Magnetic	1 21/32
THTMXM114	1/4	1/4	Adaptor, Magnetic	1 17/32
THA2A	3/8	1/2	ADAPTOR	1 5/16
THGFAT1E	3/8	1/4	ADAPTOR	1 1/4
THGFAT1E2	3/8	1/4	REPLACEMENT BIT / THGFAT1E	
THGSAF1E	1/2	3/8	ADAPTOR	1 3/16
THGLA12B	1/2	3/4	ADAPTOR	1 7/16
THGLAS1E	3/4	1/2	ADAPTOR	2 7/16
THGLAS1E2	3/4	1/2	REPLACEMENT BIT / THGLAS1E2	



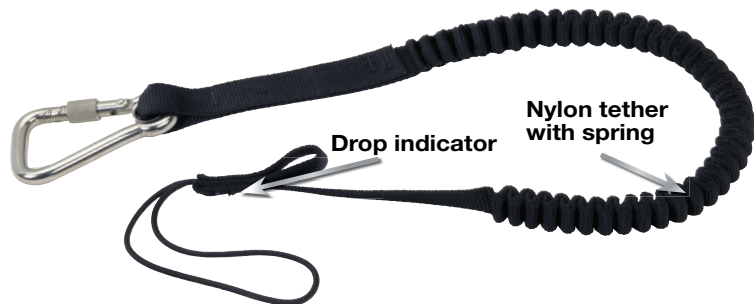
THA2A



THGFAT1E

Snap-on Industrial uses a stainless steel, screw-locking carabiner connector while many competitors use aluminum connectors that are not load rated. Snap-on also gives you a nylon tether that has a spring inside to absorb the shock of a dropped tool and built in drop indicator. Lanyards that have been involved in a drop should be replaced. The drop indicator identifies that for you.

See page N053 for the complete assortment of Snap-on Industrial tethers, lanyards, and carabiners.

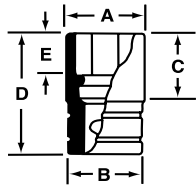


Drop indicator

Nylon tether with spring

RETENTION SYSTEM SOCKETS

1/4" Drive



Shallow 1/4" Drive, mm

mm	12	A	B	C	D	E
5	THTMMD5*	7.7	12.1	13.3	22.2	4.3
5.5	THTMMD5.5	8.3	12.1	13.3	22.2	4.6
6	THTMMD6	9.3	12.1	13.3	22.2	5.6
7	THTMMD7	10.5	12.1	13.3	22.2	6.1
8	THTMMD8	11.5	12.1	13.3	22.2	6.9
9	THTMMD9	12.7	12.1	13.3	22.2	7.4
10	THTMMD10	13.2	13.2	13.3	22.2	7.4
11	THTMMD11	15.2	14.6	13.3	22.2	9.4
12	THTMMD12	16.5	15.6	13.3	22.2	9.4
13	THTMMD13	17.6	16.7	13.3	22.2	9.4
14	THTMMD14	18.8	17.8	14.1	22.2	9.7

*Conventional hex

Shallow 1/4" Drive, inches

11	6	12	A	B	C	D	E
1/8	THTM04	—	7/32	7/16	1/2	7/8	1/8
5/32	THTM05*	—	9/32	15/32	1/2	7/8	5/32
3/16	THTM6*	THTMD6*	9/32	15/32	1/2	7/8	5/32
7/32	THTM7*	THTMD7*	11/32	15/32	1/2	7/8	3/16
1/4	THTM8	THTMD8	3/8	15/32	1/2	7/8	7/32
9/32	THTM9	THTMD9	13/32	15/32	1/2	7/8	1/4
5/16	THTM10	THTMD10	15/32	15/32	1/2	7/8	9/32
11/32	THTM11	THTMD11	1/2	15/32	5/16	7/8	9/32
3/8	THTM12	THTMD12	17/32	1/2	1/2	7/8	9/32
7/16	THTM14	THTMD14	19/32	9/16	1/2	7/8	3/8
1/2	THTM16	THTMD16	11/16	21/32	1/2	7/8	3/8
9/16	THTM18	THTMD18	25/32	23/32	1/2	29/32	3/8
5/8	THTM20	—	27/32	25/32	19/32	31/32	13/32

*Conventional hex

Semi Deep 1/4" Drive, mm

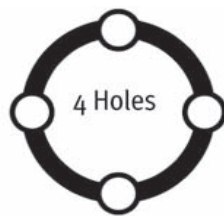
mm	12	A	B	C	D	E
5	THTMDS5*	7.7	12.1	22.9	31.8	5.1
5.5	THTMDS5.5	8.3	12.1	22.9	31.8	5.3
6	THTMDS6	9.3	12.1	22.9	31.8	5.8
7	THTMDS7	10.5	12.1	22.9	31.8	6.1
8	THTMDS8	11.5	12.1	18.4	31.8	6.9
9	THTMDS9	12.7	12.1	18.4	31.8	7.4
10	THTMDS10	14.0	13.2	18.4	31.8	7.4
11	THTMDS11	15.4	14.6	18.4	31.8	9.4
12	THTMDS12	16.5	15.6	18.4	31.8	9.4
13	THTMDS13	17.6	16.7	18.4	31.8	9.4
14	THTMDS14	18.8	17.8	18.4	31.8	9.7
15	THTMDS15	20.4	19.4	18.4	31.8	9.7

*Conventional hex

Semi Deep 1/4" Drive, inches

11	12	A	B	C	D	E
3/16	THTMDS6*	5/16	15/32	29/32	1 1/4	7/32
7/32	THTMDS7*	11/32	15/32	29/32	1 1/4	7/32
1/4	THTMDS8	3/8	15/32	29/32	1 1/4	1/4
9/32	THTMDS9	13/32	15/32	23/32	1 1/4	1/4
5/16	THTMDS10	15/32	15/32	23/32	1 1/4	9/32
11/32	THTMDS11	1/2	15/32	23/32	1 1/4	5/16
3/8	THTMDS12	9/16	1/2	23/32	1 1/4	5/16
7/16	THTMDS14	5/8	19/32	23/32	1 1/4	3/8
1/2	THTMDS16	11/16	21/32	23/32	1 1/4	3/8
9/16	THTMDS18	3/4	23/32	23/32	1 1/4	3/8

*Conventional hex

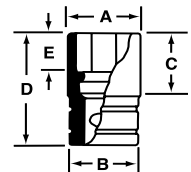


Snap-on socket



Double Square

11	Stock No.	A	B	C	D	E
1/4	THTM408	15/32	15/32	17/32	7/8	1/4
5/16	THTM410	9/16	17/32	17/32	7/8	9/32
3/8	THTM412	21/32	5/8	17/32	7/8	5/16



Snap-on Level 5™ TAH sockets, extensions, and adaptors feature a locking hole on all four sides, not just one. Snap-on TAH ratchets and drive tools feature a locking pin which mates with the side lock hole for positive retention. This reduces the risk of misaligning the socket that typical competitor's sockets with just one side hole create.

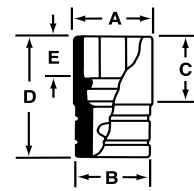
- Any tool that weighs more than 5 pounds should be attached to an anchor point such as a work platform or utility bucket rather than the operator. Tool weights are available in the Snap-on Industrial printed price list.
- Read safety precautions on pages 586 to 589



N061

RETENTION SYSTEM SOCKETS

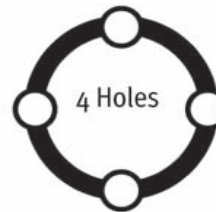
1/4" & 3/8" Drive



Deep, mm

mm	12	A	B	C	D	E
5	THSTMMD5*	7.7	12.1	42.2	50.8	5.1
5.5	THSTMMD5.5	8.3	12.1	42.2	50.8	5.3
6	THSTMMD6	9.3	12.1	42.2	50.8	5.8
7	THSTMMD7	10.5	12.1	42.2	50.8	6.1
8	THSTMMD8	11.5	12.1	42.2	50.8	6.9
9	THSTMMD9	12.7	12.1	38.1	50.8	7.4
10	THSTMMD10	14.0	13.2	38.1	50.8	7.4
11	THSTMMD11	15.2	14.6	38.1	50.8	9.4
12	THSTMMD12	16.5	15.6	38.1	50.8	9.4
13	THSTMMD13	17.6	16.7	38.1	50.8	9.4
14	THSTMMD14	18.8	17.8	38.1	50.8	9.7

*Conventional hex



Snap-on socket



Snap-on Level 5™ TAH sockets, extensions, and adaptors feature a locking hole on all four sides, not just one. Snap-on TAH ratchets and drive tools feature a locking pin which mates with the side lock hole for positive retention. This reduces the risk of misaligning the socket that typical competitor's sockets with just one side hole create.

Deep, inches

11	6	12	A	B	C	D	E
3/16	THSTM6*	THSTMD6*	5/16	15/32	1 21/32	2	3/16
7/32	THSTM7*	THSTMD7*	11/32	15/32	1 21/32	2	7/32
1/4	THSTM8	THSTMD8	3/8	15/32	1 21/32	2	7/32
9/32	THSTM9	THSTMD9	13/32	15/32	1 21/32	2	1/4
5/16	THSTM10	THSTMD10	15/32	15/32	1 21/32	2	7/32
11/32	THSTM11	THSTMD11	1/2	15/32	1 21/32	2	9/32
3/8	THSTM12	THSTMD12	17/32	9/16	1 21/32	2	9/32
7/16	THSTM14	THSTMD14	5/8	9/16	1 21/32	2	3/8
1/2	THSTM16	THSTMD16	11/16	21/32	1 21/32	2	3/8
9/16	THSTM18	THSTMD18	3/4	23/32	1 21/32	2	3/8

*Conventional hex

Shallow, inches

11	6	12	A	B	C	D	E
1/4	THFS081	THF081	13/32	11/16	7/16	29/32	7/32
5/16	THFS101	THF101	15/32	11/16	7/16	29/32	1/4
11/32	THFS111	THF111	1/2	11/16	7/16	29/32	9/32
3/8	THFS121	THF121	9/16	11/16	7/16	29/32	9/32
7/16	THFS141	THF141	5/8	11/16	7/16	29/32	9/32
1/2	THFS161	THF161	23/32	11/16	1/2	15/16	5/16
9/16	THFS181	THF181	25/32	3/4	1/2	1 1/32	3/8
5/8	THFS201	THF201	27/32	25/32	19/32	1 3/32	1/2
11/16	THFS221	THF221	15/16	7/8	5/8	1 1/8	17/32
3/4	THFS241	THF241	1	15/16	11/16	1 3/16	15/32
13/16	THFS261	THF261	1 1/16	1	11/16	1 7/32	1/2
7/8	THFS281	THF281	1 5/32	1 1/32	23/32	1 9/32	9/16
15/16	THFS301	THF301	1 1/4	1 3/16	25/32	1 11/32	9/16
1	THFS321	THF321	1 5/16	1 1/4	13/16	1 3/8	19/32

Shallow, inches

11	6	12	A	B	C	D	E
1/4	THFS081	THF081	13/32	11/16	7/16	29/32	7/32
5/16	THFS101	THF101	15/32	11/16	7/16	29/32	1/4
11/32	THFS111	THF111	1/2	11/16	7/16	29/32	9/32
3/8	THFS121	THF121	9/16	11/16	7/16	29/32	9/32
7/16	THFS141	THF141	5/8	11/16	7/16	29/32	9/32
1/2	THFS161	THF161	23/32	11/16	1/2	15/16	5/16
9/16	THFS181	THF181	25/32	3/4	1/2	1 1/32	3/8
5/8	THFS201	THF201	27/32	25/32	19/32	1 3/32	1/2
11/16	THFS221	THF221	15/16	7/8	5/8	1 1/8	17/32
3/4	THFS241	THF241	1	15/16	11/16	1 3/16	15/32
13/16	THFS261	THF261	1 1/16	1	11/16	1 7/32	1/2
7/8	THFS281	THF281	1 5/32	1 1/32	23/32	1 9/32	9/16
15/16	THFS301	THF301	1 1/4	1 3/16	25/32	1 11/32	9/16
1	THFS321	THF321	1 5/16	1 1/4	13/16	1 3/8	19/32

RETENTION SYSTEM SOCKETS

3/8" & 1/2" Drive

Deep 3/8" Drive, mm

mm	12	A	B	C	D	E
8	THSFM8	11.4	17.7	42.0	54.0	7.1
9	THSFM9	12.8	17.2	42.0	54.0	7.1
10	THSFM10	14.3	17.2	42.0	54.0	7.9
11	THSFM11	15.7	17.2	42.0	54.0	9.7
12	THSFM12	16.5	17.2	42.0	54.0	9.9
13	THSFM13	18.0	17.2	42.0	54.0	10.7
14	THSFM14	19.6	18.6	43.3	60.3	10.7
15	THSFM15	20.3	19.4	43.3	60.3	10.7
16	THSFM16	21.1	20.0	43.3	60.3	10.7
17	THSFM17	22.7	21.8	43.6	66.7	11.2
18	THSFM18	24.3	23.2	49.0	66.7	11.2
19	THSFM19	25.1	24.0	49.0	66.7	15.5

Deep 3/8" Drive, inches

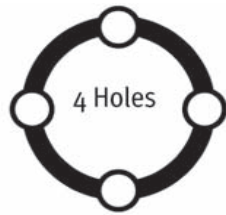
11	6	12	A	B	C	D	E
1/4	THSFS081	THSF081	15/32	11/16	1 11/16	2 1/8	1/4
5/16	THSFS101	THSF101	15/32	11/16	1 11/16	2 1/8	7/32
3/8	THSFS121	THSF121	9/16	11/16	1 11/16	2 1/8	5/16
7/16	THSFS141	THSF141	5/8	11/16	1 11/16	2 1/8	3/8
1/2	THSFS161	THSF161	23/32	11/16	1 11/16	2 1/8	7/16
9/16	THSFS181	THSF181	25/32	23/32	1 29/32	2 3/8	7/16
19/32	—	THSF191	13/16	25/32	1 29/32	2 3/8	7/16
5/8	THSFS201	THSF201	27/32	13/16	1 29/32	2 3/8	15/32
11/16	THSFS221	THSF221	15/16	7/8	2 3/16	2 5/8	1/2
3/4	THSFS241	THSF241	1	1	2 3/16	2 5/8	5/8
13/16	THSFS261	THSF261	1 1/16	1	2 1/4	2 3/4	5/8
7/8	THSFS281	THSF281	1 5/32	1 1/8	2 1/4	2 3/4	23/32
15/16	—	THSF301	1 1/4	1 3/16	2 1/4	2 3/4	23/32
1	—	THSF321	1 5/16	1 1/4	2 1/4	2 3/4	13/16

ASME/ANSI B107.1-2002

Low Profile 3/8" Drive, inches

11	12	A	B	C	D	E
1/4	THRF081	.46	.65	—	.66	.11
5/16	THRF101	.46	.65	—	.66	.15
11/32	THRF111	.49	.65	—	.68	.17
3/8	THRF121	.56	.65	—	.69	.18
7/16	THRF141	.61	.65	—	.70	.19
1/2	THRF161	.71	.69	.39	.72	.21
9/16	THRF181	.77	.74	.42	.75	.24
5/8	THRF201	.83	.80	.47	.79	.28
11/16	THRF221	.93	.90	.49	.81	.30
3/4	THRF241	.99	.96	.50	.82	.31

Snap-on socket



Snap-on Level 5™ TAH sockets, extensions, and adaptors feature a locking hole on all four sides, not just one. Snap-on TAH ratchets and drive tools feature a locking pin which mates with the side lock hole for positive retention. This reduces the risk of misaligning the socket that typical competitor's sockets with just one side hole create.

Shallow 1/2" Drive, mm

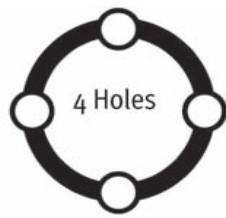
mm	12	A	B	C	D	E
10	THSWM101A	15.0	23.2	22.2	38.1	7.9
11	THSWM111A	16.6	23.2	22.2	38.1	8.7
12	THSWM121A	18.2	23.2	22.2	38.1	9.5
13	THSWM131A	19.0	23.2	22.2	38.1	10.3
14	THSWM141A	20.6	23.2	22.2	38.1	10.3
15	THSWM151A	22.2	22.2	22.2	38.1	10.3
16	THSWM161	23.8	22.2	22.2	38.1	11.9
17	THSWM171	24.6	23.2	22.2	38.1	12.7
18	THSWM181	25.4	23.8	21.4	38.1	14.2
19	THSWM191	26.3	24.8	21.3	38.1	13.9
20	THSWM201	26.7	26.1	21.2	38.1	14.0
21	THSWM211	28.3	27.5	21.1	38.1	14.0
22	THSWM221	29.9	28.6	20.9	38.1	14.2
23	THSWM231	31.2	29.9	20.8	38.1	14.5
24	THSWM241	32.5	30.9	22.2	38.8	15.8
27	THSWM271	36.5	34.9	25.4	42.8	17.4
30	THSWM301	41.0	39.6	26.1	44.5	18.5
32	THSWM321	42.5	41.2	28.9	47.6	19.8

- Any tool that weighs more than 5 pounds should be attached to an anchor point such as a work platform or utility bucket rather than the operator. Tool weights are available in the Snap-on Industrial printed price list.
- Read safety precautions on pages 586 to 589



RETENTION SYSTEM SOCKETS

1/2" Drive





Snap-on socket





Snap-on Level 5™ TAH sockets, extensions, and adaptors feature a locking hole on all four sides, not just one. Snap-on TAH ratchets and drive tools feature a locking pin which mates with the side lock hole for positive retention. This reduces the risk of misaligning the socket that typical competitor's sockets with just one side hole create.



Shallow 1/2" Drive, inches

		A	B	C	D	E
3/8	THSW121A	19/32	29/32	7/8	1 1/2	5/16
7/16	THSW141A	11/16	29/32	7/8	1 1/2	11/32
1/2	THSW161A	3/4	29/32	7/8	1 1/2	13/32
9/16	THSW181A	13/16	29/32	7/8	1 1/2	13/32
5/8	THSW201	15/16	7/8	7/8	1 1/2	15/32
11/16	THSW221	31/32	29/32	7/8	1 1/2	1/2
3/4	THSW241	1 1/32	31/32	7/8	1 1/2	9/16
13/16	THSW261	1 1/8	1 1/16	7/8	1 1/2	9/16
7/8	THSW281	1 3/16	1 1/8	7/8	1 1/2	25/32
15/16	THSW301	1 9/32	1 7/32	27/32	1 17/32	3/4
1	THSW321	1 11/32	1 9/32	7/8	1 9/16	3/4
1 1/16	THSW341	1 7/16	1 3/8	1 31/32	1 11/16	3/4
1 1/8	THSW361	1 1/2	1 7/16	1 31/32	1 3/4	1 3/16
1 3/16	THSW381	1 5/8	1 9/16	1 1/8	1 3/4	3/4
1 1/4	THSW401	1 11/16	1 5/8	1 1/4	1 7/8	3/4
1 5/16	THSW421	1 3/4	1 11/16	1 1/4	1 7/8	1
1 1/2	THSW481	2	1 15/16	1 5/8	2 1/2	1

Deep 1/2" Drive, mm

		A	B	C	D	E
10	THSM10A	15.0	23.2	66.7	82.6	7.9
11	THSM11A	16.6	23.2	66.7	82.6	8.7
12	THSM12B	18.2	23.2	66.7	82.6	9.5
13	THSM13A	19.0	23.2	66.7	82.6	10.3
14	THSM14A	20.6	23.2	66.7	82.6	10.3
15	THSM15A	22.2	22.2	66.7	82.6	10.3
16	THSM16	23.8	22.2	51.0	82.6	11.9
17	THSM17	24.6	23.2	51.0	82.6	12.7
18	THSM18	25.4	23.8	51.0	82.6	14.3
19	THSM19	26.3	24.6	52.5	82.6	14.2
20	THSM20	26.7	26.1	58.5	82.6	14.0
21	THSM21	28.3	27.5	58.5	82.6	14.0
22	THSM22	29.9	28.6	58.5	82.6	14.2
23	THSM23	31.2	29.9	58.0	82.6	14.5
24	THSM24	32.5	30.9	50.0	82.6	15.8

Deep 1/2" Drive, inches


		A	B	C	D	E
3/8	THS121A	19/32	29/32	2 5/8	3 1/4	5/16
7/16	THS141A	3/4	29/32	2 5/8	3 1/4	11/32
1/2	THS161A	3/4	29/32	2 5/8	3 1/4	13/32
9/16	THS181A	13/16	29/32	2 5/8	3 1/4	13/32
5/8	THS201	15/16	7/8	1 31/32	3 1/4	15/32
11/16	THS221	31/32	29/32	1 31/32	3 1/4	1/2
3/4	THS241	1 1/32	31/32	2 5/8	3 1/4	9/16
13/16	THS261	1 1/8	1 1/16	2 5/8	3 1/4	9/16
7/8	THS281	1 3/16	1 1/8	2 5/8	3 1/4	9/16
15/16	THS301	1 9/32	1 7/32	1 31/32	3 1/4	3/4
1	THS321	1 11/32	1 9/32	1 31/32	3 1/4	3/4
1 1/16	THS341	1 7/16	1 3/8	1 31/32	3 1/4	3/4
1 1/8	THS361	1 1/2	1 7/16	1 31/32	3 1/4	1 3/16

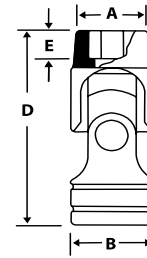
ASME/ANSI B107.1-2002

RETENTION SYSTEM SOCKETS


1/4", 3/8", 1/2" Drive Universals

Shallow Universal 1/4" Drive, mm

	12	A	B	D	E
5	THTMUM5A	8.1	12.7	29.2	3.3
6	THTMUM6A	9.6	12.7	29.7	3.8
7	THTMUM7A	10.7	12.7	30.5	4.3
8	THTMUM8A	11.8	12.7	30.5	4.8
9	THTMUM9A	12.7	12.7	31.2	4.8
10	THTMUM10A	14.0	12.7	32.5	5.8
12	THTMUM12A	16.5	12.7	34.5	6.9
13	THTMUM13A	17.3	12.7	36.8	7.6




Shallow Universal 1/4" Drive, inches


	12	A	B	D	E
1/4	THTMU81B	3/8	1/2	1 17/64	1/4
5/16	THTMU101A	15/32	1/2	1 11/32	9/32
3/8	THTMU121A	17/32	1/2	1 27/64	9/32
7/16	THTMU141A	19/32	1/2	1 29/64	13/32
1/2	THTMU161A	11/16	1/2	1 33/64	13/32
9/16	THTMU181A	3/4	1/2	1 35/64	13/32

3/8" Drive Flank Drive® Universal

Shallow 3/8" Drive Universal, mm


	12	A	B	D	E
10	THFUM10A	14.0	18.1	43.5	6.4
12	THFUM12A	16.8	18.1	45.5	7.9
13	THFUM13A	18.1	18.1	45.5	7.9
14	THFUM14A	18.9	18.1	47.9	8.9
15	THFUM15A	20.5	18.1	47.9	8.9
16	THFUM16A	21.3	18.1	47.9	10.2
17	THFUM17A	22.9	18.9	50.7	10.4

Shallow 3/8" Drive Universal, inches

	12	A	B	D	E
5/16	THFU10B	15/32	11/16	1 5/8	1/4
3/8	THFU12B	17/32	11/16	1 5/8	1/4
7/16	THFU14B	5/8	11/16	1 5/8	9/32
1/2	THFU16B	23/32	11/16	1 11/16	9/32
9/16	THFU18B	25/32	11/16	1 23/32	11/32
5/8	THFU20B	27/32	11/16	1 25/32	3/8
11/16	THFU22B	15/16	3/4	2	3/8
3/4	THFU24B	1	3/4	2 1/16	7/16
13/16	THFU26B	1 3/32	3/4	2 3/32	15/32
7/8	THFU28B	1 5/32	3/4	2 3/32	1/2
15/16	THFU30A	1 1/4	3/4	2 9/32	9/16
1	THFU32A	1 5/16	3/4	2 9/32	9/16

1/2" Drive Flank Drive Universal

Universal, inches

	6	A	B	D	E
9/16	THSU18	27/32	15/16	2 7/16	11/32
5/8	THSU20	15/16	15/16	2 15/32	3/8
11/16	THSU22	1 1/16	1 1/16	2 9/16	7/16
3/4	THSU24	1 1/8	1 1/8	2 7/8	1/2
13/16	THSU26	1 3/16	1 1/8	2 15/16	9/16
7/8	THSU28	1 1/4	1 1/8	2 15/16	9/16
15/16	THSU30	1 5/16	1 1/8	3	9/16

ASME/ANSI B107.1-1993

- Any tool that weighs more than 5 pounds should be attached to an anchor point such as a work platform or utility bucket rather than the operator. Tool weights are available in the Snap-on Industrial printed price list.
- Read safety precautions on pages 586 to 589

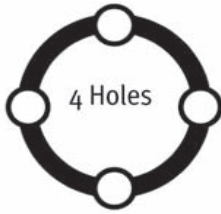


N065

RETENTION SYSTEM SOCKETS

1/4", 3/8", 1/2" Drive Bit Drivers

Snap-on socket

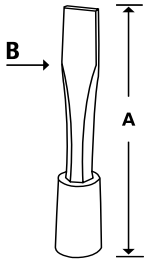


Snap-on Level 5™ TAH sockets, extensions, and adaptors feature a locking hole on all four sides, not just one. Snap-on TAH ratchets and drive tools feature a locking pin which mates with the side lock hole for positive retention. This reduces the risk of misaligning the socket that typical competitor's sockets with just one side hole create.

Hex/Extra Long 3/8" Drive, inches

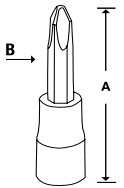
Hex Drive, In.	Hex	A	Fits These Cap Screws	Fits These Set Screws	B
5/32	THFA5LE	6 1/16	#10	5/16"	FA5LE2
3/16	THFA6LE	6 1/8	1/4"	3/8"	FA6LE2
7/32	THFA7LE	6 1/8	—	7/16"	FA7LE2
1/4	THFA8LE	6 1/8	5/16"	1/2"	FA8LE2
5/16	THFA10LE	6 1/16	3/8"	5/8"	FA10LE2
3/8	THFA12LE	6 1/16	1/4"	3/4"	FA12LE2

Flat Tip 1/4" Drive, inches



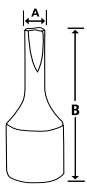
	Hex Drive, In.	Stock No.	Square Drive, In.	A	B
Standard Length	3/16 x .032	THTMC104E	1/4	2 7/8	TMC104E2
	1/4" x .032	THTMC105E	1/4	2 15/16	TMC105E2
	3/8 x .042	THTMC106E	1/4	2 7/8	TMC106E2
Short	1/4 x .036	THTM82	1/4	7/8	TM82-2C
	3/8 x 1/32	THTM83A	1/4	3/4	—
	7/16 x 1/32	THTM84	1/4	3/4	—

Phillips/Standard 1/4" Drive



	Hex Drive, In.	Stock No.	Square Drive, In.	A	B
Standard Length	#1	THTMP12E	1/4	1 7/8	TMP12E2
	#2	THTMP22E	1/4	1 7/8	FP22E2
Long	#2	THTMP23E	1/4	3 1/16	TMP232
Short	#2	THTMP21E	1/4	1 1/4	TMP21E

Clutch, Standard Length 1/4" Drive



Hex Drive, In.	Stock No.	Square Drive, In.	A	B
3/16	THTM27E	1/4	3/16	1 3/8
1/4	THTM30E	1/4	1/4	1 3/8
5/32	THTM31E	1/4	5/32	1 3/8

Hex/Standard 3/8" & 1/2" Drive, mm

Square Drive, In.	Hex (mm)		A	B	
3/8	4	THFAM4E	52.3	FAM4E2	
	5	THFAM5E	52.6	FAM5E2	
	6	THFAM6E	52.6	FAM6E2	
	7	THFAM7E	52.6	FAM7E2	
	8	THFAM8E	52.6	FAM8E2	
	9	THFAM9E	52.6	FAM9E2	
	10	THFAM10E	52.6	SAM10E2	
	11	THFAM11E	69.9	FAM11E2	
	12	THFAM12E	69.9	FAM12E2	
	13	THFAM13E	69.9	FAM13E2	
	14	THFAM14E	69.9	FAM14E2	
	1/2	6	THSAM6E	60.5	FAM6E2
		8	THSAM8E	62	FAM8E2
		10	THSAM10E	62.8	SAM10E2
12		THSAM12E	81	SAM12E2	
14		THSAM14E	81	SAM14E2	
17		THSAM17E	93.7	SAM17E2	
19		THSAM19E	103.1	SAM19E2	

Hex/Standard 1/4", 3/8" & 1/2" Drive, inches

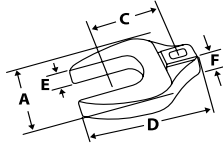
Square Drive, In.	Hex Drive, In.		A	B	
1/4	1/16	THTMA2E	1 7/8	TMA2E2A	
	5/64	THTMA2.5E	1 7/8	TMA2.5E2	
	3/32	THTMA3E	1 7/8	TMA3E2	
	7/64	THTMA3.5E	1 7/8	TMA3.5E2	
	1/8	THTMA4E	1 7/8	TMA4E2	
	9/64	THTMA4.5E	1 7/8	TMA4.5E2	
	5/32	THTMA5E	1 7/8	FA5E2	
	3/16	THTMA6E	1 15/16	FA6E2	
	7/32	THTMA7E	1 7/8	FA7E2	
	1/4	THTMA8E	1 7/8	FA8E2	
	3/8	1/8	THFA4E	2 1/16	TMA4E2
		9/64	THFA4.5E	2 1/16	TMA4.5E2
		5/32	THFA5E	2 1/16	FA5E2
		3/16	THFA6E	2 1/16	FA6E2
7/32		THFA7E	2 1/16	FA7E2	
1/4		THFA8E	2 1/16	FA8E2	
5/16		THFA10E	2 1/16	FA10E2	
3/8		THFA12E	2 3/32	FA12E2	
1/2		5/16	THSA10E	2 3/8	FA10E2
		3/8	THSA12E	2 1/2	SA12E2
	7/16	THSA14E	2 7/8	SA14E2	
	1/2	THSA16E	3 1/16	SA16E2	
	9/16	THSA18E	3 3/16	SA18E2	
	5/8	THSA20E	3 11/32	LAW120E2	
	3/4	THSA24E	4 1/16	LAW124E2	

Ball Hex/Standard 1/4" & 3/8" Drive, inches



Square Drive, In.	Hex Drive, In.		A	B
1/4	1/8	THTMAB4E	1 7/8	TMAB4E2
	9/64	THTMAB4.5E	1 7/8	TMAB4.5E2
	5/32	THTMAB5E	1 7/8	TMAB5E2
	3/16	THTMAB6E	1 7/8	TMAB6E2
3/8	7/32	THFAB7E	2 3/32	FAB7E2
	1/4	THFAB8E	2 3/32	FAB8E2
	5/16	THFAB10E	2 3/32	FAB10E2
	3/8	THFAB12E	2 3/32	FAB12E2

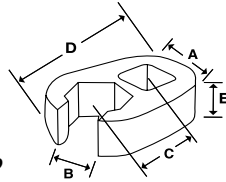
RETENTION SYSTEM TOOLS

Crowfoot Wrenches





1/4" Drive Open End, inches



		A	C	E	F	D
1/4	THTMC08	17/32	17/32	1/4	1/4	31/32
5/16	THTMC010	21/32	9/16	1/4	1/4	1 1/32
3/8	THTMC012	25/32	19/32	1/4	1/4	1 3/32
7/16	THTMC014	7/8	5/8	5/16	5/16	1 5/32
1/2	THTMC016	1 1/32	21/32	5/16	5/16	1 1/4
9/16	THTMC018	1 1/8	11/16	5/16	5/16	1 9/32



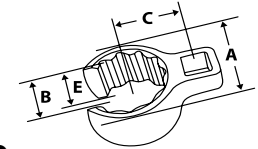
3/8" Drive Flank Drive Flare Nut, inches, 6-Point (chrome)



		A	B	C	D	E	Maximum Recommended Working Torque, in. lb.
3/8	THFRH120S	13/32	1/4	9/16	1 11/32	3/8	150
7/16	THFRH140S	29/32	5/16	9/16	1 13/32	3/8	200
1/2	THFRH160S	1	11/32	9/16	1 7/16	3/8	250
9/16	THFRH180S	1 1/8	3/8	3/4	1 5/8	7/16	300
5/8	THFRH200S	1 1/8	7/16	3/4	1 5/8	7/16	375
11/16	THFRH220S	1 5/16	1/2	13/16	1 25/32	1/2	450
3/4	THFRH240S	1 5/16	9/16	13/16	1 25/32	1/2	525

1/2" Drive Open End, inches

		A	C	E	F	Maximum Recommended Working Torque, in. lb.
1 1/16	THSC34	2 3/32	1 3/4	3/8	5/8	2,000
1 1/8	THSC36	2 7/32	1 3/4	3/8	5/8	2,100
1 3/16	THSC38	2 11/32	1 3/4	13/32	5/8	2,200
1 1/4	THSC40	2 15/32	2	13/32	5/8	2,300
1 5/16	THSC42	2 19/32	2	7/16	5/8	2,400
1 3/8	THSC44	2 23/32	2	7/16	5/8	2,500
1 7/16	THSC46	2 27/32	2	7/16	5/8	2,600
1 1/2	THSC48	2 31/32	2	15/32	5/8	2,900
1 5/8	THSC52	3 7/32	1 31/32	1/2	5/8	3,400
1 11/16	THSC54	3 11/32	2 3/16	1/2	5/8	3,700
1 3/4	THSC56	3 15/32	2 3/16	17/32	5/8	3,900
1 13/16	THSC58	3 19/32	2 3/16	17/32	5/8	4,100
1 7/8	THSC60	3 23/32	2 3/16	9/16	5/8	4,300
2	THSC64	3 31/32	2 7/32	9/16	5/8	5,000



3/8" Drive Flank Drive Flare Nut-Deep, inches, 12-Point (chrome)



		A	B	C	E	Maximum Recommended Working Torque, in. lb.
5/8	THAN850810	15/16	1/2	23/32	23/32	250
11/16	THAN850811	1 1/32	17/32	25/32	23/32	310
3/4	THAN850812	1 1/8	9/16	13/16	3/4	450
13/16	THAN850813	1 7/32	5/8	7/8	3/4	450
7/8	THAN850814	1 5/16	25/32	15/16	25/32	625
15/16	THAN850815	1 3/8	3/4	31/32	25/32	625
1	THAN850816	1 7/16	3/4	1	13/16	625
1 1/16	THAN850817	1 17/32	25/32	1 1/32	13/16	625

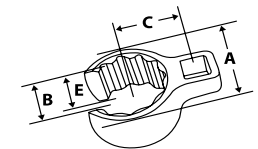
ASME/ANSI B107.100

3/8" Drive Open End with Side Lock Hole, inches

		A	C	E	F	D	Maximum Recommended Working Torque, in. lb.
3/8	THFC12A	7/8	23/32	7/32	33/64	1 19/64	75
7/16	THFC14A	7/8	41/64	7/32	33/64	1 17/64	75
1/2	THFC16A	1 1/32	51/64	7/32	33/64	1 29/64	105
9/16	THFC18A	1 1/4	59/64	7/32	33/64	1 5/8	105
5/8	THFC20A	1 1/4	55/64	7/32	33/64	1 19/32	125
11/16	THFC22A	1 9/16	1 3/32	7/32	33/64	1 59/64	150
3/4	THFC24A	1 9/16	1 1/32	7/32	33/64	1 57/64	190
13/16	THFC26A	1 23/32	1 3/32	9/32	19/32	2	245
7/8	THFC28A	1 23/32	1 1/32	9/32	19/32	1 31/32	300
15/16	THFC30A	2	1 5/32	11/32	21/32	2 1/8	360
1	THFC32A	2	1 5/64	11/32	21/32	2 3/32	420

ASME/ANSI B107.100

1/2" Flare Nut-Deep, inches, 12-Point



		A	B	C	E	Maximum Recommended Working Torque, in. lb.
1 1/8	THAN850818	1 5/8	27/32	1 5/32	7/8	825
1 3/16	THAN850819	1 11/16	29/32	1 3/16	7/8	825
1 1/4	THAN850820	1 25/32	15/16	1 7/32	7/8	825
1 5/16	THAN850821	1 27/32	31/32	1 1/4	7/8	900
1 3/8	THAN850822	1 15/16	1 1/16	1 5/16	15/16	900
1 7/16	THAN850823	2	1 1/16	1 11/32	15/16	900
1 1/2	THAN850824	2 3/32	1 1/8	1 3/8	15/16	900
1 9/16	THAN850825	2 5/32	1 5/32	1 13/32	15/16	900
1 5/8	THAN850826	2 7/32	1 7/32	1 7/16	15/16	1,100
1 11/16	THAN850827	2 5/16	1 5/16	1 1/2	1 1/32	1,100
1 3/4	THAN850828	2 3/8	1 5/16	1 9/16	1 1/32	1,150
1 13/16	THAN850829	2 15/32	1 11/32	1 19/32	1 1/32	1,200
1 7/8	THAN850830	2 9/16	1 3/8	1 21/32	1 1/16	1,200
1 15/16	THAN850831	2 5/8	1 7/16	1 11/16	1 1/16	1,200
2	THAN850832	2 23/32	1 9/16	1 23/32	1 1/16	1,400

ASME/ANSI B107.100

- Any tool that weighs more than 5 pounds should be attached to an anchor point such as a work platform or utility bucket rather than the operator. Tool weights are available in the Snap-on Industrial printed price list.
- Read safety precautions on pages 586 to 589



WARNING

INDUSTRIAL FINISH HAND TOOLS

Sockets & Accessories



GTM16

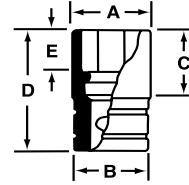
1/4" Dr., Shallow Sockets, inches

		A	B	C	D	E
3/16	GTM6*	9/32	15/32	1/2	7/8	5/32
7/32	GTM7*	11/32	15/32	1/2	7/8	3/16
1/4	GTM8	3/8	15/32	1/2	7/8	7/32
9/32	GTM9	13/32	15/32	1/2	7/8	1/4
5/16	GTM10	15/32	15/32	1/2	7/8	9/32
11/32	GTM11	1/2	15/32	5/16	7/8	9/32
3/8	GTM12	17/32	1/2	1/2	7/8	9/32
7/16	GTM14	19/32	9/16	1/2	7/8	3/8
1/2	GTM16	11/16	21/32	1/2	7/8	3/8

*Conventional hex



GSTM14



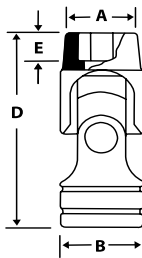
1/4" Dr. Deep Sockets, inches

		A	B	C	D	E
3/16	GSTM6*	5/16	15/32	1 21/32	2	3/16
7/32	GSTM7*	11/32	15/32	1 21/32	2	7/32
1/4	GSTM8	3/8	15/32	1 21/32	2	7/32
9/32	GSTM9	13/32	15/32	1 21/32	2	1/4
5/16	GSTM10	15/32	15/32	1 21/32	2	7/32
11/32	GSTM11	1/2	15/32	1 21/32	2	9/32
3/8	GSTM12	17/32	9/16	1 21/32	2	9/32
7/16	GSTM14	5/8	9/16	1 21/32	2	3/8
1/2	GSTM16	11/16	21/32	1 21/32	2	3/8

*Conventional hex



GTMU141A



1/4" Dr. Flexocket, mm

		A	B	D	E
13	GTMUSM13	17.3	12.7	36.8	7.6

1/4" Dr. Industrial Finish Accessories

Stock Number	Description / Style	Overall Length (Inches)
GM3048	Power Hex-to-Square Adaptor	6



GFS201

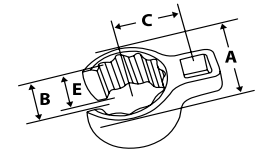
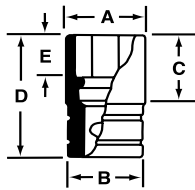
3/8" Dr. Shallow Sockets, inches

		A	B	C	D	E
1/4	GFS081	13/32	11/16	7/16	29/32	7/32
5/16	GFS101	15/32	11/16	7/16	29/32	1/4
3/8	GFS121	9/16	11/16	7/16	29/32	9/32
7/16	GFS141	5/8	11/16	7/16	29/32	9/32
1/2	GFS161	23/32	11/16	1/2	15/16	5/16
9/16	GFS181	25/32	3/4	1/2	1 1/32	3/8
5/8	GFS201	27/32	25/32	19/32	1 3/32	1/2
11/16	GFS221	15/16	7/8	5/8	1 1/8	17/32
3/4	GFS241	1	15/16	11/16	1 3/16	15/32
13/16	GFS261	1 1/16	1	11/16	1 7/32	1/2
7/8	GFS281	1 5/32	1 1/32	23/32	1 9/32	9/16
15/16	GFS301	1 1/4	1 3/16	25/32	1 11/32	9/16
1	GFS321	1 5/16	1 1/4	13/16	1 3/8	19/32

In addition to the Industrial Finish tools on these pages, Snap-on offers a wide variety of Industrial finish tools:

Description	Page Number
Ratchets	10 - 15
1/4" drive sockets	18 - 19, 23
3/8" drive sockets	25 - 26
1/2" drive sockets	36 - 39
Torx® bit sockets	52 - 53
Socket type hex drivers	57
Extensions	65 - 72
Universal Joints	75 - 77
Adaptors	77
Combination wrenches	97 - 99
Four-way angle head open end wrenches	108
3/8" drive open-end crowfoot wrenches	112
Hex keys	116
Adjustable wrenches	121
High Performance & Spline tools	124

Sockets & Accessories



3/8" Dr. Deep Sockets, inches

II	6	A	B	C	D	E
3/8	GSFS121	9/16	11/16	1 11/16	2 1/8	5/16
7/16	GSFS141	5/8	11/16	1 11/16	2 1/8	3/8
1/2	GSFS161	23/32	11/16	1 11/16	2 1/8	7/16
9/16	GSFS181	25/32	23/32	1 29/32	2 3/8	7/16
5/8	GSFS201	27/32	13/16	1 29/32	2 3/8	15/32
11/16	GSFS221	15/16	7/8	2 3/16	2 5/8	1/2
3/4	GSFS241	1	1	2 3/16	2 5/8	5/8
13/16	GSFS261	1 1/16	1	2 1/4	2 3/4	5/8
7/8	GSFS281	1 5/32	1 1/8	2 1/4	2 3/4	23/32
15/16	GSFS301	1 1/4	1 3/16	2 1/4	2 3/4	23/32
1	GSFS321	1 5/16	1 1/4	2 1/4	2 3/4	13/16

ASME/ANSI B107.1-2002

1/4" Flank Drive Flare Nut-Deep, inches, 12-Point

II	12	A	C	E	Maximum Recommended Working Torque, in. lb.
3/8	GAN85086B	9/32	1/2	1/2	75
7/16	GAN85087B	11/32	9/16	9/16	200
1/2	GAN85088B	13/32	19/32	9/16	200
9/16	GAN85089B	15/32	5/8	9/16	200

• Use only moderate force on crowfoot and flare nut wrenches

3/8" Flank Drive Flare Nut-Deep, inches, 12-Point

II	12	A	B	C	E	Maximum Recommended Working Torque, in. lb.
5/8	GAN850810B	15/16	1/2	23/32	23/32	250
11/16	GAN850811B	1 1/32	17/32	25/32	23/32	310
3/4	GAN850812B	1 1/8	9/16	13/16	3/4	450
13/16	GAN850813B	1 7/32	5/8	7/8	3/4	450
7/8	GAN850814B	1 5/16	25/32	15/16	25/32	625
15/16	GAN850815B	1 3/8	3/4	31/32	25/32	625
1	GAN850816B	1 7/16	3/4	1	13/16	625
1 1/16	GAN850817B	1 17/32	25/32	1 1/32	13/16	625

ASME/ANSI B107.100

Miscellaneous Sockets

Stock Number	Description / Style	Drive Size (Inches)
GANM27	27 MM Deep Flare-Nut Crowfoot	3/8
GLDHM382	38 MM 12 Pt. Socket	3/4

1/2" Flank Drive® Flare Nut-Deep, inches, 12-Point

II	12	A	B	C	E	Maximum Recommended Working Torque, in. lb.
1 1/8	GAN850818B	1 5/8	27/32	1 5/32	7/8	825
1 3/16	GAN850819B	1 11/16	29/32	1 3/16	7/8	825
1 1/4	GAN850820B	1 25/32	15/16	1 7/32	7/8	825
1 5/16	GAN850821B	1 27/32	31/32	1 1/4	7/8	900
1 3/8	GAN850822B	1 15/16	1 1/16	1 5/16	15/16	900
1 7/16	GAN850823B	2	1 1/16	1 11/32	15/16	900
1 1/2	GAN850824B	2 3/32	1 1/8	1 3/8	15/16	900
1 9/16	GAN850825B	2 5/32	1 5/32	1 13/32	15/16	900
1 5/8	GAN850826B	2 7/32	1 7/32	1 7/16	15/16	1,100
1 11/16	GAN850827B	2 5/16	1 5/16	1 1/2	1 1/32	1,100
1 3/4	GAN850828B	2 3/8	1 5/16	1 9/16	1 1/32	1,150
1 13/16	GAN850829B	2 15/32	1 11/32	1 19/32	1 1/32	1,200
1 7/8	GAN850830B	2 9/16	1 3/8	1 21/32	1 1/16	1,200
1 15/16	GAN850831B	2 5/8	1 7/16	1 11/16	1 1/16	1,200
2	GAN850832B	2 23/32	1 9/16	1 23/32	1 1/16	1,400
2 1/4	GAN850836B	3 1/32	1 11/16	1 7/8	1 1/8	1,500
2 9/16	GAN850841B	3 7/16	1 29/32	2 3/32	1 9/32	1,750



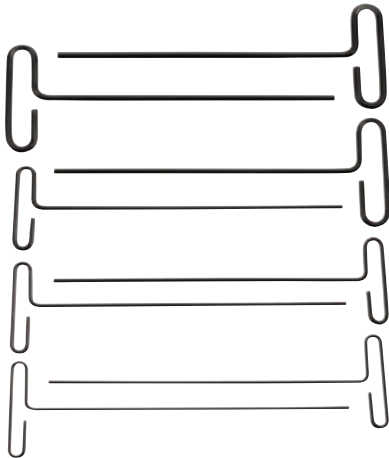
• Do not use chrome or industrial finish sockets with impact drivers
• Read safety precautions on pages 594 to 597

INDUSTRIAL FINISH HAND TOOLS

Wrenches

Miscellaneous Wrenches & Set

Stock Number	Description / Style	Size(s)	Length	Reference Catalog Page
GOEXM300B	Standard Length Combination Wrench	30mm	413mm	97
GOXA80B	Offset Combination Wrench	1/4"	5 3/4"	—
GOEX54A	Standard Length Combination Wrench	1 11/16"	22 9/32"	98
GOEXS714	Short Handle Wrench Set, 14 Pieces	1/4", 5/16" thru 1"	—	99



GAW1600A

Standard Length, 0° Offset, inches

Stock No.	Size/Description
GR810C	Ratchet Wrench 1/4" - 5/16"
GR810SC	Ratchet Wrench 1/4" - 5/16"
GR1214C	Ratchet Wrench 3/8" - 7/16"
GR1618C	Ratchet Wrench 1/2" - 9/16"
GR1824C	Ratchet Box Wrench

Hex Key Wrenches, inches

Set
Contains:

GAW1600A

Hex Key Size	Standard Handle 6" Length	Part Number
3/32	GAW1606	•
7/64	GAW1607	•
1/8	GAW1608	•
9/64	GAW1609	•
5/32	GAW1610	•
3/16	GAW1612	•
7/32	GAW1614	•
1/4	GAW1616	•
5/16	GAW1620	•
3/8	GAW1624	•

In addition to the Industrial Finish tools on these pages, Snap-on offers a wide variety of Industrial finish tools:

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High Performance & Spline tools	124

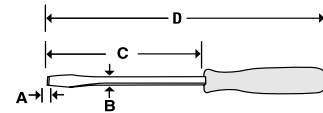
Electronic Thin Blade Screwdriver

- Recessed ends for fingertip pressure

Stock No.	A	B	C	D
GSSDE42CNP	.018 x 1/8	1/8	2	5 5/16
GSSDE44CNP	.018 x 1/8	1/8	4	7 5/16
GSSDE46CNP	.018 x 1/8	1/8	6	9 5/16
GSSDE63CNP	.030 x 3/16	3/16	3	9 9/16
GSSDE64CNP	.028 x 3/16	3/16	4	7 9/16
GSSDE66CNP	.030 x 3/16	3/16	6	6 9/16
GSSDE68CNP	.028 x 3/16	3/16	8	11 9/16



GSSDE63CNP



GQT1F200NP

Adjustable Click Type Torque Wrenches/ ±4% Accuracy

Square Drive, Inches	Stock No.	Head Style	Range, min.	Range, max	Increments	Length, in.	Head Width, in.	Head Depth, in.
1/4	GQT1F200NP	Plain	40 in. lb.	200 in. lb.	1 in. lb.	8.97	.61	.69
1/4	GQT1R200NP	Fixed Ratchet	40 in. lb.	200 in. lb.	1 in. lb.	8.97	.88	.76
3/8	GQT2F1000NP	Plain	200 in. lb.	1000 in. lb.	5 in. lb.	14	.80	1.03
3/8	GQT2R1000NP	Fixed Ratchet	200 in. lb.	1000 in. lb.	5 in. lb.	14	1.26	1.07
3/8	GQT2R200NP	Fixed Ratchet	40 in. lb.	300 in. lb.	1 in. lb.	8.97	.88	.88
1/2	GQT3R250NP	Fixed Ratchet	50 ft. lb.	250 ft. lb.	1 ft. lb.	23.75	1.74	1.42



GTE6A

Dial Type Torque Wrenches, U.S. Reading/ Standard ±2% Accuracy

Square Drive, Inches	Stock No.	Range	Increments	Length, in.	Width, in.	Head* Depth, in.	Storage Case
1/4	GTE6A	75 in. lb.	1 in. lb.	9 29/32	2 11/16	1 1/4	PB9
1/2	GTE100	100 ft. lb.	1 ft. lb.	16	2 3/4	1 3/8	PBR5
1/2	GTE175	175 ft. lb.	2 1/2 ft. lb.	18 3/4	2 3/4	1 3/8	PBR5

*Does not include square drive dimension

Dial Type Torque Wrenches Guaranteed Accuracy:

Standard 2% models are accurate within ±2% of the reading from 20% of full scale to full scale in both clockwise and counterclockwise directions.



WARNING



• Read safety precautions on pages 586 to 589

SAFETY PRODUCTS



Lights and Hammers



PCD1830245

- 3 AAAA Alkaline Batteries (Included)
- LED Flashlight
- Lightweight, slim profile design
- 50+ hours of battery life



PCD2220245

- Clips on to cap
- Over 100 hours of battery burn time
- Pivots to a full 180°
- 10,000 hours of lamp life
- Super bright LED beam



PCD2010247

- Powered by 3C alkaline cells (not included)
- Submersible
- Recoil LED Technology™: As bright as a Xenon light with the battery life of an LED



PCD2410247

- 4 AA Alkaline Cells (included)
- Submersible
- Super bright LED beam
- Recoil LED Technology™: As bright as a Xenon light with the battery life of an LED



PCD2690

- 10 hrs. Battery Burn Time
- Can be worn over hat or directly over the head

Pelican Safety Approved LED Flashlights

Stock Number	Model	Batteries	Run Time (Hours)	Lumens	Approvals	Approval Agency
PCD1830245	L4	4 AAAA	32	5	Class I, Div. 1 Gp. CD T4A / Class I, Div. 2 Gp. ABCD T4A	US FM C
PCD2220245	VB3	3 CR2032	34	9	Listed 4567/E184884 Class I, Div. 1 Gps. A, B, C, D, T6.	UL Class I Chr. 1
PCD2010247	SabreLite™	3 C	43	56	Class I, Div. 1 Gp. D T4/Class I, Div. 2 Gp. ABCD T4/ CL II, III, Div. 1, GP. FG	ETL US Intertek 3091325
PCD2410247	StealthLite™	4 AA	7.25	72	Class I, Div. 2, Gp. ABCD T4A; Class II, Div. 2 Gp. FG (CL 1 Div 1 May 2010)	Intertek 3091325
PCD2690	HeadsUp Lite™	3 AAA	10.5	60	CL I, II, III, DIV1 GRPS ABCDEFG CL 1, Zone 0, Groups IIA, IIB, IIC SGS E1052012	USGSG



PCD9430245

- Up to 15 hours of burntime
 - 2000 lumens of brightness
 - Maintenance Free LED Array with life expectancy of 50,000 hours
 - Fully extendable mast with 360 degree rotating head
 - Low Battery Warning System
 - Waterproof Rubber Activation Switch
 - Mast Extension Lock
 - Built Pelican tough
- Safety Approvals: RoHS (Restriction of Hazardous Substances) Compliant



PCD9430000



PCD9460245

PCD9470245

Pelican LED Remote Area Lighting System with Gel Acid Batteries

Stock Number	Description	Run Time (Hours)	Lumens
PCD9430245	RALS LED Head, Yellow	8 High Power - 15 Low Power	1000L - 2000H
PCD9430000	Tripod Kit w/ Extension Cord / 9430		
PCD9470245	4-Head RALS System in Protector™ Case, Yellow	7 High Power - 14 Low Power	1000L - 2000H
PCD9460245	2-Head RALS System in Protector™ Case, Yellow	8 High Power - 15 Low Power	2000L - 4000H
PCD9430230	Optional RALS Universal International Voltage Charger		
PCD9430012	Optional RALS 12v-24v Vehicle Charger / 9430		

Using solid-state mounted LED's coupled with a thermally efficient light engine and the Pelican Protector Case™, the RALS 9470 and RALS 9460 give the user the ultimate maintenance free portable floodlight station to get the job done efficiently, safely and on time. The RALS systems pack light heads and a multi-stage charger in the case for total self contained convenience. The case is also equipped with a telescopic handle and rugged wheels for ease of transport. Includes convenient low battery warning system and waterproof activation switch.

Safety Sledge Hammers

Stock Number	Weight (Pounds)	Handle Length (Inches)
WMH70040	2.5	12
WMH70041	4	12
WMH70042	4	16
WMH70043	6	24
WMH70046	8	24
WMH70044	6	30
WMH70045	8	30
WMH70047	10	30
WMH70048	12	30
WMH70049	14	30

Safety sledge hammers feature a unique heat treatment which allows the face to mushroom safely and eliminate any chipping, cracking, or flying shrapnel from the hammer head. The unbreakable handle is made with tempered steel, and surrounded by heavy-duty molded rubber. The comfort design handle absorbs shock, ensures comfort and has a slip-resistant grip. These units are available in a wide range of weights and handle lengths.





FLEET REPAIR

**At Snap-on Industrial,
we understand fleet
operations and we
know how to help you
keep your fleet in action.**

Overview N073

Shop & Service Equipment N076

Pro-Link iQ™ Diagnostic
Scan Tool Sets N082

Military Fleet Battery Chargers N083

ShopKey™ Repair and
Information System N083

Omega and
Hein-Werner Hydraulics N084

Equipto® Shop
Organization Solutions N087

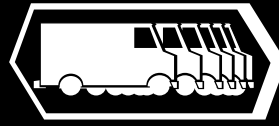
A fleet can be as small as two or three vehicles, or as large as you can imagine including thousands of vehicles in hundreds of different locations.

Fleets are pickup trucks, parcel delivery trucks and vans, over-the-road long haul trucks and car and truck rental operations. They are police cars, fire engines, and military vehicles such as tanks and armored personnel carriers, And of course a wide variety of ships and aircraft.

No matter what type of fleet you maintain, there is one overriding consideration: Unless those vehicles are out doing their job, they're costing you money. Downtime needs to be reduced or eliminated.



FLEET REPAIR

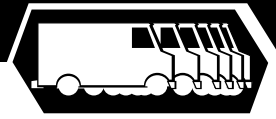


**Tools, technology
and organization to
keep fleets moving.**



N074

www.snapon.com/industrial



Understanding your fleet is the first step in developing an effective fleet service tool and equipment plan. Are all the vehicles the same? If so, custom sets through our Kitting Center may be part of the solution.

Diagnosis The key to all vehicle service work is diagnosis, and Snap-on delivers the most powerful, easy-to-use diagnostic tools you can buy. Starting with our Solus Pro™ scanner—the latest evolution in the world's best-selling scan tool—you have instant access to VIN-specific error codes and data for more than 30 U.S. and Asian manufacturers along with adaptation and relearn functions. For automobiles and light trucks, this is where you start. Our latest software release contains nearly 10,000 trouble codes, identifies 11,600 vehicle systems, and performs 1,500 functional tests. It is the most powerful diagnostic tool for vehicles from 1998 to 2009.

For heavy-duty diesel applications, nothing beats the Snap-on Pro Link IQ™, the industry's leading diagnostic tool. It pulls codes and graphs data for J1587 and J1708 compliant systems, plus it does basic diagnosis on other systems.

Are they all different? Our general service sets have been developed and refined over years of experience and provide a good foundation for a variety of applications.



Snap-on diagnostic tool choices include the Ethos® scan tool for quick reads, the Vantage Pro™ Power Graphing Meter that combines a lab scope with a graphing multimeter, the Modis™ Modular Diagnostic and Information System, and the Verus® Integrated System that can diagnose vehicles and manage all the shop information.

Shop Equipment Fluid exchange, air conditioning service, parts washing, brake service, lifts, abrasive blast cabinets, air compressors, wheel alignment and balancing and even body service tools and painting equipment are part of the Snap-on fleet repair package. We can help you design the right equipment installation, and create an effective tool storage plan to fit your unique needs.

Our experience setting up facilities with hundreds of service bays can work for you in getting the most from your fleet service operation.



SHOP & SERVICE EQUIPMENT

Alignment Lifts



14K Scissor Alignment Lift
14,000 lb. Lifting Capacity
4814605AF



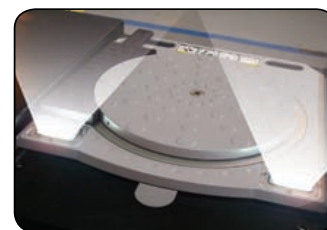
John Bean Scissor Alignment Lifts

Maximize your bay's productivity with 10K and 14K Scissor Lifts - featuring the industry's widest runways, highest lift height and longest wheelbase capabilities. These lifts feature clear access between runways for superb alignment accuracy.

Turntable cutouts and integrated rear slip plates make these lifts alignment ready. (Turntables must be purchased separately)

Also available: Locked & Lighted Scissor Alignment Lifts

- Turntables and Roller Jacks standard
- Industry's first certified lifts with an integrated light system
- 10,000 Lifting Capacity:
4810605LL - 254.625" OAL
4810605XLL - 264.625" OAL
- 14,000 Lifting Capacity:
4814605LL - 269.625" OAL



John Bean 4-Post Alignment Lifts

4-Post alignment lifts come in open-front and closed-front styles. 12K, 14K, and 18K lifting capacities are available. John Bean lifts offer rugged durability and multiple safety systems. (Roller Jacks are included standard. Turntables must be purchased separately.)



14K 4-Post Open-Front Alignment Lift
14,000 lb. Lifting Capacity
210" Two-Wheel Alignment Wheelbase
00044214QE0



Also Available:

Stock Number	Description	Style	Lifting Capacity (lbs)
4412405ST	154" Wheelbase, Two-Wheel Alignment	Closed-Front	12,000
00044212Q00	172" Wheelbase, Two-Wheel Alignment	Closed-Front	12,000
00044212Q00	172" Wheelbase, Two-Wheel Alignment	Open-Front	12,000
442120QE	210" Wheelbase, Two-Wheel Alignment	Open-Front	12,000
00044214Q00	172" Wheelbase, Two-Wheel Alignment	Open-Front	14,000
00044218Q00	210" Wheelbase, Two-Wheel Alignment	Closed-Front	18,000



SHOP & SERVICE EQUIPMENT

General-Purpose/Automotive Lifts

John Bean 2-Post Automotive Lifts

All John Bean 2-Post Lifts feature:

- Single-point safety lock release for 2-hand lift lowering
- Mechanical safety locks at multiple positions
- Pre-loaded lift arms - straight even when loaded!
- Dual pre-stressed equalizing cables - ensures level lifting

Lifting capacities range from 10K to 18K, with your choice of symmetrical or asymmetrical lifting arms*, or both with our new 10K 2-Post Combo Lift which offers both asymmetrical and symmetrical lifting! John Bean 2-Post Automotive Lifts offer the versatility to meet all your lift demands regardless of the shop layout, vehicle size and/or style.

All Lifts are built to the current ANSI standard, ALCTV-2006.

* Model specific.



10K 2-Post Combo
10,000 lb. Lifting Capacity
(Symmetric/Asymmetric)
42010VSA



18K 2-Post Combo
18,000 lb. Lifting Capacity
(Symmetric)
4218000S16



John Bean Mobile Column Automotive Lifts

John Bean Mobile Column Lifts are a great addition to any shop. Their space-saving mobile design allows for ease-of-use and easy storage in your shop. Mobile Column Lifts can be operated individually, in pairs, or all at once - allowing for two-tier lifting!

64K Mobile Column Package
64,000 lb. Lifting Capacity
4 Columns
JBC4066MC

Also Available: 96K Mobile Column Package
96,000 lb. Lifting Capacity
6 Columns
JBC6099MC



WARNING



- Read and follow all safety messages in instructions
- Read safety precautions on pages 586 to 589

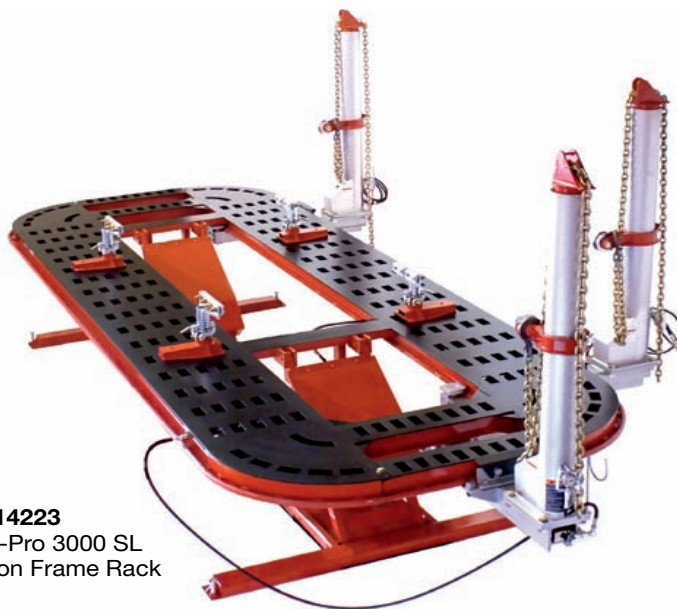
Collision Service Equipment



EECR617A
Shark Electronic
Measuring System

Shark Electronic Measuring System

With easy-to-use ultrasound technology, the Shark provides live measurements on up to 12 points on the vehicle. User-friendly software guides the technician through the pulling process, and prints pre/post-repair documentation. The Shark comes with a space-saving cabinet and 17" LCD flat screen monitor.



BH9014223
Power-Pro 3000 SL
Collision Frame Rack

Blackhawk Power-Pro SL Series

The Power-Pro SL series of racks have an extended-height lifting capability for ergonomic working heights, an open front and rear for greater accessibility to the vehicle for repairs, a faster pinch-weld anchoring system with fewer bolts to secure it to the rack platform and 60% more chain ty-downs for efficient and timely vehicle tie backs.



BH9011011
Power-Pro 18 BT
Collision Frame Rack

Blackhawk Power-Pro 18 BT/CT Series

The Power-Pro BT and CT series is available in 18' lengths & enables 360°, 10-ton pulling. Power-Pro standard models tilt to the rear for easy vehicle loading and are adjustable to two convenient working heights. Front and rear removable cross-members provide for closer access to the vehicle when making mechanical or structural repairs.



SHOP & SERVICE EQUIPMENT

Tire Changers & Brake Lathes

John Bean Tire Changers are the answer to the latest needs of the modern tire service center. They are ideal for handling passenger car, light truck, heavy-duty and high-performance wheels found today and those of the future. Their combination of speed, versatility and safety translate into better wheel service and increased productivity for your business or organization.

- EEWHT8026** Heavy Duty Tire Changer
- EEWH537A** Pegasus ATC 800 Leverless Automated Tire Changer
- EEWH512AU** EHP System II Swing-Arm Tire Changer
- EEWH517A** EHP System V Tilt-Tower Tire Changer



EEWHT8026
Heavy-Duty Tire Changer



EEWH537A
Pegasus ATC 800
Leverless Automated
Tire Changer



EEWH512AU
EHP System II
Swing-Arm Tire Changer



EEWH517A
EHP System V
Tilt-Tower Tire Changer

Brake Lathes

JBC401BL Brake Lathe. The John Bean 401 professional combination bench brake lathe is designed to handle all brake resurfacing needs. The 401 comes equipped with our standard tooling package to resurface most passenger cars and light trucks; optional tooling is available to handle specialty and heavy-duty applications. Shown with optional Work Bench and Tool Board.

JBC201BL Brake Lathe. The John Bean 201 single-speed combination bench brake lathe is designed to handle all your brake resurfacing needs. The 201 comes equipped with our standard tooling package to resurface most passenger cars and light trucks; optional tooling is available to handle specialty and heavy-duty applications. Shown with optional Work Bench and Tool Board.



JBC401BL



JBC201BL



WARNING



- Read and follow all safety messages in instructions
- Read safety precautions on pages 586 to 589



Imaging Wheel Aligners



EEWA550AL22
Arago V3D
Imaging Wheel Aligner

EEWA550AL22 Arago V3D Imaging Wheel Aligner. The Arago V3D is the fastest, most accurate imaging alignment system available. The DigiSmart™ imaging camera system automatically tracks the targets on the vehicle, allowing the technician to perform adjustments at a comfortable working height.



EEWA557AL
Prism
Portable Imaging Wheel Aligner



EEWA557AL Prism Portable Imaging Wheel Aligner. The award-winning Prism leverages a wireless communication system with Bluetooth™ technology, cordless pods powered by Lithium Ion batteries, and components made from lightweight magnesium.



EEWA544AL
V3D-EL
Imaging Wheel Aligner

EEWA544AL V3D-EL Imaging Wheel Aligner. The V3D-EL Imaging Wheel Alignment System combines the benefits of Ultra™ High-Definition camera technology and quality with an affordable price. Our patented VODI™ graphic display provides visual and directional assistance to the technician during the alignment measuring procedure. The V3D-EL will boost your shops productivity by allowing technicians to do more alignments in less time. (Shown with Optional Variable-Height Camera Support)



Wheel Balancers

BFH 1000 Total Ride Performance System.

Designed to meet the demands of high-volume shops and those needing wheel optimization, the BFH 1000 is the right choice. This “touchless” system obtains all readings and indicates weight placement automatically in a single spin. Weight management software saves you money by tracking your usage so that you buy only what you use.



EEWB519SW
BFH 1000
Wheel Balancer

BFH 800 Fully-Automated Wheel Balancing.

The BFH 800 is designed to meet the demands of high-volume shops and those users looking to improve productivity. With the fastest floor-to-floor time in the industry, the BFH 800 provides revenue-generating functionality, such as wheel weight management, behind-spoke tape weight placement and wheel-to-tire matching.



EEWB526C
BFH 800
Wheel Balancer

VPI System I Wheel Balancer.

The VPI System I wheel balancer combines cutting-edge technology with a small footprint – perfect for shops where space-saving equipment is a necessity.



EEWB504B
VPI System I
Wheel Balancer

9800 Heavy-Duty Wheel Balancer.

The John Bean 9800 wheel balancer meets the heavy-duty wheel balancing needs of today's shops. The John Bean 9800 wheel balancer is designed to balance truck, bus, RV and automobile wheel and tire assemblies.



EEWB543AW
9800 Heavy-Duty
Wheel Balancer

Heavy-Duty Hand Spin Portable Wheel Balancer

John Bean Portable Truck Wheel Balancer. This Heavy-Duty Hand-Spin Wheel Balancer features a fast balance cycle, a live display of wheel dimensions and is user-friendly. Power-saving features increase the life of the balancer and save you money. Patented features such as its hand-spun low-speed operation and hand-operated wheel lift mechanism increase this balancer's safety and portability.



EEWB517A
Heavy-Duty
Hand-Spin Portable
Wheel Balancer



WARNING



- Read and follow all safety messages in instructions
- Read safety precautions on pages 586 to 589

Pro-Link iQ™ Scan Tools

Pro-Link iQ Diagnostic Scan Tool Sets

- Diagnose computer controlled systems on heavy equipment
- Applications include trucks, construction equipment, and military vehicles
- Kits include Pro-Link iQ scan tool, cables and adaptors, and software
- Three available kits cover most heavy-duty applications
- Specific components of each set are listed below
- Additional product information is available at www.prolinkiq.com

Set Components

	Description	MPSI680004	IQMNTKITA	MPSI680003
Standard Components	Pro-Link iQ Scan Tool	•	•	•
	J1708/J1587 Heavy Duty Standard*	•	•	•
	Power and Data Cable	•	•	•
	110v Power Adaptor	•	•	•
	9-pin Deutsch Adaptor	•	•	•
	6-pin Deutsch Adaptor	•	•	•
	2-cell Battery Pack	•	•	•
	Stylus Pen	•	•	•
	CD Manual/Drivers	•	•	•
2 Year Warranty	•	•	•	
Software	DDEC VI/MBE (2007–2009) (WPI889015)	•	•	
	DDEC Suite – DDEC III, IV, and V (1995–2006) (WPI888015)	•	•	
	DETROIT DIESEL MBE (Pre-EPA07) (WPI889031)	•	•	
	CAT® ACERT™ 2.0 (2003–2009) (WPI880024)	•	•	
	CAT® Electronic Engines (1990–2003) (WPI889024)	•	•	
	International® Engines 2.0 (1994–2006) (WPI880010)	•	•	
	Allison Suite: GEN IV, 1K/2K, 3K/4K, CEC1 (WPI888005)	•	•	
	WABCO Suite—Air and Hydraulic (WPI888014)	•	•	
	BENDIX ABS (WPI889013)	•	•	
	J1939 Heavy Duty Standard* (WPI889008)	•	•	•
	OBD II for light and medium trucks (1996–2006) (WPI888076) Includes OBD II/J1962 Adaptor (Part# WPI488013)	•	•	•
	* Cummins support for these applications limited to basic codes and data	•	•	
	Accessories	HD/1962 GM Truck w/ CAT Engine Adaptor (WPI488009)	•	•
12-Pin Connector (WPI401003)		•	•	
NATO Adaptor (WPI509011)			•	
NEXIQ™ Fault Code Guide (WPI909008)		•		
Storm Case (WPI219006)		•	•	
Foam Insert (WPI1401-311)		•	•	
4-cell Battery Pack (WPI4001-019)				
Screen Protector (WPI2450-801A)				
Additional Stylus Pen 3 Pack (WPI1402-813)				



IQMNTKITA



MPSI680003

MPSI680004 Pro-Link iQ Productivity Set. Complete set includes most software and accessories for maximum versatility and application usability.

IQMNTKITA Pro-Link iQ Military Scan Tool Set. Set includes specific software and accessories for servicing many military vehicles.

MPSI680003 Pro-Link iQ “A la Carte”. Basic scan tool set. Choose the software and accessories required for specific applications.

ShopKey, Battery Chargers

EEBC500NATO Standard NATO Battery Charger.

- Charges 6, 12, and 24 volt batteries
- Foam filled wheels for enhanced portability
- Upgraded control board coating for durability
- Based on Snap-on EEBC500 Battery Charger Plus (see p. 431)
- Versatelite connectivity
- Fitted with twin extruded output cable and Anderson connector
- Includes both standard clamp set and NATO adaptor



EEBC500NATO

EEBC500DEP Deployable NATO Battery Charger.

- Fitted in rugged Storm® case for extreme portability
- Includes housing mounts, transformer, control panel, and cable storage
- Auto shut-off when case closes
- Charges 12 and 24 volt batteries
- Flash reprogramming at 24 volts
- Shown with EECS500 battery tester (not included)



EEBC500DEP

NOTE: Appearance may differ from model shown

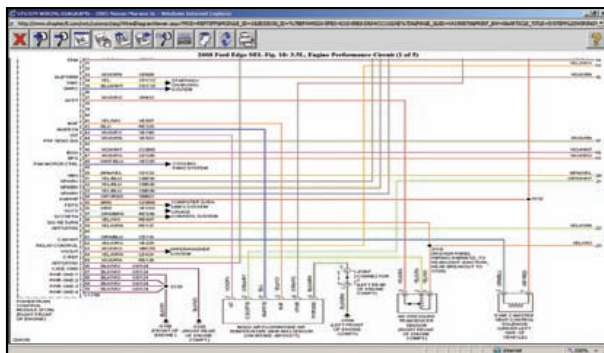
See pages 431-434 for the complete selection of Snap-on Battery Chargers & Testers

ShopKey® Repair and Information System

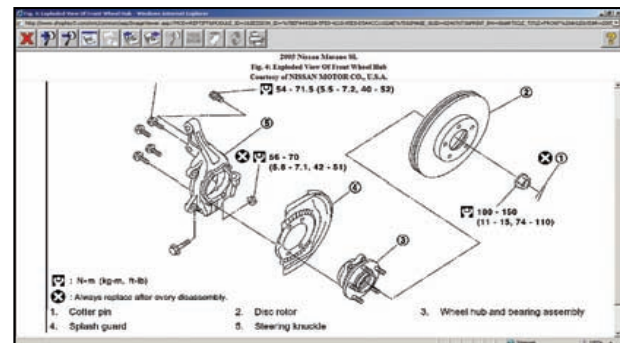


ShopKey5 Repair Information System
 ShopKey Medium Truck and Tractor - Trailer
 ShopKey Service Writer/Shop Management

Access the most trusted database of automotive repair information available—ShopKey. You are always up to date on the latest vehicle coverage, late-breaking TSBs and the best wiring diagrams in the business. ShopKey is completely online, so the latest OEM information and enhancements are automatically added every month. Loaded with features that make your job easier. The ShopKey Live™ feature lets technicians edit and share enhanced OEM service information with each other so they can take advantage of the latest time saving tips from top techs. Easily search repair article content for precise information with the Google® Search feature. Browse easy to follow, full-color wiring diagrams for vehicles dating back to 1985. Hotlink directly to relevant repair articles. Simply select a year, make and model, and one click takes you straight to vehicle repair, estimator with industry-standard parts and labor, TSBs or maintenance schedules.



Full-color OEM wiring diagrams simplify even the most difficult procedures.



Become an instant expert on millions of different repairs.



WARNING



- Charger must be OFF when connecting or disconnecting leads
- Avoid overcharging batteries • Read safety precautions on pages 586 to 589

Jacks & Jack Stands



HW93667



HW93642

- One piece handle
- Flanged side plates increase strength
- Wider for more stability under a load
- Large for easy maneuvering
- Cast iron pump base for strength and durability
- Sealed hydraulic pump for durability
- Pressure relief valve prevents overloading
- Cast iron lift arm for heavy duty loads
- U-joint release mechanism for precise load control

Service Jacks

Stock Number	Description	Capacity	Lifting Range
HW93642	Service Jack	2 Ton	4-1/2" - 20-1/4"
HW93667	Air/Manual Long Chassis Service Jack	4 Ton	5" - 25-3/4"

- Dual piston action provides speed to contact and power to lift
- Handle adjusts to three pumping positions
- Extra long chassis for hard to reach points
- T handle with release knob for positioning and load control
- Sealed hydraulic unit keeps out grit, grime and moisture
- Cast lift arm for heavy loads
- Operates manually or with air
- Patented "Speed Pak™" reduces handle pumping
- 140PSI required for maximum load



HW93693

Note: Sold and to be used in pairs

10 Ton Wheel Lift System

Stock Number	Capacity per Pair	Max. Height	Power Raise	Min. Wheel Dia.	Max. Wheel Dia.
HW93693	10 Ton	24"	24"	19-1/2"	24-1/2"

- Lifts engage wheels
- No need to remove panels on vehicle
- Raise front or rear of vehicle using a single controller
- Load retention pin allows lifts to function as stands
- Wide base ensures stability
- Completely air operated, no electrical connections
- Safety latch provides six different locked positions
- Portable, use in any area of the shop



HW93735A



HW93737A

Truck Air Jacks

Stock Number	Description	Capacity	Power Raise	Min. Ht.	Max. Ht.	Required Operating Pressure
HW93737A	Trolley Air Jack	10 Ton	11-1/2"	17-3/4"	51-1/2"	90- 200 PSI
HW93735A	Wheeled Truck Jack	25 Ton	5-1/8"	8-1/4"	18-1/2"	90 - 200 PSI

HW93735A

- 8" Low height for lifting from axle or suspension
- Compact, powerful design for quicklifts
- Pressure relief valve prevents overloading
- Coated ram prevents rust, extends jack life
- Air assisted ram retract
- 3 position handle
- 2 year warranty

HW93737A

- Removable handle and 10 foot air hose for safe position and operation
- 10 ton capacity when used separately, 20 tons when used in pairs
- Lifting Range 17-1/2" to 51-1/2"
- Completely air-operated
- Doubles as a support stand



HW93511

HW93526

Note: Sold and to be used in pairs

Jack Stands

Stock Number	Description	Capacity per Pair	Base Size	Min. Height	Max. Height	Height Intervals
HW93511	Heavy Duty Jack Stands	10 Ton	18 x 18"	30"	52"	2"
HW93512	High Reach Jack Stands	10 Ton	16 x 16"	19-1/2"	31-1/2"	2"
HW93526	Forklift Jack Stands	25 Ton	10 x 10"	12-1/4"	20"	1-1/2"

HW93511 / HW93512

- Pin style column adjustment
- Heavy duty square tubing
- Large saddle securely supports load
- Attached wheels for easy movement
- Ideal for fleet, agricultural and construction maintenance
- Sold in pairs

HW93526

- Pin style column adjustment
- Heavy duty square tubing
- Large saddle securely supports load
- Ideal for fleet, agricultural, and construction maintenance
- Sold and to be used in pairs



Air Bottle Jacks

Stock No.	Description	Lifting Range
OMG18122	12 Ton Capacity	9-1/2" - 18-1/2"
OMG18202	20 Ton Capacity	9-3/4" - 18-3/4"
OMG18302	30 Ton Capacity	11" - 18-1/8"
OMG18502	50 Ton Capacity	12" - 19"

- Air motor operation for fast, easy lifts
- Uses standard shop air (90-175 PSI)
- Quick connector air Hose for easy hook up and disconnection
- Sturdy steel construction with extra forged base for added stability



OMG18122

Low Profile Service Jack

Stock No.	Description	Lifting Range
OMG29023	2 Ton Capacity	2-1/2" - 20"

- Extra long low side frames designed for long reach under the car chassis
- No load first pump lifting point up to 13"
- Innovative design of Magic Lift™ offers a quicker life for professional performance
- Low profile design for maximum access, which fits easily and safely under vehicle
- Wide stance and low center of gravity provides optimum stability under load stress



OMG29023

“Magic Lift™” Service Jack

Stock No.	Description	Lifting Range
OMG25025	2-1/2 Ton Capacity	4" - 20"

- Revolutionary technology offers a fast lift for professional performance
- One or two pumps of the handle quickly raises saddle to the load lift point
- Extra low pick up point 3-3/4"
- Heavy gauge steel fram helps prevent distortion and twisting
- Safety by-pass system protects against overload damage



OMG25025

Pin Style Jack Stands

Stock No.	Description
OMG32107	10 Ton Capacity - high lift, adjusts from 28" - 47"
OMG32225	22 Ton Capacity - truck jack stands, adjusts from 12-1/8" - 19-7/8"

- Jack Stands use pin to hold bar safely in place when supporting load
- Easy height adjustment
- Sturdy welded steel construction for superior safety and strength
- Heavy gauge steel frame helps prevent distortion or twisting
- Sold and to be used only in pairs



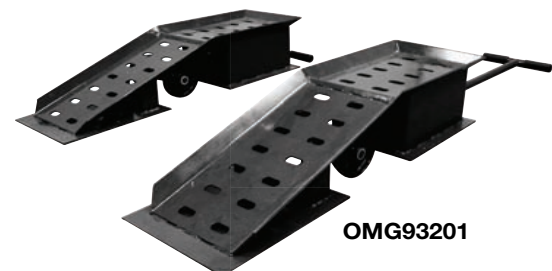
OMG32107

Note: Sold and to be used in pairs

20 Ton Wide Truck Ramps

Stock No.	Dimensions	Handle Length	Maximum Vehicle Tire Width
OMG93201	45-5/8 x 18-1/4 x 9-1/4"	33-1/2"	15-1/2"

- Specifically designed for heavy-duty tasks
- Steel wheels design for extra durability
- Long T-handle increases mobile efficiency
- Sold and to be used only in pairs
- Wider width for stability



OMG93201

Note: Sold and to be used in pairs



WARNING



• Do not exceed capacity of jacks or jack stands • Do not work on vehicles supported by jack, use jack stands
• Use jack and jack stands only on hard level surfaces • Read safety precautions on pages 586 to 589



OMG60253

Shop Press With Hand Pump

Stock No.	Description
OMG60123	12 Ton Capacity
OMG60253	25 Ton Capacity
OMGIMP5506	55 Ton Capacity

- Ideal for removal or installation of gears, u-joints, pulleys, wrist pins & other shop jobs
- Excellent for bending, bonding or straightening applications
- Multi position bed for work at various heights
- Ram stroke is 6"
- Heavy steel welded frame for strength and stability
- Working space height adjustable from minimum of 2-5/8" to a maximum of 34-3/8"



OMG31256
1250 Lbs. capacity with rotating head

Engine Stands

Stock No.	Description
OMG30750	750 Lbs. Capacity
OMG31250	1250 Lbs. Capacity
OMG31252	1250 Lbs. Capacity
OMG31256	1250 Lbs. Capacity

- Constructed from heavy-gauge welded square tubular steel
- Extra-long handle with rubber grip for easy rotation and maneuvering
- Head plate locks in 8 positions and rotates 360°



OMG44010

Engine Cranes

Stock No.	Description
OMG44010	1 Ton Capacity (Fold-up Design)
OMG44020	2 Ton Capacity

- Heavy duty welded construction with rugged reinforced tubular steel
- Metered control release valve for lowering boom at a precisely-controlled rate of speed
- Special 8 ton hydraulic long rams are equipped with a patented built-in by-pass mechanism
- 4 Boom positions from 31-1/8" to 43"



OMG22903

Treadle Foot Pump

- Efficiently operates any single-acting rams up to 55 ton capacity
- Provides up to 10K PSI with standard shop air (90-175 PSI)
- Built-in pressure by-pass protects against overload operation
- Constructed of light weight corrosion-free aluminum
- Uses 3/8" NPT fluid coupler
- Stock No. **OMG22903**



Available in 3 colors



Equipto® V-Grip™ Shelving

V-Grip Shelving

- Shelves Adjust on 1.5" Centers - No Tools Required
- Common Uprights for Continuous Row Applications
- Closed Units Feature Reflective White Side/Back Panels
- Customize with Wire Shelves and Modular Drawers

84" Open Preconfigured Units

Depth	Width	Capacity Per Shelf	Color	Five Shelves Starter Stock No.	Add-On Stock No.	Seven Shelves Starter Stock No.	Add-On Stock No.	Extra Shelf
18"	36"	700 lbs.	Red	EQ663-5SR	EQ663-5AR	EQ663-7SR	EQ663-7AR	EQ6231R
18"	36"	700 lbs.	Gray	EQ663-5SG	EQ663-5AG	EQ663-7SG	EQ663-7AG	EQ6231G
18"	36"	700 lbs.	Blue	EQ663-5SB	EQ663-5AB	EQ663-7SB	EQ663-7AB	EQ6231B
24"	36"	721 lbs.	Red	EQ665-5SR	EQ665-5AR	EQ665-7SR	EQ665-7AR	EQ6232R
24"	36"	721 lbs.	Gray	EQ665-5SG	EQ665-5AG	EQ665-7SG	EQ665-7AG	EQ6232G
24"	36"	721 lbs.	Blue	EQ665-5SB	EQ665-5AB	EQ665-7SB	EQ665-7AB	EQ6232B



Open Starter

Open Add-On

84"H Closed preconfigured unites with drawers

84" Closed Preconfigured Units

Depth	Width	Capacity Per Shelf	Color	Five Shelves Starter Stock No.	Add-On Stock No.	Seven Shelves Starter Stock No.	Add-On Stock No.	Extra Shelf
18"	36"	700 lbs.	Red	EQ673-5SR	EQ673-5AR	EQ673-7SR	EQ673-7AR	EQ6231R
18"	36"	700 lbs.	Gray	EQ673-5SG	EQ673-5AG	EQ673-7SG	EQ673-7AG	EQ6231G
18"	36"	700 lbs.	Blue	EQ673-5SB	EQ673-5AB	EQ673-7SB	EQ673-7AB	EQ6231B
24"	36"	721 lbs.	Red	EQ675-5SR	EQ675-5AR	EQ675-7SR	EQ675-7AR	EQ6232R
24"	36"	721 lbs.	Gray	EQ675-5SG	EQ675-5AG	EQ675-7SG	EQ675-7AG	EQ6232G
24"	36"	721 lbs.	Blue	EQ675-5SB	EQ675-5AB	EQ675-7SB	EQ675-7AB	EQ6232B



Closed Starter

Closed Add-On

84"H Closed preconfigured unites with drawers:
Shown with optional wire shelf top.

84" Closed Preconfigured Units With Drawers

- Shown with optional wire shelf top
- Includes (2) 4-1/2" High and (2) 6" High Drawers
- 48 Standard drawer sizes
- 36" and 48" widths
- 18" and 24" depths
- Drawer heights from 3" to 13 1/2"
- 200 and 400lb. Drawer capacity
- Each drawer has individual rigid mounting brackets for 100% flexibility of drawer location
- Drawers available with or without divider sets
- Drawers include handles with integral plastic-covered label holder

Drawer Depth	Drawer Width	Capacity per Drawer	Color	Starter Stock Number	Add-On Unit Stock Number
18"	36"	200 lbs.	Gray	EQ4221VNS	EQ4221VNA
18"	36"	400 lbs.	Gray	EQ4221VHS	EQ4221VHA
18"	48"	400 lbs.	Gray	EQ4241VHS	EQ4241VHA
24"	36"	200 lbs.	Gray	EQ4231VNS	EQ4231VNA
24"	36"	400 lbs.	Gray	EQ4231VHS	EQ4231VHA
24"	48"	400 lbs.	Gray	EQ4251VHS	EQ4251VHA



Starter

Add-on



WARNING



• Read safety precautions on pages 586 to 589

SHOP ORGANIZATION



Equipto® Workcenters

Optimize work areas by combining work and storage space into a modular drawer cabinet workcenter. With capacity up to 400 lbs per drawer, and single or double cabinet configurations, these workcenters are designed to last a lifetime.



EQ2576



EQ2596



EQ275



EQ255

All Workcenters are Available in 3 colors



Red

Gray

Blue

Preconfigured Modular Drawer Cabinet Workcenters

- 30" wide drawer cabinets
- "Quiet Ride™" drawers with 400 lb. capacity per drawer
- Choice of vivid colors to enhance work environment
- Knockouts in legs provide for safe, convenient electrical hookup
- Lower recessed shelf for convenience
- All benches are 30" deep
- Equipto offers over 140 sizes and styles of modular workcenters

Bench Height	Top	Bench Length	Color	Number of Drawers	Stock Number
34"	Hardwood	5'	Red	6	EQ2576-5WR
34"	Hardwood	5'	Gray	6	EQ2576-5WG
34"	Hardwood	5'	Blue	6	EQ2576-5WB
34"	Hardwood	6'	Red	6	EQ2576-6WR
34"	Hardwood	6'	Gray	6	EQ2576-6WG
34"	Hardwood	6'	Blue	6	EQ2576-6WB
34"	Hardwood	8'	Red	6	EQ2576-8WR
34"	Hardwood	8'	Gray	6	EQ2576-8WG
34"	Hardwood	8'	Blue	6	EQ2576-8WB
34"	Hardwood	8'	Red	12	EQ2596-8WR
34"	Hardwood	8'	Gray	12	EQ2596-8WG
34"	Hardwood	8'	Blue	12	EQ2596-8WB

Preconfigured Closed Leg Workcenters

- Sliding doors and 1 shelf included
- Steel top with backsplash
- All benches are 30" deep

Bench Height	Bench Length	Color	Stock Number
34"	4'	Red	EQ275U4R
34"	4'	Gray	EQ275U4G
34"	4'	Blue	EQ275U4B
34"	5'	Red	EQ275U5R
34"	5'	Gray	EQ275U5G
34"	5'	Blue	EQ275U5B
34"	6'	Red	EQ275U6R
34"	6'	Gray	EQ275U6G
34"	6'	Blue	EQ275U6B
34"	8'	Red	EQ275U8R
34"	8'	Gray	EQ275U8G
34"	8'	Blue	EQ275U8B

Equipto closed leg benches combine high-efficiency bench features with the important benefits of cabinet space. Choose from more than 200 sizes and styles and a range of features to match your exact needs. Rugged structural unit designed for tough use with the flexibility for adding accessories.

Preconfigured Pedestal Workcenters

- Lower recessed shelf
- Door cabinets have middle shelf
- All benches are 30" deep
- All Cabinets are 34"H x 15"W

Bench Height	Bench Length	Color	Stock Number
34"	4'	Red	EQ255U4R
34"	4'	Gray	EQ255U4G
34"	4'	Blue	EQ255U4B
34"	5'	Red	EQ255U5R
34"	5'	Gray	EQ255U5G
34"	5'	Blue	EQ255U5B
34"	6'	Red	EQ255U6R
34"	6'	Gray	EQ255U6G
34"	6'	Blue	EQ255U6B
34"	8'	Red	EQ255U8R
34"	8'	Gray	EQ255U8G
34"	8'	Blue	EQ255U8B

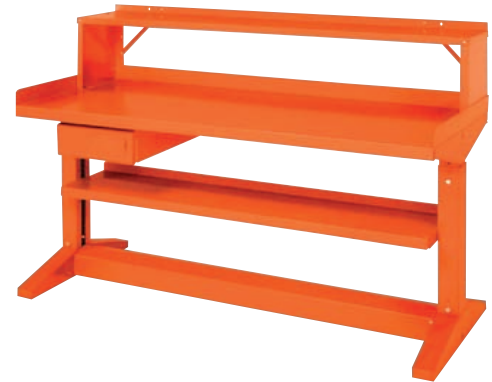
Equipto Pedestal Benches offer the perfect bench/cabinet combination and feature strong, rugged work surfaces, lower shelf space and lockable cabinets and drawers. Customize with accessories and over 180 combinations of height, length, depth, and top surfaces.

Snap-on Industrial offers the complete assortment of Equipto workcenters. Call your sales representative or customer service for more information

Preconfigured Adjustable-Height Iron-I Workbenches

- Include lower shelf, aerial shelf, drawer, and rails
- Lower shelf adjusts to three heights and tilts front or back to fit your application
- Back and side rails keep parts on top of workcenter
- Adjustable from 26" to 36" or from 34" to 44" in 1/2" increments to meet your exact height requirements
- Aerial shelf adds space for increased productivity
- Depending on type of top, workbench will support up to 1,800 lbs.

	Height	Length	Steel Top with Backstop	Hardwood Top	Bonded Wood Top	Hardboard Top with Backstop	ESD Anti-Static Top
30" Depth	26" to 36"	4'	EQ427U4	EQ427-4W	EQ427-4B	EQ427U4M	EQ427-4C
		5'	EQ427U5	EQ427-5W	EQ427-5B	EQ427U5M	EQ427-5C
		6'	EQ427U6	EQ427-6W	EQ427-6B	EQ427U6M	EQ427-6C
		8'	EQ427U8	EQ427-8W	EQ427-8B	EQ427U8M	EQ427-8C
	34" to 44"	4'	EQ428U4	EQ428-4W	EQ428-4B	EQ428U4M	EQ428-4C
		5'	EQ428U5	EQ428-5W	EQ428-5B	EQ428U5M	EQ428-5C
		6'	EQ428U6	EQ428-6W	EQ428-6B	EQ428U6M	EQ428-6C
		8'	EQ428U8	EQ428-8W	EQ428-8B	EQ428U8M	EQ428-8C
36" Depth	26" to 36"	4'	EQ437U4	EQ437-4W	EQ437-4B	EQ437U4M	EQ437-4C
		5'	EQ437U5	EQ437-5W	EQ437-5B	EQ437U5M	EQ437-5C
		6'	EQ437U6	EQ437-6W	EQ437-6B	EQ437U6M	EQ437-6C
		8'	EQ437U8	EQ437-8W	EQ437-8B	EQ437U8M	EQ437-8C
	34" to 44"	4'	EQ438U4	EQ438-4W	EQ438-4B	EQ438U4M	EQ438-4C
		5'	EQ438U5	EQ438-5W	EQ438-5B	EQ438U5M	EQ438-5C
		6'	EQ438U6	EQ438-6W	EQ438-6B	EQ438U6M	EQ438-6C
		8'	EQ438U8	EQ438-8W	EQ438-8B	EQ438U8M	EQ438-8C



8' bench legs are on 6' centers. The top overhangs legs 1' on each side.

Wall Mount Open Leg Benches

- Easy to anchor to wall
- Clean-up of work area is easy
- Efficient use of wall space

	Length	Steel Top with Backstop	Hardwood Top	Bonded Wood Top	Hardboard Top with Backstop	ESD Anti-Static Top
30" Depth	30"	EQ2340U3	EQ2340-3W	EQ2340-3B	EQ2340U3M	—
	4'	EQ2340U4	EQ2340-4W	EQ2340-4B	EQ2340U4M	EQ2340-4C
	5'	EQ2340U5	EQ2340-5W	EQ2340-5B	EQ2340U5M	EQ2340-5C
	6'	EQ2340U6	EQ2340-6W	EQ2340-6B	EQ2340U6M	EQ2340-6C
	8'	EQ2340U8	EQ2340-8W	EQ2340-8B	EQ2340U8M	EQ2340-8C
36" Depth	30"	EQ2345U3	EQ2345-3W	EQ2345-3B	EQ2345U3M	—
	4'	EQ2345U4	EQ2345-4W	EQ2345-4B	EQ2345U4M	EQ2345-4C
	5'	EQ2345U5	EQ2345-5W	EQ2345-5B	EQ2345U5M	EQ2345-5C
	6'	EQ2345U6	EQ2345-6W	EQ2345-6B	EQ2345U6M	EQ2345-6C
	8'	EQ2345U8	EQ2345-8W	EQ2345-8B	EQ2345U8M	EQ2345-8C



2345U6

Teardown Benches

- Ideal for working on transmissions, small engines and hydraulic components
- Reinforced work surface will stand up to years of heavy use
- Top has a 3/4" high retaining lip on all sides tapering to the rear center to a 1/2" threaded and plumbed drain
- Optional caster kit consists of 4 swivel 71/2"H casters
- 1/2" threaded drain nipple allows for connection of hose for fluid capture

Stock No.	Description	Depth	Length	Leg Height
EQ2301DT	Steel Top	30"	48"	29"
EQ2303DT	Steel Top	30"	48"	34"
EQ2311DT	Steel Top	30"	60"	29"
EQ2313DT	Steel Top	30"	60"	34"
EQ2301DTSS	Stainless Steel Top	30"	48"	29"
EQ2303DTSS	Stainless Steel Top	30"	48"	34"
EQ2311DTSS	Stainless Steel Top	30"	60"	29"
EQ2313DTSS	Stainless Steel Top	30"	60"	34"



2303DT shown with optional fluid container, drawer kit and shelf.



2307DT Fluid Container Kit



221DT - Drawer Kit



2203 - Caster Kit



WARNING



• Read safety precautions on pages 586 to 589

SHOP ORGANIZATION

Work Centers/Storage Cabinets

Production Boosters (pictured at right)

A. 14" High Unit	For 4' Bench	For 5' Bench	For 6' Bench
With 1 Shelf	EQ454T48	EQ454T60	EQ454T72
B. 24" High Unit	For 4' Bench	For 5' Bench	For 6' Bench
With 1 Shelf	EQ451T48	EQ451T60	EQ451T72
With 2 Shelves	EQ452T48	EQ452T60	EQ452T72
With 3 Shelves	EQ453T48	EQ453T60	EQ453T72
D. 36" High Unit	For 4' Bench	For 5' Bench	For 6' Bench
With 1 Shelf	EQ461T48	EQ461T60	EQ461T72
With 2 Shelves	EQ462T48	EQ462T60	EQ462T72
With 3 Shelves	EQ463T48	EQ463T60	EQ463T72
Extra Top Shelves	EQ450T48	EQ450T60	EQ450T72
C. Cabinets (note: not available for 4' workbenches)			
13" D x 30" W x 27" H 2 required for 5' bench		EQ1734DI	
13" D x 36" W x 27" H 2 required for 6' bench		EQ1735DI	

- Intermediate shelves are 13-1/2" D x 44", 56" or 68" L
- Full length top shelves are 13-1/2" D x 48", 60" or 72" L



Production Boosters

- Can be used on any work bench
- Hands off use for manuals and instruments
- Shelves adjust to any angle, tip toward front or back
- Safely holds expensive test equipment
- Can triple work surface

Aerial Shelves

Stock Number	Width
EQ226-30	30"
EQ226-48	48"
EQ226-60	60"
EQ226-72	72"

- Provide added space
 - Gain a shelf without losing table top space
- Note: will not fit 36" D steel tops



Flammable Liquid Storage Cabinets*

Stock Number	Description	Outside Height	Inside Height	Width Outside	Width Inside	Depth Outside	Depth Inside	Capacity (Gallons)
EQFSC45M	Standard Doors	65	60	43	40	18	15	45
EQFSC45S	Self-Closing Doors	65	58	43	40	18	15	45
EQFSC45XS	Extra Shelf for 43" wide units above (cabinets include 2 sheffs)							

*Meets OSHA and NFPA Code 30 specifications. Comes in Safety Yellow only.

- Galvanized steel shelves and leveling legs
- Support up to 350 lbs
- Internal and external welded construction
- 18 gauge steel reinforced double wall panel construction
- 2" raised leakproof sill
- 2" vent with fire baffle and cap
- Ground connection
- Lead-free high gloss baked on powder finish
- 3 point key lock doors
- Meet OSHA and NFPA code 30 specifications
- Self-closing models meet UFC79



Quick-View Storage Cabinets

Stock Number	Description	Color	Width	Depth	Height
EQQVC301226R	Wall Hung Quick-View Cabinet	Red	30"	12"	26"
EQQVC301226G	Wall Hung Quick-View Cabinet	Gray	30"	12"	26"
EQQVC301226B	Wall Hung Quick-View Cabinet	Blue	30"	12"	26"
EQQVC361842R	Quick-View Storage Cabinet	Red	36"	18"	42"
EQQVC361842G	Quick-View Storage Cabinet	Gray	36"	18"	42"
EQQVC361842B	Quick-View Storage Cabinet	Blue	36"	18"	42"
EQQVC361878R	Quick-View Storage Cabinet	Red	36"	18"	78"
EQQVC361878G	Quick-View Storage Cabinet	Gray	36"	18"	78"
EQQVC361878B	Quick-View Storage Cabinet	Blue	36"	18"	78"
EQQVC362478R	Quick-View Storage Cabinet	Red	36"	24"	78"
EQQVC362478G	Quick-View Storage Cabinet	Gray	36"	24"	78"
EQQVC362478B	Quick-View Storage Cabinet	Blue	36"	24"	78"
EQQVC482478R	Quick-View Storage Cabinet	Red	48"	24"	78"
EQQVC482478G	Quick-View Storage Cabinet	Gray	48"	24"	78"
EQQVC482478B	Quick-View Storage Cabinet	Blue	48"	24"	78"



- UV, break and scratch resistant plastic Lexan panels are mounted in both door frames for an unobstructed view of the cabinet's contents
- Each shelf has a 225 lb. weight capacity with 2" increment height adjustability
- Cabinet doors have a 3-point locking mechanism with one chrome plated handle
- Multiple cabinets can be keyed alike or individually
- Dollies are available for the 78" high cabinets to add mobility

Dollies for Quick-View Storage Cabinets

Fits Cabinet Size	Red	Gray	Blue
36" x 18"	EQCD1836R	EQCD1836G	EQCD1836B
36" x 24"	EQCD1836R	EQCD1836G	EQCD1836B
48" x 24"	EQCD2448R	EQCD2448G	EQCD2448B



Dolly

Standard Storage Cabinets

Stock Number	Description	Color	Width	Depth	Height
EQ1714R	Combination Cabinet	Red	36"	18"	78"
EQ1714G	Combination Cabinet	Gray	36"	18"	78"
EQ1714B	Combination Cabinet	Blue	36"	18"	78"
EQ1719R	Combination Cabinet	Red	36"	24"	78"
EQ1719G	Combination Cabinet	Gray	36"	24"	78"
EQ1719B	Combination Cabinet	Blue	36"	24"	78"
EQ1710R	5-Shelf Cabinet	Red	36"	18"	78"
EQ1710G	5-Shelf Cabinet	Gray	36"	18"	78"
EQ1710B	5-Shelf Cabinet	Blue	36"	18"	78"
EQ1715R	5-Shelf Cabinet	Red	36"	24"	78"
EQ1715G	5-Shelf Cabinet	Gray	36"	24"	78"
EQ1715B	5-Shelf Cabinet	Blue	36"	24"	78"
EQ1734R	2-Shelf Cabinet	Red	30"	13"	27"
EQ1734G	2-Shelf Cabinet	Gray	30"	13"	27"
EQ1734B	2-Shelf Cabinet	Blue	30"	13"	27"
EQ1735R	2-Shelf Cabinet	Red	36"	13"	27"
EQ1735G	2-Shelf Cabinet	Gray	36"	13"	27"
EQ1735B	2-Shelf Cabinet	Blue	36"	13"	27"



Combination Cabinet



5-Shelf Cabinet



2-Shelf Cabinet



WARNING



• Read safety precautions on pages 586 to 589

SHOP ORGANIZATION

Equipto® Tire Racks / Mezzanines



- Flexible and economical tire storage - adjustable for all sizes of passenger car tires and rims
- Racks assemble quickly and adjust with a minimum number of tools
- Beams adjust up or down on 1- 1/2" centers
- Brackets furnished for use back-to-back or against the wall

Equipto® V-Grip Tire Racks

Stock Number	Description	Dimensions
EQ80652MOB	2 Tier Mobile Tire Rack with Casters	18"D x 60"W x 67"H
EQ80652S	3 Tier Stationary Tire Rack Starter Section (2 ends)	15"D x 60"W x 84"H
EQ80652A	3 Tier Stationary Tire Rack Add-on Section (1 end)	15"D x 60"W x 84"H
EQ80632S	4 Tier Stationary Tire Rack Starter Section (2 ends)	15"D x 60"W x 120"H
EQ80632A	4 Tier Stationary Tire Rack Add-on Section (1 end)	15"D x 60"W x 120"H

Need more space but don't want to add on?

Double or triple your space with EQUIPTO® pre-fabricated Mezzanine Platforms and Shelving Deck-over Systems! EQUIPTO Mezzanine Platforms and Shelving Deck-over Systems are made of rugged elevated floors, walkways and stairways which add valuable area where you need it, at a fraction of the cost of acquiring new buildings. Standard heights are available up to 12' high, with 20' lengths.

Custom designs and sizes are also available.



Snap-on Industrial can work with you to configure an EQUIPTO Mezzanine System that will suit your facility, your needs, and your budget. Call your Snap-on Industrial Representative for more information, or contact our Customer Service Center:

Snap-on Industrial Customer Service (North America)

USA: 877-740-1900

Fax: 877-740-1880

E-Mail: order@snapon.com

Monday – Friday 7:00 a.m. – 6:00 p.m. U.S. Central Time

Snap-on Government Customer Service (North America)

Worldwide: 888-418-5600

Fax: 888-418-5900

E-Mail: contract.sales@snapon.com

Monday – Friday 7:00 a.m. – 6:00 p.m. GMT-06:00

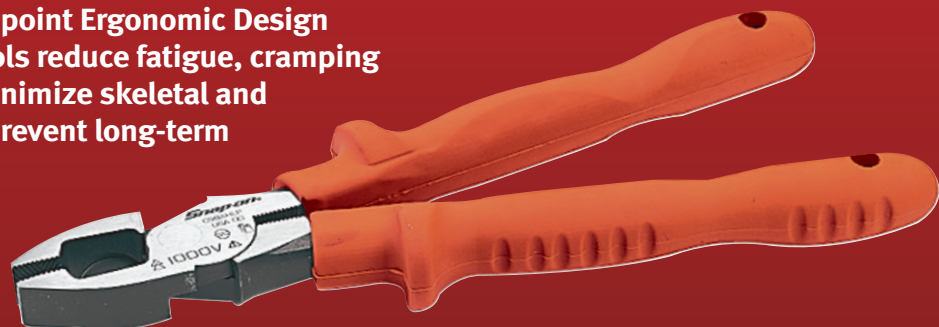


CONSTRUCTION AND MAINTENANCE

Our new line-up of tools for electrical construction and maintenance offers rugged, superior application-based performance for commercial, residential, utility pole, power generation and other applications.

When it comes to electrical construction and maintenance, Snap-on Industrial brings a complete package. We have some of the best screwdrivers, pliers and cutters you'll ever use, as well as cordless power tools, multimeters, and custom storage solutions, all targeted to electrical construction and maintenance. Our line of insulated tools meet the latest NFPA70E requirements and our non-conductive composite tools meet IEC60900 standards, which means they protect up to 1,000 VAC and 1,500 VDC.

Ergonomics starts with Bahco® hand tools, designed in conjunction with leading biomechanics and materials experts in an 11-point Ergonomic Design Program. The resulting tools reduce fatigue, cramping and blister injuries, and minimize skeletal and neuromuscular strains to prevent long-term repetitive motion injuries.



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Snap-on Utility Specialties N096

Bahco® Insulated Hand Tools N098

Bahco ergo® Hand Tools N099

Bahco® Power Tool Accessories N104

Bahco® Tradesman's Tools N108

Williams Hydraulics N112

ENERPAC Hydraulics N120

ENERPAC Machine Lifts & Load Skates N124

Columbus McKinnon Material Handling N125

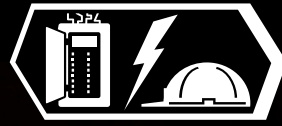
TPI Electronic Measuring Instruments N129

Wilton/JET Shop Equipment N132

Equipto Spool & Reel Racks N136

N093

CONSTRUCTION AND MAINTENANCE



**No trade-offs here.
We serve the
skilled trades.**



N094

www.snapon.com/industrial



We understand the people who do the work, and this is another critical area where we bring the power of industry-leading companies within the Snap-on family along with key suppliers to deliver a broad array of the highest quality and best-performing hand and power tools and the right shop equipment. You don't cut corners. And we don't either.

From utility industry-specific tools like pentagon sockets and manhole cover tools, Snap-on Industrial is committed to serving the skilled trades. Snap-on insulating and Bahco insulated hand tools offer that extra measure of safety you hope you never use.

Bahco ergo® hand tools, power tool accessories and tradesmen's tools offer a wide range of options for screwdrivers, pliers, and wrenches to meet particular needs and circumstances.

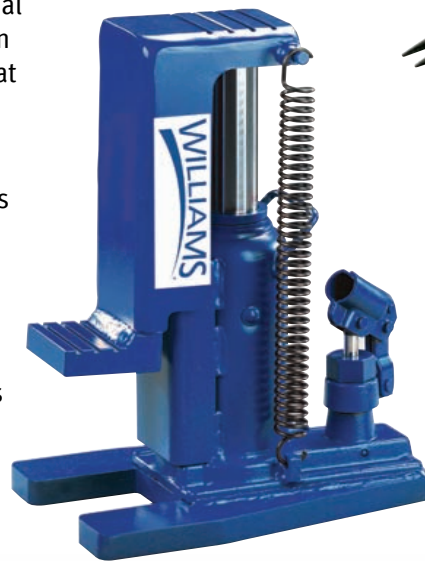
On the equipment side, we offer hydraulic tools in a variety of configurations from Williams and Enerpac—presses, pumps, gauges and accessories that have proven themselves over time.

On the materials handling side, you'll find Columbus McKinnon chain hoists and trolleys.

For electrical testing, including process control meters, clamp-on testers, multimeters and pressure and gas detection meters, we have a proven selection from TPI.

For cutting, fitting, shaping and persuading, Wilton/Jet bandsaws, grinders, heavy-duty sledge and cross pein hammers, and pallet trucks help meet the trade needs back in the shop.

There are lots of reasons why pros look to Snap-on Industrial for the right tools in electrical construction and maintenance. Turn the pages and you'll see them all.



UTILITY PRODUCTS

Snap-on Specialty Tools



ATSK3715

ATSK3715 Manhole Cover Removal Tool.

This Manhole Cover Removal Tool is used by Electrical Utilities to remove manhole covers weighting up to 600 lbs.



A327-48R

A327-48R 32MM Hex x 1/2" Torque Adaptor.

This tool is used to open and close the switch on the four-way Distribution Switch commonly found in the Electrical Utilities Industry.



GBR1824

GBR1824 3/4" x 9/16" Ratcheting Wrench.

This non-insulated, combination ratcheting wrench is used by Lineman in all applications of the Electrical Utilities Industry.



ATSK3621

ATSK3621 7/16" Hex to 1/2" Square Adaptor.

This tool is used with Part Number B2192 Impact Pentagon Socket, in the removal and tightening of special bolts used by Electrical Utilities on Pad Mounted and Sub-Surface Underground Facilities.



Snap-on Specialty Tools

Composite Pliers

Non-conductive needle nose pliers feature all composite jaw and handle. Spring loaded joint (U.S. Patent 5,904,078) returns pliers to comfortable working position. Durable jaw teeth aide in gripping and twisting. Integral thumb guard for user protection. Each tool is individually tested to ensure protection up to 1000VAC and 1500VDC. Meets IEC60900 standards.

C97CP	Needle nose pliers
C59AHL	Lineman's Pliers 10"
C97CP	Long Nose Pliers 7"



CFSSB8 Insulating Universal Bit Socket.

For holding 1/4" bits. 3/8" square drive, 1" O.D., 1-3/4" long. U.S. Patents 5,970,826 and 6,126,882 apply.



CFSSB8

CRB1824 Ratcheting Box Wrench.

Composite Ratcheting Box Wrench (9/16 - 3/4).



CRB1824

IHT208K Insulating Composite Ratchet and Socket Set

CFDS12B thru CFDS24B Sockets plus CFS949A Ratchet (3/8 to 3/4) 8 pcs., in C0800 Kit Bag.



IHT208K

CFX6 Extension, Insulating Composite, 6".

Each tool is individually tested to ensure protection up to 1000V. These tools meet or exceed European Standards EN60900 and IEC60900 for dielectric strength tests and design requirements, ASTM 1505 and VDE 0680, Type Test Requirements. These tools meet or exceed B107.10M and ISO 3315 strength requirements for standard, non-insulated steel tools.

U.S. Patents 5,394,773, 5,448,932 and 5,875,693 apply.

Product Specifications	
Drive Size, inches	3/8
Outside Dia., inches	2
Overall Length, inches	6



CFX6

CA1MF Adaptor, Insulating Composite.

1/2" internal drive x 3/8" external drive, 3 25/32" length.

No conductive path to user. No insulation to puncture, tear or wear through. Strong as steel. Every tool is individually tested to ensure protection up to 1000VAC and 1500VDC. Only Snap-on® non-conductive tools are UL Classified assuring the customer compliance to IEC60900. This means UL inspects and audits to ensure complete compliance with IEC60900.

Lifetime warranty for material and workmanship.

Product Specifications	
External Sq. Dr., inches	3/8
Internal Sq. Dr., inches	1/2
Outside Dia., inches	1 5/16
Overall Length, inches	3 25/32



CA1MF



WARNING



- Do not use damaged tool
- Do not use with impact drivers
- Read safety precautions on pages 586 to 589

Screwdrivers & Pliers



BAHBE9881S

BAHBE9881S - 5 Piece ergo® Phillips / Slotted Insulated Set

- Contains 3 Slotted, 2 Phillips Insulated Screwdrivers

Stock No.	Overall Length	Blade Length	Tip Width/Point Size
BAHBE-8220S	9	4	1/8
BAHBE-8040S	8 3/4	4	5/32
BAHBE-8050S	8 3/4	4	7/32
BAHBE-8610S	8	3 5/32	# 1 PH
BAHBE-8620S	8 3/4	4	# 2 PH



Insulated Slotted



Insulated Phillips

Insulated Slotted / Phillips Screwdrivers

- For protection against inadvertent show when working on circuits up to 1000 V.
- Three component ergonomically designed handle provides comfort and maximum grip even with oily hands

Stock No.	Overall Length (Inch)	Blade Length (Inch)	Tip Width/Point Size
BAHBE-8010S	7	3	3
BAHBE-8220S	9	4	1/8
BAHBE-8040S	8 3/4	4	5/32
BAHBE-8050S	8 3/4	4	7/32
BAHBE-8230S	9 3/4	5	9/64
BAHBE-8255S	10 3/4	6	1/4
BAHBE-8065S	11 5/8	7	5/16
BAHBE-8600S	6 3/8	2 3/8	0 PH
BAHBE-8610S	8	3 5/32	1 PH
BAHBE-8620S	8 3/4	4	2 PH
BAHBE-8630S	10 3/4	6	3 PH
BAHBE-8640S	14 1/4	8	4 PH



BAH2101S

Insulated Diagonal Cutting Pliers

- Extra thick grip handles with thumb stop
- Edges near the joint are shaped for cutting hard materials such as thick single wires

Stock No.	Length (Inch)	Jaw Length (Inch)	Max Cutting Capacity (Inches)
BAH2101S-140	5 1/2	5/8	1/16 Piano Wire
BAH2101S-160	6 1/4	3/4	1/16 Piano Wire
BAH2101S-180	7	13/16	5/64 Piano Wire
BAH2101S-200	8	7/8	3/32 Piano Wire



BAH2403S

Insulated Long Nose Pliers

- High performance tool steel construction adds extra strength

Stock No.	Style	Overall Length (Inch)	Max Cutting Capacity (Inches)
BAH2430S-200	Straight	8	1/16 Hard Steel
BAH2427S-200	Curved	8	5/64 Hard Steel



BAH2628S

Insulated Side Cutting Pliers

- High-leverage joint placement to reduce the cutting force.
- Joint design ensures a smooth joint action

Stock No.	Length (Inch)	Jaw Length (Inch)	Max Cutting Capacity (Inches)
BAH2628S-180	7	1 7/16	5/64 Hard Steel
BAH2628S-200	8	1 1/2	7/64 Hard Steel



BAH2520S

Insulated Cable Cutter

- Extra thick grip handles with thumb stop
- For cuts on ferrous material, only use cutting notch that is provided below top cutting blades in jaws

Stock No.	Length (Inch)	Jaw Length (Inch)
BAH2520S	23 5/8	1 3/16 Aluminum/Copper without Messenger Wire



BAHBE9881 - 6 Piece ergo Phillips / Slotted Set

Stock No.	Overall Length	Blade Length	Tip Width/Point Size
BAHBE-8020	6	2	1/8
BAHBE-8040	8 3/4	4	5/32
BAHBE-8150	8 3/4	4	7/32
BAHBE-8155	9 3/4	5	1/4
BAHBE-8610	7 3/4	3	#1 PH
BAHBE-8620	8 3/4	4	#2 PH



BAHB-9881

BAHBE9886 - 6 Piece ergo Phillips / Slotted / Pozidriv Set

Stock No.	Overall Length	Blade Length	Tip Width/Point Size
BAHBE-8030	7 3/4	3	9/64
BAHBE-8150	8 3/4	4	7/32
BAHBE-8610	7 3/4	3	# 1 PH
BAHBE-8620	8 3/4	4	# 2 PH
BAHBE-8810	7 3/4	3	# 1 Pozidriv
BAHBE-8820	8 3/4	4	# 2 Pozidriv



BAHB-9886

BAHBE9885 - 5 Piece ergo TORX Set

Stock No.	Overall Length	Blade Length	Tip Width/Point Size
BAHBE-8220S	9	4	1/8
BAHBE-8040S	8 3/4	4	5/32
BAHBE-8050S	8 3/4	4	7/32
BAHBE-8610S	8	3 5/32	# 1 PH
BAHBE-8620S	8 3/4	4	# 2 PH



BAHB-9885

ergo Slotted Screwdrivers

Stock No.	Overall Length (Inch)	Blade Length (Inch)	Tip Width/Point Size
BAHBE-8150	8 3/4	4	7/32
BAHBE-8144	8 3/4	4	1/4
BAHBE-8155	9 3/4	5	1/4
BAHBE-8250	10 3/4	6	7/32
BAHBE-8255	10 3/4	6	1/4



BAHBE-8150

ergo® Slotted Screwdrivers with Bolster

Stock No.	Overall Length (Inch)	Blade Length (Inch)	Tip Width/Point Size
BAHBE-8160	9 3/4	5	5/16
BAHBE-8260	11 3/4	7	5/16
BAHBE-8865**	13 1/2	7	5/16
BAHBE-8870**	13 1/2	7	3/8
BAHBE-8880**	14 1/2	8	1/2
BAHBE-8890**	14 1/2	8	9/16



BAHBE-8880

- Blades are equipped with bolster for use with wrench when extra torque is required
- ** Dual grip handle for two-handed operation provides extra torque when necessary

ergo Slotted Screwdrivers with Cabinet Tip

Stock No.	Overall Length (Inch)	Blade Length (Inch)	Tip Width/Point Size
BAHBE-8330	3 1/4	1	9/64
BAHBE-8340	3 1/4	1	5/32
BAHBE-8350	3 1/4	1	7/32
BAHBE-8355	3 1/4	1	1/4
BAHBE-8360	3 1/4	1	5/16
BAHBE-8450	4	1 3/4	5/32
BAHBE-8455	4	1 3/4	1/4
BAHBE-8010	6	2	3/23
BAHBE-8020	6	2	1/8
BAHBE-8020L	6	3	1/8
BAHBE-8210	7	3	3/32
BAHBE-8030	7 3/4	3	9/64
BAHBE-8040	8 3/4	4	5/32
BAHBE-8220	9	5	1/8
BAHBE-8230	9 3/4	5	9/64
BAHBE-8240	11 3/4	7	5/32



BAHBE-8355



BAHBE-8210

All Bahco screwdrivers have color coded handles to indicate tip type and show tip type symbol on butt of handle for quick identification



WARNING



- Do not use damaged tool
- Do not use with impact drivers
- Read safety precautions on pages 586 to 589

Screwdrivers



BAHBE-8620



BAHBE-8630



BAHBE-8810



BAHBE-7940



BAHBE-8925



BAHBE-8577

ergo Phillips Screwdrivers

- The three component ergonomically designed handle provides comfort and maximum grip even with oily hands.

Stock No.	Overall Length (Inch)	Blade Length (Inch)	Tip Width/Point Size
BAHBE-8600	6 1/2	2 3/16	0
BAHBE-8601	3	1	1
BAHBE-8610	7 3/4	3	1
BAHBE-8610L	12 3/4	8	1
BAHBE-8602	3	1	2
BAHBE-8620	8 3/4	4	2
BAHBE-8620L	12 3/4	8	2

ergo Phillips Screwdrivers with Bolster

Stock No.	Overall Length	Blade Length	Tip Width/Point Size
BAHBE-8630	10 3/4	6	3
BAHBE-8640**	14 1/4	8	4

** Dual grip handle for two-handed operation provides extra torque when necessary.

ergo Pozidriv Screwdrivers

- Three component handle with black oxide tips

Stock No.	Overall Length	Blade Length	Tip Width/Point Size
BAHBE-8810	7 3/4	3	1
BAHBE-8820	8 3/4	4	2
BAHBE-8823	10 3/4	6	3

ergo Tamper Resistant TORX Screwdrivers

Stock No.	Overall Length	Blade Length	Tip Width/Point Size
BAHBE-7910	7 3/8	2 5/8	T10
BAHBE-7915	7 1/2	2 3/4	T15
BAHBE-7920	8	3 5/32	T20
BAHBE-7925	8	3 5/32	T25
BAHBE-7927	8 3/4	4	T27
BAHBE-7930	8 3/4	4	T30
BAHBE-7940 **	11 5/8	5 1/8	T40

** Dual grip handle for two-handed operation provides extra torque when necessary.

ergo Tamper Resistant TORX Screwdrivers

Stock No.	Overall Length (Inch)	Blade Length (Inch)	Tip Width/Point Size
BAHBE-8906	6	2	T6
BAHBE-8907	6 1/4	2 5/32	T7
BAHBE-8908	6 3/8	2 3/8	T8
BAHBE-8909	7 1/4	2 3/8	T9
BAHBE-8910	7 3/8	2 1/2	T10
BAHBE-8915	7 1/2	2 1/4	T15
BAHBE-8920	8	3 1/8	T20
BAHBE-8925	8	3 1/8	T25
BAHBE-8927	8 3/4	4	T27
BAHBE-8930	8 3/4	4	T30
BAHBE-8940 **	11 1/2	5	T40
BAHBE-8945 **	11 1/2	5	T45

** Dual grip handle for two-handed operation provides extra torque when necessary.

ergo 1/4" Hex Shank Bit Holder

- Accepts all standard 1/4" hex shank bits

Stock No.	Overall Length	Tip Width/Point Size
BAHBE-8577	9 29/64	3



ergo Ball End Hex Screwdriver

Stock No.	Overall Length	Blade Length	Tip Width/Point Size
BAHBE-8702	8 11/32	4 5/16	2mm
BAHBE-8725	8 11/32	4 5/16	2.5mm
BAHBE-8703	8 11/32	4 5/16	3mm
BAHBE-8704	9 1/8	4 5/16	4mm
BAHBE-8705	9 1/8	4 5/16	5mm
BAHBE-8706	10 5/16	4 5/16	6mm
BAHBE-8708 **	10 3/4	5 7/8	8mm
BAHBE-8710 **	12 1/4	5 7/8	10mm

**Dual grip handle for two-handed operation provides extra torque when necessary.



BAHBE-8708

ergo Robertson Screwdriver

- Three component Handle with Black Oxide Tips for Square Recess Screws

Stock No.	Overall Length	Blade Length	Tip Size For Screw Sizes
BAHBE-9001	8	3 1/8	1 (5, 6, 7)
BAHBE-9002	8	3 1/8	2 (8, 9, 10)
BAHBE-9003	8 3/4	4	3 (12, 14)
Set BAHBE-9913	One of each, BAHBE-9001, BAHBE-9002, BAHBE-9003		



BAHBE-9002

ergo Scratch Awl

- Comes in handy when a pencil or marker does not show up very well on any material you need to mark

Stock No.
BAHBE-8945



BAHBE-8945

ergo Ratchet Bit Screwdriver

- Heavy duty ratcheting mechanism for dependable, consistent operation. Perfect for carpenters, electricians, homeowners and mechanics

Stock No.
BAH808050



BAH808050

1/4" Hex Bits and Holder in Storage Jars

- Fits all 1/4" hex shank bit holders. Resuable jar is ideal for storing screws, small parts and tools

Stock No.	Bit Type	Quantity Included
BAH52H1S50	#1 Phillips	50
BAH52H2S100	#2 Phillips	100
BAH51PZ1S50	#1 Pozidriv	50
BAH51PZ2S100	#2 Pozidriv	100
BAH64TXT1050	T10 Torx	50
BAH64TXT1550	T15 Torx	50
BAH64TXT2050	T20 Torx	50
BAH64TXT2525	T25 Torx	25
BAH64TXT3025	T30 Torx	25
BAHKM653QR25	Quick Release Hex Bit Holder	25



BAHKM653QR25



BAH64TXT2525

1/4" Hex Bit Sets in Plastic Storage Cases

- Each bit set contains 14 hex bits a bit holder
- Adaptor includes quick release and magnet retention
- Plastic storage case is ideal for organization of bits

Stock No.	# of Pieces	Contents
BAHSB59/S151	15	2 - Phillips, 2 Slotted, 3 Pozidriv, 2 Torx, Bit Holder
BAHSB59-S152	15	1 Phillips, 1 Pozidriv, 1 Slotted, 7 Torx, Bit Holder
BAHSB59/S153	15	10 Torx, 4 Hex, Bit Holder
BAHSB59-S154	15	2 Phillips, 3 Pozidriv, 3 Slotted, 5 Torx, Bit Holder



BAHSB59/S151



WARNING



• Read safety precautions on pages 586 to 589

Pliers



BAH8231



BAH8224

Adjustable Joint Pliers

- ergo handles provide maximum gripping comfort
- One button setting provides fast and secure jaw width changes with a single touch of the thumb
- **BAH8231** features 12" Capacity in an 8" Pliers

Stock No.	Overall Length (Inch)	Max Jaw Opening	Tip Width (Inches)
BAH8231	8	2 1/8	3/8
BAH8223	8	1 1/2	9/32
BAH8224	10	1 3/4	5/16
BAH8225	12	2 5/32	3/8
BAH8226	16	3	7/16



BAH2628G



BAH2653-9



BAH2101G



BAH2203



BAH2213-8



BAH2427G



BAH2430G



BAH2533



BAH2420G



BAH2620-80

ergo Handled Pliers

- Comfortable ergonomic two-component handle combines durability and secure non-slip grip
- Heavy duty design features high performance tool steel construction that adds extra strength

Stock No.	Description	Length (Inches)	Jaw Length (Inches)	Max Cutting Capacity (Inches)
BAH2628G-160	Side Cutting Combination Pliers	6 1/4	1 5/16	1/16 Hard Steel
BAH2628G-180	Side Cutting Combination Pliers	7	1 7/16	5/64 Hard Steel
BAH2653-9	High Leverage Linesman's Pliers	9 1/2	1 9/16	3/32 Hard Steel
BAH2101G-125	Diagonal Cutting Pliers	4 7/8	9/16	1/16 Piano Wire
BAH2101G-140	Diagonal Cutting Pliers	5 1/2	5/8	1/16 Piano Wire
BAH2101G-160	Diagonal Cutting Pliers	6 1/4	3/4	5/64 Piano Wire
BAH2101G-180	Diagonal Cutting Pliers	7	13/16	3/32 Piano Wire
BAH2203-5	Heavy Duty Straight Head Diagonal Pliers	5 1/4	9/16	1/16 Piano Wire
BAH2203-8	Heavy Duty Straight Head Diagonal Pliers	8 3/16	13/16	3/32 Piano Wire
BAH2213-9	Heavy Duty Angles Head Diagonal Cutting	8 1/16	13/16	3/32 Piano Wire
BAH2427G-160	60 Degree Curved Nose Pliers	6 1/4	1 13/16	5/64 Hard Steel
BAH2427G-200	60 Degree Curved Nose Pliers	7	2 3/4	5/64 Hard Steel
BAH2430G-140	Long Nose Pliers	5 1/2	1 1/2	3/64 Hard Steel
BAH2430G-160	Long Nose Pliers	6 1/4	1 15/16	1/16 Hard Steel
BAH2533-7	Heavy Duty Long Nose Pliers	7 1/2	2 7/16	1/16 Hard Steel
BAH2533-8	Heavy Duty Long Nose Pliers	8 1/4	2 3/8	5/64 Hard Steel
BAH2420G-125	Flat Nose Pliers	5	7/8	5/8 Width at Tip
BAH2620-80	Cable Cutter for Non-Ferrous Materials	33 1/2		1 5/8 Aluminum/Copper



ergo Big Mouth Adjustable Wrenches

- Extra wide opening jaws with shorter handle for maximum access in confined areas
- True ergo design, with thermoplastic handle and larger grip width
- Ideal for plumbers, electricians and maintenance workers

Stock No.	Overall Length (Inch)	Max Jaw Opening (Inch)	Finish
BAH9031RCUS	8	1 1/2	Chrome
BAH9029RUS	6	1 1/4	Black Phosphate
BAH9031RUS	8	1 1/2	Black Phosphate



BAH9031RCUS

ergo Combination Adjustable/Pipe Wrenches

- Unique reversible jaw combines the functions of an adjustable and pipe wrench
- Simply reverse the jaw to change the grip
- True ergo design, with thermoplastic handle and larger grip width
- Ideal for plumbers, electricians and maintenance workers

	Stock No.	Overall Length (Inch)	Max Jaw Opening (Inch)	Head Thickness	Max Pipe Diameter
Chrome Finish:	BAH9070RPCUS	6	13/16	7/16	3/8
	BAH9071RPCUS	8	1 1/16	1/2	1/2
	BAH9072RPCUS	10	1 5/16	5/8	5/8
	BAH9073RPCUS	12	1 3/8	11/16	11/16
Black Phosphate Finish:	BAH9070RPUS	6	13/16	7/16	3/8
	BAH9071RPUS	8	1 1/16	1/2	1/2
	BAH9072RPUS	10	1 5/16	5/8	5/8
	BAH9073RPUS	12	1 3/8	11/16	1 1/16



BAH9072RPCUS

ergo Adjustable Wrenches

	Stock No.	Overall Length (Inch)	Max Jaw Opening (Inch)	Head Thickness	Jaw Tip Thickness
Chrome Finish:	BAH9070RCUS	6	3/4	7/16	3/16
	BAH9071RCUS	8	1 1/16	1/2	1/4
	BAH9072RCUS	10	1 3/16	5/8	5/16
	BAH9073RCUS	12	1 5/16	11/16	7/16
Black Phosphate Finish:	BAH9070RUS	6	3/4	7/16	3/16
	BAH9071RUS	8	1 1/16	1/2	1/4
	BAH9072RUS	10	1 3/16	5/8	5/16
	BAH9073RUS	12	1 5/16	11/16	7/16



BAH9072RUS

Adjustable Wrenches

	Stock No.	Overall Length (Inch)	Max Jaw Opening (Inch)	Head Thickness	Jaw Tip Thickness
Chrome Finish:	BAH8069RCUS	4	1/2	3/8	1/8
	BAH8070RCUS	6	3/4	7/16	3/16
	BAH8071RCUS	8	1 1/16	1/2	1/4
	BAH8072RCUS	10	1 1/8	5/8	5/16
	BAH8073RCUS	12	1 5/16	11/16	7/16
	BAH8074RCUS	15	1 11/16	13/16	9/16
	BAH8075RCUS	18	2 1/16	7/8	11/16
Black Phosphate Finish:	BAH8069RUS	4	1/2	3/8	1/8
	BAH8070RUS	6	3/4	7/16	3/16
	BAH8071RUS	8	1 1/16	1/2	1/4
	BAH8072RUS	10	1 1/8	5/8	5/16
	BAH8073RUS	12	1 5/16	11/16	7/16
	BAH8074RUS	15	1 11/16	13/16	9/16
	BAH8075RUS	18	2 1/16	7/8	11/16
	BAH86	24	2 7/16	1 1/16	1 1/16
BAH87	30	3 5/16	1 3/16	1 3/16	
Alligator Adjustable Wrench	BAH31RUS	8	1 1/4	1/2	3/8



BAH8072RCUS



BAH86



BAH31RUS



WARNING



• Read safety precautions on pages 586 to 589



Holesaw Sets



BAH862021



BAH862209



BAH862213

Bimetal Holesaw Sets and Contents

- Assortment of holesaws and accessories most commonly used by the trades, especially electricians and plumbers
- Each packed in a durable plastic carrying case for convenience
- All Bahco holesaws feature verticle slots for easy core removal

			BIMETAL SETS					
			BAH862007	BAH862013	BAH862017	BAH862021	BAH862209	BAH862109
HOLESAW SETS	Description	Stock No.						
	BIMETAL HOLESAW 5/8"	BAH383016VIP			X			
	BIMETAL HOLESAW 3/4"	BAH383019VIP		X	X	X	X	
	BIMETAL HOLESAW 7/8"	BAH383022VIP	X	X	X	X	X	X
	BIMETAL HOLESAW 1"	BAH383025VIP	X		X	X		
	BIMETAL HOLESAW 1 1/8"	BAH383029VIP	X	X	X	X	X	X
	BIMETAL HOLESAW 1 1/4"	BAH383032VIP	X		X			
	BIMETAL HOLESAW 1 3/8"	BAH383035VIP		X	X	X		X
	BIMETAL HOLESAW 1 1/2"	BAH383038VIP	X	X	X	X	X	
	BIMETAL HOLESAW 1 3/4"	BAH383044VIP		X	X	X	X	X
	BIMETAL HOLESAW 2"	BAH383051VIP		X	X	X		X
	BIMETAL HOLESAW 2 1/4"	BAH383057VIP		X		X	X	
	BIMETAL HOLESAW 2 1/2"	BAH383064VIP		X	X	X		X
	BIMETAL HOLESAW 3"	BAH383076VIP			X	X		
	BIMETAL HOLESAW 3 1/4"	BAH383083VIP				X		
	BIMETAL HOLESAW 3 5/8"	BAH383092VIP				X		
BIMETAL HOLESAW 3 3/4"	BAH383095VIP				X			
BIMETAL HOLESAW 4 1/8"	BAH3830105VI				X			
BIMETAL HOLESAW 4 3/4"	BAH3830121VI				X			
Accessories Included (Available Individually)	ARBOR 7/16" HEX	BAH38341130				X		
	ARBOR 9/32 HEX	BAH3834730	X	X	X		X	X
	ARBOR 7/16 HEX 32152 MM QUICK	BAHC381152QC		X	X	X	X	X
	ARBOR ADAPTER	BAH3834-ADP	X	X	X			
	HOLESAW DRILL HSS 1/4"	BAH3834DRL		X	X	X		
	EXTENSION	BAH3834EXT1					X	X

Carbide Tipped Holesaw Sets and Contents

- For the professional who works with a wide variety of non-metallic surfaces, this set will cut through anything from hardwood to bricks



BAH863313

			CARBIDE SETS	
			BAH863307	BAH863313
HOLESAW SETS	Description	Stock No.		
	CARBIDE HOLESAW 3/4"	BAH3832-19		X
	CARBIDE HOLESAW 7/8"	BAH3832-22	X	X
	CARBIDE HOLESAW 1"	BAH3832-25	X	
	CARBIDE HOLESAW 1 1/8"	BAH3832-29	X	X
	CARBIDE HOLESAW 1 1/4"	BAH3832-32	X	
	CARBIDE HOLESAW 1 1/8"	BAH3832-35		X
	CARBIDE HOLESAW 1 1/2"	BAH3832-38	X	X
	CARBIDE HOLESAW 1 3/4"	BAH3832-44		X
	CARBIDE HOLESAW 2"	BAH3832-51		X
	CARBIDE HOLESAW 2 1/4"	BAH3832-57		X
	CARBIDE HOLESAW 2 1/2"	BAH3832-64		X
Accessories Included (Available Individually)	ARBOR 9/32 HEX	BAH3834730	X	X
	ARBOR 7/16 HEX 32152 MM QUICK	BAH38341152QC		X
	ARBOR ADAPTER	BAH3834-ADP	X	X
	HOLESAW DRILL HSS 1/4"	BAH3834DRL		X



Bimetal and Carbide Tipped Holesaws

Bimetal Stock No.	Carbide Stock No.	Diameter (Inches)	Diameter (mm)
BAH383014VIP	BAH3832-14	9/16	14
BAH383016VIP	BAH3832-16	5/8	16
BAH383017VIP	BAH3832-17	11/16	17
BAH383019VIP	BAH3832-19	3/4	19
BAH383020VIP	BAH3832-20	25/32	20
BAH383021VIP	BAH3832-21	13/16	21
BAH383022VIP	BAH3832-22	7/8	22
BAH383024VIP	BAH3832-24	15/16	24
BAH383025VIP	BAH3832-25	1	25
BAH383027VIP	BAH3832-27	1 1/16	27
BAH383029VIP	BAH3832-29	1 1/8	29
BAH383030VIP	BAH3832-30	13/16	30
BAH383032VIP	BAH3832-32	1 1/4	32
BAH383033VIP	BAH3832-33	15/16	33
BAH383035VIP	BAH3832-35	1 5/8	35
BAH383037VIP	BAH3832-37	17/16	37
BAH383038VIP	BAH3832-38	1 1/2	38
BAH383040VIP	BAH3832-40	1 9/16	40
BAH383041VIP	BAH3832-41	1 5/8	41
BAH383043VIP	BAH3832-43	11 1/16	43
BAH383044VIP	BAH3832-44	1 3/4	44
BAH383046VIP	BAH3832-46	11 3/16	46
BAH383048VIP	BAH3832-48	1 7/8	48
BAH383051VIP	BAH3832-51	2	51
BAH383052VIP	BAH3832-52	2 1/16	52
BAH383054VIP	BAH3832-54	2 1/8	54
BAH383056VIP	BAH3832-56	2 7/32	56
BAH383057VIP	BAH3832-57	2 1/4	57
BAH383059VIP	BAH3832-59	2 5/16	59
BAH383060VIP	BAH3832-60	2 3/8	60
BAH383064VIP	BAH3832-64	2 1/2	64
BAH383065VIP	BAH3832-65	2 9/16	65
BAH383067VIP	BAH3832-67	2 5/8	67
BAH383068VIP	BAH3832-68	2 11/16	68
BAH383070VIP	BAH3832-70	2 3/4	70
BAH383073VIP	BAH3832-73	2 7/8	73
BAH383076VIP	BAH3832-76	3	76
BAH383079VIP	BAH3832-79	3 1/8	79
BAH383083VIP	BAH3832-83	3 1/4	83
BAH383086VIP	BAH3832-86	3 3/8	86
BAH383089VIP	BAH3832-89	3 1/2	89
BAH383092VIP	BAH3832-92	3 5/8	92
BAH383095VIP	BAH3832-95	3 3/4	95
BAH383098VIP	BAH3832-98	3 7/8	98
BAH3830102VI	BAH3832-102	4	102
BAH3830105VI	BAH3832-105	4 1/8	105
BAH3830108VI	BAH3832-108	4 1/4	108
BAH3830111VI	BAH3832-111	4 3/8	111
BAH3830114VI	BAH3832-114	4 1/2	114
BAH3830121VI	BAH3832-121	4 3/4	121
BAH3830127VI	BAH3832-127	5	127
BAH3830133VI	BAH3832-133	5 1/4	133
BAH3830140VI	BAH3832-140	5 1/2	140
BAH3830146VI	BAH3832-146	5 3/4	146
BAH3830152VI	BAH3832-152	6	152

- Every aspect of the Bahco holesaw is engineered to improve a worker's productivity and craftsmanship from the design of the cutting edges to the technologies used to produce the holesaws. Bahco holesaws fit all standard portable drills and drill presses
- Bahco was the first company to create a successful bi-metal blade that combines a flexible, shatter-resistant spring steel back with a high speed steel cutting edge to provide faster, more durable cutting power
- Carbide tipped holesaws cut clean holes in ceramics, bricks, slate, laminate, fiberglass and hardwood. Carbide tips are fusion welded to an alloy back. Cutting depth for all diameters is 1-1/2"
- Bimetal holesaws create clean, accurate holes in most machinable materials. High speed cutting edge is electron beam welded to tough alloy back. Cutting depth for all diameters is 1-1/2"



BAH383051VIP



BAH3832-70



• Read safety precautions on pages 586 to 589



Reciprocating Saw Blades



- Standard bimetall blade
- For Straight and quick cutting of metal, plastic, laminates and wood with nails



- Extra Heavy duty coarse-toothed bimetall blade with coarse teeth for cutting metal tubing and other demanding metal work. U-shaped fitting provides extra strength when secured to reciprocating saw



- Slope blade - for all around cutting of metal plastics, laminates and wood in nails



- Contour blade - for contour sawing of metal, plastic, laminates and wood with nails



- Demolition Blades with coarse teeth for building and demolition work. Blade thickness is increased .62" for greater strength, making this blade ideal for cutting any building material, even heavy wood with large-dimension nails

BiMetal Reciprocating Saw Blades

	Stock No.	Blade Length (inches)	Blade Length (mm)	Blade Thickness (inches)	Blade Thickness (mm)	Teeth per inch
5 Per Pack	BAH31006ST5P	4	100	0.050	1.3	6
	BAH310014ST5	4	100	0.035	0.9	14
	BAH310018ST5	4	100	0.035	0.9	18
	BAH310024ST5	4	100	0.035	0.9	24
	BAH31506ST5P	6	150	0.050	1.3	6
	BAH3150812T5	6	150	0.035	0.9	8/12
	BAH315010ST5	6	150	0.035	0.9	10
	BAH315014ST5	6	150	0.035	0.9	14
	BAH315018ST5	6	150	0.035	0.9	18
	BAH315024ST5	6	150	0.035	0.9	24
	BAH3228812T5	9	228	0.050	1.3	8/12
	BAH322810ST5	9	228	0.035	0.9	10
	BAH322814ST5	9	228	0.035	0.9	14
	BAH322818ST5	9	228	0.035	0.9	18
10 Per Pack	BAH330014ST5	12	300	0.035	0.9	14
	BAH330018ST5	12	300	0.035	0.9	18
	BAH310ST10P	4	100	0.050	1.3	6
	BAH310014ST1	4	100	0.035	0.9	14
	BAH310018ST1	4	100	0.035	0.9	18
	BAH310024ST1	4	100	0.035	0.9	24
	BAH31506ST10	6	150	0.050	1.3	6
	BAH3150812T1	6	150	0.035	0.9	8/12
	BAH315010ST1	6	150	0.035	0.9	10
	BAH315014ST1	6	150	0.035	0.9	14
	BAH315018ST1	6	150	0.035	0.9	18
	BAH315024ST1	6	150	0.035	0.9	24
	BAH3228812T1	9	228	0.050	1.3	8/12
	BAH322810ST1	9	228	0.035	0.9	10
100 Per Pack	BAH322814ST1	9	228	0.035	0.9	14
	BAH322818ST1	9	228	0.035	0.9	18
	BAH330014ST1	12	300	0.035	0.9	14
	BAH330018ST1	12	300	0.035	0.9	18
	BAH3150812ST	6	150	0.035	0.9	8/12
	BAH315010ST	6	150	0.035	0.9	10
	BAH315014ST	6	150	0.035	0.9	14
	BAH315018ST	6	150	0.035	0.9	18
	BAH315024ST	6	150	0.035	0.9	24
	BAH3228812T	9	228	0.050	1.3	8/12
	BAH322810ST	9	228	0.035	0.9	10
	BAH322814ST	9	228	0.035	0.9	14
	BAH322818ST	9	228	0.035	0.9	18
	BAH330014ST	12	300	0.035	0.9	14
BAH330018ST	12	300	0.035	0.9	18	

BiMetal Reciprocating Saw Blades

	Stock No.	Blade Length (inches)	Blade Length (mm)	Blade Thickness (inches)	Blade Thickness (mm)	Teeth per inch
Slope Blade 5 Per Pack	BAH315058SL5	6	150	0.05	1.3	5/8
	BAH32286SL5	9	228	0.05	1.3	6
	BAH33006SL5	12	300	0.05	1.3	6
	BAH3300812S5	12	300	0.05	1.3	8/12
Slope Blade 10 Per Pack	BAH315058SL1	6	150	0.05	1.3	5/8
	BAH32286SL1	9	228	0.05	1.3	6
	BAH33006SL1	12	300	0.05	1.3	6
Slope Blade 100 Per Pack	BAH3300812S1	12	300	0.05	1.3	8/12
	BAH315058SL	6	150	0.05	1.3	5/8
Contour Blade 5 Per Pack	BAH310014SC5	4	100	0.035	0.9	14
	BAH310018SC5	4	100	0.035	0.9	18
	BAH315046SC5	6	150	0.05	1.3	4/6
Contour Blade 10 Per Pack	BAH315046SC1	6	150	0.05	1.3	4/6
Demolition Blade 5 Per Pack	BAH315058DS5	6	150	0.062	1.6	5/8
	BAH322858DS5	9	228	0.062	1.6	5/8
	BAH330058DS5	12	300	0.062	1.6	5/8
Demolition Blade 10 Per Pack	BAH315058DS1	6	150	0.062	1.6	5/8
	BAH322858DS1	9	228	0.062	1.6	5/8
	BAH330058DS1	12	300	0.062	1.6	5/8
Heavy Duty Blade 5 Per Pack	BAH31508UST5	6	150	0.062	1.6	8
	BAH32008UST5	8	200	0.062	1.6	8
Heavy Duty Blade 10 Per Pack	BAH33008UST5	12	300	0.062	1.6	8



Specialty Reciprocating Saw Blades

	Stock No.	Blade Length (inches)	Blade Length (mm)	Blade Thickness (inches)	Blade Thickness (mm)	Teeth per inch
Low Friction 5 Per Pack	BAH421507SL5	6	150	0.040	1.0	7
	BAH422287SL5	9	228	0.040	1.0	7
	BAH423007SL5	12	300	0.040	1.0	7
Low Friction 10 Per Pack	BAH421507SL1	6	150	0.040	1.0	7
	BAH422287SL1	9	228	0.040	1.0	7
	BAH423007SL1	12	300	0.040	1.0	7
Carbide Tipped 1 Per Pack	BAH461506SL1	6	150	0.035	0.9	6
	BAH462283STP	9	228	0.050	1.3	3
	BAH463003STP	12	300	0.050	1.3	3
Carbide Grit 2 Per Pack	BAH461006ST2	4	100	0.035	0.9	
	BAH461506ST2	6	150	0.035	0.9	
Pallet Cutting 10 Per Pack	BAH228101431	9	228	0.05	1.3	10/14
	BAH228101491	9	228	0.035	0.9	10/14
Pallet Cutting 100 Per Pack	BAH22810143	9	228	0.05	1.3	10/14
	BAH22810149	9	228	0.035	0.9	10/14
10 Piece Recip Blade Set	BAHREC-SET10	Includes 1 EA:				
	BAH31006ST	BAH310010SC				
	BAH310018SC	BAH310024ST				
	BAH315058SL	BAH315010ST				
	BAH315014ST	BAH315018ST				
	BAH315024ST	BAH31507SL				

- Low Friction Wood Cutting Blade for all around wood cutting



- Carbide tipped blades for cutting bricks, porous concrete, fiberglass, plastic laminates, cement board, plywood, cast aluminum, rubber and hardwoods



- Carbide grit blades for precision cutting of extremely hard metals, glass, glazed tiles, ceramics, fiberglass, cast iron, clay pipe, stone, bricks, plaster and marble



- Pallet blade designed for pallet repair shops. Unique V-shape front design prevents the blade from jamming in the wood when cutting nails in damaged parts of the pallet



- Set contains 10 of the most commonly used recip blades



WARNING



• Read safety precautions on pages 586 to 589

Bahco Bits

	Stock No.	Blade Length (inches)
Spade Bits Length: 1/4" to 1" = 6 1/16"	BAH95291/4	1/4
	BAH95293/8	3/8
	BAH95297/16	7/16
	BAH95291/2	1/2
	BAH95299/16	9/16
	BAH95295/8	5/8
	BAH952911/16	11/16
Spade Bits Length: 1 1/8" to 1-1/2" = 6 3/4"	BAH95293/4	3/4
	BAH952913/16	13/16
	BAH95297/8	7/8
	BAH952915/16	15/16
	BAH95291	1
	BAH952911/8	1 1/8
	BAH952911/4	1 1/4
	BAH952913/8	1 3/8
	BAH952911/2	1 1/2
	Auger Bits - Short - Approximately 8"	BAH95263/8
BAH95267/16		7/16
BAH95261/2		1/2
BAH95269/16		9/16
BAH95265/8		5/8
BAH952611/16		11/16
BAH95263/4		3/4
BAH952613/16		13/16
BAH95267/8		7/8
BAH952615/16		15/16
BAH95261		1
BAH952611/8		1 1/8
BAH952611/4		1 1/4
BAH952613/8		1 3/8
BAH952611/2		1 1/2
Auger Bits - Long - Approximately 16"		BAH95273/8
	BAH95277/16	7/16
	BAH95271/2	1/2
	BAH95279/16	9/16
	BAH95275/8	5/8
	BAH952711/16	11/16
	BAH95273/4	3/4
	BAH952713/16	13/16
	BAH95277/8	7/8
	BAH952715/16	15/16
	BAH95271	1
	BAH952711/8	1 1/8
BAH952711/4	1 1/4	
BAH952713/8	1 3/8	
BAH952711/2	1 1/2	

- Spade Bits for fast wood boring



- Auger Bits - tip is self-tapping which makes drilling easier



Step Bits

Stock No.	Hole Sizes (inches)	Increments
BAH228-HSS-1	3/16" - 1/2"	3/16, 1/4, 5/16, 3/8, 7/16, 1/2
BAH228-HSS-3	1/4" - 3/4"	1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4
BAH228-HSS-4	3/16" - 7/8"	3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 1 1/16, 3/4, 13/16, 7/8
BAH228-HSS-6	7/8" - 1 3/8"	7/8, 1 1/8, 1 7/32, 1 1/4, 1 3/8





Hacksaws & Blades



BAH325

BAH325 ergo Professional Hand Hacksaw

- Ergonomically designed with very high blade tension for straight, accurate and fast cuts
- Centered blade for correct balance and spring tensioned blade loading mechanism for quick blade changes
- Alternative 55° blade mounting for flush cutting.
- Supplied with reliable and shatterproof 12 inch bi-metal blade, 24 TPI



BAH319

BAH319 ergo Commercial Hand Hacksaw

- Alternative 55° blade mounting for flush cutting
- Offers a strong steel frame that is covered with a protective dual component plastic
- Comfortable, non-slip back handle and front grip ensures a solid, secure grip
- Tension mechanism is fully integrated into the handles so there is no obstruction during use.
- Supplied with reliable and shatterproof 12 inch bi-metal blade, 24 TPI



BAH317

BAH317 Utility Hand Hacksaw

- Alternative 90° blade mounting
- Light and comfortable frame for difficult-to-reach applications
- Durable aluminum handle
- Metal tensioning lever designed to be comfortable and unobtrusive
- Supplied with bi-metal blade for safety and efficiency



BAH3818300PR

Progressive Tooth Hacksaw Blades

- Progressive toothing for easier cutting
- Initial fine tooth pitch facilitates easy start while progressively coarser toothing allows for rapid cuts
- Ideal for all metal cutting applications
- TPI varies between 18 and 28 teeth per inch

Stock No.	Blade Per Package	Dimensions (inch)
BAH3818300PR	100	12 x 1/2 .025



BAH39063003

Hand Hacksaw Blades

- Virtually unbreakable and shatterproof bimetal blades for all metal sawing

Stock No.	Blade Per Package	Dimensions (inch)	Teeth per inch (TPI)
BAH39300182P	2	12 x 1/2 x .025	18
BAH39300322P	2	12 x 1/2 x .025	32
BAH39300245P	5	12 x 1/2 x .025	24
BAH39300325P	5	12 x 1/2 x .025	32
BAH39063003P	3	12 x 1/2 x .025	18, 24, 32
BAH393001810	10	12 x 1/2 x .025	18
BAH393002410	10	12 x 1/2 x .025	24
BAH393003210	10	12 x 1/2 x .025	32
BAH3930014	100	12 x 1/2 x .025	14
BAH3930018	100	12 x 1/2 x .025	18
BAH3930024	100	12 x 1/2 x .025	24
BAH3930032	100	12 x 1/2 x .025	32



BAH3818-300

Tungsten Carbide Grit Hacksaw Blades

- Anti-corrosion treated, carbon steel blade back
- Tungsten carbide grit toothing
- Fits all 12" metal saw frames

Stock No.	Blade Length (inch)
BAH3818-300	12



BAH2500

Professional Handsaws with XT Toothing

- For medium thick materials, such as plywood, ordinary wood, fiber and chipboard or plastics
- Hard point saw with substantially thicker blade which results in less power-consuming side vibrations
- Screwed, one piece two-component ergo® handle
- Handle placement provides even distribution of power along the tooth line
- Comes with reusable plastic patented tooth protector

Stock No.	Blade Length	TPI	Type of Cut
BAH250016XTH	16	9	Medium
BAH250019XTH	19	9	Medium
BAH250022XTH	22	9	Medium



BAHPC12COM

ProfCut Compass Handsaws

- For all kinds of wood and plastic material
- Medium GT toothing, 9 TPI
- Super sharp GT-toothing is specially developed for high cutting performance
- The 3-sided ground tooth form ensures excellent results in all types of wood
- Comfortable-two component handle
- Comes with reusable plastic patented tooth protector

Stock No.	Blade Length	TPI
BAHPC12COM	12	9



BAHPC15TBX

ProfCut Toolbox Handsaws

- Toolbox saw for fine cutting
- Fine GT toothing, 11 TPI
- Super sharp GT-toothing is specially developed for high cutting performance
- The 3-sided ground tooth form ensures excellent results in all types of wood
- Comfortable-two component handle
- Comes with reusable plastic patented tooth protector

Stock No.	Blade Length	TPI
BAHPC15TBX	15	11



BAH300141516

PrizeCut Toolbox Handsaws

- The universal toothing is strong and hard wearing, suitable for both rip and cross cutting in all types of wood
- Single-component handle
- Comes with reusable plastic patented tooth protector

Stock No.	Blade Length	TPI
BAH300141516	15	11



BAHPC1119PS

Japanese Style Pull Saw

- Razor sharp teeth allows this pull saw to make clean cuts with little effort
- Perfect for rip and cross-cut to flush-cutting moldings, treated lumber, door casings, PVC, ABS pipe, hard and soft woods, lywood, drywall and plastic pipe
- This pull-to-cut saw allows undercutting with fast and accurate cuts

Stock No.	Blade Length	TPI
BAHPC1214PS	12	14
BAHPC1119PS	11	19



BAHPC9917PS

Double Edge Pull Saw

- Double edge saw with one side with extra fine toothing and one with medium rip toothing
- Triple edge toothing - super sharp, medium rip toothing
- Blade of high-carbon-spring steel for ultimate flexibility and controlled cut
- Thin blade produces a narrow accurate kerf

Stock No.	Blade Length	TPI
BAHPC9917PS	9	9/17



BAHPC6DRY

Dry Wall Saw

- Cuts drywall, wallboard, plywood, and plastic
- Blade cuts in both directions (push and pull)
- Sturdy blade with sharp point for punching through drywall

Stock No.	Blade Length
BAHPC6DRY	6



WARNING



• Read safety precautions on pages 586 to 589

Hacksaws & Bolt Cutters



ergo Bowsaws

Stock No.	Blade Length (Inch)	Type of wood
BAH10-21-51	21	Dry Wood and Lumber
BAH10-24-51	24	Dry Wood and Lumber
BAH10-24-23	24	Green Wood
BAH10-30-23	30	Green Wood
BAH10-30-51	30	Dry Wood and Lumber
BAH9-36-23KP	36	Dry Wood and Lumber

- Designed for demanding applications and tough environments such as construction sites
- Innovative tensioning mechanism for high blade tension and straight cutting
- Ergo handle with knuckle protector provides comfort and safety
- Made of lightweight, high quality steel tubing for durability and easy handling
- High impact orange enamel paint protects from rust and corrosion. Strong blade fitting for easy and safe blade storage



BAH331215KP

Bowsaw - Pointed Nose

Stock No.	Blade Length (inch)	Teeth per Inch (TPI)
BAH3322151	21	Dry Wood and Lumber
BAH331215KP	21	Dry Wood and Lumber

- Small and handy bow saw for all around use
- Pointed nose makes the saw ideal for use in tight spaces
- Used for pruning and roofing work
- Model **BAH3322151** is equipped with an Ergo handle



BAH912513806

Mini Bowhack

Stock No.	Blade Length (inch)	Teeth per Inch (TPI)
BAH912513806	12	Dry Wood and Lumber

- Toolbox sized mini-bow saw is easy to stow away and is ideal for plumbers and electricians
- Made of lightweight, high quality steel tubing for durability and easy handling. Equipped with durable metal handle
- High impact orange enamel paint protects from rust and corrosion
- Comes with 12" blade for wood cutting and a bimetal hacksaw blade.



BAH396

Laplander Folding Saws

Stock No.	Blade Length (inch)	Teeth per Inch (TPI)
BAH396	8	7

- A general purpose folding saw for cutting both green and dry wood, plastic, and bone
- Specially designed for wild-life enthusiasts, hunters and campers
- XT tooting, 7TPI. Blade specially coated for rust protection and low friction
- Two-component plastic handle for perfect grip, with leather strap
- Safety locks in both open and closed position



BAH4559

Bolt Cutter

Stock No.	Overall Length (Inches)	Maximum Cutting Capacity for Rebar
BAH4559-12	12	1/4
BAH4559-18	18	5/8
BAH4559-24	24	3/8
BAH4559-30	30	1/2
BAH4559-36	36	5/8
BAH4559-42	42	5/8

- Comfortable rubber grips combine durability and a secure non-slip grip
- Lightweight steel tube handles provide ease of control while offering solid durability



BAHMTT8674

Multi Tool

- Loaded with the most versatile features, this multi tool is ready for work
- Complete with a holder with a loop to fit any belt
- Tools include scissors, ruler, cork screw, needle nose pliers
- Overall length - 6 inches

Tool Storage

Stock No.	Description
BAH47502PP1	Two Pocket Pouch
BAH47503PB1	Three Pouch Belt Set
BAH4750EP1	Electrician Pouch
BAH4750QLB1	Quick Release Leather Belt
BAH4750UP1	Universal Pouch
BAH4750DHO1	Drill Holster
BAH4750HDLB1	Heavy Duty Leather Belt
BAH4750HHO2	Hammer Holder Quick Release
BAH4750KP1	Knee Pads
BAH4750VMPH1	Vertical Phone Holder

- Strong industrial stitching
- Rust-proof fittings, riveted for extra strength
- Carries all essentials
- Made from strong nylon



BAH47502PP1



BAH4750DHO1



BAH47503PB1



BAH4750EP1



BAH4750HDLB1



BAH4750QLB1



BAH4750HHO2



BAH4750KP1



BAH4750UP1



BAH4750VMPH1



WARNING



• Read safety precautions on pages 586 to 589

Combination Sets

WILLIAMS HYDRAULICS

- Great value, combining high quality with competitive prices
- State-of-the-art design, engineering, and construction combine to create superior tools that work better and last longer
- All parts are machined on CNC and NC machines for maximum precision
- Components are cleaned ultrasonically prior to assembly to ensure the highest quality
- All welds are performed robotically for maximum precision
- 100% functional QC testing is done on all products
- Quality features create tools that work better and last longer
- Hard-chrome plated rams prevent scratching and corrosion
- Steel stop rings for ram over travel protection
- Pressure relief valves for overload protection
- Cylinders are burnish rolled for a smooth precision mirror finish, which reduces scoring and prolongs seal life
- All items are interchangeable with other leading companies' models for maximum versatility
- Ideal for on site construction as well as maintenance



Pump & Cylinder Combos

Cylinders and Specifications					Combination Set Model Number With Hand Pump:			Combination Set Model Number With Air Pump:		
Type	Cylinder Capacity	Cylinder Stock Number	Stroke	Collapsed Height	5HS2S35	5HS2S100	5HS2S200	5AS150	5AS150L	5AS380
Single Acting	5	JHW6C05T05	5.08	8.7	JHW1HP05T05					
Single Acting	10	JHW6C10T02	2.01	4.84		JHW1HP10T02		JHW1AP10T02		
Single Acting	10	JHW6C10T06	5.94	9.84		JHW1HP10T06		JHW1AP10T06	JHW1AP10T06L	
Single Acting	10	JHW6C10T10	9.96	13.86		JHW1HP10T10		JHW1AP10T10	JHW1AP10T10L	
Single Acting	10	JHW6CT10T06	5.95	11.46		JHW1HP10T06T		JHW1AP10T06T	JH1AP10T06TL	
Single Acting	10	JHW6CT10T10	9.96	15.47		JHW1HP10T10T		JHW1AP10T10T	JH1AP10T10TL	
Single Acting	15	JHW6C15T04	3.86	8.66		JHW1HP15T04		JHW1AP15T04		
Single Acting	15	JHW6C15T06	5.87	10.67		JHW1HP15T06		JHW1AP15T06		
Single Acting	25	JHW6C25T02	2.01	6.82		JHW1HP25T02		JHW1AP25T02		
Single Acting	25	JHW6C25T04	3.94	8.78		JHW1HP25T04		JHW1AP25T04		
Single Acting	25	JHW6C25T06	5.94	10.79		JHW1HP25T06		JHW1AP25T06		
Single Acting	25	JHW6C25T08	7.95	12.8			JHW1HP25T08	JHW1AP25T08		
Single Acting	55	JHW6C55T06	6.25	11.13			JHW1HP55T06	JHW1AP55T06		
Single Acting	100	JHW6C100T06	6.63	13.25						JHW1AP100T06
Single Acting Low Profile	10	JHW6CL10T01	1.5	3.48	JHW1HP10T01L			JHW1AP10T01L		
Single Acting Low Profile	20	JHW6CL20T02	1.75	3.9	JHW1HP20T02L			JHW1AP20T02L		
Single Acting Low Profile	30	JHW6CL30T02	2.44	4.61		JHW1HP30T02L		JHW1AP30T02L		





Matched sets provide a combination of components for single acting cylinder applications. Ordering is as easy as 1, 2, 3:

1. Select the cylinder you want
2. Select the pump you want
3. Choose the set number



Complete selection of Williams Industrial Hydraulics available at www.jhwilliamstoolgroup.com






AIR PUMP AND SINGLE-ACTING CYLINDER MATCHING CHART

Capacity (Tons) Stroke (Inches)	5	10	15	25	30	55	75	100
<1.00								
1.00								
2.00								
3.00								
4.00								
5.00								
6.00								
7.00								
8.00								
9.00								
10.00								
12.00								
13.00								
14.00								
	 JHW5AS60	 JHW5AS150			 JHW5AS380			

Note: Selection based on oil capacity requirements of cylinders.

 Not Recommended

HAND PUMP / E-PUMP AND SINGLE-ACTING CYLINDER MATCHING CHART

Capacity (Tons) Stroke (Inches)	5	10	15	25	30	55	75	100
<1.00								
1.00								
2.00								
3.00								
4.00								
5.00								
6.00								
7.00								
8.00								
9.00								
10.00								
12.00								
13.00								
14.00								
	 JHW5HS2S35	 JHW5HS2S100	 JHW5HS2S200	 JHW5E10H2G				

Note: Selection based on oil capacity requirements of cylinders.



WARNING



• Read safety precautions on pages 586 to 589

Pumps

Hand Pumps

- JHWHS2S35, JHW5HS2S100 and JHW5HS2S200 feature 2 speed operation
- Pressure relief valve for overload protection
- Load release valve for single acting cylinder usage



JHW5HS2S35

Used with Cylinder	Pump Type	Usable Oil Capacity (in3)	Product Code	Pressure Rating		Oil Displacement per Stroke		Max. Operating Force (lbs)	Piston Stroke (in)	Oil Outlet Port				
				(psi)		(in3)								
				1st Stage	2nd Stage	1st Stage	2nd Stage							
Single Acting	Single-speed	36.5	JHW5HS1S60	200	10,000	0.15	0.15	109	0.79	3/8"-18NPTF				
		21.4	JHW5HS2S35							0.18	0.05	88	0.38	1/4"-18NPTF
	Two-speed	61.0	JHW5HS2S100							0.81	0.14	132	0.82	3/8"-18NPTF
		128.0	JHW5HS2S200											

Electric Pumps

- Quiet operation meets OSHA regulations (80dBA)
- 2 speed operation allows for faster cylinder advance
- Full load starting capacities
- Internal filter keeps contamination from damaging pump
- Ideal for on site construction as well as maintenance



JHW5E10H2G

Motor Size (hp)	Usable Oil Capacity (gal)	Product Code	Product Code with Remote Control Pendant Switch	Max. Output Pressure (psi)	Oil Output Flow Rate (in3)		Valve Type	Valve Function	Current Draw (amps)	Motor Voltage (volts)	Sound Level (dBA)
					1st Stage	2nd Stage					
0.5	1.0	JHW5E05H1G	JHW5E05H1GR	10,000	293	18	4-way, 3-pos.	Advance Hold Return	8	115	80
1.0	2.0	JHW5E10H2G	JHW5E10H2GR		311	37			15		
1.5	3.0	JHW5E15H3G	JHW5E15H3GR		470	61			17		

Air Pumps

- High strength reinforced aluminum alloy reservoir is lightweight and corrosion resistant
- Pressure relief valve for overload protection
- Suggested air pressure range: 90-175 psi / 6-12 bar
- Designed to be used with single acting cylinders
- JHW5AS200 offers a turbo function that features high flow at high pressure condition
- JHW5AD150M offers a 4-way control valve for operation of double acting cylinders
- Maximum working pressure: 10,000 psi / 700 bar
- High strength reinforced aluminum alloy reservoir is lightweight and corrosion resistant
- Pressure relief valve for overload protection
- Suggested air pressure range: 90-175 psi / 6-12 bar
- Designed to be used with single acting cylinders
- JHW5AS200 offers a turbo function that features high flow at high pressure condition
- JHW5AD150M offers a 4-way control valve for operation of double acting cylinders
- Maximum working pressure: 10,000 psi / 700 bar



JHW5AS150



JHW5AS380L

Used with Cylinder	Usable Oil Capacity (in3)	Product Code	Pressure Rating (psi)	Oil Output Flow Rate (in3/min)		Input Air Pressure Range (psi)
				No Load	Load	
Single Acting	36.6	JHW5AS60	10,000	61	9	100-200
	91.5	JHW5AS150		66	11	
	122.1	JHW5AS200		65	12	
	231.9	JHW5AS380		65	11	
	91.5	JHW5AS150L		61	10	
	231.9	JHW5AS380L		61	10	
Double Acting	91.5	JHW5AD150M	10,000	66	11	100-200

Complete selection of Williams Industrial Hydraulics available at www.jhwilliamstoolgroup.com

Single Acting Cylinders

- 39 models
- Internal plunger threads
- Snap in grooved saddles
- Rod wiper seals out dirt and contamination
- Collar fixture threads
- Two base mounting holes on most models
- High strength steel construction from gun drilled solid bar
- High flow 3/8" NPTF couplers

- Collar thread protector
- One piece high grade alloy bearing for side load protection and long life
- Polyurethane cup seal provides optimum performance
- Industrial hard chrome plated ram helps prevent rust and corrosion
- Solid steel cylinder body
- Heavy duty return spring provides quicker retraction
- Ideal for lifting and pressing
- Maximum working pressure: 10,000 psi / 700 bar

Cylinder Capacity	Stroke	Stock No.	Cylinder Effective Area	Pressure at Capacity	Oil Capacity	Collapsed Height
(tons)	(in)		(in ²)	(psi)	(in ³)	(in)
5	0.63	JHW6C05T00	1.10	9,090	0.69	1.61
	1.00	JHW6C05T01	1.00	10,000	1.00	4.58
	3.07	JHW6C05T03			3.07	6.65
	5.08	JHW6C05T05			5.08	8.70
	7.09	JHW6C05T07			7.09	10.71
	9.09	JHW6C05T09			9.09	12.72
10	1.00	JHW6C10T01			2.24	8,930
	2.01	JHW6C10T02	4.50	4.84		
	4.02	JHW6C10T04	9.00	6.85		
	5.94	JHW6C10T06	13.31	9.84		
	7.95	JHW6C10T08	17.81	11.85		
	9.96	JHW6C10T10	22.31	13.86		
	11.97	JHW6C10T12	26.81	15.87		
	14.02	JHW6C10T14	31.40	17.72		
15	0.99	JHW6C15T01	3.14	9,550	3.11	4.88
	2.01	JHW6C15T02			6.31	5.87
	3.98	JHW6C15T04			12.50	7.87
	5.87	JHW6C15T06			18.43	10.67
	7.87	JHW6C15T08			24.71	12.68
	9.88	JHW6C15T10			31.02	14.69
	12.01	JHW6C15T12			37.71	16.65
	14.02	JHW6C15T14			44.02	18.66
25	1.02	JHW6C25T01	5.14	9,730	5.24	5.84
	2.01	JHW6C25T02			10.33	6.82
	3.94	JHW6C25T04			20.25	8.78
	5.94	JHW6C25T06			30.53	10.79
	7.95	JHW6C25T08			40.86	12.80
	9.96	JHW6C25T10			51.19	14.80
	12.24	JHW6C25T12			62.91	16.73
	14.25	JHW6C25T14			73.25	18.74
30	8.27	JHW6C30T08	6.49	9,240	53.67	15.24
55	2.01	JHW6C55T02	10.99	10,000	22.09	6.93
	3.98	JHW6C55T04			43.74	8.94
	6.22	JHW6C55T06			68.36	11.14
	13.27	JHW6C55T13			145.84	18.15
75	6.14	JHW6C75T06	16.10	9,320	98.85	11.22
	13.11	JHW6C75T13			211.07	19.37
100	6.61	JHW6C100T06	20.57	9,720	135.97	14.06
	10.24	JHW6C100T13			210.64	17.68



JHW6C05T05



JHW6C55T06

Complete selection of Williams Industrial Hydraulics available at www.jhwilliamstoolgroup.com



WARNING



• Read safety precautions on pages 586 to 589

Maintenance Kits & Bottle Jacks

Maintenance Kits

- Sets are portable for easy use in the plant or on the job site
- Custom fitted, rugged blow molded storage case
- 10 ton set case has wheels for easy movement
- Designed for applications of pushing, spreading, pressing and more
- Pumps are rated from 8,000 to 10,000 psi

Capacity (tons)	Stock No.	Ram Specifications		Number of Attachments
		Collapsed Height (Inches)	Extended Height (Inches)	
4	JHW4M04T	11.00	15.75	14
10	JHW4M10T	13.63	19.75	13

NOTE: capacity may be reduced when extension tubes and attachments are used



JHW4M10T

Maintenance Kit Contents:

Stock No.	JHW4M04T	JHW4M10T
Hand Pump	X	X
Ram	X	X
Hose Assembly	X	X
Hose Coupler	X	X
Ram Coupler	X	X
Case	X	X
Hydraulic Spreader	X	X
Combination Head	X	X
Rubber Head	X	X
Ram Toe	X	X
Plunger Toe	X	X
Flat Base	X	X
Serrated Saddle	X	X
Wedge Head	X	X
Male Connector	X	X
Extension Tubes Included:	3"	4"
	6 1/8 "	10"
	8 1/2 "	18"
	16 1/2 "	27"
	19 1/2 "	



JHW3S12TV

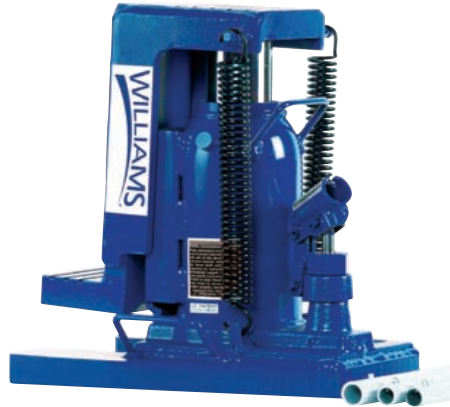
Side Pump Bottle Jacks

- Hydraulic system is protected from internal damage by a patented by-pass mechanism
- Machined and polished cylinders with die-cut threads provide non-abrasive leak-free, durable performance
- Fabricated from hard-cast steel with heat-treated critical stress areas
- Serrated heat-treated saddle provides generous lifting area and secure grip
- Heat-treated extension screw allows low pick-up height adjustment and maximum lift height
- U.S. patented built-in by-pass device protects hydraulic system from overpumping damage
- Unique cross-type forged release valve assures positive control
- A wide, rugged base provides stability and strength
- Critical stress points are reinforced in all models for added durability and dependability
- Economically priced for maximum value

Capacity (tons)	Stock No.	Min Height (Inches)	Max. Height (Inches)	Extension Screw (Inches)	Hydraulic Lifting (Inches)	Base Size (LxW) Inches
12	JHW3T12TV	9.5	18.63	3.13	6	5.25 x 5.13
12	JHW3S12TV	6	10.63	1.63	3	5.25 x 5.13
20	JHW3T20TV	9.5	18.63	3.13	6	6.25 x 5.88
20	JHW3S20TV	6.5	11.25	1.63	3.13	6.25 x 5.88

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Toe Jacks & Flat Body Cylinders



JHW4T10T



JHW4T06T

Toe Jacks

- Heat treated and chrome plated medium-carbon steel cylinder
- Chrome plated ram promotes longer seal life and optimum performance
- U.S. Patented by-pass device protects hydraulic system from over traveling damage

Capacity (tons)	Stock No.	Toe Saddle		Head Saddle		Hydraulic Lift
		Min Height (inches)	Max. Height (inches)	Min Height (inches)	Max height (Inches)	
6	JHW4T06T	.88	6.00	10.50	15.63	5.13
10	JHW4T10T	1.13	6.25	11.00	16.13	5.13

Flat Body Cylinder Kits

- Kits include a variety of height magnetic adapters
- Perfect for low clearance areas needing a cylinder height boost
- Maximum working pressure: 10,000 psi / 700 bar
- Kits include magnetic adapters and carrying case
- Cylinders may be ordered separately



JHW6CF05T03TB

Cylinder Capacity	Stroke	Complete Kit Stock No.	Cylinder Model	Oil Capacity (in3)	Collapsed Height (In)
5	0.24	JH6CF05T03TB	JHW6CF05T03	0.26	1.26
10	0.43	JH6CF10T05TB	JHW6CF10T05	1.02	1.69
20	0.43	JH6CF20T05TB	JHW6CF20T05	1.90	2.01
30	0.51	JH6CF30T05TB	JHW6CF30T05	3.32	2.31

Flat Body Cylinder Mounting Hole Dimensions

- Made of high quality steel
- Extremely low collapsed height for applications with minimal clearance at the lift point
- Great for areas of low clearance
- Maximum working pressure 10,000 psi / 700 bar



JHW6CF05T03

Stock No.	Hole Pitch	Counter Bore Dia.	Counter Bore Depth	Min Height (inches)
JHW6CF05T03	1.12	0.2	0.31	0.17
JHW6CF10T05	1.44	.028	0.42	0.31
JHW6CF20T05	1.94	0.4	0.59	0.39
JHW6CF30T05	2.06	0.4	0.62	0.44

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• Read safety precautions on pages 586 to 589

Spreaders & Presses



JHW6S01T03



JHW6S.5T03

Spreaders

- Designed to operate in confined space where expansion is needed
- Compact size makes for easy use in hard to reach places
- Positive over travel stops and return spring
- Connects directly to pump hose with high flow coupler
- Maximum working pressure: 10,000 psi/ 700 bar

Cylinder Capacity	Product Code	Cylinder Effective Area	Oil Capacity
(tons)		(in ²)	(in ³)
0.5	JHW6S.5T03	1.22	0.58
1	JHW6S01T03	1.09	0.86



JHW9E100T10

55/100 Ton Shop Presses

- Heavy steel welded construction
- Multi-position bed for work height adjustment
- Ideal for the removal or installation of gears, universal joints, pulleys, wrist pins, and other press jobs
- Excellent for bending, bonding or straightening applications

Capacity	Product Code	Pump Type	Pump Model
(tons)			
55	JHW9A55T06	Air	JHW5AS150
	JHW9E55T06	Electric	JHW5E05H1GR
	JHW9H55T06	Manual	JHW5HS25200
	JHW9A55T13	Air	JHW5AS380
	JHW9E55T13	Electric	JHW5E05H1GR
100	JHW9E100T10	Electric	JHW5E10H2GR

Complete selection of Williams Industrial Hydraulics available at www.jhwilliamstoolgroup.com

Gauges

Gauge Type	Stock No.	Face Dia.	Thread	Pressure Range		Graduation			
						Major Graduation	Minor Graduation	Major Graduation	Minor Graduation
		(in)	(in)	(psi)	(bar)	(psi)		(bar)	
Wet	JHW8G025W	2.50	1/4"-18NPTF	0-10,000	0-700	1,000	100	100	10
	JHW8G04W	4.00				2,000	200		



JHW8G04W

Gauge Adaptors

Stock No.	Dimensions (in)					
	A	B	C	D	E	F
JHW8FG38MF	5.12	1.38	1/4"-18NPTF	3/8"-18NPTF	3/8"-18NPTF	1.25



JHW8FG38MF

Adapters

Description	Stock No.	Male Thread	Female Thread	Dimensions (in)	
		C	D	A	B
Adapter	JHW8FR38M25F	1/4"-18NPTF	3/8"-18NPTF	1.39	0.91
Bushing	JHW8FB25F38M	3/8"-18NPTF	1/4"-18NPTF	0.87	0.67



JHW8FB25F38M



JHW8FR38M25F

Hydraulic Hoses

Hose I.D.	Stock No.	Hose End Fittings	Operating Pressure	Hose Length	Weight
(in)				(ft)	(lbs)
1/4"	JHW8H2525D06	1/4"-18NPTF	10,000	6	2.5
	JHW8H3825D06			6	3.0
	JHW8H3825D10	3/8"-18NPTF		10	5.0
	JHW8H3825D20			20	10.5
3/8"	JHW8H2538D06	1/4"-18NPTF		6	3.2
	JHW8H3838D06	3/8"-18NPTF		6	3.5
	JHW8H3838D10			10	6.5
	JHW8H3838D20			20	13.5



JHW8H2525D06

Hydraulic Oil

Volume	Stock No.	Viscosity Index	Viscosity @ 100°F	Viscosity @ 210°F	ASTM Grade	Flash Point	Pour Point	API Gravity
(gal)			(min)	(S.U.S.)		(S.U.S.)	(°F)	
1	JHW8H1G	144	234	53	215	403	-33	30.8



JHW8H1G

Couplers

Coupler Type	Product code		
	Complete Set	Male Half	Female Half
High-Flow Coupler	JHW8RH38D	JHW8RH38DM	JHW8RH38DF
Regular-Flow Coupler	JHW8R38D	JHW8R38DM	JHW8R38DF



JHW8R38D



JHW8RH38DM



JHW8RH38D

Complete selection of Williams Industrial Hydraulics available at www.jhwilliamstoolgroup.com



• Read safety precautions on pages 586 to 589

Cylinders & Combination Sets

- For most lifting applications
- Designed for use in all positions
- ENECR400 Coupler and Dust Cap included on all models



Additional sizes and styles, including aluminum cylinders, are available. Contact your Snap-on Industrial Representative or Customer Service for more information about Enerpac hydraulic equipment.

Single Acting RC-Series Cylinders

Cylinder Capacity (tons)	Stroke (inches)	Stock Number	Oil Capacity (cu.in.)	Collapsed Height (inches)	Weight (lbs.)
5	0.63	ENERC50	0.62	1.63	2.2
5	1	ENERC51	0.99	4.34	2.3
5	3	ENERC53	2.98	6.5	3.3
5	5	ENERC55	4.97	8.5	4.1
5	7	ENERC57	6.96	10.75	5.3
5	9.13	ENERC59	9.07	12.75	6.1
10	1	ENERC101	2.24	3.53	4
10	2.13	ENERC102	4.75	4.78	5.1
10	4.13	ENERC104	9.23	6.75	7.2
10	6.13	ENERC106	13.7	9.75	9.8
10	8	ENERC108	17.89	11.75	12
10	10.13	ENERC1010	22.65	13.75	14
10	12	ENERC1012	26.84	15.75	15
10	14	ENERC1014	31.31	17.75	18
15	1	ENERC151	3.14	4.88	7.2
15	2	ENERC152	6.28	5.88	9
15	4	ENERC154	12.57	7.88	11
15	6	ENERC156	18.85	10.69	15
15	8	ENERC158	25.13	12.69	18
15	10	ENERC1510	31.42	14.69	21
25	1	ENERC251	5.16	5.5	13
25	2	ENERC252	10.31	6.5	14
25	4	ENERC254	20.63	8.5	18
25	6.25	ENERC256	32.23	10.75	22
25	8.25	ENERC258	42.55	12.75	27
25	10.25	ENERC2510	52.86	14.75	31
25	12.25	ENERC2512	63.18	16.75	36
25	14.25	ENERC2514	73.49	18.75	39
30	8.25	ENERC308	53.56	15.25	40
50	2	ENERC502	22.09	6.94	33
50	4	ENERC504	44.18	8.94	42
50	6.25	ENERC506	69.03	11.13	51
50	13.25	ENERC5013	146.34	18.13	83
75	6.13	ENERC756	97.41	11.25	65
75	13.13	ENERC7513	208.74	19.38	130
100	6.63	ENERC1006	136.67	14.06	130
100	10.25	ENERC10010	211.45	17.69	160



Single Acting Pump and Cylinder Sets

- Optimum match of individual components
- All sets include cylinder, hand or air pump, 6' safety hose, calibrated gauge and gauge adaptor
- The quickest and easiest way to start working right away

Stock Number	Set Capacity (tons)	Cylinder Stroke Length (inches)	Pump Type Included
ENESCR55H	5	5	Two-Speed Hand
ENESCR102H	10	2.13	Two-Speed Hand
ENESCR106H	10	66.13	Two-Speed Hand
ENESCR154H	15	4	Two-Speed Hand
ENESCR156H	15	6	Two-Speed Hand
ENESCR252H	25	2	Two-Speed Hand
ENESCR254H	25	4	Two-Speed Hand
ENESCR256H	25	6.25	Two-Speed Hand
ENESCR2514H	25	14.25	Two-Speed Hand
ENESCR506H	50	6.25	Two-Speed Hand
ENESCR1006H	100	6.63	Two-Speed Hand



RCH-Series Hollow Cylinders

- Versatile: for testing, maintenance, and tensioning applications
- Hollow plunger design allows for both pull and push forces
- Nickel-plated, floating center tube on models over 20 tons
- ENERCH121 has ENEFZ1630 Reducer and ENEAR630 Coupler, all other models feature ENECR400 Coupler

Cylinder Capacity (tons)	Stroke (inches)	Stock Number	Oil Capacity (cu.in.)	Collapsed Height (inches)	Weight (lbs.)
12	0.31	ENERCH120	0.86	2.19	3
	1.63	ENERCH121	4.49	4.75	6
	3.00	ENERCH123	8.29	7.25	10
20	2.00	ENERCH202	9.46	6.38	17
	6.10	ENERCH206	28.67	12.05	31
30	2.50	ENERCH302	18.05	7.03	24
	6.13	ENERCH306	44.23	13.00	48
60	3.00	ENERCH603	38.2	9.75	62
	6.00	ENERCH606	76.41	12.75	78

Single Acting Pump and Cylinder Sets

RSM-Series Flat-Jac® Cylinders

- Compact, flat design for use where other cylinders will not fit
- Stroke is less than 1"
- ENERSM1000 includes handle
- ENECR400 Coupler and Dust Cap included on all models

RCS-Series Low Height Cylinders

- Lightweight, low profile design for use in confined spaces
- Stroke range: 1.50 to 2.25"
- ENECR400 Coupler and Dust Cap included on all models
- ENERCS1002 includes handle

	Cylinder Capacity (tons)	Stroke (inches)	Stock Number	Oil Capacity (cu.in.)	Collapsed Height (inches)	Weight (lbs.)
RSM-Series Flat-Jac® Cylinders	5	0.25	ENERSM50*	0.25	1.28	2.3
	10	0.44	ENERSM100	0.98	1.69	3.1
	20	0.44	ENERSM200	1.94	2.03	6.8
	30	0.5	ENERSM300	3.25	2.31	10
	50	0.63	ENERSM500	6.01	2.63	15
	100	0.63	ENERSM1000	12.27	3.38	32
RCS-Series Low Height Cylinders	10	1.5	ENERCS101	3.35	3.47	9
	20	1.75	ENERCS201	7.75	3.88	11
	30	2.44	ENERCS302	15.82	4.63	15
	50	2.38	ENERCS502	22.85	4.81	24
	100	2.25	ENERCS1002	44.18	5.56	50

* ENERSM-50 is fitted with an AR400 coupler

BV5 Series Hydraulic Bench Vise & Set

- 5-tons (44.5 kN) of force for forming and pressing applications
- 8-inch (203 mm) jaws easily hold large objects
- Hands-free operation for safe and controlled actuation when paired with an Enerpac XA11G air powered foot pump
- Mounts as a press vertically or as a bench vise horizontally with a swivel base
- Rapid spring return makes repetitive work faster
- Accessory Magnetic Jaw Liners free hands by holding objects in place
- Ships assembled with a heavy-duty 10-foot thermoplastic hydraulic hose, HC7210



ENEXA11G

	Stock Number	Description
Complete Set	ENESTV5X	Complete Hydraulic Bench Vise Set
Includes	ENEBV5	Hydraulic Bench Vise with Hose
	ENEXA11G	Foot Pump with Gauge
	ENECR400	Coupler
Optional Accessories	ENEBV5VC	Magnetic Jaw Liners
	ENEXSC1	Hydraulic Swivel Connector



ENEXSC1



ENEBV5



ENEBV5VC



Can be mounted horizontally or vertically



• Read safety precautions on pages 586 to 589

Pumps



ENEPARG1102N



Turbo II Air Hydraulic Pumps

- “Turbo” feature utilizes exhaust air to help power the pump
- Air exhaust muffler for quieter operation and reduced operator fatigue
- High efficiency cast aluminum housing for increased productivity
- ENEPARG1102N includes a 15-foot pendant for remote operation
- New air piston reduces air consumption
- Advance / Hold / Retract valve function
- Recommended Regulator-Filter Lubricator: ENERFL102

Stock No.	Usable Oil Cap., cu. in.	Pressure Rating, PSI	Air Pressure Range, PSI	Air Consump, SCFM	Sound, dBA	Weight (lbs.)
ENEPARG1102N	127	10,000	40-125	12	76	18
ENEPARG1105N	230	10,000	40-125	12	76	22
ENEPARG1102N	127	10,000	40-125	8 to 12	76	22

Hand Pumps

STEEL HAND PUMPS

- Designed for maintenance, construction, lifting, and testing applications
- Two-speed models reduce handle strokes by as much as 78% over single speed pun
- Internal pressure relief valves for overload protection

ULTRA HIGH-PRESSURE HAND PUMP

- Operational up to 40,000 psi., all other hand pumps have a 10,000 psi limit.
- Two-speed operation for faster fill, reduces cycle time for many applications
- Outlet ports are 3/4”-16 cone for 40,000 psi rating
- Large release knob for improved control of pressure release

COMPOSITE HAND PUMPS

- Light weight and compact design, with lower handle effort
- Two-speed models reduce handle strokes by as much as 78% over single speed pun
- Non-conductive fiberglass handle for operator safety
- Pump reservoir made of durable composite material for corrosion resistance
- Handle lock and light weight construction for easy carrying
- Internal pressure relief valve for overload protection



Stock No.	Description	Usable Oil Cap., cu. in.	Pressure Rating, PSI		Oil Displacement per Stroke, cu. in.		Maximum Handle Effort, lbs.
			1st Stage	2nd Stage	1st Stage	2nd Stage	
ENEP39	Single Speed Steel Hand Pump	40	N/A	10,000	N/A	0.16	111
ENEP80	Two-Speed Steel Hand Pumps	134	350	10,000	0.99	0.15	104
ENEP462	Two-Speed Steel Hand Pumps	453	200	10,000	7.69	0.29	110
ENEP2282	Ultra High-Pressure Hand Pump	60	200	40,000	0.99	0.037	106
ENEP391	Composite Hand Pump, Single Speed	55	N/A	10,000	N/A	0.151	85
ENEP142	Composite Hand Pump, Two Speed	20	200	10,000	0.221	0.055	78
ENEP802	Composite Hand Pump, Two Speed	155	400	10,000	2.4	0.151	95
ENEP392	Composite Hand Pump, Two Speed	55	200	10,000	0.687	0.151	93



The BP cordless pump is best suited for small to medium size cylinders or hydraulic tools, or wherever portable cordless hydraulic power is needed.

Battery Powered Hydraulic Pumps

- Lightweight, compact design with integrated handle for maximum portability
- Dual power selection and variable speed for preferred ow and precise control
- Heavy-duty 28 volt Lithium-Ion battery pack delivers constant fade-free power
- Immediate charging after use — a quick one hour charge
- Pump models include two 3.0 amp-hour battery packs and quick charger

Stock No.	Usable Oil Cap., Gallon	Output Flow Rate (cu. in./ minute)		Charger Voltage (VAC)	Weight, (lbs.)
		200 psi	10,000 psi		
ENEBP122	0.5	120	15	115	21.2
ENEBP124	1.0	120	15	115	24.0
ENEBP122E	0.5	120	15	230	21.2
ENEBP124E	1.0	120	15	230	24.0

Hydraulic Maintenance Sets

- All sets include Enerpac pump, hose, cylinder, and gauge
- Lock-on or threaded connectors
- Complete set for almost every maintenance application

The Universal Hydraulic Tool Box

Stock No.	Capacity, Using Attachments, Tons	Capacity, Without Attachments, Tons	Number of Components	Weight, (lbs.)
ENEMS24	2.5	5.0	34	59
ENEMSFP5	2.5	5.0	24	44
ENEMS210	5.0	10.0	35	140
ENEMSFP10	5.0	10.0	22	105
ENEMS220	12.5	25.0	13	210
ENEMS21020	5.0 - 12.5	10.0 - 25.0	53	350



ENEMS210

Hydraulic Maintenance Set Components

Stock No.	Hand Pump	Hose	Cylinder	Gauge	Gauge Adaptor
ENEMS24	ENEP142	ENEHC7206	ENERC55	ENEGP10S	ENEGA4
ENEMSFP5	ENEP142	ENEHC7206	ENERC55	ENEG2535L	ENEGA3
ENEMS210	ENEP392	ENEHC7206	ENERC106	ENEGP10S	ENEGA2
ENEMSFP10	ENEP392	ENEHC7206	ENERC106	ENEG2535L	ENEGA3
ENEMS220	ENEP392	ENEHC7206	ENERC256	ENEGP10S	ENEGA2
ENEMS220	ENEP392	ENEHC7206	ENERC102, ENERC106, ENERC256	ENEGP10S	ENEGA2

Hydraulic H-Frame Press Sets

- Available in 10, 25, 50, 100, 150, and 200-ton capacities
- Press set includes H-frame press, cylinder, pump, load gauge, gauge adaptor, and 6-foot hose
- Designed for general maintenance, intermittent use
- Heavy-duty welded frame minimizes flex under load, lasting longer than bolted or pinned-style frames
- Exclusive "Hydra-Lift" system uses an 18" stroke, press-mounted hydraulic jack to adjust press bed height. (25-, 50-, 100-ton models only)
- Includes pump mounting bracket to support the pump
- Roller head design allows movement and locking of the cylinder from side-to-side for off-center pressing jobs (50- and 100-ton models only, 10- & 25-ton models are able to move side-to-side but do not have rollers)
- Adjustable work bed is supported by pin supports which are 10" apart
- V-blocks sold separately (come in pairs)



ENEIPE5060



Optional V-Blocks

Press Stock Number	Optional V-Blocks Stock Number	Power Source Type			Press Capacity, tons	Maximum Bed Daylight, inches	Maximum Bed Width, inches	Cylinder Stroke Length (inches)	Cylinder Type	Weight, lbs.
		Hand	Elec	Air						
ENEIPA1220	ENEI136			X	10	40.00	18.63	10	1-Speed	175
ENEIPH1240	ENEI136	X			10	40.00	18.63	10	1-Speed	170
ENEIPE2505	ENEI130		X		25	54.50	29.00	6	1-Speed	605
ENEIPA2520	ENEI130			X	25	54.50	29.00	14	1-Speed	610
ENEIPE5060	ENEI150		X		50	48.56	28.75	13	2-Speed	1,120
ENEIPE10060	ENEI200		X		100	48.56	35.00	13	2-Speed	1,801



• Read safety precautions on pages 586 to 589

Machine Lifts & Load Skates



Hydraulic Machine Lifts

- For lifting heavy equipment with minimum available access
- Remote operation of hydraulic pump enhances safety
- Low-height lifting toe
- Precision guided to reduce friction and isolate cylinder from side-loads
- Two extendable support feet provide extra stability
- Includes RC-Series cylinder with CR-400 coupler

Stock Number	Capacity (tons)	Toe Clearance with Cylinder Retracted (inches)			Stroke (inches)	Oil Capacity (in3)	Total Extended Height	Total Body Height	Weight
		Minimum	Central	Maximum					
ENES0H106	8.5	.79	3.74	6.69	5.39	13.7	17.00	11.61	59.2
ENES0H236	20	1.18	4.33	7.48	6.18	32.0	18.58	12.4	99.2






ENEERS20

Caterroller™ Load Skate Sets

- Rugged and sturdy construction for long life
- Low profile construction for increased stability
- Low rolling-resistance allows for easy load movement
- Attachable load leveling plates and swivel turntables for turning corners
- Sets (see table) include all components necessary to handle a variety of applications
- Two ENEELB1 link-up bars, two ENEERH1 handles (34.6" long), and a metal box are included
- Optional long handle ENEERH2 (46") is also available

Stock Number	Set Capacity (tons)	Load Skates (4)	Turntable Swivels (2)	Leveling Plates (2)	Weight Incl. handles and metal box (lbs)
ENEERS20	20	ENEER10	ENEES10	ENEELP10	110
ENEERS30	30	ENEER15	ENEES15	ENEELP15	123
ENEERS60	60	ENEER30	ENEES30	ENEELP30	167

Caterroller™ Load Skate Set Components

Stock Number	Description	Capacity (tons)
ENEER1	Load Skate 	1
ENEER10		10
ENEER15		15
ENEER30		30
ENEER60		60
ENEER80	80	
ENEES1	Turntable Swivel 	1
ENEES10		10
ENEES15		15
ENEES30		30
ENEES60		60
ENEES80	80	
ENEELP10	Leveling Plate 	10
ENEELP15		15
ENEELP30		30
ENEELP60		60
ENEELP80		80

To place the Load Skates, the load must first be lifted. This can be done easily and safely using Enerpac Lifting Wedge or Machine Lifts.



See also pages N183 to N186 for our selection of Enerpac Heavy-Duty Bolting tools. For more information contact your Snap-on Industrial Representative or call Customer Service at (877) 740-1900

Components are available in sets or separately



Series 602/603 Mini-Lever Hoist

- Compact design - small and lightweight allows you to take it where ever you go, fits in your toolbox
- Sturdy construction for years of use - forged upper and lower hooks, impact resistant, all steel frame, plated load chain

Stock Number	Description	Capacity (tons)	Lift (feet)	Weight (lbs)
CMS0210	CM Series 602 Mini Lever Hoist, 550 lbs 5' lift	1/4	5	6
CMS0214	CM Series 602 Mini Lever Hoist, 550 lbs 10' lift	1/4	10	7
CMS0215	CM Series 603 Mini Lever Hoist, 1100 lbs. 5' lift	1/2	5	7
CMS0216	CM Series 603 Mini Lever Hoist, 1100 lbs. 10' lift	1/2	10	8



Series 653 Manual Lever Hoist

- Sturdy construction for years of use - forged upper and lower hooks, impact resistant, all steel frame, plated load chain
- Lowest handle pull force in the industry - reduces related injuries, easy operation in confined spaces
- True one-handed free chaining - allows for fast and easy load attachment

Stock Number	Description	Capacity (tons)	Lift (feet)	Weight (lbs)
CMS5310	CM Series 653 Lever Hoist, 3/4 ton, 5' lift	3/4	5	19
CMS5311	CM Series 653 Lever Hoist, 3/4 ton, 10' lift	3/4	10	21
CMS5315	CM Series 653 Lever Hoist, 1 1/2 ton, 5' lift	1 1/2	5	31
CMS5316	CM Series 653 Lever Hoist, 1 1/2 ton, 10' lift	1 1/2	10	36
CMS5320	CM Series 653 Lever Hoist, 3 ton, 5' lift	3	5	51
CMS5321	CM Series 653 Lever Hoist, 3 ton, 10' lift	3	10	59



Series 640 Manual Lever Hoist

- Made in the U.S.A - Approved for use on Government Projects
- Simple construction with few parts - less downtime since it is reliable and easy to maintain
- Weatherproof construction - can be used for indoor and outdoor applications

Stock Number	Description	Capacity (tons)	Lift (feet)	Weight (lbs)
CMS4043	CM Series 640 Puller Lever Hoist, 3/4 ton, 5' Lift	3/4	5	16.0
CMS4060	CM Series 640 Puller Lever Hoist, 3/4 ton, 10' Lift	3/4	10	20.0
CMS4045	CM Series 640 Puller Lever Hoist, 1 1/2 ton, 5' Lift	1 1/2	5	26.0
CMS4062	CM Series 640 Puller Lever Hoist, 1 1/2 ton, 10' Lift	1 1/2	10	31.0
CMS4047	CM Series 640 Puller Lever Hoist, 3 ton, 5' Lift	3	5	38.0
CMS4065	CM Series 640 Puller Lever Hoist, 3 ton, 10' Lift	3	10	47.0



Series 622 Hand Chain Hoist

- Simple, efficient, economical design - get the job done while staying within budget
- Compact, low headroom design - lightweight and easy to install or move, even in confined spaces

Stock Number	Description	Capacity (tons)	Lift (feet)	Weight (lbs)
CMS2216	CM Series 622 Hand Chain Hoist, 1/2 Ton, 12' Lift	1/2	12	22.0
CMS2231	CM Series 622 Hand Chain Hoist, 1/2 Ton, 20' Lift	1/2	20	30.0
CMS2217	CM Series 622 Hand Chain Hoist, 1 Ton, 12' Lift	1	12	29.0
CMS2262	CM Series 622 Hand Chain Hoist, 1 Ton, 20' Lift	1	20	38.0
CMS2218	CM Series 622 Hand Chain Hoist, 2 Ton, 12' Lift	2	12	65.0
CMS2233	CM Series 622 Hand Chain Hoist, 2 Ton, 20' Lift	2	20	80.0
CMS2230	CM Series 622 Hand Chain Hoist, 3 Ton, 12' Lift	3	12	93.0
CMS2214	CM Series 622 Hand Chain Hoist, 3 Ton, 20' Lift	3	20	109.0



WARNING



• Read safety precautions on pages 586 to 589

Hoists & Trolleys

Cyclone Hand Chain Hoist

- Made in the U.S.A - Approved for use on Government Projects
- Load limiter is a standard option - overload protection for proper and safe use of hoist
- Highest efficiency in the industry - greater lift with minimum effort
- Easy to maintain - lower maintenance costs, interchangeable parts



Stock Number	Description	Capacity (tons)	Lift (feet)	Weight (lbs)
CMS4621	CM Cyclone Hand Chain Hoist, 1/4 ton, 10' Lift	1/4	10	40.0
CMS4732	CM Cyclone Hand Chain Hoist, 1/4 ton, 20' Lift	1/4	20	55.0
CMS4622	CM Cyclone Hand Chain Hoist, 1/2 ton, 10' Lift	1/2	10	40.0
CMS4733	CM Cyclone Hand Chain Hoist, 1/2 ton, 20' Lift	1/2	20	55.0
CMS4624	CM Cyclone Hand Chain Hoist, 1 ton, 10' Lift	1	10	43.0
CMS4734	CM Cyclone Hand Chain Hoist, 1 ton, 20' Lift	1	20	60.0
CMS4625	CM Cyclone Hand Chain Hoist, 1 1/2 ton, 10' Lift	1 1/2	10	70.0
CMS4735	CM Cyclone Hand Chain Hoist, 1 1/2 ton, 20' Lift	1 1/2	20	93.0
CMS4626	CM Cyclone Hand Chain Hoist, 2 ton, 10' Lift	2	10	70.0
CMS4894	CM Cyclone Hand Chain Hoist, 2 ton, 20' Lift	2	20	92.0
CMS4627	CM Cyclone Hand Chain Hoist, 3 ton, 10' Lift	3	10	103.0
CMS4736	CM Cyclone Hand Chain Hoist, 3 ton, 20' Lift	3	20	144.0
CMS4629	CM Cyclone Hand Chain Hoist, 5 ton, 10' Lift	5	10	138.0

Beam Clamps

- Used as an anchor for a hoist or rigging operation, or as a tool to position and hold beams in place when welding
- Adjustable to fit wide range of beam sizes

Stock Number	Description	Capacity (tons)	Flange Width (inches)	Weight (lbs)
CMS09001W	CM Beam Clamp, 1 ton (BC-1)	1	3 - 9	9.0
CMS09002W	CM Beam Clamp, 2 ton (BC-2)	2	3 - 9	11.0
CMS09003W	CM Beam Clamp, 3 ton (BC-3)	3	3.2 - 12.6	20.0
CMS09004W	CM Beam Clamp, 5 ton (BC-5)	5	3.6 - 12.2	24.0



Trolleys

Both Trolleys feature:

- Shielded ball bearings - smooth rolling motion with little effort, longer life
- Wrap around side plates - protect wheels and act as stopper to prevent movement beyond desired location
- Adjustable to fit wide range of beams

	Stock Number	Description	Capacity (tons)	Std. Beam Height (inches)	Beam Flange Width (inches)	Weight (lbs)
CBT Push Trolley	CMSCBTP0025	CMCO CBT Push Trolley, 1/4 ton	1/4	4 - 24	2 - 8.7	19.0
	CMSCBTP0050	CMCO CBT Push Trolley, 1/2 ton	1/2	4 - 24	2 - 8.7	19.0
	CMSCBTP0100	CMCO CBT Push Trolley, 1 ton	1	5 - 24	2.3 - 8.7	26.0
	CMSCBTP0150	CMCO CBT Push Trolley, 1 1/2 ton	1 1/2	6 - 24	2.3 - 8.7	46.0
	CMSCBTP0200	CMCO CBT Push Trolley, 2 ton	2	6 - 24	2.3 - 8.7	46.0
	CMSCBTP0300	CMCO CBT Push Trolley, 3 ton	3	8 - 24	3 - 8.7	86.0
	CMSCBTP0500	CMCO CBT Push Trolley, 5 ton	5	10 - 24	3.5 - 8.7	130.0
CBT Geared Trolley	CMSCBTG0100	CMCO CBT Geared Trolley, 1 ton	1	5 - 24	2.3 - 8.7	26.0
	CMSCBTG0150	CMCO CBT Geared Trolley, 1 1/2 ton	2	6 - 24	2.3 - 8.7	46.0
	CMSCBTG0200	CMCO CBT Geared Trolley, 2 ton	2	6 - 24	2.3 - 8.7	46.0
	CMSCBTG0300	CMCO CBT Geared Trolley, 3 ton	3	8 - 24	3 - 8.7	86.0
	CMSCBTG0500	CMCO CBT Geared Trolley, 5 ton	5	10 - 24	3.5 - 8.7	130.0



CBT Push Trolley



CBT Geared Trolley



Lodestar Electric Chain Hoist

- Largest installed base of any hoist in the industry
- Rugged, long life design
- Grease lubrication - lifetime protection for less maintenance and improved
- Made in the U.S.A

Stock Number	Description	Capacity (tons)	Lift (feet)	Lifting Speed (ft/min)	Weight (lbs)
CMS3555/3651	CM Lodestar 230/460V, 3ph, 60Hz, 1 ton, 10' Lift	1	10	32	117.0
CMS4255/3651	CM Lodestar 230/460V, 3ph, 60Hz, 1 ton, 20' Lift	1	20	32	128.0
CMS3565/3658	CM Lodestar 230/460V, 3ph, 60Hz, 2 ton, 10' Lift	2	10	16	137.0
CMS4265/3658	CM Lodestar 230/460V, 3ph, 60Hz, 2 ton, 20' Lift	2	20	16	157.0
CMS9508/9559	CM Lodestar 230/460V, 3ph, 60Hz, 3 ton, 10' Lift	3	10	11	162.0
CMS9510/9559	CM Lodestar 230/460V, 3ph, 60Hz, 3 ton, 20' Lift	3	20	11	190.0



Shopstar Electric Chain Hoist

- Small compact design-easy to install and move from location to location
- Grease lubrication - lifetime protection for less maintenance and improved durability
- Made in the U.S.A

Stock Number	Description	Capacity (tons)	Lift (feet)	Lifting Speed (ft/min)	Weight (lbs)
CMS2070	CM ShopStar 115V, 1ph, 60Hz, 250 lbs	1/8	10	16	26.0
CMS2090	CM ShopStar 115V, 1ph, 60Hz, 500 lbs	1/4	10	12	26.0
CMS2110	CM ShopStar 115V, 1ph, 60Hz, 1000 lbs	1/2	10	6	32.0
CMS2072	CM ShopStar 460V, 3ph, 60Hz, 250 lbs	1/8	10	16	28.0
CMS2077	CM ShopStar 460V, 3ph, 60Hz, 250 lbs	1/8	10	24	28.0
CMS2084	CM ShopStar 460V, 3ph, 60Hz, 500 lbs	1/4	10	16	28.0
CMS2100	CM ShopStar 460V, 3ph, 60Hz, 500 lbs	1/4	10	24	28.0
CMS2121	CM ShopStar 460V, 3ph, 60Hz, 1000 lbs	1/2	10	12	32.0



Valustar Electric Chain Hoist

- Economical unit with robust design
- Grease lubrication-lifetime protection for less maintenance and improved performance
- Made in the USA

Stock Number	Description	Capacity (tons)	Lift (feet)	Lifting Speed (ft/min)	Weight (lbs)
CMS2401C	CM Valustar 115V, 1ph, 60Hz, 1/4 ton, 20' Lift	1/4	20	16	68.0
CMS2403C	CM Valustar 115V, 1ph, 60Hz, 1/2 ton, 20' Lift	1/2	20	16	68.0
CMS2407C	CM Valustar 115V, 1ph, 60Hz, 1 ton, 20' Lift	1	20	16	116.0
CMS2409C	CM Valustar 115V, 1ph, 60Hz, 2 ton, 20' Lift	2	20	8	150.0
CMS2402C	CM Valustar 230/460V, 3ph, 60Hz, 1/4 ton, 20' Lift	1/4	20	16	66.0
CMS2404C	CM Valustar 230/460V, 3ph, 60Hz, 1/2 ton, 20' Lift	1/2	20	16	66.0
CMS2408C	CM Valustar 230/460V, 3ph, 60Hz, 1 ton, 20' Lift	1	20	16	117.0
CMS2410C	CM Valustar 230/460V, 3ph, 60Hz, 2 ton, 20' Lift	2	20	8	142.0



Removable Handle Ratchet Binders

- Removable handle provides greater load security by making it less likely for load to be stolen
- Reduces overall weight

Stock Number	Description	Chain Size for Grade 43	Chain Size for Grade 70	WLL (lbs)
CMS46565	Removable Handle Ratchet Binder - Body	3/8"	5/16"	5400
CMS46566	Removable Handle Ratchet Binder - Body	1/2"	3/8"	9200
CMS46565H	Removable Handle Ratchet Binder - Handle	-	-	-



CMG Ratchet Binders

- Economical unit where handle remains attached to ratchet binder; durable construction

Stock Number	Description	Chain Size for Grade 43	Chain Size for Grade 70	WLL (lbs)
CMS48365CMG	3/8" Ratchet Binder	-	5/16"	6600
CMS48366CMG	1/2" Ratchet Binder	-	3/8"	9200



WARNING



• Read safety precautions on pages 586 to 589

Rigging



- Highest working load limit in the industry - provides extra protection and helps insure a safer lift
- Save money by having the ability to use a smaller shackle vs. the competitor
- Made in the USA

Super Strong Carbon Steel Shackle

Stock Number	Description	Size Diameter (in)	WLL (tons)
CMSM646P	Super Strong Shackle, Carbon Steel, Painted, 1/4"	1/4	3/4
CMSM647P	Super Strong Shackle, Carbon Steel, Painted, 5/16"	5/16	1
CMSM648P	Super Strong Shackle, Carbon Steel, Painted, 3/8"	3/8	1 1/2
CMSM650P	Super Strong Shackle, Carbon Steel, Painted, 1/2"	1/2	3
CMSM651P	Super Strong Shackle, Carbon Steel, Painted, 5/8"	5/8	4 1/2
CMSM652P	Super Strong Shackle, Carbon Steel, Painted, 3/4"	3/4	6 1/2
CMSM653P	Super Strong Shackle, Carbon Steel, Painted, 7/8"	7/8	8 1/2
CMSM654P	Super Strong Shackle, Carbon Steel, Painted, 1"	1	10
CMSM656P	Super Strong Shackle, Carbon Steel, Painted, 1 1/4"	1 1/4	14
CMSM657P	Super Strong Shackle, Carbon Steel, Painted, 1 1/2"	1 1/2	20
CMSM677P	Super Strong Shackle, Carbon Steel, Painted, 1 3/4"	1 3/4	30
CMSM658P	Super Strong Shackle, Carbon Steel, Painted, 2"	2	35



- Manufactured to meet ASTM & NACM specifications
- Typically used as barrier chain, trailer safety chains, light construction, and the marine industry
- Not for overhead lifting

Grade 30 Proof Coil Chain

Stock Number	Description	Size (in)	WLL (lbs)	Feet per Pail	Weight per 100' (lbs)
CMS671410	Grade 30 Zinc Plated Pails, 3/16"	3/16	800	250	37
CMS671411	Grade 30 Zinc Plated Pails, 1/4"	1/4	1300	140	60
CMS671412	Grade 30 Zinc Plated Pails, 5/16"	5/16	1900	90	81
CMS671413	Grade 30 Zinc Plated Pails, 3/8"	3/8	2650	60	133
CMS671015	Grade 30 Zinc Plated Pails, 1/2"	1/2	4500	40	278



- Meets all Department of Transportation requirement
- No ultra-violet degrading like with synthetic straps

Grade 70 Binder Chain Assemblies

Stock Number	Description	Size (in)	WLL (lbs)	Weight Each (lbs)
CMS638277	5/16" x 16' Grade 70 with Clevis Hooks - In Bag	5/16	4700	17.1
CMS638266	5/16" x 20' Grade 70 with Clevis Hooks - In Bag	5/16	4700	22.9
CMS638268	3/8" x 16' Grade 70 with Clevis Hooks - In Bag	3/8	6600	25.2
CMS638267	3/8" x 20' Grade 70 with Clevis Hooks - In Bag	3/8	6600	32.9



Herc-Alloy 1000 Chain Slings

- Utilizes Herc-Alloy® 1000 Chain which has the strongest weight-to-strength ratio
- Easy to inspect and repair

Stock Number	Description	Chain Size (in)	Reach (ft)	WLL at 90° (lbs)	WLL at 60° (lbs)	WLL at 45° (lbs)	WLL at 30° (lbs)
CMS39S0SR5	Single Chain Sling - Master Link and Sling Hook, 5'	3/8	5	8800	-	-	-
CMS28SAALR10	Single Adjustable Chain Sling, 10'	9/32	10	4300	-	-	-
CMS39SAALR10	Single Adjustable Chain Sling, 10'	3/8	10	8800	-	-	-
CMS51SAALR10	Single Adjustable Chain Sling, 10'	1/2	10	15000	-	-	-
CMS28DOSR5	Double Chain Sling - Master Link and Sling Hook, 5'	9/32	5	-	7400	6100	4300
CMS39DOSR5	Double Chain Sling - Master Link and Sling Hook, 5'	3/8	5	-	15200	12400	8800
CMS51DOSR5	Double Chain Sling - Master Link and Sling Hook, 5'	1/2	5	-	26000	21200	15000
CMS28DAALR10	Double Adjustable Chain Sling, 10'	9/32	10	-	7400	6100	4300
CMS39DAALR10	Double Adjustable Chain Sling, 10'	3/8	10	-	15200	12400	8800
CMS51DAALR10	Double Adjustable Chain Sling, 10'	1/2	10	-	26000	21200	15000



Flue Gas and CO Analyzers

SPECIFICATIONS / MODEL	TPI708C10	TPI709A740	TPI712A740	TPI715K3
CO Measurement	0-10,000 ppm	0-10,000 ppm	0-10,000 ppm	0-10% (100,000 ppm)
O2 Measurement	0-25%	0-25%	0-25%	0-25%
NO Measurement	n/a	n/a	n/a	0-5,000 ppm
NOx (Calculated)	n/a	n/a	n/a	0-5,250 ppm
CO2 Measurement	0-25%	0-25%	0-25%	0-25%
CO/CO2 Ratio	0 to 0.999	0 to 0.999	0 to 0.999	0 to 0.999
Combustible Leak Indication	no	no	yes	no
Pressure	yes (TPI621)	yes	yes	no
Pressure Differential	yes (TPI621)	yes	yes	no
Stack Temp (CH1)	yes	yes	yes	yes
Ambient Temp (CH2)	yes	yes	yes	yes
Temperature Differential	yes	yes	yes	yes
Excess-Air	yes	yes	yes	yes
Air-Free (CO)	yes	yes	yes	yes
Efficiency	yes	yes	yes	yes
Store Memory	50	50	50	10
Logger Memory	no	no	yes	no
IRDA (optional)	no	no	yes	yes
Battery	3 "AA" batteries	3 "AA" batteries	rechargeable	rechargeable
Standard Accessories Included	TPI708 Analyzer, flue probe, silicon tubing, beaded temp probes, brass fittings, carrying case TPI621 manometer and TPIA740 printer	TPI709 Analyzer, flue probe, silicon tubing, beaded temp probe, brass fittings, carrying case and TPIA740 printer	TPI712 Analyzer, flue probe, silicon tubing, beaded temp probe, brass fittings, carrying case and TPIA740 printer	TPI715 Analyzer, flue probe, silicon tubing, beaded temp probe, brass fittings, carrying case



TPI708C10 / TPI709A740 / TPI712A740 / TPI715K3

Choose from a complete line of flue gas and CO analyzers. Calculate CO2, gross or net efficiency and excess air. All units measure CO, O2, temperature and, depending on the model, pressure and NOX. NOTE:

- When selecting oil as fuel be sure to use the optional TPI773 oil filter or reading could become erratic.

TPI750A Refrigerant Leak Detector

- 0.2 ounces per year sensitivity
- Detects all existing refrigerants and blends including 404A, PURON, and R507 (AZ50)
- 400 hour sensor life under normal use
- Easy one-hand, thumb wheel operation



TPI750A

TPI753A Refrigerant Leak Detector

- 0.1 ounces per year sensitivity
- Detects all existing refrigerants and blends including 404A, PURON, and R507 (AZ50)
- 400 hour sensor life under normal use
- Pump driven: finds and clears quicker for finding leaks faster



TPI753A

TPI621C3 Manometer Kit

- Measure high efficiency gas and oil equipment pressure to make proper adjustments and maximize efficiency

Kit includes:

- TPI621 with resolution of 0.001" of H2O
- Range of ±120" of H2O
- TPIA612 protective tilt stand boot
- (2) TPIA605 ¼ inch tapered "T's
- (2) TPIA603 brass fittings (1/4 inch NPT to ¼ inch barb)
- TPIA774 (six foot of silicone tubing)
- (2) TPIA776 static tips
- Carrying case.



TPI621C3

TPI1010 Indoor Air Quality Tester

- Test air quality in production areas or building environments and more
- Ambient CO2: 0-5,000 ppm
- Ambient CO: 0- 500 ppm
- % outside air (calculated)
- Ambient Air Temperature:
 - -5 to 140° F / -20 to 60° C
- Dew Point:
 - -47 to 140° F / -44 to 57° C
- Wet Bulb: 3 to 135° F / -16 to 57° C



TPI1010



WARNING



• Read safety precautions on pages 586 to 589

TPI343C3 Digital Thermometer

- Auto field calibrate in less than 10 seconds in ice water to achieve +/- 1° F system (tester & probe) accuracy within 30 to 120° F temperature range
- TPI343 can measure -58 to +2,462° depending upon the probe used
- Durable TPICK21M pipe clamp probes for one hand operation on suction lines
- T1, T2, T-differential, Min, Max, Data hold, and selectable C/F°
- Comes with tilt-stand, protective boot, two TPICK21M, and TPIA340 soft pouch



TPI343C3

TPI575C1 Dual Air Velocity Meter

- Vane: Air flow 0.4 to 25 m/s (Also reads km/s, ft/min, knots/h, miles/h)
- Hotwire: Air flow 0.2 to 20 m/s (Also reads km/s, ft/min, knots/h, miles/h)
- Temperature -5 to 175° F (-20 to 80°C).
- Data record function for maximum and minimum temperature and air velocity readings
- 39" cable length with Lemo connector
- Data hold
- Auto power off
- Protective boot and soft carrying case included



TPI575C1

TPI605 Digital Vacuum Meter

- Measure vacuum 15 to 12,000 microns
- Display updates every 0.5 seconds
- Read vacuum in seven international units of measure: microns, PSI, inHg, mBar, Pascals, Torr, and mTorr



TPI605



Universal & Safety Tools



TPI775 Combination CO/Combustible Gas Detector

- Combo ambient CO measurement and combustible gas leak detector
- One-hand easy to use
- Auto and manual zero
- Adjustable tic rate
- Audible & visual alarms



TPI720B Combustible Gas Detector

- Similar to TPI775 but without Co-Detection



TPIHXG2 Combustible Gas Detector

- Similar to TPI720B but UL913 intrinsically safe rating



TPI50 AC Low Voltage Tester

- Non-contact voltage detector
- 50 to 1,000 volts
- Audio and visual alert
- Always on, no switch required
- UL listed

TPI381, TPI383, TPI384 IR Non-Contact Temperature Tester



Measures surface temperature without the use of a probe.

- Features:
- Easy to use single button operation
 - 0.1 resolution for best reading (380/381)
 - Last reading held for 30 seconds
 - Soft holster pouch included
 - Large, easy to read backlit display
 - °C and °F selectable

Temperature ranges:

- TPI381: 0°F to 572°F (-18°C to 300°C)
- TPI383: -31°F to 999°F v (-35°C to 560°C)
- TPI384: -4°F to 1,832°F (-20°C to 1,000°C)

TPI376C1 I/R Contact/Non-Contact Tester

Combines IR with contact temperature measurement. Includes:

- TPI376 IR Thermometer Temp. Range: -58°F to 950°F (-50°C to 510°C)
- TPIGK13M K-type probe
- TPIHK11M handle
- TPICK15M HD surface probe
- TPIGK16M air probe
- TPICK13M chisel probe
- TPIA905 carrying case



TPI395 Refractometer

Accurately measures the freezing point of fluids used in hydronic heating systems. Measures propylene, glycol, ethylene, and battery fluid

TPISDIT300 Resistance Tester

Digital Insulation Resistance Tester with AC Volts.

- Insulation Resistance Ranges: 20MΩ, 200MΩ, 2000MΩ
- Test Voltages: 250V, 500V, 1000V
- Continuity Ranges: 2Ω, 20Ω



TPI270 Clamp-on Ammeter

Measure motor in-rush & run current. Measure temperature differential with relative mode using any K-type probe (no adapter required)

- Non-contact voltage tester function
- Slim jaw and body design for use in crowded electrical panels
- Up to 400 AC amps with 0.01 resolution
- Capacitance, Hz, VAC, VDC, Ohms, and continuity



Universal Coax Cable Connector Kits

Universal Connector Kits provide the exact adapters you need for mating or repairing coax cables. Quickly and easily make repair fittings yourself with the proper ends and the threaded "Universal Interface" connector. Connectors screw together in seconds without soldering or crimping. The machined brass connectors are silver or zinc plated with gold plated connector tips and insulated with teflon seals. Use the components you need, then reorder as needed to keep the kit ready for your next custom connector project. All components are available from Snap-on Industrial.



Adapter end + Universal Interface + Adapter end = fast and easy coaxial cable repair



TPI3000A 30 Piece Standard Universal Connector Kit

Standard kit offers basic selection of connectors. Master Kit includes all of the Standard Kit components plus T-connectors, Banana connector and BNC connector. Ideal for military field work.



TPI5000A 40 Piece Master Universal Connector Kit



TPI5010 Universal Adapter Cable Kit (RG58)

Attach terminal ends to these cables to create customized cables. Ideal for field work.

Accessories For: TPI440, TPI460, & TPI192/TPI194

Stock Number	Description
TPIA402	PC software and RS232 cable for TPI440
TPIA403	Protective boot for TPI440
TPIA900	Soft zipper carrying case for TPI440 with shoulder strap
EETA503C	Low current adapter for TPI440, TPI460, TPI192/TPI194
EEDM5030	Current shunt adapter for TPI440, TPI460, TPI192/TPI194
TPIA312	Dual input temperature adapter for TPI440, TPI460, TPI192/TPI194
TPIA251	400 AC mV output adapter for TPI440, TPI460, TPI192/TPI194
EETA501C	400 AC/DC amp adapter for TPI440, TPI460, TPI192/TPI194
EETA502C	1,000 AC/DC amp adapter TPI440, TPI460, TPI192/TPI194



TPI192, TPI194, and TPI196 Have tilt stand, separate battery and fuse compartment

TPI460 Dual Trace, 20MHz Oscilloscope with True RMS Digital Multimeter With Backlight

Features:

- 20 MHz Bandwidth captures signals from AC/DC drive motors, sensors, actuators, line and control voltages, UPS and industrial machines
- Cursor Readout measures the width and amplitude of the signal and display it on the screen instead of trying to figure it out manually
- Decibels accurately measure sound signals
- Pre- and Post- Triggering views the waveform before and after the point the scope triggers at to find glitches
- Trend Mode graph readings over a predetermined time period to check for surges or dropouts
- Dual Input views two waveforms on the display for comparison and troubleshooting

Applications:

- Power quality
- Variable speed drives
- Industrial motor controls
- Battery testing
- Programmable logic controls
- NC/CNC machines
- Uninterruptible power supplies
- Audio/Video
- Industrial lighting controls
- Factory automation
- Line conditioners
- Voltage regulators
- Inverters
- Gaming industry



TPI460

TPI440 Single Trace, 1MHz Oscilloscope with True RMS Digital Multimeter

Features:

- Auto Ranging 4,000 Count True RMS DMM: The TPI440 has 9 measurement functions and 0.3% basic DC accuracy
- 1 MHz Single Trace Oscilloscope: View industrial power signals such as motor controls, and switching power supplies with detail and clarity
- Trend Mode: Graph readings over a predetermined time period to check for surges or dropouts
- Component Test: Check voltage-current signatures on resistors, capacitors, and semiconductors
- Logic Test: Indicates transitions up to 2MHz
- Frequency Counter: Measure low frequency signals from 1Hz to 2MHz and display duty cycle, pulse width and period

Applications:

- Power Quality
- Industrial Motor Controls
- View waveform to verify power equality delivered to variable speed drives
- Measure voltage and frequency at the same time
- 400µF to check motor start and run capacitors
- DC µAmps for checking flame safety controls
- DC mV for checking thermocouples



TPI440

TPI192 50,000 Count True RMS Digital Multimeter: CATIII 1,000VAC, CATIV 600VAC

TPI194 50,000 Count True RMS Digital Multimeter

Features:

- Large 50,000 count display increases resolution and improves accuracy (1.7" x 2.75", 43mm x 70mm)
- Triple Display shows more than one reading simultaneously
- 51 Segment Analog Bar Graph to catch fast AC fluctuations
- Back Light (LED Type) allows viewing in any light condition
- Auto Range automatically selects the best range for the measurement
- Separate battery and fuse compartment for easy replacement
- AC voltage and current waveforms found on controls and circuits
- Silicone 1,000V CAT III, 600V CAT IV, 10A test leads (CE & cUL listed)
- Capacitance measures the value of capacitors
- Diode Test displays approximate forward bias voltage
- Continuity and buzzer to check for opens and shorts
- Time Stamp Logging logs up to 100 readings (min/max/avg)
- Pulse Width measures the duration of a pulse
- Duty Cycle displays the total "on" time of a component
- Inductance measures the value of inductors and coils

Applications:

- Power Quality
- Industrial Motor Controls
- View waveform to verify power equality delivered to variable speed drives.
- Measure voltage and frequency at the same time
- 400µF to check motor start and run capacitors
- DC µAmps for checking flame safety controls
- DC mV for checking thermocouples



TPI192 / TPI194

TPI196 50,000 Count 0-24mA Process Control Meter

Features:

- Large 50,000 count display increases resolution and improves accuracy (1.7" x 2.75", 43mm x 70mm)
- 0-24mA output for process controls
- Triple Display shows more than one reading simultaneously
- 51 Segment Analog Bar Graph to catch fast AC fluctuations
- Back Light (LED Type) allows viewing in any light condition
- Auto Range automatically selects the best range for the measurement
- Separate battery and fuse compartment for easy replacement
- Continuity and buzzer to check for opens and shorts
- Includes protective boot and silicone rubber (CAT IV 600V) test leads

APPLICATIONS

- 4~20mA Transducers (Pressure, Strain, Temperature, Flow, Level)
- Loop Powered Isolators
- Two Wire Transmitters
- Valve Positioners
- Signal Conditioners
- Process Scaled Indicators



TPI196



WARNING



• Read safety precautions on pages 586 to 589

Metalsawing



WMH414461

WMH414461, WMH414453* - 5" X 8" Horizontal Bandsaws

A steel heat-treated worm driving a bronze worm gear gives smooth and quiet operations of the gear box assembly. The JET oil bath drive train extends the production life of the machine parts. The blade guides adjust fully in three planes. The saw's sliding guide arm permits positioning close to the cut.

STANDARD FEATURES

- Adjustable hydraulic feed system
- Adjustable ball bearing guides
- Heat treated steel worm gear and bronze drive gear
- Automatic shut off at end of cut
- Handle & Wheels for convenient moving to various work stations
- 115V 1PH, 1/2HP

*Includes 1 gallon capacity coolant system, 115V/1Ph, complete with hose, flexible nozzle, shut-off valve, tank and baffle

Bandsaw Blade: Please order Easy-Cut® Part Number: 825966205084



WMH414454

WMH414454 - 7" x 12" Horizontal Wet Band Saw

STANDARD FEATURES

- Blade Guides:
 - Side: Eccentric shaft, ball bearing
 - Rear: Ball bearings
- Blade drive is steel, heat treated worm, driving a bronze worm gear in oil bath
- Heavy duty cast iron saw head and table
- Oil bath hardened and ground worm gear
- Adjustable ball bearing blade guides
- Blade wheels are made of flanged cast iron
- Adjustable hydraulic feed system
- Automatic shut-off at end of cut
- 115V 1PH, 3/4HP

*Wet cutting saw includes 1 gallon capacity coolant system, 115V/1Ph, complete with hose, flexible nozzle, shut-off valve, tank and baffle

Bandsaw Blade: Please order Easy-Cut® Part Number: 825967907090

WMH414500K - 14" Wood/Metal Vertical Bandsaws

These saws are specially designed to effectively cut a variety of materials including wood, plastic, bakelite, composites, ferrous and non-ferrous metals. Capable of contour and straight cutting and resawing. Can cut delicate curves in both thick and thin stock.

STANDARD FEATURES

- Cast iron frame
- Solid, one-piece steel base for extra stability
- Conveniently located on/off switch
- Exclusive gear box design allows wood/metal model saws to be used for a wider variety of metal, wood, non-ferrous metal and plastic cutting applications.
- Voltage 1HP, 115V, 1PH



WMH414500K

Please refer to page N164 for more Easy-Cut® Bandsaw Blades.

Bandsaw Blade: Please order Easy-Cut® Part Number: 82596620784

WMH577003 - 1" x 42" Belt/8" Sander with Miter Gauge

STANDARD FEATURES

- Hinged idler wheel cover
- Power take off, allows for mounting an optional flex shaft, when can be used to do carving, drum sanding, deburring and dozens of other jobs
- Deluxe miter gauge that turns and locks for common angles 45° both left and right
- Abrasive belt unit does the work of a jig saw, coping saw or hand file while removing material and finishing at the same time, allows the operator to get into small openings, plus handle odd shapes and angles
- Allows for sanding, grinding or finishing of outside, curves or odd shaped work pieces on the belt
- Grind, sand or finish large work pieces on the disc unit fast and efficiently; combined with the tilting table, the operator has the advantage of chamfering or beveling, table is slotted to accept miter gauge
- Delivers sharper, faster cutting actions; easy belt changes with a variety of grits, belt keeps the machine cool, so one can complete a wide range of jobs
- When using non-woven synthetic belts the operator can blend, polish, buff or finish metal surfaces in addition to defuzzing wood surfaces
- 1/3HP, 1PH, 115V Motor and Toggle Switch


WMH577003

WMH577101 JET Industrial Bench Grinders

STANDARD FEATURES

- UL listed
- Totally enclosed, pre-lubricated ball bearings
- Heavy-duty guarded toggle switch on 8" and 10"
- Rubber mounts prevent movement

Stock No.	Wheel Diameter (dia. x W/in.)
WMH577101	6" Bench Grinder x 3/4" Wide Wheels, 1/2HP, 115V, 1PH
WMH577102	8" Bench Grinder, 1" Wide Wheels, 1HP, 115V, 1PH
WMH577103	10" Bench Grinder, 1" Wide Wheels, 1 1/2HP, 115V, 1PH


WMH577172

WMH577101

WMH577172 Pedestal Stand for Bench Grinders

STANDARD FEATURES

- Heavy-duty cast iron construction
- Stable, wide stance base
- Fully adjustable platform coolant tank and tool tray

WMH414550K Combination Belt and Disc Machine

STANDARD FEATURES

- 6" x 48" Belt
- 10" Disc
- Two cast iron tilting tables for mitering applications
- Full access to the belt when tilted in the horizontal position
- Dust collection shrouds on belt and disc
- Quick-release tension mechanism makes belt changes quick and easy
- Removable safety key switch
- Enclosed base protects motor from sanding dust
- Floor stand included (some assembly required)


WMH414550K

WMH354170 JET 20" Floor Drill Press

STANDARD FEATURES

- Hinged metal belt and pulley cover coupled with quick adjustment motor mount allow rapid changing of spindle speeds
- Rotating, 45° tilting, crank-operated worktable with quick release clamp
- On/off switch located on front of the drill press head
- A 1/2" diameter external positive depth stop with three nut locking feature for quick adjustment
- Adjustable tension spindle return spring
- Spindle is supported by high quality ball bearings
- Built-in work lamp on all models, bulb not included.
- Drill chuck and key included
- 1" Drilling Capacity, 1-1/2 HP, 1Ph, 115/230V


WMH354170

WARNING


• Read safety precautions on pages 586 to 589

Material Handling



WMH140075

JET 6,000 Lb. Capacity Premium Pallet Trucks

STANDARD FEATURES

- Premium quality 6,000 lbs. capacity pallet truck with robotic welds
- Easy-to-use with large ergonomic handle, fingertip controls and 200 degrees turning radius
- Handle returns to upright position when not in use
- Articulating axle maintains wheel contact on uneven floor surfaces
- Hydraulic pump is load tested and inspected 20 times prior to assembly
- One-piece cast pump features hardened and chromed piston and ram with high quality seals
- Pump also features step-less lowering valve, allowing you to control the rate of descent, top-of-stroke and safety overload bypass system
- Single point replacement valve makes servicing or rebuilding easy
- Solid steel lifting rods, no periodic adjustment required
- Rounded fork tips with nylon rollers for trouble-free pallet entry and exit
- Polyurethane over aluminum steer wheels with lifetime lubricated bearings
- Nylon load wheels with lifetime lubricated bearings

Stock No.	Item Description
WMH140070	20" x 36" Forks 6,000 lb Capacity
WMH140072	20" x 48" Forks 6,000 lb Capacity
WMH140074	27" x 42" Forks 6,000 lb Capacity
WMH140075	27" x 48" Forks 6,000 lb Capacity

JET 5,000 Lb. Capacity J Series Pallet Trucks

STANDARD FEATURES

- High quality 5,000 lbs. capacity pallet truck with durable powder coat finish
- 2-1/2" lowered height for smaller opening pallets
- Easy-to-use with one hand operation, fingertip controls and 180 degrees turning radius
- Handle returns to upright position when not in use
- Articulating axle maintains wheel contact on uneven floor surfaces
- Welded steel pump features hardened and chromed piston and ram with high quality seals
- Pump also features top-of-stroke and safety overload bypass system
- Solid steel lifting rods, no periodic adjustment required
- Tapered fork tips with steel ramps for trouble-free pallet entry and exit
- Polyurethane over steel steer wheels with lifetime lubricated bearings
- Nylon load wheels with lifetime lubricated bearings
- Additional grease fittings provide for lubrication of pivot points

	Stock No.	Item Description
JET PALLET TRUCKS	WMH140016	16" x 36" Forks, 5,000 Lb Capacity
	WMH140084	20" x 42" Forks, 5,000 Lb Capacity
	WMH140083	20" x 48" Forks, 5,000 Lb Capacity
	WMH140081	27" x 42" Forks, 5,000 Lb Capacity
	WMH140080	27" x 48" Forks, 5,000 Lb Capacity



WMH140080



WMH140019

JET HD Resin Service Carts

STANDARD FEATURES

- Heavy duty resin construction resists dents, chips, and rust
- Handle has built in storage bins
- Round corners mean no sharp edges to nick walls or furniture
- Large, quiet, non-marking 5" casters

Stock No.	Model No.	Max Capacity (lbs.)	Shelf Size (in)	Upper Shelf Height (in)	Height Between Shelves (in)	Lower Shelf Height (in)	Caster Size (lbs)	Overall Size (LxWxH/IN)	Shipping Weight	Carton Pack
WMH140018	PUC-3117	550	31 1/8 x 17 1/8	33 1/2	19 1/2	6	5 x 1	39 3/4 x 17 1/8 x 33 1/2	40	1
WMH140019	PUC-3725	550	37 3/8 x 25 5/8	33 1/2	19 1/2	6	5 x 1	46 x 25 5/8 x 33 1/2	42	1

Hammers
Soft Face Unbreakable Handle Hammers
STANDARD FEATURES

- Handles are made from high strength, chemical resistant rubber, vulcanized over a spring steel rod
- Cushioned grip minimizes shock, vibration and reduces fatigue
- Replaceable faces have large diameter threads

Stock No.	Item Number	Face Diameter
WMH11025	HVSF 125	1 1/4
WMH11050	HVSF 150	1 1/2
WMH11075	HVSF 175	1 3/4

- Each hammer comes with one nylon and one copper replaceable face
- Faces are also available in nylon, aluminum, rubber and copper
- Unbreakable handle will withstand thousands of overstrikes


WMH11025
WMH11075
Replacement Soft Faces

Stock No.	Face Diameter (in.)	Face Material	Ship Weight Each (lbs.)	Carton Pack
WMH12025	1 1/4	Aluminum	1	1
WMH14025	1 1/4	Copper	1	1
WMH15025	1 1/4	Hard Nylon	1	1
WMH16025	1 1/4	Soft Nylon	1	1
WMH17025	1 1/4	Rubber	1	1
WMH12050	1 1/2	Aluminum	1	1
WMH14050	1 1/2	Copper	1	1
WMH15050	1 1/2	Hard Nylon	1	1
WMH16050	1 1/2	Soft Nylon	1	1
WMH17050	1 1/2	Rubber	1	1
WMH12075	1 3/4	Aluminum	1	1
WMH14075	1 3/4	Copper	1	1
WMH15075	1 3/4	Hard Nylon	1	1
WMH16075	1 3/4	Soft Nylon	1	1
WMH17075	1 3/4	Rubber	1	1


Unbreakable Handle Sledge Hammers
STANDARD FEATURES

- Unbreakable handle is made with tempered steel, and surrounded by heavy-duty molded rubber
- Ergonomic handle absorbs shock, ensures comfort and has a slip-resistant grip
- High-visibility head adds instant identification under any job site conditions.

Stock No.	Item Description
WMH19999	2-1/2 Lb. Head, 12" Unbreakable Handle
WMH20000	4 Lb. Head 12" Unbreakable Handle
WMH20006	4 Lb. Head, 16" Unbreakable Handle
WMH20010	6 Lb. Head, 24" Unbreakable Handle
WMH20015	6 Lb. Head, 30" Unbreakable Handle
WMH20001	8 Lb. Head, 24" Unbreakable Handle
WMH20002	8 Lb. Head, 30" Unbreakable Handle
WMH20020	10 Lb. Head, 30" Unbreakable Handle
WMH20025	12 Lb. Head, 30" Unbreakable Handle
WMH20003	14 Lb. Head, 30" Unbreakable Handle

Cross Pein Unbreakable Handle Sledge Hammers

Stock No.	Item Description
WMH11302	2 Lb. Head 16" Handle
WMH11306	3 Lb. Head 16" Handle


WMH11302
Unbreakable Handle Ball Pein Hammer

Stock No.	Item Description
WMH20030	24 Oz. Head, Ball Pein Hammer, 14" Unbreakable Handle
WMH20035	32 Oz. Head, Ball Pein Hammer, 14" Unbreakable Handle
WMH20040	40 Oz. Head, Ball Pein Hammer, 14" Unbreakable Handle


WMH20030
Safety Sledge Hammers

Safety sledge hammers feature a unique heat treatment which allows the face to mushroom safely and eliminate any chipping, cracking, or flying shrapnel from the hammer head. The unbreakable handle is made with tempered steel, and surrounded by heavy-duty molded rubber. The comfort design handle absorbs shock, ensures comfort and has a slip-resistant grip. These units are available in a wide range of weights and handle lengths.

Stock Number	Weight (Pounds)	Handle Length (Inches)
WMH70040	2.5	12
WMH70041	4	12
WMH70042	4	16
WMH70043	6	24
WMH70046	8	24
WMH70044	6	30
WMH70045	8	30
WMH70047	10	30
WMH70048	12	30
WMH70049	14	30


WARNING


• Read safety precautions on pages 586 to 589

Spool & Reel Racks



Wire Spool Rack

- 7-shelf reel rack adjustable on 1-1/2" centers
- Organize and retrieve wire, cable, chain, hose, rope or tubing
- Holds reels up to 16" in diameter
- V-shaped shelves with center rod
- Fiberboard on shelves to deaden noise and prevent excessive uncoiling

Stock Number	Description	Dimensions (W x H x D)
EQ880-7	Wire Spool Rack	36" x 84" x 8"

See more Equipto shop organization products on pages N087 to N092. Snap-on Industrial offers the full assortment of Equipto products. Contact your Snap-on Industrial Representative or call our Customer Service at (877) 740-1900 for more information.



EQ1072R04



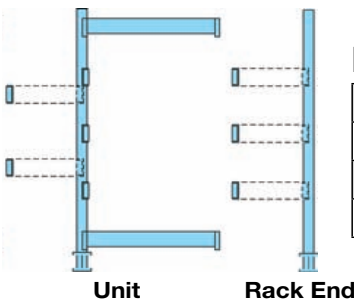
EQ1076E08

Reel Racks

- Organize reels of cable and supplies, making them easy to retrieve
- Racks hold up to 2000 lbs. per level, and up to 12000 lbs. per rack
- High capacity free standing A-frame racks
- 96"-120"-144" heights
- 12,000 lb. capacity
- 3" x 3" vertical posts with mounting holes
- Adjustable cross beams on 2" centers with automatic safety locks

Width	Height			Number of Reel Holders
	96"	120"	144"	
48"	EQ1072R04	EQ1072R14	EQ1072R24	Two Pair
72"	EQ1072R06	EQ1072R16	EQ1072R26	Two Pair
48"	EQ1073R04	EQ1073R14	EQ1073R24	Three Pair
72"	EQ1073R06	EQ1073R16	EQ1073R26	Three Pair
48"	EQ1074R04	EQ1074R14	EQ1074R24	Four Pair
72"	EQ1074R06	EQ1074R16	EQ1074R26	Four Pair
48"	EQ1075R04	EQ1075R14	EQ1075R24	Five Pair
72"	EQ1075R06	EQ1075R16	EQ1075R26	Five Pair

Racks can be ganged. Each unit is supplied with right-hand reel holders (as shown) that fasten to next unit or rack end.



Reel Rack Ends

Stock Number	Height
EQ1076E08	96"
EQ1076E10	120"
EQ1076E12	144"

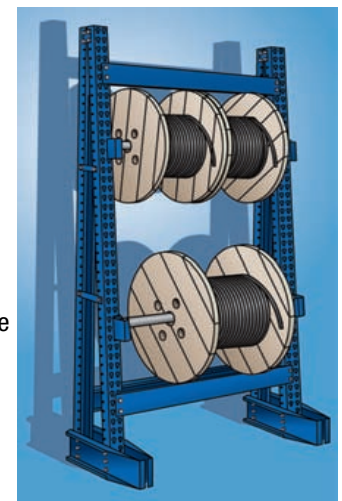


EQ78218RH

Extra Reel Holders

- Sold in pairs only
- Accommodate axles up to 2-3/8" O.D.
- Capacity 2,000 lbs.
- Stock Number **EQ78218RH**

- Reel rack shown assembled with one Rack Unit and one Rack End
- Pipe is not included. Secure standard schedule 40 pipe (up to 2" nominal) from your local plumbing supply
- Reel holders are adjustable on 2" increments to hold multiple reels
- Use 47" pipe length for 48" wide rack
- Use 71" pipe length for 72" wide rack





INDUSTRY SPECIFIC APPLICATIONS

At Snap-on Industrial, we've helped customers solve difficult problems for years. Our expertise can help solve yours.

Overview N137

Aerospace Hand Tools N140

ATI Airframe Tools N144

Zephyr Bits and Fastener Kits N156

Sioux Aerospace Air Tools N157

Sioux Production Air Tools N158

Bahco® Easy-Cut

Bandsaw Blades N164

Starrett® Precision Tools N165

Snap-on® Railroad Tools N173

As the US military began developing a new generation of fighter jets, a design requirement was to reduce weight using smaller, high tensile fasteners. Conventional wrenches couldn't produce the required torque loads, so engineers came to Snap-on for a solution. We developed the Flank Drive® wrenching system, using a relief in the corners of the wrench design to allow flat-to-flat contact between the wrench and the fastener resulting in up to 20% higher torque loads.

Today, Snap-on Industrial continues as an industry leader with more than 300 hand tools that meet aerospace standards AS954, AS4283 and AS4984.

From high-tech aerospace tools to heavy-duty tools for railroads, we have an unmatched diversity of experience. And innovation remains in our DNA.

A steady stream of new products and refinements to shop basics is always on the way, and ideas in one area can often carry into others. Consider how the tools used to skin airframes are also used to assemble the over-the-road trailers that haul the nation's freight.

If you can build it, we'll help you service it.





**How does
Snap-on Industrial
solve problems?
Creative engineering.
State-of-the art
manufacturing.
The ability and
willingness to listen
to our customers.**



INDUSTRY SPECIFIC APPLICATIONS

Focus, resources, imagination and experience all help define Snap-on Industrial. When we talk about targeted solutions and specialty applications, we're exploring years of creating real value for our customers, saving time, money, reducing injuries and improving quality.

Not only do we have the expertise from working with our customers, we bring the power of industry-leading companies within the Snap-on family along with key suppliers to deliver a broad array of the highest quality and best-performing hand and power tools and components.

That's what separates us from the run-of-the-mill industrial supply companies—this isn't a one-size-fits-all operation.

From Snap-on, we bring specialized hand tools in double hex and spline configurations for high tensile fasteners in aerospace applications.

From ATI, we bring the industry-leading airframe assembly tools. The ATI bucking bars and rivet tools are generally regarded as the standard of the industry.

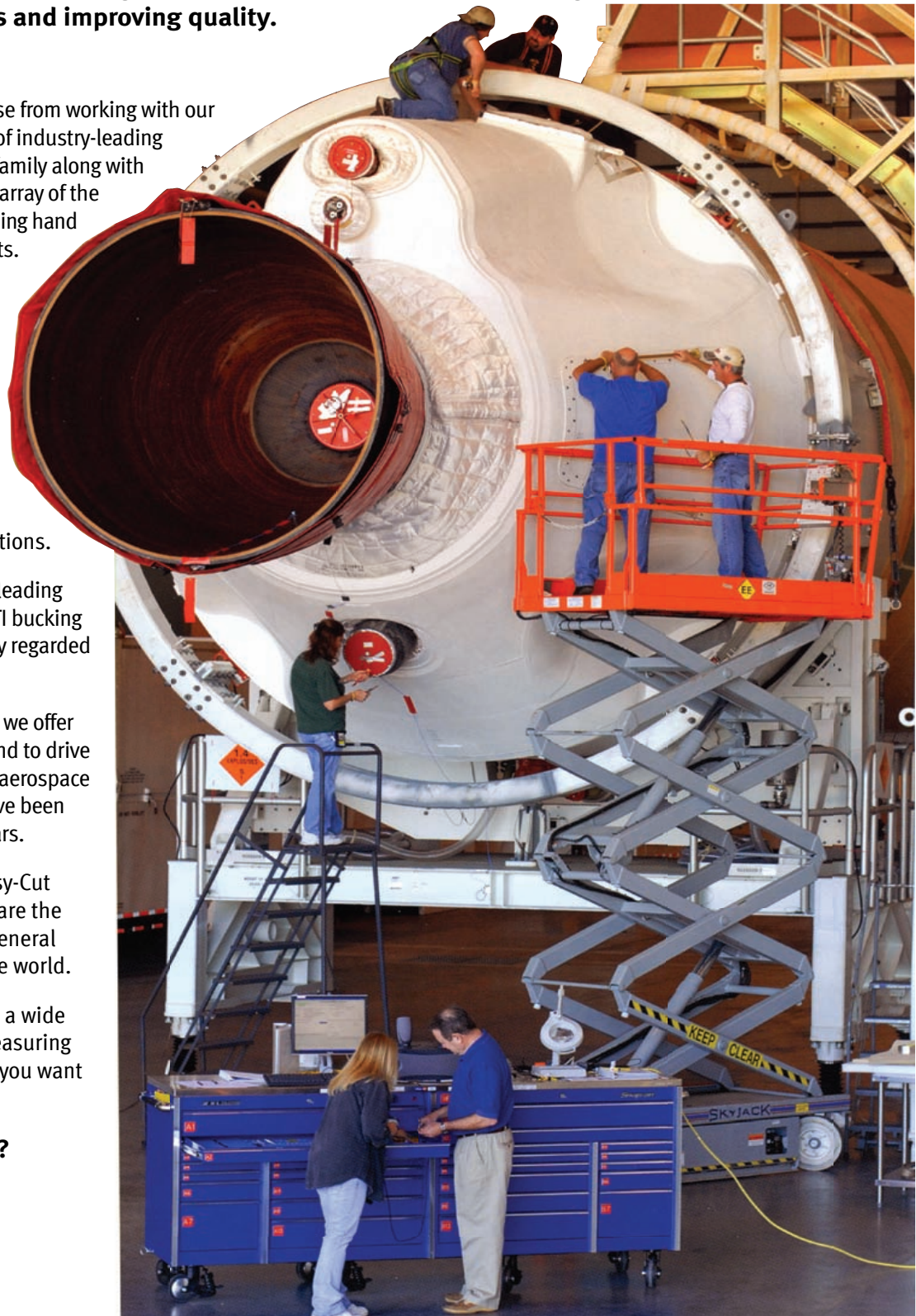
For assembly and maintenance, we offer Zephyr bits and fastener kits. And to drive them, our Sioux power tools for aerospace and production applications have been the technician's favorites for years.

For production, the Bahco® Easy-Cut M42 bimetal bandsaw blades are the most advanced and versatile general purpose bandsaw blades in the world.

For critical measuring, we offer a wide range of Starrett® precision measuring tools—when it has to be right, you want to use Starrett® micrometers.

So how can we help you?

We've built tools and sets specifically designed for industries like waste water treatment, power generation, aviation and aerospace, mining and oil drilling and efforts like space exploration and alternative energies.



AEROSPACE STANDARDS

Commitment to Quality and Standards

Snap-on® is committed to meeting ANSI and global product standards, and often goes beyond them. Whether it's Snap-on products or partner products, every tool we sell goes through rigorous testing for performance, quality, ergonomics, durability and safety. Done at our own corporate test facility in Kenosha, we pledge to meet or exceed the highest standards in the industry. At Snap-on, we:

- Are active participants in the creation of ANSI and other industry standards
- Hold regular meetings with government and industry bodies to review and update current and developing technologies
- Offer unique and proprietary products designed to go beyond the scope of ANSI and other standards



Conventional 12-point wrench and the contact it makes on the corner of a nut or bolt. The corner can round off under high loads causing the wrench to slip.



A Snap-on® Flank Drive® wrench moves the contact away from the corners with a radius, then provides flat-to-flat contact for up to 20% more turning power.

Over 300 Hand Tools That Conform to Aerospace Standards

According to Aerospace Standard AS-954, wrenches shall not touch the upper 5% of the fastener's corners. The design of a box wrench or socket wrench profile shall be configured so that, when mated with 12-point fasteners conforming to the AS-870 requirements, they shall transmit torque to the fastener without bearing on the outer 5% of the fastener's wrenching points.

Snap-on 12-point wrenches and sockets with the Flank Drive® Wrenching System comply with this requirement by achieving maximum engagement (flat-to-flat contact) along the flank of the fastener, while keeping contact away from the fastener's corners.

The Flank Drive® Wrenching System configuration has radiused corners, allowing use of thinner socket walls because of reduced stress concentrations. Thinner socket walls can often allow clearance to fasteners that conventional sockets can't reach. In addition, the Flank Drive Wrenching System can deliver up to 20% more turning power.



Contact your Snap-on Industrial Representative for more information, or call our Customer Service Center at (877) 740-1900

Snap-on® offers over 300 hand tools that conform to Aerospace Standards AS954, AS4283, AS4984, and/or MIL-W-8982. They can be found in their respective locations in the Hand Tools section of this

catalog. The stock numbers and descriptions are shown below, please reference the catalog pages shown for the complete description and specifications of these items

1/4" Drive Ratchets and Accessories

Stock Number	Description	Catalog Page
T72	Ratchet - Standard Handle - Sealed	7
GT72	Ratchet - Standard Handle - Sealed - Ind Finish	7
TMU8B	Universal Joint	73
TMS4E	Speeder	74
TMXK2	Knurled Extension - 2"	65
TMXK4	Knurled Extension - 4"	65
TMXK60	Knurled Extension - 6"	65
TMXK140	Knurled Extension - 14"	65
TM10G	Breaker Bar	16

1/4" Drive, Semi Deep 12 Pt. Sockets, Page 18

Stock Number	Size (SAE)
TMDS6	3/16"
TMDS7	7/32"
TMDS8	1/4"
TMDS9	9/32"
TMDS10	5/16"
TMDS11	11/32"
TMDS12	3/8"
TMDS14	7/16"
TMDS16	1/2"
TMDS18	9/16"

1/4" Drive, Deep 12 Pt. Sockets, Page 19

Stock Number	Size (SAE)
STMD6	3/16"
STMD7	7/32"
STMD8	1/4"
STMD9	9/32"
STMD10	5/16"
STMD11	11/32"
STMD12	3/8"
STMD14	7/16"
STMD16	1/2"
STMD18	9/16"

1/4" Drive, Deep Flare-Nut Sockets - 12 Pt. Page 110

Stock Number	Size (SAE)
AN85086B	3/8"
AN85087B	7/16"
AN85088B	1/2"
AN85089B	9/16"

1/4" Drive, High Performance/Spline Sockets - Shallow Page 123**

Stock Number	Size (Spline / SAE)
TES7	#7 - 7/32"
TES8	#8 - 1/4"
TES9	#9 - 9/32"
TES10	#10 - 5/16"
TES12	#12 - 3/8"
TES14	#14 - 7/16"

1/4" Drive, High Performance/Spline Sockets Deep 6 Pt. Page 123**

Stock Number	Size (Spline / SAE)
TEL7	#7 - 7/32"
TEL8	#8 - 1/4"
TEL10	#10 - 5/16"

1/4" Drive, High Performance/Spline Sockets Universal Page 123**

Stock Number	Size (Spline / SAE)
TESU8	#8 - 1/4"
TESU10	#10 - 5/16"

1/4" Drive, High Performance Sockets-Universal - 12 Pt. Page 123 **

Stock Number	Size (SAE)
TDHU81A	1/4"
TDHU101A	5/16"
TDHU121A	3/8"

3/8" Drive Ratchets and Accessories

Stock Number	Description	Catalog Page
F80	Ratchet - Standard Handle - Sealed	8
FL80	Ratchet - Long Handle - Sealed	8
FX1	Extension - Friction Ball - 1 1/2"	67
FXX3	Extension - Friction Ball - 3"	67
FXX6	Extension - Friction Ball - 6"	67
FXX8	Extension - Friction Ball - 8"	67
FX18	Extension - Friction Ball - 18"	67
FX24A	Extension - Friction Ball - 24"	67
F10LC	Breaker Bar	16
F4LB	Speeder	76
F4LBK	Speeder with knob	76
FJ8A	Universal Joint	75

3/8" Drive, Semi Deep 12 Pt. Sockets, Page 26

Stock Number	Size (SAE)
FDS081	1/4"
FDS101	5/16"
FDS121	3/8"
FDS141	7/16"
FDS161	1/2"
FDS181	9/16"
FDS201	5/8"
FDS221	11/16"
FDS241	3/4"
FDS261	13/16"
FDS281	7/8"

3/8" Drive, Deep 12 Pt. Sockets, Page 26

Stock Number	Size (SAE)
SF081	1/4"
SF101	5/16"
SF121	3/8"
SF141	7/16"
SF161	1/2"
SF181	9/16"
SF191	19/32"
SF201	5/8"
SF221	11/16"
SF241	3/4"
SF261	13/16"
SF281	7/8"
SF301	15/16"
SF321	1"

** Snap-on® spline wrenching tools have been developed to service high tensile strength spline nuts and bolts widely used on both military and commercial aircraft.

Precise, radial spline teeth engage the fastener teeth over a wider area to minimize stress, and allow application of high torque without damage to the fastener or to the tool.

Chrome spline tools comply with Military Spec. MS-33787 and MIL-W-8982. (Industrial finish tools comply with performance specifications and differ only in finish.) The unique patented spline wrenching configuration can also be used on ordinary 6 and 12-point fasteners with an advantage similar to the Snap-on Flank Drive® wrenching system.



WARNING



- Do not use chrome or industrial finish hand sockets with impact drivers
- Read safety precautions on pages 586 to 589

AEROSPACE STANDARDS

3/8" & 1/2" Drive

3/8" Drive, Universal 12 Pt. Sockets, Page 34

Stock Number	Size (SAE)
FU18B	9/16"
FU20B	5/8"
FU22B	11/16"
FU24B	3/4"

3/8" Drive, Deep Flare Nut Crowfoot Wrench, Page 111

Stock Number	Size (SAE)
AN850810B	5/8"
AN850811B	11/16"
AN850812B	3/4"
AN850813B	13/16"
AN850814B	7/8"
AN850815B	15/16"
AN850816B	1"
AN850817B	1 1/16"

3/8" Drive, High Performance/Spline Sockets - Shallow Page 123**

Stock Number	Size (Spline / SAE)
FES120	#12 - 3/8"
FES140	#14 - 7/16"
FES160	#16 - 1/2"
FES180	#18 - 9/16"
FES200	#20 - 5/8"

3/8" Drive, High Performance/Spline Sockets Deep Page 123**

Stock Number	Size (Spline / SAE)
FEL120	#12 - 3/8"
FEL140	#14 - 7/16"
FEL160	#16 - 1/2"
FEL180	#18 - 9/16"
FEL200	#20 - 5/8"

** Snap-on® spline wrenching tools have been developed to service high tensile strength spline nuts and bolts widely used on both military and commercial aircraft.

Precise, radial spline teeth engage the fastener teeth over a wider area to minimize stress, and allow application of high torque without damage to the fastener or to the tool.

3/8" Drive, High Performance/Spline Sockets - Universal Page 124**

Stock Number	Size (Spline/SAE)
FESU120	#12 - 3/8"
FESU140	#14 - 7/16"
FESU160	#16 - 1/2"
FESU180	#18 - 9/16"

3/8" Drive, Torque Adaptors 12 Pt., Page 126

Stock Number	Size (SAE)
FRDH101	5/16"
FRDH121	3/8"
FRDH141	7/16"
FRDH161	1/2"
FRDH181	9/16"

3/8" Drive Sockets, Spline Torque Adaptors, Page 126**

Stock Number	Size (SAE)
FRES7	#7 - 7/32"
FRES8	#8 - 1/4"
FRES9	#9 - 9/32"
FRES10	#10 - 5/16"
FRES12	#12 - 3/8"
FRES14	#14 - 7/16"
FRES16	#16 - 1/2"
FRES18	#18 - 9/16"
FRES20	#20 - 5/8"
FRES22	#22 - 11/16"
FRES24	#24 - 3/4"

Chrome spline tools comply with Military Spec. MS-33787 and MIL-W-8982. (Industrial finish tools comply with performance specifications and differ only in finish.) The unique patented spline wrenching configuration can also be used on ordinary 6 and 12-point fasteners with an advantage similar to the Snap-on Flank Drive® wrenching system.

1/2" Drive Ratchets and Accessories

Stock Number	Description	Catalog Page
S80	High Strength Ratchet - Standard Handle - Sealed	10
SL80	High Strength Ratchet - Long Handle - Sealed	10
SX2	Knurled Extensions - 2 1/8"	69
SXK5	Knurled Extensions - 5"	69
SX20	Knurled Extensions - 20"	69
SX36	Knurled Extensions - 36"	69
S4	Speeder	78
S8	Universal Joint	77
SN15B	Breaker Bar - 15"	16

1/2" Drive, Semi Deep 12 Pt. Sockets

Stock Number	Size (SAE)
SDH121	3/8"
SDH141	7/16"
SDH161	1/2"
SDH181	9/16"
SDH201	5/8"
SDH221	11/16"
SDH241	3/4"
SDH261	13/16"
SDH281	7/8"
SDH301	15/16"
SDH321	1"
SDH341	1 1/16"
SDH361	1 1/8"
SDH401	1 1/4"

1/2" Drive, Deep 12 Pt. Sockets, Page 37

Stock Number	Size (SAE)
S121A	3/8"
S141A	7/16"
S161A	1/2"
S181A	9/16"
S201	5/8"
S221	11/16"
S241	3/4"
S261	13/16"
S281	7/8"
S301	15/16"
S321	1"
S341	1 1/16"
S361	1 1/8"
S381	1 3/16"
S401	1 1/4"
S421	1 5/16"

1/2" Drive, Deep Flare Nut Crowfoot Wrenches, Page 113

Stock Number	Size (SAE)
AN850818B	1 1/8"
AN850819B	1 3/16"
AN850820B	1 1/4"
AN850821B	1 5/16"
AN850822B	1 3/8"
AN850823B	1 7/16"
AN850824B	1 1/2"
AN850825B	1 9/16"
AN850826B	1 5/8"
AN850827B	1 11/16"
AN850828B	1 3/4"
AN850829B	1 13/16"
AN850830B	1 7/8"
AN850831B	1 15/16"
AN850832B	2"
AN850834B	2 1/8"
AN850835B	2 3/16"
AN850836B	2 1/4"

1/2" Drive, High Performance/Spline Sockets - Shallow Page 124**

Stock Number	Size (Spline/SAE)
SES161	#16 - 1/2"
SES181	#18 - 9/16"
SES201	#20 - 5/8"
SES221	#22 - 11/16"
SES241	#24 - 3/4"
SES261	#26 - 13/16"
SES281	#28 - 7/8"
SES301	#30 - 15/16"

1/2" Drive, Spline Torque Adaptors Page 126**

Stock Number	Size (Spline/SAE)
SRES18	#18 - 9/16"
SRES20	#20 - 5/8"
SRES22	#22 - 11/16"
SRES24	#24 - 3/4"
SRES26	#26 - 13/16"
SRES28	#28 - 7/8"

3/4" Drive Ratchets and Accessories

Stock Number	Description	Catalog Page
L872	Ratchet Head	15
L872RJ	Knurled Ratchet Handle	15
L32	Extension - Lock Button - 3"	72
L62	Extension - Lock Button - 8"	72
L122	Extension - Lock Button - 16"	72
L82A	Universal Joint	79

3/4" Drive High Performance/ Spline - Shallow Sockets, Page 124 Pt.

Stock Number	Size (Spline/SAE)
LES242	#24 - 3/4"
LES302	#30 - 15/16"
LES342	#34 - 1 1/16"
LES362	#36 - 1 1/8"

3/4" Drive, Wrenches

3/4" Drive Shallow 12 Pt. Sockets, Page 44

Stock Number	Size (SAE)
LDH242	3/4"
LDH262	13/16"
LDH282	7/8"
LDH302	15/16"
LDH322	1"
LDH342	1 1/16"
LDH362	1 1/8"
LDH382	1 3/16"
LDH402	1 1/4"
LDH422A	1 5/16"
LDH442	1 3/8"
LDH462	1 7/16"
LDH482	1 1/2"
LDH502	1 9/16"
LDH522	1 5/8"
LDH542	1 11/16"
LDH562	1 3/4"

Flank Drive Plus® Combination Wrenches, Page 96

Stock Number	Size
SOEX8	1/4"
SOEX10	5/16"
SOEX11	1 1/32"
SOEX12	3/8"
SOEX14	7/16"
SOEX16	1/2"
SOEX18	9/16"
SOEX20	5/8"
SOEX22	11/16"
SOEX24	3/4"
SOEX26	13/16"
SOEX28	7/8"
SOEX30	15/16"
SOEX32	1"
SOEX34	1 1/16"
SOEX36	1 1/8"
SOEX38	1 3/16"
SOEX40	1 1/4"

Flank Drive Combination Wrenches, Page 98

Stock Number	Size
OEX8B	1/4"
OEX10B	5/16"
OEX11B	11/32"
OEX12B	3/8"
OEX14B	7/16"
OEX16B	1/2"
OEX18B	9/16"
OEX20B	5/8"
OEX22B	11/16"
OEX24B	3/4"
OEX26B	13/16"
OEX28B	7/8"
OEX30B	15/16"
OEX32B	1"
OEX34B	1 1/16"
OEX36B	1 1/8"
OEX38B	1 3/16"
OEX40B	1 1/4"



Conventional 12-point wrench and the contact it makes on the corner of a nut or bolt. The corner can round off under high loads causing the wrench to slip.



A Snap-on® Flank Drive® wrench moves the contact away from the corners with a radius, then provides flat-to-flat contact for up to 20% more turning power.

Box Wrench - Standard Length 12 Point - 10° Offset, Page 102

Stock Number	Size
XB1214A	3/8 - 7/16"
XB1416A	7/16 - 1/2"
XB1618A	1/2 - 9/16"
XB1820A	9/16 - 5/8"
XB2022A	5/8 - 11/16"
XB2224A	11/16 - 3/4"
XB2426A	3/4 - 13/16"
XB2830A	7/8 - 15/16"
XB3032A	15/16 - 1"

Box Wrench - High Performance - 12 Point - 15° Offset, Page 124

Stock Number	Size
XDH78A	7/32 - 1/4"
XDH810B	1/4 - 5/16"
XDH1012B	5/16 - 3/8"
XDH1214A	3/8 - 7/16"
XDH1416A	7/16 - 1/2"
XDH1618A	1/2 - 9/16"
XDH2226A	11/16 - 13/16"
XDH2528	25/32 - 7/8"

Box Wrench - High Performance/ Spline - 15° Offset, Page 125**

Stock Number	Size (Spline/SAE)
XDES810A	#8 / #10 - 1/4 / 5/16"
XDES1214A	#12 / #14 - 3/8 / 7/16"
XDES1618A	#16 / #18 - 1/2 / 9/16"
XDES1820A	#18 / #20 - 9/16 / 5/8"
XDES2224A	#22 / #24 - 11/16 / 3/4"

Box Wrench - Standard Length - 12 Point - Deep 60° Offset, Page 103

Stock Number	Size
XO810	1/4 - 5/16"
XO1012	5/16 - 3/8"
XO1214	3/8 - 7/16"
XO1618	1/2 - 9/16"
XO1820	9/16 - 5/8"
XO2022	5/8 - 11/16"
XO2024	5/8 - 3/4"
XO2226	11/16 - 13/16"
XO2428	3/4 - 7/16"

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Chrome spline tools comply with Military Spec. MS-33787 and MIL-W-8982. (Industrial finish tools comply with performance specifications and differ only in finish.) The unique patented spline wrenching configuration can also be used on ordinary 6 and 12-point fasteners with an advantage similar to the Snap-on Flank Drive® wrenching system.



WARNING



- Do not use chrome or industrial finish hand sockets with impact drivers
- Read safety precautions on pages 586 to 589

AIRFRAME TOOLING

For Production and Maintenance

A SEVENTY-YEAR HERITAGE OF SERVING THE AVIATION INDUSTRY



ATI was formed in 1938 and incorporated in 1949 as Aircraft Tools, Inc. In 1986 Snap-on acquired ATI Tools. Today, the legendary ATI brand is managed by Snap-on Specialty Tools in City of Industry, California, utilizing its newly renovated, state of the art 120,000 square foot manufacturing facility. The ATI product line is known for quality and continues to be the choice of aviation professionals. We are proud to offer one of the broadest assortments of airframe fabrication tools for the production, maintenance, and repair of commercial, civilian and military aircraft.

ALUMINUM PREPARATION & MAINTENANCE TOOLS

Edge Breakers



ATI514

ATI514 Sheet Metal Edge Breaker.

- Quickly removes burrs and sharp edges from aluminum sheet stock
- Plastic handle
- Safety shield



ATISP225

ATISP225 Sheet Metal Edge Breaker, Carbide.

- Cast aluminum body
- Double-sided, indexable carbide inserts
- Quickly removes burrs and sharp edges from all types of sheet stock
- Thumb rest acts as safety shield

Pliers, Fastener Installation



04-4P3

04-4P3 Camloc Pliers.

- For use with Camloc fasteners, stud series 2000, 2700 and 4002



ATI508SG

ATI508SG Sheet Holder Pliers.

- Forged steel
- High visibility cushioned grips
- Used with spring-loaded clamps, temporary fasteners, plier operated

Clamps, Temporary Fasteners, Plier Operated



ATI542



ATI550SG



ATI552M

Stock No.	ATI542	ATI550SG	ATI551M	ATI552M	ATI553M	ATI554M	ATI556M
Description	U - Clamp	Side Grip Clamp	3/32" Fastener	1/8" Fastener	5/32" Fastener	3/16" Fastener	1/4" Fastener
Capacity	7/16	3/4	0 - 1/4"	0 - 1/4"	0 - 1/4"	0 - 1/4"	0 - 1/4"
Reach	2	1					
Force (lbs)	70	60					
Features	Zamak Alloy		#40 Drill	#30 Drill	#20 Drill	#10 Drill	1/4" Drill

Chip Chasers



ATI512

ATI512 Chip Chaser – 5-7/8 long.

- Designed to remove chips between sheet stock
- Spring steel with high visibility molded handle



ATISP200-1

ATISP200-1 Chip Chaser – Pointed Hook Blade – 5-7/8 long.

- Designed to remove chips between sheet stock
- Consist of ATISP200 cast aluminum handle and ATISP20002 pointed hook blade
- Blades are made from spring steel. Secured in handle by locking over handle pin
- Handle side hole allows for inserting 1/8 pin releasing blade from handle

ALUMINUM PREPARATION & MAINTENANCE TOOLS

Deburring



ATI521A

ATI521A Deburring – Speed Driver.

- Popular swivel handle allows for rapid burr removal around drilled holes
- Uses ATI521C deburring cutter

ATI521B Deburring – Speed Driver – Accepts Threaded Shank Cutters.

- Similar to ATI521A but accepts 1/4-28 threaded shank cutters
- Uses ATI407-4 deburring cutter, or ATI420, ATI445 and ATI455 cutter families



ATI521C

ATI521C Deburring Cutter.

- Used in ATI521A speed driver. 100-degree cutting angle, 3/8" body diameter, tip length 3/4", shank length 7/8", shank diameter 7/32"



ATI407-4

ATI407-4 Countersink – Hand Deburring.

- 100° cutting angle for hand deburring and countersinking. Use with ATI521B speed driver or any 1/4-28" threaded drill attachment

ALUMINUM HOLE FABRICATION/DRILL ATTACHMENTS

Threaded Drills, Adaptors and Stops



ATI339EC

ATI339EC Chuck-Three Jaw.

- Capacity 1/16" to 1/4"
- Internal 3 jaws are inverted, with the heavier portion of the jaws at the face to maximize chucking power
- Used in angle attachments with 1/4-28 threaded spindles
- Provides additional flexibility by allowing the use of straight shank tools in threaded shank spindles



ATI503C-1/4



ATI503-72

ATI503C-1/4 Drill Collet Adaptor - 1/4" and ATI503-72 Drill Adaptor 1/4".

- Both types of adaptors are used to secure straight shank tools in angle attachments with 1/4-28 threaded spindles
- Tools are secured in collet type by tightening nut onto base while standard type use two set screws



ATI570-30

ATI570-30 Drill Stop-#30.

- Designed to control hole depth
- Cushions break-through of the drill and prevents rotating jaws from coming in contact with drilled surface
- Set-screw locks unit onto drill

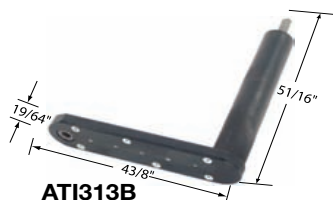


ATIHSSSH3/16

ATIHSSSH3/16 Threaded Shank Drill Bit - 3/16" Diameter, 1-1/4" long (Short).

- Made from HSS, 135-degree split point.
- 1/4"-28 threaded shank, (1" drill length plus 1/4" nut length)

Drill Attachments



ATI313B

ATI313B Drill Attachment - Flat Head - Gear Drive - Straight Offset.

- Machined steel housing, high speed gear drive with anti-friction roller bearings
- Recommended drill capacity 1/4", one to one drive ratio
- 4-3/8" overall length, 15/16" width, 5-1/16" overall height, 19/64" thick gear drive body, 3-33/64" centerline distance from input shaft to output shaft, 27/64" from centerline of output shaft to end of housing
- 1/4" diameter input shaft, 1/4-28 female threaded output



ATI332SC

ATI332SC Drill Attachment - Flat Head - Gear Drive - Straight Offset.

- Machined steel housing, high speed gear drive with anti-friction roller bearings
- Recommended drill capacity 1/4", one to one drive ratio
- 3-1/8" overall length, 15/16" width, 2-1/16" overall height, 11/32" thick gear drive body, 2-7/16" centerline distance from input shaft to output shaft, 5/16" from centerline of output shaft to edge of housing
- 1/4" diameter input shaft, 1/4-28 female threaded output



ATI326B

ATI326B Drill Attachment - 7" Straight Drive - 90 - Degree Head Angle.

- Machined steel housing, sealed bearings, maintenance free straight drive drill attachment
- Recommended drill capacity 3/16", one to one drive ratio
- 7" overall length includes the 90-degree angle head, 27/32" head height, 17/32" head width, 17/64" centerline of output shaft to outside circumference of head
- 1/4" diameter input shaft, 1/4"-28 female threaded output



WARNING



- Airframe tooling can cause flying chips
- Read safety precautions on pages 586 to 589

ALUMINUM HOLE FABRICATION/DRILL ATTACHMENTS

Drill Guides, Housings and Bushings



ATI590DBK

ATI590DBK Drill Bushing Kit.

- Hand held guide maintains tool perpendicular to flat or curved surface
- Guide assemblies consist of a case hardened drill bushing threaded into a polycarbonate guide housing
- Used with drills, taps or reamers
- Kit contains three polycarbonate guide housings and nine drill bushings, sizes #40, #30, 5/32", #21, 3/16", #10, 7/32", 1/4"



ATI589AB2187

ATI589A-1935 Drill Guide Housing with #10 Bushing.

- Guide assembly consist of a case hardened drill bushing threaded into a polycarbonate guide housing
- Maintains tool perpendicular to flat or curved surface
- Used with drill, taps or reamers



ATI589AB1935

ATI589AB1935 Threaded Drill Bushing - #10.

- Case hardened drill bushing used with polycarbonate guide housing (ATI589AA)

Nut Plate Drill Jigs, Transfer Punches



ATI518C

ATI518C Nut Plate Drill Jig - Two Lug Type.

- Double wing standard.. A=.344", B=.688", C=.191", D=#40, bolt size reference #10
- Designed for accurate drilling of the two rivet holes for installing nut plate fasteners
- Drill heads are made from oil hardened tool steel heat treated to Rc 60 – 64 for long life
- High strength spring steel connects the hardened head to the aluminum knurled handle providing a flexible handle for clearing obstacles



ATI507KT

ATI507KT Duplicating Punch Kit.

- Accurately transfer hole location from one sheet to another
- Locating diameter and the punch tip are ground after heat treat ensuring they are concentric for accurate hole transfers
- Manufactured from oil hardened drill rod hardened to Rc 58 – 60
- Kit box provides safe storage and size chart on inner lid allows for quickly determining the tool needed
- Kit contains fourteen 3-1/2" OAL punches, sizes 3/32", #40, 1/8", #30, 5/32", #19, 3/16", #10, 7/32", 1/4", 5/16", 3/8", 7/16", 1/2"



ATI532-61

ATI532-61 Strap Duplicator - Bushing Type - #40 Pilot / #40 Bushing.

- Bushing type for drilling duplicate matching holes in overlapping sheets
- Made from high grade spring steel, with through hardened radius edge pilot tip and the case hardened drill bushing come together in a very effective tool
- 6-1/4" working length with a beveled edge on the handle for prying sheets apart

Holesaws and Arbors



ATI413-2

ATI413-2 Hole Saw - Fine Tooth - 7/16"

- 7/16" cutting diameter, 5/16"-24 threaded arbor hole
- Use ATI415-0 or ATI415-1 arbor
- For cutting thin aluminum skins and corrugated sheets
- Made from M2 HSS hardened to Rc 62



ATI474-15

ATI474-15 Hole Saw - Coarse Tooth.

- 1-1/4" cutting diameter, 5/16"-24 threaded arbor hole
- Use ATI415-0 or ATI415-1 arbor
- Used for fast and effective cutting of aluminum and mild steel
- Made from M2 HSS hardened to Rc 62



ATI415-1

ATI415-1 Hole Saw Arbor.

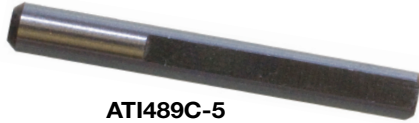
- 1/4" shank and 1/4" pilot diameters are ground between centers
- 5/16"-24 threaded arbor
- For use with ATI413 and ATI474 hole saws

COUNTERBORES/BACK SPOTFACETS-COUNTERSINKS

Aircraft Style Counterbores & Pilots



AT1488C-21



AT1489C-5

AT1488C-21 Counterbore - Aircraft Type - 7/8" Cutting Diameter.

- 4-flute, 2-13/16" length, 1/4" shank diameter, 3/16" pilot hole
- Manufactured of M2 (HSS) high speed tool steel. Hardened to Rc 62
- Used in drill presses and portable drill motors
- To machine a flat area or 'seat' on a contoured or uneven surface for a bolt head or nut
- Supplied with .005" corner radius, unless otherwise specified at time of order
- Uses **AT1489C** family of pilots secured in pilot hole with set-screw

AT1489C-5 3/16" Pilot Diameter - Counterbore, 3/16" Shank Diameter.

- Manufactured from (OHDR) oil hardened drill rod. Hardened to Rc 50 to minimize wear
- Pilot diameters are held within .0005" size envelope to provide maximum support
- Shank end has flat surface for set screw security
- Used with **AT1488C** family of counterbores

Back Spotfacers-Countersinks



AT1590S

AT1590S Back Spotfacer Cutter Kit - 16 Pieces.

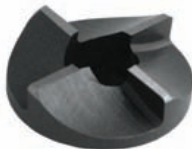
- Used for reverse spotfacing and counterboring where direct access is not possible using straight shank tools
- Made from M2 HSS heat treated to Rc 62, 4-flutes end cutting with ground .03" corner radius
- Kit includes 8 back spotfacers, sizes 1/4", 5/16", 3/8", 1/2", 3/4", 7/8", 1", and 1-1/4" diameters and 8 gunlock pilots, sizes 3/32", 1/8", 5/32", 3/16", 1/4", 5/16", 3/8" and 1/2" diameters, 6" OAL



AT1590TA

AT1590TA Back Countersink Cutter Kit - 16 Pieces.

- Used to countersink area's where direct access is not possible
- Made from M2 HSS, heat treated to Rc 62, 4-flutes, 100 degree cutting angle
- Kit includes 8 back countersinks, sizes 1/4", 5/16", 3/8", 1/2", 3/4", 7/8", 1", and 1-1/4" diameters and 8 gunlock pilots, sizes 3/32", 1/8", 5/32", 3/16", 1/4", 5/16", 3/8" and 1/2" diameters, 6" OAL



AT1403X

AT1403X Back Spotfacer- 1-1/4" OD.

- 1-1/4" body diameter, 1/2" pilot hole, 4 flute, 100° cutting angle, M2 HSS Rc 62
- Use AT1404-8 pilot
- Used for reverse spotfacing and counterboring where direct access is not possible using straight shank tools



AT1404-6 5/16"

AT1404-6 5/16" Back Spotfacer Pilot.

- 5/16" diameter, 6" overall length, positive lock. AKA: bayonet lock
- Oil-hardened drill rod with lock end at Rc 45



AT1402I-4

AT1402I-4 Back Countersink - 1/2" OD.

- 1/2" body diameter, 3/16" pilot hole, 4 flute, 100° cutting angle, .M2 HSS Rc 62
- Use AT14044 pilot
- Used to countersink area's where direct access is not possible



AT14044 3/16"

AT14044 3/16" Back Spotfacer Pilot.

- 3/16" diameter, 6" overall length, positive lock. AKA: bayonet lock
- Oil-hardened drill rod with lock end at Rc 45



WARNING



- Airframe tooling can cause flying chips
- Read safety precautions on pages 586 to 589

DIMPLING ALUMINUM

Dimple Dies



ATI206A-24PC

ATI206A-24PC Dimple Die Kit-Cold.

- Die sets designed for cold dimpling applications to form the 100 degree angle prior to installation of AN426 flush rivets
- 3/16" diameter shank with stainless steel lock ring securing the die sets into the pneumatic or hand squeezer
- Kit includes 12 male and 12 female dimple-die combinations, for rivet sizes 3/32", 1/8", 5/32" and 3/16"
- Three different body lengths (1/4", 3/8" and 1/2") are provided for each rivet size
- Kit box protects the polished surface of the dies, engraved aluminum plate can provide for quick size identification, as well as determining quickly if a tool is missing

MICROSTOPS/COUNTERSINKS

Microstops



ATI590CSK

ATI590CSK Microstop/Countersink Cutter Kit.

- Provides countersinking versatility in a convenient and portable kit
- Aluminum base plate keeps components separated and easy identification if item missing
- Includes nine 1/2" diameter 100-degree 2-flute integral piloted countersink cutters
- Pilot diameters include #40, #30, #21, #10, 3/32", 1/8", 5/32", 3/16" and 1/4"
- Microstop, .001" incremental depth adjustment, needle bearings, 5/16" shaft travel
- Utilizes a left handed hex locknut, along with thrust ball bearing for improved depth control
- Six different foot piece combinations available to cover the different materials and/or coatings



ATI441HSS

ATI441HSS Microstop - .001" Adjustment - Straight Skirt.

- Accepts up to 5/8" countersink cutter diameter using 1/4"-28 male threaded shank
- Utilizes needle bearings, 5/16" shaft travel, left handed hex locknut
- 1/4" shaft, straight skirt, and a thrust ball bearing for longevity

ATI441HSBS Microstop - .001" Adjustment - Straight Skirt.

- Accepts up to 5/8" countersink cutter diameter using 1/4"-28 male threaded shank
- Utilizes ball bearings, 5/16" shaft travel, left handed hex locknut
- 1/4" shaft with 3-chucking flats, straight skirt, and a thrust ball bearing for longevity



ATI441HSSPCC

ATI441HSSPCC Microstop - .001" Adjustment - Extended Nose.

- Accepts up to 3/8" countersink cutter diameter using 1/4"-28 male threaded shank
- Utilizes needle bearings, 5/16" shaft travel, left handed hex locknut
- 1/4" shaft, 1/2" diameter nose, 2-3/4" extended straight skirt, and a thrust ball bearing for longevity



ATI432B

ATI432B Microstop - 3/8"-24 Threaded Jumbo - .001" Adjustment.

- Accepts up to 1-1/4" countersink cutter diameter using 3/8"-24 male threaded shank
- Solid one piece shaft utilizes oilite bearings, and a thrust ball bearing for longevity



ATI462H3-1.3

ATI462H3-1.3 Microstop - 3/8"-24 Threaded Jumbo - .0005" Adjustment.

- Accepts up to 1-1/4" countersink cutter diameter using 3/8"-24 male threaded shank
- Solid one piece shaft utilizes ball radial bearings and thrust bearings for operating to 5000 rpm
- Unique shaft features chucking flats and 3/4" travel
- .0005 in adjustable depth control answers the need for a tighter tolerance requirement in a larger microstop application

MICROSTOPS/COUNTERSINKS

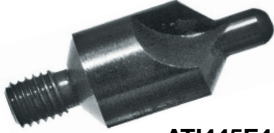
Countersink Cutters, Threaded Shank



ATI420D-4PC

ATI420D-4PC Countersink Set - 7/16" Body - Integral Pilot -Three Flute.

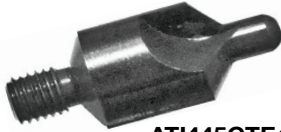
- 1/4"-28 shank, 3-flutes, 100-degree angle, HSS
- Integral pilots for 3/32", 1/8", 5/32" and 3/16"
- Anodized aluminum bar, holds four 1/4-28 shank cutters



ATI445E410

ATI445E-5PC Countersink Set - 1/2" Body - Integral Pilot -Two Flute.

- 1/4"-28 shank, 2-flutes, 100-degree angle, HSS
- Integral pilots for 3/32", 1/8", 5/32", 3/16" and 1/4"
- Anodized aluminum bar holds five 1/4-28 shank cutters



ATI445CTE410

ATI445E410 Countersink - 1/2" Body - Integral Pilot -Two Flute.

- #10 pilot, 1/4"-28 shank, 2 flute, 100-degree angle, HSS

ATI445CTE410 Carbide - Tipped Countersink - 1/2" Body-Integral Pilot-Two Flute.

- #10 pilot, 1/4"-28 shank, 2-flute, 100-degree angle - carbide tipped



ATI455G-4

ATI455G-4 Countersink Cutter - 5/8" Body - Replaceable Pilot - Two Flute.

- 1/4"-28 shank, 100-degree angle, .086" pilot hole, HSS
- Uses ATI484 family of pilots



ATI484-57

ATI484-57 Pilot - Countersink - .086" Shank.

- 1/8" pilot diameter
- Undercut pilot head allows pilot to seat flush onto cutter angle
- Use with ATI455 family of replaceable piloted countersink cutters

RIVETING TOOLS AND ACCESSORIES

Retaining Springs



ATI114C-3

ATI114C-3 Spring Retainer-Quick Change.

- Utilizes fast thumb release to quick change any rivet set that has safety spring shoulder without removing spring retainer
- Works with 3X and 4X rivet guns
- Accommodates 1/2" and 9/16" body diameters
- Length 1-1/8", body 1/2" to 9/16", shank .401



ATI115A

ATI115A Retainer Spring-Beehive Type.

- Safely retains rivet sets in 3X and 4X rivet guns
- Accepts straight and 10 degree offsets with 1/2" body diameters
- Length 1-5/16", body 1/2", shank .401

ATI115B Retainer Spring-Beehive Type.

- Safely retains rivet sets in 5X, 9X and 7X rivet guns
- Similar to the ATI115A except this is used with 5/8" body diameter sets, both straight and 10 degree offsets
- Length 1-1/2", body 5/8", shank .498

Rivet Guns



ATIATC3X



ATIATC4X

ATIATC3X and ATIATC4X Rivet Guns, Pistol Grip.

- Power, control and industrial durability make these a popular choice for driving solid rivets
- Excellent teasing trigger for precise control and upset uniformity
- Beehive style retaining spring and air flow control valve are included
- Most parts are interchangeable with Chicago Pneumatic 'X' series rivet guns
- 3X Gun: shank .401, capacity 3/16" aluminum rivet, BPM 2160, length 6-1/2", 3 lbs.
- 4X Gun: shank .401, capacity 1/4" aluminum rivet, BPM 1740, length 7-1/4", 3-1/4 lbs.



WARNING



- Airframe tooling can cause flying chips
- Read safety precautions on pages 586 to 589

RIVETING TOOLS AND ACCESSORIES

Riveting Tool Kits



ATI590RGK3X

Clear zipper case included.

ATI590RGK3X and ATI590RGK-4X 3X and 4X Rivet Gun Kits.

- These kits include essentials for straight and offset riveting
- Pistol grip rivet gun
- Four commonly used bucking bars
- Eight cupped sets for AN470 universal head rivets
- Three flush sets for AN426 flush rivets
- Two retainer springs
- Air regulator and air tool oil
- Durable soft sided case

90 Degree Rivet Gun Attachments



ATI595B

ATI595B and ATI595C 90 Degree Rivet Gun Attachment.

- ATI595B for use on Sioux® & Ingersoll-Rand 3X & 4X rivet gun
- ATI595C for use on Chicago Pneumatic 3X & 4X rivet gun
- Great for installing up to 5/32" rivets at tough to reach angles
- Uses ATI1757AP family of rivet sets

Sheet Metal Mechanics Set



ATI590SMKSP1

ATI590SMKSP1 Sheet Metal Mechanics Kit.

- Starter kit includes: 3X rivet gun, Sioux brand, 1/4" 2600 rpm drill, Sioux® brand, 3-1/2" long cupped rivet sets - 3/32", 1/8", 5/32", 3/16", 3-1/2" long flush set 1-1/4" face, integral piloted 3-flute countersinks - #10, #21, #30, #40, micro-stop, hand rivet cutter, sheet holder pliers, spring tension u-clamps 4 ea., sheet holders 12ea. 3/32", 1/8", 5/32", 3/16", drill stops - #10, #21, #30, #40, bucking bar, HSS drill bits - #10, #21, #30, #40, 1/8", 3/16", 3/32", 5/32", retainer spring-quick change

Rivet Sets



ATI100A71/8

ATI100A71/8 Cupped Rivet Set 1/2" Body.

- Straight-drive, .401 shank, 7-1/2" length for installing 1/8" AN470 rivet



ATI101A53/16

ATI101A53/16 Cupped Rivet Set - Offset 1/2" Body.

- Offset-drive, .401 shank, 5-1/2" length for installing 3/16" AN470 rivet



ATI100AF-3A

ATI100AF-3A Flush Rivet Set.

- Straight-drive, .401 shank, 3-1/2" length for installing flush rivets



ATI104A-5/32

ATI104A-5/32 Cupped Rivet Set - Gooseneck.

- Gooseneck-drive, .401 shank, 6-5/8" length for installing 5/32" AN470 rivets



ATI105A-3/16

ATI105A-3/16 Cupped Rivet Set - Double Offset.

- 3/8" double offset, .401 shank, 5-3/4" length for installing 3/16" AN470 rivets



ATI106A

ATI106A Flush Set Swivel.

- Flush set - ball swivel type, .401 shank, 3-1/2" length
- 1-1/4" crowned face with rubber guard and retainer spring
- Performs high-speed flush riveting on flat or curved surfaces
- Designed for ease of handling, with a swivel action for quick alignment
- Highly polished head is enclosed in a rubber sleeve
- Easily hand assembled or disassembled



ATI107A-1

ATI107A-1 Flush Set Straight.

- Flush set straight, .401 shank, 2-3/4" length
- 1" diameter crowned face for rapid flush riveting



ATI110CB

ATI110CB Rivet Set - Flush, Anti - Slip Edge.

- .401 shank, 2-1/2" length, 1" diameter crowned face
- Rubber rim guard to prevent slipping and damage to skin surface

RIVETING TOOLS AND ACCESSORIES

Knock-Out Punches



ATI141A33/32

ATI141A33/32 Knock Out Punch.

- .401 shank diameter, 3/32" rivet size, 3-1/2" overall length



ATI140A-6 Knock Out Punch, Hi-Shear®.

- .401 shank diameter, 3/16" rivet size, 3-1/2" overall length

Rivet Squeezing – Hand



ATI502AHE

ATI502AHE 360 Degree Swivel Head - Hand Rivet Squeezer - 3 in Reach.

- 360-degree yoke locks in any position in relation to the handles
- 3/8" stroke and 5/8" ram length adjustment, eliminates the necessity of shims
- Uses standard 3/16" shank tools
- Can be used for cold dimpling

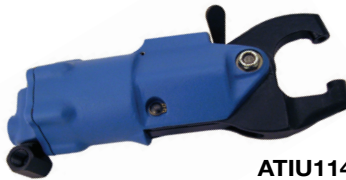


ATI502TH11/2

ATI502TH11/2 Hand Rivet Squeezer - 1-1/2 in Reach.

- Stainless steel, adjustable ram eliminates the necessity of shims
- Uses standard 3/16" shank tools

Rivet Squeezing – Pneumatic



ATI114A

ATI114A Pneumatic Alligator Type Rivet Squeezer - Single Cylinder.

- Single cylinder - rivet capacity 1/8" aluminum, 3/32" steel
- 9-1/4" long - 4 lbs. including jaws
- Quiet, simple and easy operation
- Speed of squeeze riveter can be controlled by throttle
- Swivel air inlet aids maneuverability



ATI114TC Pneumatic C-Type Rivet Squeezer - Tandem Cylinder.

- Tandem cylinder - rivet capacity 3/16" aluminum, 5/32" steel
- 14" long - 5.5 lbs. including jaws
- Quiet, simple and easy operation
- Ram speed can be controlled by throttle
- Develops full squeezing force near the end of stroke
- Swivel air inlet aids maneuverability

Rivet Squeezers



ATI108A33PC

ATI108A33PC Rivet Squeezer Set - 3/16" shank diameter.

- 23 each universal cupped, rivet sizes 3/32", 1/8", 5/32", 3/16" and 1/4"
- Available body lengths of 1/8", 1/4", 3/8", 1/2", and 5/8"
- 10 flush sets total, 1/2" and 3/8" diameter, body lengths of 1/8", 1/4", 3/8", 1/2" and 5/8"
- 3/16" diameter shank with stainless steel lock ring secures die sets into the pneumatic or hand rivet squeezer
- For installing AN470 (MS20470) and AN426 rivets



ATI108AT3/16

ATI108AT3/16 Rivet Squeezer - Cupped.

- 3/16" shank diameter, 1/2" body diameter, 5/8" body length
- For installing 3/16" AN470 cupped rivets



ATI109ER

ATI109ER Rivet Squeezer – Flush.

- 3/16" shank diameter, 3/8" body diameter, 3/8" body length
- For installing AN426 flush rivet



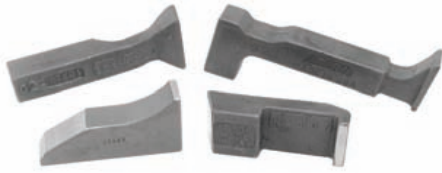
WARNING



- Airframe tooling can cause flying chips
- Read safety precautions on pages 586 to 589

RIVETING TOOLS AND ACCESSORIES

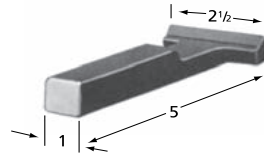
Bucking Bars



AT1590BBK 4

AT1590BBK 4 - Piece Bucking Bar Set.

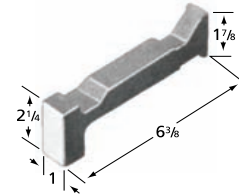
- Set includes AT1638, AT1647, AT1670 and AT1681
- Please refer to separate ATI online catalog for bucking bar specifications



AT1633

AT1633 Bucking Bar.

- 1.5 lbs (.68 kg)
- Ductile iron casting Rc 40



AT1670

AT1670 Bucking Bar.

- 2 lbs (.91 kg)
- Ductile iron casting Rc 40

FASTENER TOOLS

Hi-Lok® Tools



AT13594/95K Comprehensive Hi-Lok® Kit - 1/4 in and 3/8 in Ratchets, Sockets, T-hex Keys.

- Used for installation of Hi-Lok® fasteners
- Ratchet with sockets and t-hex keys
- Includes 1/4" and 3/8" square drive, fine tooth, reversible ratchets
- Sockets for 1/4" drive are 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8"
- Sockets for 3/8" drive are 3/8", 7/16", 1/2"
- T-hex keys 5/64", 3/32", 1/8", 5/32"
- 1/16" hex key for securing sockets to ratchet drive

AT13594/95K



ATISK3539A8 Hi-Lok® Roller Clutch Wrench Kit.

- Used for fastener installation and removal in confined spaces
- 2 each 1/4" drive (zero backlash) roller clutch 1 for installation, 1 for removal
- Dedicated hex sizes are 7/32", 1/4", 5/16", 11/32", 3/8", 7/16" for installation only
- Includes a pair of removal pliers **ATI2979U**
- Kit box with cut-outs for each tool. Allows for quick identification of missing tools
- All 8-roller ratchets are 3" long. The two 1/4" square drives have a wire ring to aid in socket retention if using other than Hi-Lok® configuration
- Wrenches designed for maximum socket rotation with minimum handle movement

ATISK3539A8



AT13539IT38

AT13539IT38 Dedicated 3/8" Hex Hi-Lok® Roller Clutch Wrench - Black Handle.

- Dedicated 3/8" hex, 3" handle length (zero backlash) roller clutch
- Wrench is designed for maximum socket rotation with minimum handle movement
- Used for fastener installation in confined spaces



ATISK3539L

ATISK3539L 1/4" Square Drive Hi-Lok® Roller Clutch Wrench - Black Handle.

- 1/4" drive, 6" handle length (zero backlash) roller clutch
- Wrench is designed for maximum socket rotation with minimum handle movement
- Used for fastener installation in confined spaces
- Can be used with any standard 1/4" drive socket



ATI2979U Hi-Lok® Fastener Removal Pliers.

- Serrated-jaw pattern for removal of all aluminum Hi-Lok® fasteners
- Comfort grip handles
- Easy access to tight areas

Hi-Shear® Removal

ATI493C-2



- ATI493C-2 Collar Cutter (Hi-Shear®) 1/4" - Hollow Core - Threaded Shank.**
- Used to remove 1/4" Hi-Shear® fasteners by cutting away the swaged collar
 - 1/2" cutter diameter, 1/4" inside diameter, 1/4-28 threaded shank
 - Engineered to fit standard microstops (**ATI441HSS** or **ATI441HSBS**) to control cutting depth

Huck® Removal

ATI1206-6 Flat Chisel.

- .401 shank diameter, 3/4" blade width, 6-3/4" overall length
- Precision sharpened



ATI2165-2

ATI2165-2 Chisel - Huck Lockbolt®.

- .401 shank diameter, .62 head diameter, 5/32" rivet size, 5-1/2" overall length
- Used to remove 5/32" Huck® fasteners by shearing away the swaged collar

Hi-Torque® Bits

ATIHTS-3



ATIHTS-3 #3 Hi-Torque® Bit - 1/4" Square Drive.

- Blade thickness .059", width .377", 1/2" body diameter, 1" length

Screw Removal



ATI540

ATI540 Screw Removal Tool - 9" Length - 3/8" Square Drive.

- .401 shank diameter, 9" overall length, includes wrench handle as shown
- Use with **ATI540SE-5** 1/4" hex-bit adaptor
- This unit in many cases provides the additional force needed to break loose stubborn fasteners

ATI540SE-5



ATI540SE-5 1/4" Hex - Bit Adaptor - 3/8" Square Drive.

- Use in conjunction with **ATI540** and **ATI540S** screw removal tools

Rivet Shavers



ATI590L

ATI590L Rivet Shaver Kit.

- Known as the micro miller kit
- Rivet shaver, 1 Hp, 20,000 rpm, .0005" incremental depth adjustment
- Rivet shaver gun weighs 2-1/2 lbs. Gun handle has comfort grips
- Carbide cutters and skirts for 5/16", 3/8", 7/16", 1/2", 9/16", 5/8" and 3/4" rivets
- Kit box with cut-outs provides protection and quick identification of missing tools



ATI429SXC

ATI429SXC Micro Miller - Rivet Shaver Gun.

- 3/4" cutter capacity, .0005" incremental depth adjustment, 1/4"-28 threaded spindle
- ATI's shaver head on Sioux® gun, motor is 1 hp at 20,000 rpm, comfort grip



ATI429A-7

ATI429A-7 Skirt Detail - Micro Miller.

- 3/4" cutter capacity used with **ATI429B-7** cutter
- Skirt detail is exclusive only to ATI products



ATI429B-6

ATI429B-6 Carbide Cutter Detail - Micro Miller.

- 5/8" diameter carbide cutter used with **ATI429A-6** skirt
- Engineered to cut very clean, no chatter or high spots in center



WARNING



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SHOP TOOLS AND ACCESSORIES

Mini-Vacs



ATI560MF12

ATI560MF12 Mina-Vac Air Vacuum With 12" Clear Flex Hose.

- This one-piece aluminum vacuum has larger diameter inlet tube and venturi that pulls up to six inches of mercury
- Removes objects such as sheet fasteners up to 3/4" diameter from confined spaces
- Efficient lightweight venturi type vacuum designed for use in confined areas
- Built in chip deflector to minimize bag damage
- Equipped with an "on" and "off" trigger button that can be locked in the "on" position



ATI560C

ATI560C Mina-Vac - Plastic Housing Only.

- Plastic sub-assembly capable of pulling up to six inches of mercury
- Extension tube not included
- For extension tubes; flex type **ATI560CF** family. Rigid type **ATI560R** family
- Efficient lightweight venturi type vacuum designed for use in confined areas
- Built in chip deflector to minimize bag damage
- Equipped with an "on" and "off" trigger button that can be locked in the "on" position



ATI560A

ATI560A Mina-Vac - Aluminum Housing.

- Aluminum sub-assembly capable of pulling over four inches of mercury
- Extension tube not included
- For extension tubes; flex type **ATI560CF** family. Rigid type **ATI560R** family
- Efficient lightweight venturi type vacuum designed for use in confined areas
- Built in chip deflector to minimize bag damage
- Equipped with an "on" and "off" trigger button that can be locked in the "on" position



ATI560CF18

ATI560CF18 Mina-Vac - 18" Long Extension Flex Tube.

- Clear PVC hose assembly for **ATI560C** and **ATI560A**



ATI560R10

ATI560R10 Mina-Vac - 12" Long Extension Gray Rigid Tube.

- Rigid gray PVC hose assembly for **ATI560C** and **ATI560A**



ATI560A-3

ATI560A-3 Mina-Vac - Replacement Bag.

- Made from canton flannel. Does not include **ATI560A-4** clip



ATI560HD3

ATI560HD3 Mina-Vac - Heavy Duty Replacement Bag.

- Heavy-duty nylon reinforcement sewn to inside of bag
- Fits all ATI mina-vac systems
- Does not include **ATI560A-4** clip

Rivet Cutter



ATI501R

ATI501R Rivet Cutter - 3/32 in - 1/4 in - Standard Handles.

- Aluminum rivet sizes 3/32", 1/8", 5/32", 3/16", 7/32", and 1/4"
- Cuts all AN430, AN435, AN442, AN456 and AN470 aluminum rivets
- Adjustable rivet cutting length guide from 1/4" to 3/4" in 1/16" increments

Valve Core Removal Tool



ATISK3614

ATISK3614 Tire Valve Core Deflating Tool.

- For rapid and safe tire deflation
- Machined aluminum tool threads onto the valve stem
- Releases and traps the valve core within the tool
- Exhausts the tire air through ports, away from the technician, onto the wheel

Cannon Plug Pliers



ATI508K

ATI508K Cannon Plug Plier.

- Slip-joint handles
- Serrated replaceable plastic jaws **ATI508K-4**
- Used to loosen or tighten the threaded collars on electrical connectors
- Adjustable grip range from 3/4" to 2-1/2" diameter



ATI508K-4

ATI508K-4 Cannon Plug Plier Pad.

- Replaceable pad for **ATI508K** and **ATI508KG**
- Use 2 pads per plier

AIRCRAFT CABLE SWAGING

Equipment



ATI520J

ATI520J Cable Swager - Portable Unit.

- This light weight unit is designed to precision-swage the various MS type cable terminals on 1/16" through 3/16" diameter braided wire rope
- It can be used as a bench unit when mounted on the shock absorbing base, or taken directly to the scene of operation on the flight deck
- The unit comes complete including base plate, air hose and foot control. A pair of dies is all you need to be operational
- Dies must be ordered separately, see **ATI520** family of die sets



ATI520CGC

ATI520CGC Pull Tester Calibration Kit.

- This exclusive kit includes adaptors required to certify ATI pull tester equipment part number **ATI520CT**
- Quality assurance tool recognized by the Boeing Company. This instrument will eliminate the necessity of costly outside calibration service



ATI520CT

ATI520CT Pull Tester - Portable - Instrumentation Only.

- Self-contained hydraulic unit, where the pressure in the cylinder is related to the pounds tension applied to the terminal and cable
- Designed to applying tensile load to the cable and terminal assembly at the rated 60% yield strength of the cable, verifying the swaged terminal integrity
- Unit is capable of testing up through 3/16" diameter wire rope
- This is the basic unit with out any adaptors or jaws. At minimum you must have the basic adaptor set including the copper jaws for the cable size your testing
- Complete kit including metal box is available (**ATI520CTK**). This includes complete set of jaws and adaptors for testing the majority of swaged MS fittings in use today

Swaging Dies



ATI520CDB-3

ATI520CDB-3 Swaging Dies - 3/32" Cable Diameter.

- Swages MS20663-3 terminal to 3/32" wire rope cable
- Packaged as a matched pair



ATI520CS-5

ATI520CS-5 Swaging Dies - 5/32" Cable Diameter.

- Swages **MS21259-5**, **MS20667-5**, **MS20668-5**, **MS21260-5** sleeve type terminals and Boeing stop terminal **BACT14A-4** to 5/32" cable
- Packaged as a matched pair



WARNING



- Airframe tooling can cause flying chips
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Bits & Fastener Tools



ZEPTS212-8



ZEPTS170-8

Torq-Set® Insert/Power Bits

Zephyr Torq-Set® bits are manufactured using the highest quality high carbon steel and heat treated to exacting standards to provide a maximum amount of torque to the fastener with a minimum of slippage or breakage.

Zephyr Torq-Set®-ACR® bits provide better "BITE." With better fit and purchase (surface contact area) they will deliver more torque!

Torq-Set Insert Bits – 1/4" Hex Shank

Model Number	Screw Size	Overall Length
ZEPTS2120	0	1"
ZEPTS2121	1	1"
ZEPTS2122	2	1"
ZEPTS2123	3	1"
ZEPTS2124	4	1"
ZEPTS2125	5	1"
ZEPTS2126	6	1"
ZEPTS2128	8	1"
ZEPTS21210	10	1"
ZEPTS2121/4	.25	1"

Torq-Set Power Bits – 1/4" Hex Shank

Model Number	Screw Size	Overall Length
ZEPTS1700	0	1.25"
ZEPTS1701	1	1.25"
ZEPTS1702	2	1.25"
ZEPTS1703	3	1.25"
ZEPTS1704	4	1.25"
ZEPTS1705	5	1.25"
ZEPTS1706	6	1.25"
ZEPTS1708	8	1.25"
ZEPTS17010	10	1.25"



ZEPZHTS-4

Hi-Torq® Driver Bits

"Hi-Torq" drivers are manufactured using the highest quality, high carbon steel and heat-treated to exacting standards to provide a maximum amount of torque to the fastener with a minimum of slippage or breakage. These bits are designed for high torque fastener installation and removal utilizing a square drive and detent pin drive system.

Model Number	Drive S	Recess	Nom. Screw Size	T	D1	D	L
ZEPZHTS1	1/4"	1	3, 4, 5, 6	.049"	.274"	1/2"	1"
ZEPZHTS-2	1/4"	2	8	.059"	.295"	1/2"	1"
ZEPZHTS-3	1/4"	3	10	.059"	.377"	1/2"	1"
ZEPZHTS-4	1/4"	4	1/4	.073"	.502"	1/2"	1"
ZEPZHTS-5	3/8"	5	5/16	.079"	.629"	3/4"	1 1/4"
ZEPZHTS-6	3/8"	6	3/8	.095"	.745"	3/4"	1 1/4"
ZEPZHTS-7	1/2"	7	7/16	.112"	.884"	1"	1 5/8"
ZEPZHTS-8	1/2"	8	1/2	.142"	.995"	1"	1 5/8"

* Conforms to MS33750.

Frangible Collar Hi-Lok® Tools

These tools are designed to install and remove frangible collar (castle nut) style Hi-Lok fasteners. Utilizing a two piece ratcheting tool, socket and pin combination system, they both hold the fastener body in place and rotate the collar to its predetermined torque shear load, breaking off the collar.

The removal tools also utilize the two piece ratchet system with a hex pin and a specialized socket containing eccentric rollers which, when rotated in the reverse rotation, cam into the body of the round collar allowing it to be rotated off the fastener body for removal.



ZEPQCK-4040

ZEPQCK-4040 Hand installation and Removal Kit includes:
 Hex Tip Pin sizes 1/16", 5/64", 3/32" and 1/8"
 Socket Hex sizes 7/32", 1/4", 9/32", 5/16", 11/32", 3/8" and 7/16"
 Removal Sockets in ranges of .235-.255, .245-.265, .255-.275, .265-.285, .275-.295, .285-.305, .295-.315, .305-.325, .315-.355, .325-.345, .335-.355, .355-.375, .375-.395, and .395-.415



ZEPZKLS-2

Kwik-Lok Temporary Kit

Zephyr temporary fasteners are designed to hold multiple pieces of material together temporarily during the assembly process via predrilled, undersize, holes and are designed with the highest quality materials to ensure proper material holding and long life.

ZEPZKLS-2 Kit includes: 1 pair of Kwik-Lok Pliers, 10 each temporary fasteners for hole sizes 3/32", 1/8", 5/32", 3/16" and 1/4" with a 0-1/2" grip range. Kit comes in a convenient plastic carrying case.

Jo-Bolt Blind Fastener Tools

These blind fasteners utilize a specialized thread drive pin assembly to tighten and secure the fastened assembly from one side, unlike a pull type or pintail blind fastener. This system uses two types of nose pieces – a flush nose with a taper and indexing groove and a protruding nose, with a standard hex socket configuration. The drivers utilize a two flat drive system and work with both the flush and protruding style noses to install these specialized fasteners.



ZEP4000KIT

ZEP4000KIT Visu-Lok/Composi-Lok Hand Installation Kit includes:

- 1 each HW300 Ratchet tool assembly
- 1 each LFVLG-1 Grip gauge
- Fastener drivers in sizes -5, -6, -8, -10 and -12
- Flush noses in sizes -5, -6, -8, -10 and -12
- Reduced flush noses in sizes -5, -6, -8, -10 and -12
- Protruding noses in sizes -5, -6, -8, -10 and -12
- Millable noses in sizes -5, -6, -8, -10 and -12

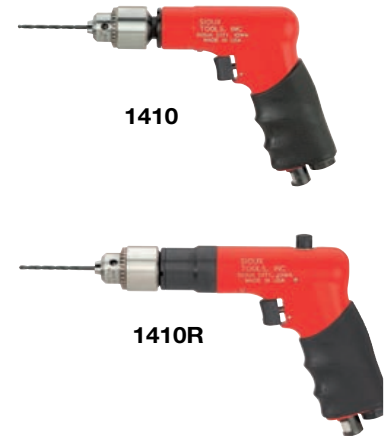
Kit comes complete with a durable metal carrying case with a foam insert to hold tools properly in place.



1/4" Chuck Pistol Grip Air Drills

- An industry favorite due to its small size and full 1/3 HP motor
- Ergonomic comfort grip and handle design for maximum comfort
- Smooth teasing trigger for controlled starts
- Rotatable Exhaust
- .6" / 15mm side to center

	Stock Number	Chuck Capacity		Free Speed	Weight		Length		Sound Level	Spindle Thread
		in.	mm	rpm	lb	kg	in	mm	dB(A)	
.33 hp (0.25 kw) - Non-reversible	1410	1/4	6	2600	1.3	0.60	6.3	160	75	3/8"-24
	DR1412			3600						
	DR1414			4300						
	DR1416			6000						
.20 hp (0.15 kw) - Reversible	1410R	1/4	6	2000	1.3	0.60	6.3	160	75	3/8"-24
	1412R			2600						



1410

1410R

45° & 90° Aircraft Angle Air Drills

- Requires only 2" of clearance with the proper drill bit
- Drill up to 1/4" diameter holes
- Internally threaded 1/4-28 spindle accepts industry standard threaded drill bits
- .33 hp (0.25 kw)

	Stock Number	Free Speed	Weight		Length		Sound Level
		rpm	lb	kg	in	mm	dB(A)
45° Angle Head	1AM1541	2800	1.5	0.7	10.2	259	75
	1AM1441	2200					
90° Angle Head	1AM1551	2800	1.5	0.7	9.7	246	75
	1AM1451	2200					



1AM1551

1AM1541

See our ATI threaded drills and countersinks on pages N144 to N155

Pistol Grip Rivet Shavers

- Powerful 21,000 RPM, 1HP (0.75 kw), 5 vane motor
- Micro adjustable shaving depth with spring loaded removable stabilizer
- Shaves rivets from 5/16" – 5/8"
- Uses industry standard 1/4" – 28 threaded rivet shaver cutters

Stock Number	Cutter Diameter		Free Speed	Weight		Length		Sound Level
	in.	mm	rpm	lb	kg	in	mm	dB(A)
SRS10P21-5	5/16	8	21,000	2.7	1.2	8.0	205	80
SRS10P21-6	3/8	10	21,000					
SRS10P21-7	7/16	11	21,000					
SRS10P21-8	1/2	13	21,000					
SRS10P21-9	9/16	14	21,000					
SRS10P21-10	5/8	16	21,000					



SRS10P21-5

See our ATI rivet shaver cutters on pages N144 to N155

Pistol Grip Skin Clamp Runner

- 2500 RPM - Quickly installs and removes hex nut style Skin Clamps
- Teasing throttle for precise control
- Conveniently located reverse

Stock Number	Free Speed	Weight		Length		Sound Level
	rpm	lb	kg	in	mm	dB(A)
SSR6P-25	2500	2.7	1.2	9.2	234	78



SSR6P-25

See our ATI hex nut style skin clamp on pages N144 to N155



WARNING



• Read safety precautions on pages 586 to 589

Production Air Drills

Sioux drills are used in applications ranging from light assembly to metalworking, manufactured housing and wood working. Their powerful five vane motors makes these drills great for drilling applications that contain ferrous and non-ferrous metals, wood and composite materials.

Built for durability, their 3 planet gear system delivers superior life and load capacity. The Sioux drills offer maximum comfort with reduced operator fatigue by offering a low sound level and low vibration solution. Operator comfort is achieved through the implementation of a light weight aluminum housing and a comfort grip. Drills are available in both reversing and non-reversing pistol grip and lever handle configurations.



Performance

Powerful 0.6 HP and 1.0 HP motors easily handle a wide range of drilling applications

- With excellent run-out characteristics, (+/- 0.0025" @ 2.5" from the end of the chuck) Sioux drills provide precision required for critical applications
- Teasing trigger provides excellent speed control

Ergonomics

- Comfortable, compact drill bodies includes finger rests on the side of tool do not protrude which allows trigger actuation with stronger middle finger
- Anatomic design keeps wrist and arm straight, allows high feed forces
- Low noise and vibration levels for comfort in extended use operations

Serviceability

- Drop in motors with no alignment required (applies to non-reversing drills only)
- High part interchangeability = lower service part inventories

Reversible Air Drills

- Pistol Grip (0.6 HP & 1.0 HP) - Shuttle Reverse
- Right Angle Drills (1.0 HP) - Rapid Reverse
- Side to Center = 0.8" (20mm)
- Max Air Consumption:
 - 0.6 HP Drills - 25 scfm (12 l/s)
 - 1.0 HP Drills - 30 scfm (14 l/s)



Style	Stock Number	Chuck Capacity		Free Speed rpm	Weight		Length		Spindle Thread	Sound Level dB(A)
		in.	mm		lb	kg	in	mm		
1.0 hp (0.75 kw) Pistol Grip Drills - Reversible	SDR10P40R2	1/4	6	4,000	2.4	1.1	7.1	180	3/8" - 24	80
	SDR10P25R2			2,500						
	SDR10P20R2			2,000						
	SDR10P40R3	3/8	10	4,000	2.6	1.2	7.6	195	3/8" - 24	
	SDR10P25R3			2,500						
	SDR10P20R3			2,000						
	SDR10P7R3			700						
	SDR10P5R3			500						
	SDR10P3R3			300						
	SDR10P20R4	1/2	13	2,000	3.0	1.4	7.9	200	1/2" - 20	
	SDR10P7R4			700						
	SDR10P5R4			500						
SDR10P3R4	300									
1.0 hp (0.75 kw) RIGHT Angle Drills - Reversible	SDR10A20R2	1/4	6	2,000	2.9	1.3	11	280	3/8" - 24	78
	SDR10A16R2			1,600			12	305		
	SDR10A20R3	3/8	10	2,000	3.3	1.5	11	280	1/2" - 20	
	SDR10A16R3			1,600						
	SDR10A10R3			1,000						
	SDR10A6R3			600						
	SDR10A3R3			300						
	SDR10A10R4			1,000						
	SDR10A6R4	1/2	13	600	3.7	1.7	12	305	1/2" - 20	
	SDR10A3R4			300						



Production Air Drills

- ① Tipper valve and valve seat is easily accessible for service
- ② Slip fit of front end plate bearing allows easy service of the air motor without disturbing the rotor spacing
- ③ Drop in motor. No alignment necessary (applies to non-reversing drills only)
- ④ Rotor pinion is case hardened to resist wear
- ⑤ Grease zerk makes it easy to grease the gears without disassembly
- ⑥ Planetary reduction can be serviced without removing the chuck
- ⑦ Planet gear pins are slip fit for ease of assembly and disassembly
- ⑧ Ring gear is machined into the motor retainer for ease of assembly and disassembly
- ⑨ Interchangeable rotor, cylinder, bearings and endplates. This reduces the numt of spare parts tool cribs need to stock



Non-Reversible Air Drills

- Pistol Grip (0.6 HP & 1.0 HP)
- Straight Drills (1.0 HP)
- Right Angle Drills (1.0 HP)
- Side to Center = 0.8" (20mm)
- Max Air Consumption:
 - 0.6 HP Drills - 25 scfm (12 l/s)
 - 1.0 HP Drills - 30 scfm (14 l/s)



Style	Stock Number	Chuck Capacity		Free Speed rpm	Weight		Length		Spindle Thread	Sound Level dB(A)
		in.	mm		lb	kg	in	mm		
.60 hp (0.45 kw) PISTOL GRIP DRILLS- Non- Reversible	SDR6P60N2	1/4	6	6,000	2.1	0.95	5.8	145	3/8"-24	80
	SDR6P40N2			4,000						
	SDR6P26N2			2,600						
	SDR6P60N3	3/8	10	6,000	2.3	1	6.3	160	3/8"-24	
	SDR6P40N3			4,000						
	SDR6P26N3			2,600						
	SDR6P12N3	1/2	13	1,200	2.7	1.2	7.3	185	1/2"-20	
	SDR6P7N3			700						
	SDR6P4N3			400						
	SDR6P26N4	1/2	13	2,600	2.7	1.2	6.6	170	1/2"-20	
	SDR6P7N4			700						
	SDR6P4N4			400						
1.0 hp (0.75 kw) PISTOL GRIP DRILLS- Non- Reversible	SDR10P280N2	1/4	6	21,000	2.3	1.05	6.5	165	3/8"-24	80
	SDR10P180N2			18,000						
	SDR10P60N2			6,000						
	SDR10P40N2	3/8	10	4,000	2.5	1.1	7	180	3/8"-24	
	SDR10P26N2			2,600						
	SDR10P60N3			6,000						
	SDR10P40N3	1/2	13	4,000	2.9	1.3	8	205	1/2"-20	
	SDR10P26N3			2,600						
	SDR10P12N3			1,200						
	SDR10P7N3	1/2	13	700	2.9	1.3	7.5	190	1/2"-20	
	SDR10P4N3			400						
	SDR10P26N4			2,600						
SDR10P7N4	1/2	13	700	3.3	1.5	8.5	215	1/2"-20		
SDR10P4N4			400							
1.0 hp (0.75 kw) STRAIGHT DRILLS- Non- reversible			SDR10S280N2						1/4	6
	SDR10S180N2	18,000								
	SDR10S60N2	6,000								
	SDR10S40N2	3/8	10	4,000	2.3	1.05	8.3	211	3/8"-24	
	SDR10S26N2			2,600						
	SDR10S60N3			6,000						
	SDR10S40N3	1/2	13	4,000	2.8	1.25	9.3	236	1/2"-20	
	SDR10S26N3			2,600						
	SDR10S12N3			1,200						
	SDR10S7N3	1/2	13	700	2.8	1.25	9.3	236	1/2"-20	
	SDR10S4N3			400						
	SDR10S4N4			400						
1.0 hp (0.75 kw) RIGHT ANGLE DRILLS - Non- Reversible	SDR10A22N2	1/4	6	2,200	2.9	1.3	10.2	260	3/8"-24	78
	SDR10A13N2			1,300						
	SDR10A22N3	3/8	10	2,200	3.0	1.35	10.2	260	1/2"-20	
	SDR10A13N3			1,300						
	SDR10A10N3			1,000						
	SDR10A4N3	1/2	13	400	3.7	1.65	11.2	285	1/2"-20	
	SDR10A10N4			1,000						
	SDR10A4N4			400						



WARNING



• Read safety precautions on pages 586 to 589



Positive Clutch



Adjustable Clutch



Stall Drive



Positive Clutch, Adjustable Clutch and Stall Driver Screwdrivers

- Trigger start with conveniently located shuttle reverse
- 3 planet gear system for increased life and load capacity
- Comfortable, compact tool bodies include finger rests on side of tool, allowing trigger actuation with stronger middle finger
- Teasing throttle for excellent control
- Side to Center - 0.8" (20mm)
- Maximum air Consumption – 30 scfm (13 l/s)
- Contact your Snap-on Industrial salesman to request a complete listing of Sioux Screwdrivers and Nutrunners



SSD10P20PS



SSD10P20AC



SSD10P20S

Clutch Type	Stock Number	Max. Torque (Soft Joint)		Free Speed rpm	Weight		Length		Sound Level dB(A)
		in.	mm		lb	kg	in	mm	
1.0 hp (0.75 kw) Positive Clutch Pistol Grip Screwdrivers - torque output varies with force exerted by operator	SSD10P25PS	58	6.5	2500	2.4	1.07	7.3	185	80
	SSD10P20PS	80	9.0	2000					
	SSD10P12PS	145	16.4	1200					
1.0 hp (0.75 kw) Adjustable Clutch Pistol Grip Screwdrivers - when fastener is tight, clutch will ratchet. Adjusting spring pressure will effect final output torque. Offers consistent torque control with little operator reaction	SSD10P25AC	60	6.8	2500	3.2	1.45	10.2	259	80
	SSD10P20AC	80	9.0	2000					
	SSD10P12AC	120	13.5	1200					
	SSD10P7AC	140	15.8	700					
	SSD10P5AC	140	15.8	500					
1.0 hp (0.75 kw) Stall Drive Pistol Grip Screwdrivers - final torque is reached when resistance of the fastener overcomes the torque output of the motor. Final torque can be influenced by air pressure and/or operator twisting the tool	SSD10P3AC	140	15.8	300	2.6	1.17	7.5	191	80
	SSD10P25S	58	6.6	2500					
	SSD10P20S	80	9.0	2000					
	SSD10P12S	145	16.4	1200					
	SSD10P7S	220	24.9	700					
	SSD10P5S	325	36.7	500					
SSD10P3S	400	45.2	300						





Performance

- Powerful motors deliver consistent power and working speeds (from 12-25,000 rpm) for heavy loads
- Heavy-duty dual-taper collets provide secure clamp loads and deliver superior run out characteristics
- Responsive Teasing Throttles provide excellent control
- Precision Machined Heat Treated Spiral Bevel Gears for smooth operation and maximum life

Ergonomics

- Comfortable, compact tool bodies measure only 1.67" (43mm) in diameter
- Contoured safety levers and ergonomic composite handles with textured grips
- Low noise and vibration levels for comfort in extended use operations

Serviceability

- Drop in motors with no alignment required
- No press fits & no shims = quick easy maintenance
- High part interchangeability = lower service part inventories

Signature Series Die Grinders

- Unmatched performance and real productivity
- Ideal for grinding, cutting, weld dressing, blending & finishing, deburring, surface prep, finishing and cleaning
- Heavy duty dual taper 200 Series Collet provides a secure clamp load and delivers superior run out characteristics

Description	Stock Number	Free Speed rpm	Collet Size	Exhaust	Weight		Length		Sound Level dB(A)	Maximum Air Consumption	
					lb	kg	in	mm		scfm	l/s
0.70 hp (0.52 kw) - Straight Die Grinders Lever Throttle	SDG7S25F	25,000	1/4"	Front	1.2	0.6	6	150	82	25	12
	SDG7S18F	18,000									
	SDG7S25M6F	25,000	6mm	Front	1.2	0.6	6	150	82	25	12
	SDG7S18M6F	18,000									
1 hp (0.75 kw) - Straight Die Grinders Lever Throttle	SDG10S25F	25,000	1/4"	Front	1.7	0.8	7.5	190	78	30	14
	SDG10S18F	18,000									
	SDG10S12F	12,000									
	SDG10S25R	25,000									
	SDG10S18R	18,000	Rear	6mm	1.7	0.8	7.5	190	78	30	14
	SDG10S12R	12,000									
	SDG10S25M6F	25,000									
	SDG10S18M6F	18,000									
	SDG10S12M6F	12,000	Rear	6mm	1.7	0.8	7.5	190	78	30	14
	SDG10S25M6R	25,000									
SDG10S18M6R	18,000										
SDG10S12M6R	12,000										
1 hp (0.75 kw) - Straight Die Grinders Lever Throttle - Extended	SXG10S23R	23,000	1/4"	Rear	2.2	1.0	12.1	308	78	30	14
	SXG10S18R	18,000									
	SXG10S12R	12,000									
	SXG10S23M6R	23,000	6mm	Rear							
	SXG10S18M6R	18,000									
SXG10S12M6R	12,000										
1 hp (0.75 kw) - Right Angle Die Grinders Lever Throttle	SAG10S12	12,000	1/4"	Rear	2.7	1.2	9.0	230	78	30	14
	SAG10S15	15,000									
	SAG10S18	18,000									
	SAG10S12M6	12,000	6mm	Rear							
	SAG10S15M6	15,000									
	SAG10S18M6	18,000									



SDG7S25F



SDG10S25F



SXG10S23R



SAG10S18

All Sioux Signature Series Die Grinders (SDG/SAG/SXG Series) use a heavy duty dual-taper 200 Series collet which provides a secure clamp load and delivers superior run out characteristics.



WARNING



- Do not use grinder accessories above their maximum rated RPM
- Read safety precautions on pages 586 to 589

Heavy-Duty Grinders



SWG10S1245



1285L

Right Angle Type 27 Wheel Grinders with Lockoff Lever Throttle

- Full 1HP air motor maintains power under load
- Heavy duty gearing for increased life
- Light weight aluminum reinforced nylon housing
- Ergonomic composing handle with soft textured grip
- Side handle can be positioned for left or right handed operators
- Teasing throttle for exceptional control

CE

	Stock Number	Free Speed rpm	Wheel Capacity		Weight		Length		Sound Level dB(A)	Air Consumption Under Load		Air Consumption Free Speed		Spindle Thread
			in.	mm	lb	kg	in	mm		cfm	l/s	cfm	l/s	
1 hp (0.75 kw)	SWG10S183	18,000	3.0	75	2.5	1.1	7.5	190	77	N/A	N/A	35	17	3/8"-24
	SWG10S124	12,000	4.0	100	3.0	1.6	8.3	210	77	N/A	N/A	35	17	3/8"-24
	SWG10S1245	12,000	4.5	115	3.0	1.6	8.3	210	77	N/A	N/A	35	17	5/8"-11
1 hp (0.75 kw) - Governed Speed	1285L*	6,000	7.0	175	5.9	2.7	12.4	315	85	35	17	18	8	5/8"-11

* NOTE: 1285L is not CE approved



HG20AL-80P3



VG30AL-60C6



VG20AL-60D7

Vertical and Horizontal Wheel Grinders, Governed Speed with Lever Throttle

- Three piece housing construction for ease of maintenance
- Governor controlled
- Lock off lever prevents accidental start up

CE

Description	Stock Number	Free Speed rpm	Wheel Capacity		Weight (without guard)		Height (Vertical) Length (Horizontal)		Sound Level dB(A)	Air Consumption Under Load		Air Consumption Free Speed		Spindle Thread
			in.	mm	lb	kg	in	mm		cfm	l/s	cfm	l/s	
Vertical Type 6 & 11 - 2 hp (1.5 kw)	VG20AL-60C6	6000	6	150	7.4	3.3	5.5	145	85	75	35	26	12	5/8"-11
Vertical Type 6 & 11 - 3 hp (2.2 kw)	VG30AL-60C6	6000	6	150	9.5	4.3	6.4	165	84	90	42	39	18	5/8"-11
Vertical Type 27 - 2 hp (1.5 kw)	VG20AL-60D7	6000	7	175	7.4	3.3	5.5	145	85	75	35	26	12	5/8"-11
	VG20AL-45D9	4500	9	230										
	VG20AL-60D9	6000	9	230										
Vertical Type 27 - 3 hp (2.2 kw)	VG30AL-60D7	6000	7	175	9.5	4.3	6.4	165	84	90	42	39	18	5/8"-11
	VG30AL-45D7	4500	7	175	9.5	4.3	6.4	165	84	90	42	39	18	5/8"-11
	VG30AL-45D9	4500	9	230	9.5	4.3	6.4	165	84	90	42	39	18	5/8"-11
	VG30AL-60D9	6000	9	230	9.5	4.3	6.4	165	84	90	42	39	18	5/8"-11
Horizontal 2 hp (1.5 kw)	HG20AL-60S6	6000	6	150	10.5	4.8	20.8	530	85	75	35	26	12	5/8"-11
	HG20AL-45S8	4500	8	200	10.5	4.8	20.8	530	85	75	35	26	12	5/8"-11
	HG20AL-80P3	8000	3	75	10.5	4.8	20.8	530	85	75	35	26	12	5/8"-11
Horizontal 3 hp (2.2 kw)	HG30AL-60S6	6000	6	150	12.5	5.6	21.8	550	84	90	42	39	18	5/8"-11
	HG30AL-45S8	4500	8	200	12.5	5.6	21.8	550	84	90	42	39	18	5/8"-11
	HG30AL-80P3	8000	3	75	12.5	5.6	21.8	550	84	90	42	39	18	5/8"-11

What are the benefits of a Governed Motor?

- Governed motors maintain maximum working RPMs and provide more power at higher speed.
- Governed motors require less air and control the speed of the wheel, preventing overspeed.

What does the user gain?

- Improved productivity and enhanced operator safety.
- Increased abrasive efficiency and improved service life of consumables.
- Result? Reduced cost.





Chisel and Needle Scalers



SC41011AL-C



SC41011AU-N5



SC80910AL-C



Square Shank and Octagon Shank Scalers

- Available with lever or push pull style throttle
- SC4 Series accepts square shank chisels
- SC8 series accepts octagon chisels
- Adjustable housing allows the operator to vary the length of the exposed needles



Stock Number	Type	Shank	Throttle	Stroke Length		Bore Diameter		Blows per Minute	Weight		Length		Side to Center		Air Consumption	
				in.	mm	in.	mm		lb	kg	in.	mm	in.	mm	scfm	l/s
SC80910AL-C	Chisel	Octagon	Lever	1.0	25	15/16	23	4300	4.0	1.7	15.0	375	0.8	20	12.0	6
SC80910AL-N5	Needle	Octagon	Lever	1.0	25	15/16	23	4300	6.2	2.7	17.0	425	0.9	23	12.0	6
SC41011AL-C	Chisel	Square	Lever	1.1	28	1.0	25	4600	4.6	2.1	10.5	263	0.9	23	12.0	6
SC41011AU-C	Chisel	Square	Push-Pull	1.1	28	1.0	25	4600	4.6	2.1	12.0	300	0.9	23	12.0	6
SC41011AL-N5	Needle	Square	Lever	1.1	28	1.0	25	4600	6.3	2.9	15.3	383	1.0	25	12.0	6
SC41011AU-N5	Needle	Square	Push-Pull	1.1	28	1.0	25	4600	6.3	2.9	16.8	420	1.0	25	12.0	6



SC41011AL-K



SC80910AL-K

SC4 Square Shank Scaler Kit
Stock Number **SC41011AL-K**
Includes:

- SC4 Lever Needle Scaler
- Additional Set of Needles
- 5/8" x 7" Flat Chisel
- 1-3/8" x 7" Flat Chisel
- 1-3/8" x 7" Spoon Chisel
- Custom Carrying Case



SC8 Octagon Shank Scaler Kit
Stock Number **SC80910AL-K**
Includes:

- SC8 Needle Scaler
- Additional Set of Needles
- 5/8" x 7" Flat Chisel
- 1-3/8" x 7" Flat Chisel
- 1-3/8" x 7" Spoon Chisel
- Custom Carrying Case



• Read safety precautions on pages 586 to 589

Easy-Cut® Bandsaw Blades

Engineered specifically for the multi-application and maintenance environments.

No matter what you cut — solid steel, carbon steel, stainless steel, tool steel, angle iron, I-Beam, flat bar, steel tubing, aluminum, plastic or wood — Easy-Cut Bandsaw blades get the job done without compromise, and without the need to specify tooth type, tooth pitch, material, or application.

The engineers at Bahco have taken the frustration out of general-purpose cutting applications. All you need to specify is blade width (1/2", 3/4", 1" or 1 1/4") and blade length — Easy-Cut does the rest with one patented tooth design that will handle almost anything you are likely to cut in your shop.

- Save money by eliminating costly blade replacements due to improper use
- Increase productivity by saving the time spent on changing blades
- One patented tooth design cuts almost anything
- Only one tooth pitch per blade width
- Available in 4 popular widths: 1/2", 3/4", 1" and 1-1/4"

It's easy. All you have to do is install the blade and press the start button to begin cutting almost any material immediately.

It's Easy To Generate Part Numbers and Order Easy-Cut Welded Loops:

Step 1: Determine material code based on blade width

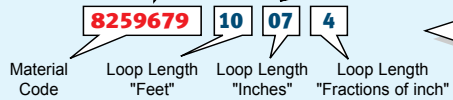
Blade Width	Material Code
1/2"	8259662
3/4"	8259679
1"	8259686
1 1/4"	8259693

See page N132 for an assortment of JET® bandsaws for your maintenance shop. They offer a perfect complement for use with Easy-Cut blades.

Step 2: Determine Stock Number based on material code plus blade length

Welded loop code = material code + blade length
 EXAMPLE: 10' 7-1/2" Blade, 3/4" Width

3/4" Blade Width x **10' - 7 1/2"**



Fractions Code:

0" = 0
1/8" = 1
1/4" = 2
3/8" = 3
1/2" = 4
5/8" = 6
3/4" = 7
7/8" = 8

Result: Easy-Cut Blade Stock Number 825967910074

In addition to Easy-Cut blades, Snap-on Industrial offers the complete assortment of high-quality Bahco bandsaw blades for the production environment. Contact Your Snap-on Industrial sales representative for complete details and ordering information, or call our Industrial Customer Service Center.



WARNING



- Wear safety goggles (user and bystanders).



- Wear hearing protection (user and bystanders).



- Avoid prolonged exposure to vibration.

S766BZ Series Basic Electronic Tool Set

Basic Electronic Tool Set

- Basic starter set with Electronic Caliper & Micrometer
- Furnished in attractive, protective case

Electronic Outside Micrometer: Cat. No. 795XFL-1

- 0-1"/0-25 mm, with output

Electronic Slide Caliper: Cat. No. 798B-6/150

- 0-6"/0-150 mm, with output
- IP67 Protection against coolant, water, dirt and dust

Stock Number	Description
LST11606	Basic Electronic Tool Set w/Output (inch/metric)



S766BZ

S909Z Basic Precision Measuring Tool Set

Features:

- Inch Set
- Furnished in attractive, protective case
- Contains three of the most commonly used precision tools

Stock No.	Description
Set includes:	
LST65122	T436.2XRL-1 1" Outside Micrometer with Carbide Faces
	120A-6 6" Dial Caliper
	C604R-6 6" Spring Tempered Precision Rule



S909Z



3732XFL-1

3732 Series Electronic Micrometers

Features:

- Extremely hard and stable one-piece spindle
- Micro-lapped carbide measuring faces
- Instant inch/millimeter conversion
- Measurement HOLD button
- Ability to zero tool at any position

Stock No.	Range	Resolution	Accuracy +/-
LST12268	0-1" / 0-25mm	.00005"/.001mm	.0001"/.002mm
LST12269	1-2" / 25-50mm	.00005"/.001mm	.0001"/.003mm
LST12270	2-3" / 50-75mm	.00005"/.001mm	.0001"/.003mm
LST12271	3-4" / 75-100mm	.00005"/.001mm	.00015"/.004mm
LST12272	4-5" / 100-125mm	.0001"/.001mm	.00015"/.004mm
LST12273	5-6" / 125-150mm	.0001"/.001mm	.00015"/.004mm

486 Series Blade Type Micrometers with non-rotating spindle

Designed for fast and accurate measurements of circular form tools, diameter and depth of narrow grooves, slots, keyways, recesses, and depths between lands and fins.

Features:

- Non-rotating spindle
- .030" (0.8mm) thick blade
- Blades will measure to 5/16" (8mm) depths

Range	Graduation	Description	Stock No.
0-1 "	—	—	LST52499
1-2 "	—	—	LST52501
2-3 "	.001"	With Speeder	LST52503
3-4 "	—	—	LST52505
4-5 "	—	—	LST52507
5-6 "	—	—	LST52509



210AP

210AP Screw Thread Comparator Micrometer - Pointed Anvils

This micrometer is ideal for quick comparisons of thread accuracy in screw cutting operations, measuring in small grooves or recesses where regular micrometers cannot be used, and for many other applications.

Stock No.	Range	Graduation
LST50731	7/8"	.001"

NOTE: Does not measure pitch diameter.

230 Series Outside Micrometers

Features:

- Lock nut
- Carbide measuring faces
- Range: 0-1"
- Graduation: .0001"
- Full satin chrome finished tapered frame
- One-piece extra hard, stable spindle
- Micro-lapped carbide anvil & spindle faces

Description	Stock No.
With friction thimble	LST50947
With ratchet stop	LST50944



Contact your Snap-on Industrial Representative for more information, or call our Customer Service Center at (877) 740-1900



WARNING



• Read safety precautions on pages 586 to 589

Precision Tools



436 Series Outside Micrometers

Range: 0-6"

Features:

- Lock Nut
- Micro-lapped finish on anvil and spindle faces
- Quick reading figures on thimble with every thousandth numbered

Range	Graduation	Description	Stock No.
0-1"	.001"	Friction Thimble, Lock Nut	LST67996
0-1"	.001"	Ratchet Stop, Lock Nut	LST67793
0-1"	.001"	Ratchet Stop, Lock Nut, Carbide Faces	LST67994
0-1"	.0001"	Friction Thimble, Lock Nut, Carbide Faces	LST67999
0-1"	.0001"	Ratchet Stop, Lock Nut, Carbide Faces	LST67997
1-2"	.001"	Ratchet Stop, Lock Nut	LST68002
1-2"	.001"	Ratchet Stop, Lock Nut, Carbide Faces	LST68003
1-2"	.0001"	Friction Thimble, Lock Nut, Carbide Faces	LST68007
1-2"	.0001"	Ratchet Stop, Lock Nut, Carbide Faces	LST68005
2-3"	.001"	Ratchet Stop, Lock Nut	LST68010
2-3"	.001"	Ratchet Stop, Lock Nut, Carbide Faces	LST68011
2-3"	.0001"	Ratchet Stop, Lock Nut, Carbide Faces	LST68013
3-4"	.0001"	Ratchet Stop, Lock Nut, Carbide Faces	LST68019
4-5"	.0001"	Ratchet Stop, Lock Nut, Carbide Faces	LST68025
5-6"	.0001"	Ratchet Stop, Lock Nut, Carbide Faces	LST68031

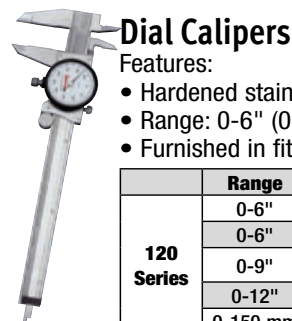


124 Series Solid-Rod Inside Micrometers

Features:

- Range: 2-12"
- Graduation: .001"
- Screw Movement: 1/2"
- Hardened & ground anvils on heads & rods
- Furnished in case

Range	No. of Meas. Rods	Stock No.
2-8"	6	LST50542
2-12"	10	LST50546



Dial Calipers

Features:

- Hardened stainless steel construction
- Range: 0-6" (0-150 mm)
- Furnished in fitted plastic case

	Range	Graduation	Dial Color	Stock No.
120 Series	0-6"	.001"	White	LST64514
	0-6"	.001"	Black	LST64515
	0-9"	.001"	White	LST64520*
	0-12"	.001"	White	LST56693*
	0-150 mm	0.02 mm	Yellow	LST66295

*In finished wood case

Features:

- Dial graduations of .001" with .100" per revolution
- Black graduations on the satin finished bar, every .100"
- Knife-edge contacts
- Thumb-operated fine adjustment roll
- Adjustable bezel
- Lock screws for sliding jaw and dial bezel
- Covered rack depth rod (not on LST56693)
- Hardened stainless steel bar, measuring surfaces
- No. 1202F-6 shows measurements as fractions on yellow outer scale in 1/64" inch graduations

	Range	Description	Stock No.
1202 Series	0-4"	Caliper in fitted case	LST68814
	0-6"	Caliper in fitted case	LST66964
	0-8"	Caliper in fitted case	LST66979
	0-12"	Caliper in fitted case	LST66980
	0-6"	Fractional Caliper in fitted case	LST68931



S436 Series Micrometer Sets with Standards in Case

Features:

- Lock nut
- Flat type cases for 0-3" set
- Carbide measuring faces
- Box type cases for 0-6" sets

Range	Graduation	Description	Set Includes	Stock No.
0-3"	.0001"	Friction Thimble	1", 2" & 3" Mics.	LST68038
0-3"	.0001"	Ratched Stop	1", 2" & 3" Mics. w/ Two Standards	LST68037
0-6"	.001"	Ratched Stop	1", 2", 3", 4", 5" & 6" Mics., w/ Five Standards	LST68045
0-6"	.001"	Ratched Stop	1", 2", 3", 4", 5" & 6" Mics., w/ Five Standards	LST68044



Electronic Calipers

Features:

- Large easy-to read LCD, 32" high
- Inch/mm conversion reads .0005" or 0.01mm
- Zero at any position
- Automatic shut-off after 5 minutes of nonuse
- Last measuring position retained when shut off
- Integrated depth rod on all sizes
- Fine adjustment thumb wheel
- Lock screw to hold the slide in position
- Linear accuracy meets DIN862

	Range	Graduation	Description	Stock No.
799 Series	0-6"	.001"	Electronic Caliper in Fitted Case	LST67410
	0-8"	.001"	Electronic Caliper in Fitted Case	LST67412
	0-12"	.001"	Electronic Caliper in Fitted Case	LST67621



Features:

- Large, easy to read LCD, .310" character height
- IP67 level of protection against coolant, water, dirt and dust
- Data Output
- Heavy-duty bar and slide, 3.5mm thick
- Hardened stainless steel measuring surfaces for long life
- Fine adjustment and slide lock
- CR2032 3V battery (>1 year battery life under normal use)
- In/mm conversion reads .0005" or 0.01mm
- Zero at any position
- Automatic shutoff after 30 minutes
- Linear accuracy meets DIN862

	Range	Approx. Jaw Depth, Outside	Approx. Jaw Depth, Inside	Description	Stock No.
798 Series	0-6" (150 mm)	1 1/2" (38 mm)	5/8" (16 mm)	Caliper with output in fitted plastic case	LST68659
	0-8" (200 mm)	1 7/8" (47.6 mm)	3/4" (19 mm)	Caliper with output in fitted plastic case	LST68660
	0-12" (300 mm)	2 1/2" (63.5 mm)	3/4" (19 mm)	Caliper with output in fitted plastic case	LST68661

125MEA Series Vernier Calipers

Features:

- English and metric measurement
- Lock screw for sliding jaw
- Hardened stainless steel depth rod
- Graduations: .002" English, 0.020 mm metric
- Sharp, black graduations on the satin finished bar

Range	Description	Stock No.
0-6" (150 mm)	Metric / English Vernier Caliper	LST61660
0-8" (200 mm)	Metric / English Vernier Caliper	LST61882
0-12" (300 mm)	Metric / English Vernier Caliper	LST61886



Contact your Snap-on Industrial Representative for more information, or call our Customer Service Center at (877) 740-1900

823 Series Tubular Micrometer Sets

- Features:
- Range: 1 1/2-24"
 - Hardened & ground anvils
 - 3/8" Rods centerless ground with thermal insulation
 - Furnished in attractive, protective case
 - Graduation: .001"



Range	Movement of Screw	Description	Stock No.
1 1/2" – 8"	1/2"	With 5 rods and handle	LST53050
1 1/2" – 12"	1/2"	With 8 rods and handle	LST53052
4" – 24"	1"	With 7 rods	LST53054



Starrett 3089 Series Dial Bore Gages

- Features:
- Ergonomic design with non-slip insulating grip
 - Carbide contacts for extended wear
 - 2-point contact
 - All anvils laser marked for easy selection
 - Includes sturdy aluminum case
 - Resolution: .0005

Stock No.	Range	Probe Depth	Contacts
LST12456	0.7-1.5 "	6 "	10
LST12457	1.4-2.4 "	6 "	6
LST12458	2-6 "	6 "	11



25 Series ADG Group 2 Dial Indicators

- Features:
- Double Dial & Revolution Counter
 - Jewel Bearings
 - Rotatable bezel w/lock
 - Hardened steel gear train

Graduation	Range One Rev.	Range Total	Dial Reading	Stock No.
.0001"	.010"	.200"	0-5-0	LST53299
.0005"	.050"	1.000"	0-50	LST53304
.001"	.100"	1.000"	0-100	LST53295
.001"	.100"	.500"	0-100	LST53294*
.001"	.100"	1.000"	0-50-0	LST53287

*Plain Bearings



2600 Series-Basic Models ADG Group 2 Electronic Digital Indicators

- Features:
- Accuracy: ±.001" (±.03mm)
 - Instant inch/mm conversion
 - .375" (9.5mm) stem

Resolution		Range		Output	Stock No.
Inch	mm	Inch	mm		
.001"	0.01	1.0"	25 mm	No	LST66041
.0005"	0.01	1.0"	25 mm	No	LST65593
.0005"	0.01	1.0"	25 mm	Yes	LST64886



196 Series Universal Back-Plunger Dial Test Indicator

- Features:
- Accurate, reliable, simple to operate
 - Large assortment of accessories available

Graduation	Range	Dial Reading	Stock No.
.001"	.200"	0-100	LST50697*
.001"	.200"	0-100	LST50699**

*Indicator with 3 contact points, adapter, case, 4 attachments – clamp, tool post holder, snug and hole attachment.

**Indicator comes with 3 contact points and adapter.



Micrometer Depth Gages

- Features:
- Range: 0-9"
 - With Ratchet Stop & Locknut
 - Graduation: .001"
 - Adjustable Rods
 - Protective Case

	Range	Base	No. of Rods	Rod Diameter	Stock No.
440 Series	0-3"	2 1/2"	3	1/8"	LST52113*
	0-3"	2 1/2"	3	1/8"	LST52115
	0-6"	2 1/2"	6	1/8"	LST52119
	0-9"	2 1/2"	9	1/8"	LST52123
445 Series	0-3"	3"	3	5/32"	LST52208
	0-6"	3"	6	5/32"	LST52212
	0-9"	3"	9	5/32"	LST52216
	0-3"	4"	3	5/32"	LST52220
	0-6"	4"	6	5/32"	LST52224
	0-9"	4"	9	5/32"	LST52228

* With locknut only, in case



449 Series Micrometer Depth Gages with non-rotating blades

- Features:
- Non-rotating, blade type rods
 - For slots as narrow as .045"
 - Graduation: .001"

Range	Base Length	No. of Rods	Stock No.
0 – 3"	2 1/2"	3	LST52318
0 – 6"	2 1/2"	6	LST52320
0 – 3"	4"	3	LST52322
0 – 6"	4"	6	LST52324



25 Series Dial Indicators with long range

- Features:
- Interchangeable contact point
 - Jewel Bearings

Graduation	Range One Rev.	Range Total	Dial Reading	Stock No.
.001"	.100"	2.000"	0-100	LST53309



3600 Series Electronic Indicator

- Features:
- Large, easy-to-read LCD
 - Range: .500" or 12.7mm
 - Resolution: .0005" or .01mm
 - Reverse travel (± control indicates direction)
 - Zero setting at any position
 - 3/8" diameter stem
 - Lug-on-center back + additional flat back

Stock No.	Description
LST68813	Basic Electronic Digital Ind 0.500 Range



25R Contact Point Set

- Features:
- 14 points with #4-48 screw thread to fit AGD indicators
 - High grade steel, hardened and ground
 - All points are mounted on an aluminum ring

Description	Stock No.
Set includes: Regular 1/4" (6.3mm) long point, 9 special form points, No. 28	LST50153
Shock Absorbing Anvil, 3 extra long points – 1/2", 3/4" and 1" (13, 19, 25mm)	



Contact your Snap-on Industrial Representative for more information, or call our Customer Service Center at (877) 740-1900



WARNING



• Read safety precautions on pages 586 to 589

Precision Tools

Dial Test Indicators w/dovetail mounts



Features:

- Large 1 3/8" diameter Dial faces
- Long 13/16" carbide Contact Point
- Three standardized dovetail positioning mounts
- Easy to read angled head
- Meets or exceeds ISO accuracy specifications
- Precision gear drive with jeweled movement
- Furnished in case

	Graduation	Range	Dial Reading	Description	Dial Color	Stock No.
709 Series	.0005"	.030"	0-15-0	With Attachments	White	LST64219
708 Series	.0001"	.010"	0-5-0	With Attachments	White	LST64217



660 Series Magnetic Base Universal Indicator Holder with triple-jointed arm & fine-adjustment

Features:

- Three pivots for positioning indicator tightening knob
- Base includes articulating arm with dovetail and stem hole clamp
- Small, powerful, versatile & compact (1.2" x 1.6" x 1.4")
- 72 lb. pull
- Holds indicators w/ 3/8" (9.5mm) stem
- Holds indicators w/ standard dovetail mount

Description	Stock No.
Magnetic Base Universal Indicator Holder with triple-jointed arm and fine-adjustment	LST68621



711 Series Last Word® Dial Test Indicators

Features:

- Steel contact points length: 5/32" (4mm)
- Easy reading dials, half-shaded yellow for clarity
- Smooth, jeweled lever action
- Positive reversing switch
- Hard chrome-plated ratchet contact point
- Ideal for precise measurements in machining, layout, and inspection work

Graduation	Range	Dial Reading	Description	Stock No.
.001"	.030"	0-15-0	Indicator with ALL attachments*	LST52943
.0005"	.030"	0-15-0	Indicator with ALL attachments*	LST52957
.001"	.030"	0-15-0	Indicator with universal shank with long and short arm, body clamp, and one contact point .120"	LST52925

*Attachments include 3 contact points – .035", .062", .120" – body clamp – universal friction holder with shank – universal shank complete with long & short arm – double-jointed attachment – height gage attachment – surface gage attachment – coupling with 3/16" (4.8 mm) hole.

659 Series Heavy-Duty Magnetic Base Indicator Holder with rotary on-off switch

Features:

- Powerful magnetic base
- Fine adjustment at the end of the gage rod
- Indicator positioned at any height or angle
- Extra tapped hole in base for multiple inspection work

Description	Stock No.
Magnetic Base, Upright Post Assembly Including Post, Snug, Gage Rod with Clamp and Fine Adjust, and Thread Adapter, without Indicator, without Case	LST56687
Base and Upright Post Assembly with Inch reading indicator No. 25-131J in Case	LST55948



657AA Magnetic Base Indicator Holder with attachments

LST52743

Features:

- Three precision ground magnetic contact surfaces
- Grips horizontally, vertically or upside down
- V-step holds base to arbors, shafts & chucks
- Push button on-off switch
- Threaded end fits lug backs of all indicators



657D Series Magnetic Base Indicator Holder with attachments

LST52749

Features:

- Swivel Post Snug allows adjustment to any vertical angle



657T Series Flex-O-Post Indicator Holder with magnetic base

LST52760

Features:

- For use with all Starrett Dial Indicators
- Can be adjusted and locked to any position
- Vertical reach of 15", horizontal reach of 10"
- 360° indicator snug can be locked in any position



3752 Series Electronic Digital Height Gages with output

Features:

- Large, easy-to-read LCD display reads to .0005" (0.01 mm)
- Instant inch-millimeter conversion
- Carrier and scribe designed to read from zero
- "Hold" control feature retaining a reading at any position
- Plus or minus direction selector
- Ability to set zero at any position
- Manual on/off plus a built-in automatic off after 30 minutes of nonuse
- Ability to install minimum and maximum limits
- Two 3-volt batteries furnished

Range	Description	EDP No.
0-12" (300 mm)	Height Gage without case	LST68815
0-24" (600 mm)	Height Gage without case	LST68816



Contact your Snap-on Industrial Representative for more information, or call our Customer Service Center at (877) 740-1900

Parallels

No.	Range	Length	Thickness
A	3/8 - 1/2"	1 3/4"	9/32"
B	1/2 - 11/16"	2 1/8"	9/32"
C	11/16 - 15/16"	2 11/16"	9/32"
D	15/16 - 1 5/16"	3 9/16"	9/32"
E	1 5/16 - 1 3/4"	4 3/16"	9/32"



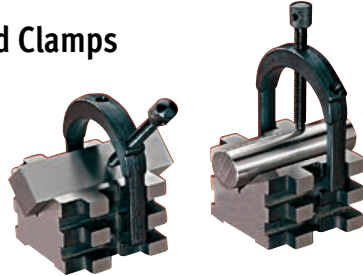
	Description	Stock No.
154 Series	Set consists of 6 parallels-A,B,C,D,E,F w/case	LST50586
	Set consists of 4 parallels-A,B,C,D w/case	LST50584



568 Series V-Blocks and Clamps

Features:

- Hardened steel precision ground on all sides
- 3/8-16 tapped holes for face plate mounting
- Stepped grooves for high & low clamping
- For round or square work

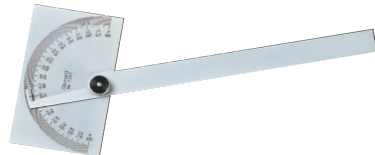


Capacity	Description	Stock No.
2" (50 mm) dia. round;	1 V-Block and Clamp	LST52590
1 7/16" (36 mm) square (1 9/16" [40 mm] w/screw at top)	Complete Set w/ 2 V-Blocks & 2 Clamps (Matched Pair)	LST52592
	Clamp Only	LST52591

C183 Steel Protractor LST50672

Features:

- 6" locking blade
- Satin chrome finish
- Range: 0-180°



C493B Protractor and Depth Gage LST52534

Features:

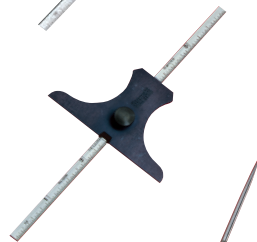
- 6" locking blade
- Satin chrome finish
- Range: 0-180°
- Blade graduations: 32nds, 64ths



237 Steel Rule Depth Gage LST51080

Features:

- 6" locking rule
- Case hardened steel head
- Blade graduations: 32nds, 64ths



67B Improved Scriber LST50317

Features:

- Scribers are steel, properly tempered & well-finished
- Points are finely tapered
- Two points are furnished: 1 straight, 1 short bent
- Knurled handle & points
- Nickel plating on handle



AM-2 Angle Meter LST36080

Features:

- Finds angles & level readings easily & quickly
- Measures any angle for pitch or slope
- High-impact plastic construction
- Magnetic base & back

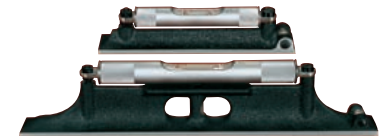


Contact your Snap-on Industrial Representative for more information, or call our Customer Service Center at (877) 740-1900

98 a Machinists' Improved Levels

Features:

- Adjustable main vial
- Involute groove running length of base
- Bases are seasoned castings wrinkle finish
- Accurately machined on bearing surface



Size	Description	Stock No.
4"	Without cross test vial	LST50440
6"	With cross test vial	LST50441
8"	With cross test vial	LST50442
12"	With single plumb vial and cross test vial	LST50443
18"	With double plumb vial and cross test vial	LST50445

135 Series Pocket Level with satin nickel-plated finish

Features:

- Fits handily in the pocket with no sharp edges
- Made from hexagon stock with convex ends

Size	Description	Stock No.
2 1/2" (63 mm)	With Main Vial	LST50570
3 1/2" (88 mm)	With Main Vial	LST50571



199Z Master Precision Level LST50719

Features:

- 15" long x 1 5/8" wide x 3" high
- 10-second accuracy of graduated main vial
- Auxiliary vials for lateral & horizontal setting
- Castings thoroughly seasoned and machined



134 Cross Test Level and Plumb

Features:

- Two vials at right angles for cross test leveling
- For approximate squaring, leveling & machine set-up

Size	Description	Stock No.
2" x 3" x 1/2"	w/ cross test vials & plumb vial	LST50569



505 Series Miter and Combination Protractor

Features:

- Miter Cut (for miter joints): Transfer readings directly to the Miter Saw
- Compound Cut Conversion Table (on the bottom leg with the tool facing up): Specifically for the Compound Miter Saw
- Protractor (Reverse side)
- Roof Pitch Scale



Stock No.	Description
LST12256	Combination Protractor, Miter Gage, With Compound Cut Conversion Table and Quick Roof Pitch Reference

187 Jobbers' Drill Gage - ardened

Features:

- Range: 1/6-1/2"
- Approximately 5/64" thick by 2 5/16" by 6 1/4" long
- Size of any twist drill from 1/16-1/2" by 64ths can be quickly determined
- 29 holes marked with the drill size in inches and the decimal equivalent
- Information steel stamped on one side & white marked on the reverse side



Stock No.	Description
LST50677	Jobbers' Drill Gage



WARNING



• Read safety precautions on pages 586 to 589

Precision Tools

Screw Pitch Gages

Starrett screw pitch gages quickly determine the pitch of various threads. These gages consist of a substantial steel case with a number of folding leaves at both ends, each leaf having teeth corresponding to a definite pitch, marked on each leaf.

Features:

- V, Unified, American National 60° threads



Stock No.	Description	No. of Leaves	Sizes
LST50035	Screw Pitch Gage V Unified, TPI 4 to 42	30	4, 4-1/2, 5, 5-1/2, 6, 7, 8, 9, 10, 11, 11-1/2, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42
LST52484	Screw Pitch Gage, V, Unified, TPI 4 to 84	51	First Corner 17 Leaves: 4, 4-1/2, 5, 5-1/2, 6, 7, 8, 9, 10, 11, 11-1/2, 12, 13, 14, 15, 16, 18 Second Corner 17 Leaves: 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50 Third Corner 17 Leaves: 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84
LST52486	Screw Pitch Gage, V, Unified, 4 to 80	28	4, 4-1/2, 5, 6, 7, 8, 9, 10, 11, 11-1/2, 12, 13, 14, 16, 18, 20, 24, 27, 28, 32, 36, 40, 44, 48, 56, 64, 72, 80
LST50589	Screw Pitch Gage, Metric, 0.25 to 2.5	28	0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 1, 1.10, 1.20, 1.25, 1.30, 1.40, 1.50, 1.60, 1.70, 1.75, 1.80, 1.90, 2, 2.50
LST50591	Screw Pitch Gage, Metric, 1 to 11.5	28	0.5, 0.75, 1, 1.10, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10, 10.5, 11, 11.5 and 60° Center Gage



827 Series Edge Finders

Features:

- Locate work surface easily, quickly & accurately
- Body & contacts made of hardened, ground tool steel
- Double-end model has pointed contact center point & scribed lines

Description	Body Diameter	Contact Diameter	Stock No.
Single End	.375"	.200"	LST53062
Double End	.500"	.200" & pointed contact	LST53063



269 Series .100-1" Taper Gages

These gages are for determining hole sizes in dies and other work. They read in thousandths of an inch or 0.02mm.

Made of tempered steel with a locking device.

Stock No.	Range	Length	No. Leaves
LST51290	.100-.500"	2 1/2"	8
LST51291	.500-1"	2 3/4"	10

93 Series T-Handle Tap Wrenches

Features:

- Centered body for use on lathe or drilling machines
- Heat treated jaws • Sliding handle

Capacity Tap Size	Capacity Square Shank	Body Length	Stock No.
1/16 - 3/16"	1/16 - 5/32"	2"	LST50427
7/32 - 7/16"	5/32 - 1/4"	2 1/2"	LST50428
1/4 - 1/2"	3/16 - 5/32"	3 1/2"	LST50429
1/16 - 3/16"	1/16 - 5/32"	6"	LST50430
7/32 - 7/16"	5/32 - 1/4"	10"	LST50431
1/4 - 1/2"	3/16 - 5/16"	13"	LST50432

579 Series Telescoping Gage Set

Features:

- Two automatically self-centering contacts
- Contact points are hardened & radius ground

No. of Gauges	Description	Stock No.
4	4 pc. set - 5/16" to 2 1/8"	LST52616
6	6 pc. set - 5/16" to 6"	LST52617

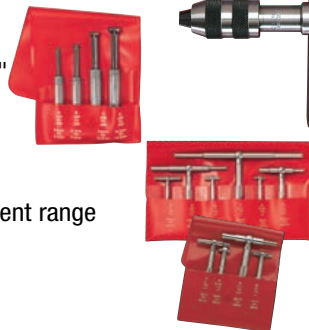
*in protective case



S831EZ Series Small Hole Gages

Features:

- Range: .125"-.500" • Approx. Length: 2 13/16" - 3 1/2"
- Half-ball surface & flat bottom for use in shallow holes, slots & recesses
- Two-point contact for maximum accuracy
- Smooth, sensitive adjustment
- Safety stop prevents breakage of gages beyond adjustment range



Description	Stock No.
Set of 4 in case: Nos. 831A,B,C,D	LST53087

91 Series Tap Wrenches

Features:

- Made of rugged steel with tempered gripping surface

Capacity			
Tap Size	Square Shank	Body Length	Stock No.
1/16-1/4"	3/32-5/32"	6"	LST50419
3/16-1/2"	5/32-9/32"	9"	LST50420
1/4-5/8"	5/32-3/8"	12"	LST50421
5/16-3/4"	13/64-7/16"	16"	LST50422



270 Series Taper Gage

Features:

- Useful for bearing work and for gaging slots
- Made of quality tool steel 7/16" (11 mm) wide by 6 1/4" (160 mm) long
- Graduated from .010" to .150" in thousandths of an inch and the reverse side from 0.3 mm to 4 mm in one-twentieth of a mm (0.05 mm)

Range: Inch	Range: mm	Description	Stock No.
.010-.150"	0.3-4 mm	Taper Gage	LST51292



Starrett Thickness Gages

- Leaves made of tempered-steel and marked with thickness
- Locking device
- Leaves easily removed or replaced
- Rugged steel case

Stock No.	Description	Range (In.)	Leave Size	Leave No.	Leave Type	Locking Device	Leave Sizes
LST50314	Thickness Gage, 26 Straight Leaves	0.0015-0.25	1/2 X 3 1/32	26	Straight	Yes	.0015, .002, .0025, .003, .004, .005, .006, .007, .008, .009, .010, .011, .012, .013, .014, .015, .016, .017, .018, .019, .020, .021, .022, .023, .024, .025
LST50315	Thickness Gage, 26 Tapered Leaves	0.0015-0.25	1/2-1/4 X 3 1/32	26	Tapered	Yes	.0015, .002, .0025, .003, .004, .005, .006, .007, .008, .009, .010, .011, .012, .013, .014, .015, .016, .017, .018, .019, .020, .021, .022, .023, .024, .025
LST52464	Thickness Gage, 13 Straight Leaves	0.0015-0.200	1/2 X 4 1/2	13	Straight	Yes	.0015, .002, .003, .004, .006, .008, .010, .020, .030, .040, .075, .100, .200
LST57098	Thickness Gage, 22 Leaves Plus SP Wires	0.0015-0.035	1/2 X 3 1/32	22	Straight	Yes	.0015, .002, .0025, .003, .004, .005, .006, .007, .008, .009, .010, .012, .013, .014, .015, .016, .018, .020, .022, .025, .030, .035 Spark Plug Wire Gages: .025, .030, .034, .035, .040, .045



166 Series Pin Vises

Features:

- Insulated, octagonal PVC handles
- For small wire, reamers, drills, taps & stock
- Hole extends length of handle

Range	Stock No.
0-.040" (0-1 mm)	LST50609
.030-.062" (0.8-1.6 mm)	LST50610
.050-.125" (1.3-3.2 mm)	LST50611
.115-.187" (2.9-4.8 mm)	LST50612
Set of all 4 sizes in protective vinyl case	LST50614



Contact your Snap-on Industrial Representative for more information, or call our Customer Service Center at (877) 740-1900

283 Series U.S. Standard Gage – hardened LST51318

Features:

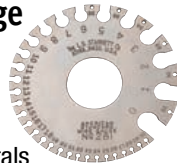
- Nos. 0-36 (.3125-.007") range
- Made to the United States Standard for uncoated sheet, plate iron and steel
- Satin finish
- Decimal equivalents on reverse side



281 Series American Standard Wire Gage LST51316

Features:

- Hardened & tested
- Range: Nos. 0-36 (.325-.005")
- For gaging sheets, plate & wire of non-ferrous metals
- Decimal equivalents on reverse side
- Satin finish
- Accepted standard adopted by brass manufacturers



C310K-6 Series Steel Rule with Pocket Clip

Features:

- Fine quality steel w/easy-to-read satin chrome finish
- Highly accurate. Matches Starrett master standards

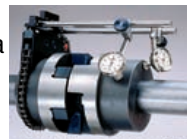
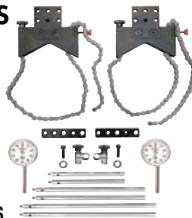
Length	Width x Thickness	Steel	Graduations	Stock No.
6"	1/2" x 1/64"	Full-Flexible	No. 10 - 32nds and 64ths One Side Only	LST56701

668 Series Shaft Alignment Clamp Sets

Starrett Shaft Alignment Clamp is designed for fast, precise alignment of motors, pumps, and compressors

Features:

- Lightweight clamp design - black anodized aluminum
- Rigid 3/8" diameter stainless steel indicator posts provided in three lengths (5", 7-7/16", and 9")
- Heavy-duty roller chain can accommodate up to a 7-1/2 diameter shaft
- Sets are available with either two Starrett Nos. 196B5 or 81-141J Indicators or clamps alone



Stock No.	Description
LST67152	Shaft Alignment Set, 196B5 Indicators, Case
LST67153	Shaft Alignment Set, 81-141J Indicators, Case
LST67151	Shaft Alignment Set, Clamp, Plate and Posts, Case
LST67150	Shaft Alignment Clamp, Plate and Posts
LST67155	Shaft Alignment Clamp Only

83 Series "Yankee" Dividers with flat legs

Features:

- Made of durable high-grade steel
- Extra strong, flexible bow spring
- Fulcrum stud: hardened w/ smooth surface
- Quick adjust spring nut



	With Solid Nut	Quick-Spring Nut
Size / Capacity	Stock No.	Stock No.
4" (100 mm)	LST50376	LST50377
6" (150 mm)	LST50378	LST50379
8" (200 mm)	LST50380	LST50381
12" (300 mm)	LST50384	LST50385

Starrett Brass Pin Punches -- Ideal for Delicate Work

- Ideal for Delicate Work
- B565 Brass Punches, 4 Inch Length, eight sizes from 1/16" to 5/16"
- B248 Extended Length Brass Punches, 8 inch Length, four sizes from 3/16" to 3/8"

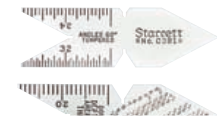


	Stock No.	Description
B565 Series Brass Drive Pin Punches & Sets	LST12465	Brass Drive Pin Punch, 4 In, 1/16 In Dia
	LST12466	Brass Drive Pin Punch, 4 In, 3/32 In Dia
	LST12467	Brass Drive Pin Punch, 4 In, 1/8 In Dia
	LST12468	Brass Drive Pin Punch, 4 In, 5/32 In Dia
	LST12469	Brass Drive Pin Punch, 4 In, 3/16 In Dia
	LST12470	Brass Drive Pin Punch, 4 In, 7/32 In Dia
	LST12471	Brass Drive Pin Punch, 4 In, 1/4 In Dia
	LST12472	Brass Drive Pin Punch, 4 In, 5/16 In Dia
B248 Series Brass Drive Pin Punches & Sets	LST12473	Brass Drive Pin Punch Set, 8 Pc, Case
	LST12460	Brass Drive Pin Punch, 8 In, 3/16 In Dia
	LST12461	Brass Drive Pin Punch, 8 In, 1/4 Dia
	LST12462	Brass Drive Pin Punch, 8 In, 5/16 Dia
	LST12463	Brass Drive Pin Punch, 8 In, 3/8 Dia
	LST12464	Brass Drive Pin Punch, Set, B248B/C/D/E

C391 Series Center Gage

Features:

- For grinding & setting screw cutting tools
- Satin chrome finish
- Graduations in 14ths, 20ths, 24ths and 32nds of an inch
- Table of double depths of threads for determining tap drill sizes
- Made of spring-tempered steel



Stock No.	Description
LST51475	Inch grads., American Unified National Standard, 60°

S248PC Series Drive Pin Punches

Features:

- Set of 5 punches in protective vinyl case
- Extra-long 8" (200 mm)
- Bodies, 4 1/2" (115 mm); Drive pin sections, 3 1/2" (90 mm)
- Hardened & tempered • Knurled grip



Catalog No.	Description
LST51186	Dia. of Punches: 1/8" (3 mm), 3/16" (5 mm), 1/4" (6 mm), 5/16" (8 mm) and 3/8" (9.5 mm)

S565WB Series Drive Pin Punches

Features:

- Well proportioned, hardened, properly tempered
- Knurled finger grip • Set of 8 punches in round plastic box
- Each punch has size stamped on head • 4" (100 mm) length



Stock No.	Punch Diameters
LST52586	1/16" (1.5 mm), 3/32" (2.5 mm), 1/8" (3 mm), 5/32" (4 mm), 3/16" (5 mm), 7/32" (5.5 mm), 1/4" (6 mm), 5/16" (8 mm)

50 Series Trammel Heads with divider points, pencil socket

Features:

- Die cast heads w/ black wrinkle finish
- Hardened, forged steel divider points
- No. 50A has an adjustable point



Point Size	Description	Stock No.
3, 2 1/2" (75, 63 mm)	(Adjustable) Includes 2 Heads, 2 Points, Pencil Socket	LST50268
3" (75 mm)	Includes 2 Heads, 2 Points, Pencil Socket	LST50269

S167CHZ Radius Gage Set

Features:

- Satin finish stainless steel
- Clearly marked with radius
- Five different gaging surfaces for convex & concave radii
- Precision finished radii
- Gage Holder, 4" long



Radii Range	Increments	Gages/Set	Description	Stock No.
1/64-17/64" 9/32-1/2"	64ths 32nds	25	with Holder	LST50619

Contact your Snap-on Industrial Representative for more information, or call our Customer Service Center at (877) 740-1900

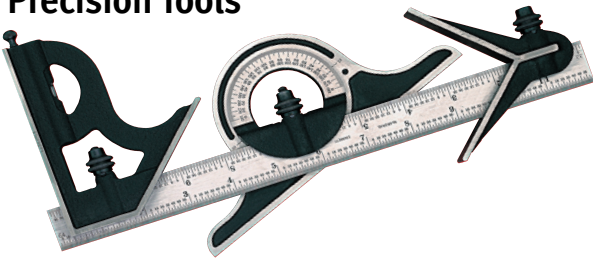


WARNING



• Read safety precautions on pages 586 to 589

Precision Tools



Combination Set w/Non Reversible Protractor Head

Features:

- Non-reversible protractor head
- Cast iron heads • Black wrinkle finish
- Blade graduations: 8ths, 16ths, Quick Reading 32nds, 64ths
- Accuracy of head to blade: $\pm .002''$
- Tempered steel, machine divided blade
- Reversible lock bolt, scriber & spirit level

	Blade	Size	Stock No.		Size	Blade	EDP No.
9 Series	Satin Chrome	12"	LST50046	9-12-4R Series	12"	Regular	LST50042
	Regular	18"	LST50044				
	Regular	24"	LST50045				



Steel Rules

Features:

- Fine quality steel w/ easy-to-read satin chrome finish
- Machine divided (not photo-engraved) for uniformity of line depth & width
- Highly accurate. Matches Starrett master standards

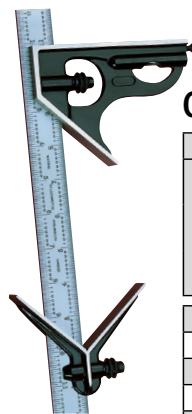
	Length	Width/Thickness	Steel	Graduations	Stock No.
C303, C304 Series	6"	1/2" x 1/64"	Full-Flexible	No. 3R QR 10ths, Aircraft QR 50ths, 32nds, & 64ths	LST51334
	6"	1/2" x 1/64"	Full-Flexible		LST66008
	6"	3/4" x 1/50"	Semi-Flexible	No. 4R – 8ths, 16ths, QR 32nds & 64ths	LST51343
	12"	1" x 1/40"	Semi-Flexible		LST51344
		24"	3/4" x 1/50"	Full-Flexible	LST56645
C305 Series	6"	1/2" x 1/64"	Full-Flexible	No. 5R – Quick-Reading 10ths, Aircraft	LST51347
	12"	1/2" x 1/64"	Full-Flexible	Quick-Reading 100ths, 32nds, and 64ths	LST51348
C316 Series	6"	1/2" x 1/64"	Full-Flexible	No. 16R – Quick-Reading 32nds, 64ths, Aircraft Quick-Reading, 50ths, & 100ths	LST51374
	12"	1/2" x 1/64"	Full-Flexible		LST51375

Features:

- Spring-tempered steel
- No. 4R Graduations - 8ths, 16ths, quick reading 32nds and 64ths
- Fine quality steel w/easy-to-read satin chrome finish
- Machine divided (not photo-engraved) for uniformity of line depth & width
- Highly accurate. Matches Starrett master standards

	Length	Width x Thickness	Stock No.
C604 Series	6"	3/4" x 3/64"	LST52660***
	6"	3/4" x 3/64"	LST52673****
	6"	3/4" x 3/64"	LST52678*
	12"	1" x 3/64"	LST52679**
	18"	1 1/8" x 3/64"	LST52680**
	24"	1 1/4" x 3/64"	LST52681**

* Single row of inch figures
 ** Double row of inch figures
 *** End graduations
 **** Reversible hook



Combination Squares

Features:

- No. 4R graduations – 8ths, 16ths, Quick Reading 32nds, 64ths
- Cast iron heads with black wrinkle finish
- Reversible lock bolt, scriber, spirit level
- Hardened steel, machine-divided blade
- Easy to read, sharp graduations



	Blade	Size	Stock No.
11H Series	Satin Chrome	12"	LST56366
	Regular	18"	LST50059
	Regular	24"	LST50063

	Size	Blade	Stock No.
11H-12-4R, C11H-6-4R	12"	Regular	LST50055
	6"	Satin Chrome	LST56362



Combination Set w/Reversible Protractor Head

Features:

- No. 4R - 8ths, 16ths, Quick Reading 32nds, 64ths graduations
- Double reading 180° protractor head
- Tempered steel, machine divided blade
- Bearing surfaces are accurately ground
- Reversible lock bolt, scriber & spirit level

	Description	Blade	Stock No.
434, 435 Series	Forged & Hardened Steel Square Heads & Center Head	Regular	LST51542
	Cast Iron Protractor Head w/ Smooth Black Enamel Finish	Satin Chrome	LST51548
	Cast Iron Heads with Black Wrinkle Finish	Regular	LST51556

Steel Straight Edges

Precision ground to rigid Starrett standards. They are unexcelled for drawing or scribing straight lines and checking surfaces for straightness.

Stock No.	Item Description	Width x Thickness
LST51438	Straight Edge, 12"	1 13/32" x 11/64"
LST51440	Straight Edge, 24"	1 13/32" x 11/64"
LST51441	Straight Edge, 36"	2 13/32" x 7/32"
LST51455	Straight Edge, Beveled, 12"	1 13/32" x 11/64"
LST51457	Straight Edge, Beveled, 24"	1 13/32" x 11/64"
LST51459	Straight Edge, Beveled, 48"	2 13/32" x 7/32"

Combination Set w/Square Head & Center Head

	Blade	Size	Graduation	Stock No.
33HC Series	Satin Chrome	6"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	LST56393
	Satin Chrome	12"	4R – 8ths, 16ths, Quick Reading 32nds, 64ths	LST56397
	Satin Chrome	12"	16R – Quick Reading 32nds, 64ths, Aircraft QR 50ths, 100ths	LST56399

Fits Blade Size	Description	Stock No.
6"	Square Head Only	LST50224
6"	Center Head Only	LST50227
12", 18", 24"	Square Head Only	LST50225
12", 18", 24"	Center Head Only	LST50228
12" and up	Protractor Head, black wrinkle, chrome on turret	LST64601

Snap-on Specialty Tools

1" Drive Lag Screw Sockets

N8705ANP Crossing Lag Socket.

The socket has a T70 TORX® bit for easy installation and removal of "star" crossing screws.

N8705A2NP Replacement Bit for N8705ANP.

This bit can be used with the N8705ANP.

5703747UP Rectangular Head Lag Socket.

For use on special rectangular head lag screws. The opening is 1 1/8" X 7/8" size and can be used on an impact wrench.



5703747UP



N8705A2NP



N8705ANP

Diesel Specialty Tools

Exhaust Stack Tools

B4203A-30FHD Torque Adaptor

- 1/2" drive, 12-point 15/16" box-end
- Offset provides access to exhaust stacks
- Centerline distance is 2" 5 1/2" long



B4203A-30FHD

Water Pump Wrenches

N6369L-JHW Left hand water pump wrench

3/4" and 7/8" 12-point box. The left-hand offset bend allows easy access.

N6369R-JHW Right Hand water pump wrench

3/4" and 7/8" 12-point box. The right-hand offset bend allows easy access. (not shown)

K2921A Ratcheting water pump wrench

This half moon ratcheting wrench is 3/4" by 5/8" 12-point.

K2921A



N6369L-JHW

Miscellaneous Diesel Tools

N6387A Test Cock Cylinder Socket

This 1/2" drive socket is used to loosen or tighten the test cocks on EMD locomotives.

DS560A Deep Diode Socket.

Thin wall 1/2" drive 1 1/4" 6-point slotted socket. For use on high horsepower EMD locomotives.



N6387A



DS560A

You can also submit a QuickQuote on-line at:

www.snaponspecialproducts.com

Note: Products shown are available via special order

Special Products Division



WARNING



• Read safety precautions on pages 586 to 589

RAILROAD TOOLS

Snap-on Specialty Tools



RS64

K2952

CK200



GVS5264-45

N6161N8MD2.1



IM740S6TL

N8893

IMASQ162NP

Cotter Key Tools

CK200 Cotter Key Pliers Tapered jaws on these pliers reach in to remove the self spreader in most cotter keys. The prybar end can be used to pry cotter keys, gaskets, etc.

K2952 Dual purpose Pliers, one end is a heavy duty combination pliers, while the other end can be used to bend cotter keys.

Ratcheting Open End Wrenches

Jaw design allows ratcheting action, ideal in situations where a socket can't be used.

RS24 3/4" wrench size, 9 1/4" long. For dirt collectors or empty load sensor valves.

RS30 15/16" wrench size, 12 5/16" long. For use on air-brake service portions.

RS32TS 1" wrench size used on articulated cars to service nuts on Meisner airbrakes.

RS34TS 1 1/16" wrench size, similar use as **RS32TS**.

RS64 2" wrench size, 9 1/4" long. Used to adjust WABCO brake beams.

Signal Tools

N6161N8MD2.1 Point Detector Bushing Socket. 1/2" square drive internal 4 lug socket designed for installing or removing the point detector bushing found on WABCO switch machines. The internal lugs provide greater strength.

Switch Machine Wrenches. Each wrench features a 45 degree offset and two different wrench sizes. The 25" length gives added leverage.

GVS5264-45 1-5/8" and 2" offset open end wrenches.

GVS3440-45 1-1/16" and 1-1/4" wrench sizes

Bridge and Building Tools

Hook Bolt Sockets. These 6" long sockets are used on hook bolt applications, where extra bolt clearance is needed. All in 1" drive.

IM736S6TL Single Square: Socket size 1 1/8".

IM740S6TL Single Square: Socket size 1 1/4".

N8930 Six Point: Socket size 1 1/8".

N8893 Six Point: Socket size 1 1/4".

IMASQ162NP Impact Adapter. This 1/2" external by 3/4" internal impact adapter has lock button retention, and a replaceable 1/2" external drive.

IMASQ162NP-2A Replacement 1/2" drive. Must order roll pin **ESD311K** separately.

You can also submit a QuickQuote on-line at:

www.snaponspecialproducts.com

Special Products Division

Note: Products shown are available via special order



HEAVY-DUTY BOLTING

**From 1,000 to
25,000 ft. lbs.,
our expertise
brings big
torque problems
down to size.**

Overview N175

Snap-on 2-1/2" Drive Sockets N178

Snap-on Tubular Handle Wrenches N179

Snap-on Offset Striking Wrenches N181

Sioux Industrial-Duty
Impact Wrenches N182

ENERPAC Hydraulic
Heavy-Duty Bolting Tools N183

Heavy-duty usually means big, and it always means working at the limits. Heavy-duty bolting tools include impact sockets from 3/4"-2-1/2" drive and combination wrenches from 9/16"-3-1/2". At the limits, we're talking about more than 25,000 ft. lb. of torque.

Fortunately, we have the sockets, wrenches, torque tools and experience to handle those job requirements.





**Assembling and
servicing large
equipment isn't
just a matter
of brute force.**



HEAVY-DUTY BOLTING

It requires an understanding of engineering principles and being up-to-date on processes. Whether you are thinking about critical assemblies with torque values that are specified, or non-critical applications where things just need to be tight, Snap-on has the tools you need.

We'll help you solve your heavy-duty bolting needs based on fastener size, speed, required accuracy, cost, weight and frequency of use.

Snap-on Industrial's heavy-duty bolting tools include impact sockets and accessories starting at 3/4" drive and ranging up to 2-1/2" drive. You can match them up with our unique tubular handled wrenches, pneumatic drivers and torque tools based on your application. And our striking wrenches and safety sledge hammers can handle jobs up to about 3,200 ft. lb.



CHOOSING THE RIGHT TOOLS.

	LIGHT	MEDIUM	HEAVY	SUPER	MAXIMUM
	0-1,000 ft. lbs.	1,000-3,200 ft. lbs.	3,200-11,000 ft. lbs.	11,000-25,000 ft. lbs.	25,000+ ft. lbs.
	Ratchet Torque Wrench	Torque Multiplier Impact Wrench Pneumatic Multiplier Electric Nutrunner Pneumatic Nutrunner Hyd. Wrench-1" Drive Striking Wrench w/ Safety Sledge	Torque Multiplier Pneumatic Multiplier Electric Nutrunner Pneumatic Nutrunner Hyd. Wrench-1 1/2" Drive	Hydraulic Wrench- 2 1/2" Drive	Hydraulic Wrench- With Cassette
3/4" Drive	9/16"		2 3/4"		
1" Drive	3/4"			5 3/4"	
1 1/2" Drive		1 3/8"			8"
2 1/2" Drive			2"		8"
	1"	1 7/8"	3 1/2"	5 1/4"	

■ ■ These are the optimum hex sizes in this square drive range for the required torque

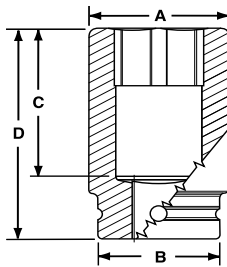
SOCKETS

2 1/2" Drive Flank Drive® Impact

6 Point 



IM1169



IM1609



IM2209

Snap-on Part #	Description	Size	A - Hex Outside Diameter	B - Square Outside Diameter	C - Bolt Clearance Depth	D Length
IM649	2 1/2" Drive SAE 6pt	2	3 7/16	5	2 31/32	5 1/2
IM709	2 1/2" Drive SAE 6pt	2 3/16	3 21/32	5	3 7/32	5 3/4
IM729	2 1/2" Drive SAE 6pt	2 1/4	3 23/32	5	3 7/32	5 3/4
IM769	2 1/2" Drive SAE 6pt	2 3/8	3 7/8	5	3 15/32	6
IM809	2 1/2" Drive SAE 6pt	2 1/2	4	5	3 15/32	6
IM829	2 1/2" Drive SAE 6pt	2 9/16	4 3/32	5	3 15/32	6
IM849	2 1/2" Drive SAE 6pt	2 5/8	4 5/32	5	3 15/32	6
IM889	2 1/2" Drive SAE 6pt	2 3/4	4 5/16	5	3 23/32	6 1/4
IM929	2 1/2" Drive SAE 6pt	2 7/8	4 7/16	5	3 23/32	6 1/4
IM949	2 1/2" Drive SAE 6pt	2 15/16	4 17/32	5	3 23/32	6 1/4
IM969	2 1/2" Drive SAE 6pt	3	4 19/32	5	3 23/32	6 1/4
IM1009	2 1/2" Drive SAE 6pt	3 1/8	4 3/4	5	3 31/32	6 1/2
IM1049	2 1/2" Drive SAE 6pt	3 1/4	5	5	3 31/32	6 1/2
IM1089	2 1/2" Drive SAE 6pt	3 3/8	5	5	3 31/32	6 1/2
IM1109	2 1/2" Drive SAE 6pt	3 7/16	5	5	4 7/32	6 3/4
IM1129	2 1/2" Drive SAE 6pt	3 1/2	5 3/16	5	4 7/32	6 3/4
IM1169	2 1/2" Drive SAE 6pt	3 5/8	5 5/16	5	4 7/32	6 3/4
IM1209	2 1/2" Drive SAE 6pt	3 3/4	5 15/32	5	4 15/32	7
IM1249	2 1/2" Drive SAE 6pt	3 7/8	5 5/8	5	4 15/32	7
IM1289	2 1/2" Drive SAE 6pt	4	5 3/4	5	4 15/32	7
IM1309	2 1/2" Drive SAE 6pt	4 1/16	5 27/32	5	4 15/32	7
IM1329	2 1/2" Drive SAE 6pt	4 1/8	5 29/32	5	4 23/32	7 1/4
IM1369	2 1/2" Drive SAE 6pt	4 1/4	6 1/16	5	4 23/32	7 1/4
IM1409	2 1/2" Drive SAE 6pt	4 3/8	6 7/32	5	4 23/32	7 1/4
IM1449	2 1/2" Drive SAE 6pt	4 1/2	6 11/32	5	4 31/32	7 1/2
IM1489	2 1/2" Drive SAE 6pt	4 5/8	6 1/2	5	4 31/32	7 1/2
IM1529	2 1/2" Drive SAE 6pt	4 3/4	6 21/32	5	4 31/32	7 1/2
IM1569	2 1/2" Drive SAE 6pt	4 7/8	6 25/32	5	5 7/32	7 3/4
IM1609	2 1/2" Drive SAE 6pt	5	6 15/16	5	5 7/32	7 3/4
IM1649	2 1/2" Drive SAE 6pt	5 1/8	7 3/32	5	5 7/32	7 3/4
IM1689	2 1/2" Drive SAE 6pt	5 1/4	7 7/32	5	5 15/32	8
IM1729	2 1/2" Drive SAE 6pt	5 3/8	7 3/8	5	5 15/32	8
IM1749	2 1/2" Drive SAE 6pt	5 7/16	7 7/16	5	5 3/8	8
IM1769	2 1/2" Drive SAE 6pt	5 1/2	7 17/32	5	5 5/8	8 1/4
IM1809	2 1/2" Drive SAE 6pt	5 5/8	7 21/32	5	5 19/32	8 1/4
IM1849	2 1/2" Drive SAE 6pt	5 3/4	7 13/16	5	5 19/32	8 1/4
IM1889	2 1/2" Drive SAE 6pt	5 7/8	7 31/32	5	5 13/16	8 1/2
IM1929	2 1/2" Drive SAE 6pt	6	8 3/32	5	5 3/4	8 1/2
IM1969	2 1/2" Drive SAE 6pt	6 1/8	8 1/4	5	5 3/4	8 1/2
IM20099	2 1/2" Drive SAE 6pt	6 1/4	8 13/32	5	5 31/32	8 3/4
IM2049	2 1/2" Drive SAE 6pt	6 3/8	8 17/32	5	5 15/16	8 3/4
IM2089	2 1/2" Drive SAE 6pt	6 1/2	8 11/16	5	5 15/16	8 3/4
IM2129	2 1/2" Drive SAE 6pt	6 5/8	8 27/32	5	6 5/32	9
IM2169	2 1/2" Drive SAE 6pt	6 3/4	8 31/32	5	6 1/8	9
IM2209	2 1/2" Drive SAE 6pt	6 7/8	9 1/8	5	6 1/8	9
IM2249	2 1/2" Drive SAE 6pt	7	9 9/32	5	6 5/16	9 1/4
IM2289	2 1/2" Drive SAE 6pt	7 1/8	9 13/32	5	6 5/16	9 1/4
IM2329	2 1/2" Drive SAE 6pt	7 1/4	9 9/16	5	6 7/32	9 1/2
IM2369	2 1/2" Drive SAE 6pt	7 3/8	9 23/32	5	6 1/2	9 1/2
IM2409	2 1/2" Drive SAE 6pt	7 1/2	9 7/8	5	6 1/2	9 1/2
IM2449	2 1/2" Drive SAE 6pt	7 5/8	10	5	6 23/32	9 3/4
IM2489	2 1/2" Drive SAE 6pt	7 3/4	10 5/32	5	6 11/16	9 3/4
IM2529	2 1/2" Drive SAE 6pt	7 7/8	10 5/16	5	6 11/16	9 3/4
IM2569	2 1/2" Drive SAE 6pt	8	10 7/16	5	6 7/8	10

6 Point

Snap-on Part #	Description	Size	A - Hex Outside Diameter	B - Square Outside Diameter	C - Bolt Clearance Depth	D Length
IMM609	2 1/2" Drive MM 6pt	60MM	97.6	127	88.1	152.4
IMM659	2 1/2" Drive MM 6pt	65MM	104.0	127	88.1	152.4
IMM679	2 1/2" Drive MM 6pt	67MM	105.6	127	88.1	152.4
IMM709	2 1/2" Drive MM 6pt	70MM	109.5	127	94.5	158.8
IMM719	2 1/2" Drive MM 6pt	71MM	110.3	127	94.5	158.8
IMM759	2 1/2" Drive MM 6pt	75MM	115.1	127	94.5	158.8
IMM809	2 1/2" Drive MM 6pt	80MM	121.4	127	100.8	165.1
IMM859	2 1/2" Drive MM 6pt	85MM	127.0	127	100.8	165.1
IMM869	2 1/2" Drive MM 6pt	86MM	127.0	127	100.8	165.1
IMM909	2 1/2" Drive MM 6pt	90MM	132.6	127	107.2	171.5
IMM959	2 1/2" Drive MM 6pt	95MM	138.9	127	107.2	171.5
IMM989	2 1/2" Drive MM 6pt	98MM	142.1	127	113.5	177.8
IMM1009	2 1/2" Drive MM 6pt	100MM	144.5	127	113.5	177.8
IMM1059	2 1/2" Drive MM 6pt	105MM	150.8	127	119.9	184.2
IMM1109	2 1/2" Drive MM 6pt	110MM	156.4	127	119.9	184.2
IMM1159	2 1/2" Drive MM 6pt	115MM	161.9	127	126.2	190.5
IMM1209	2 1/2" Drive MM 6pt	120MM	168.3	127	126.2	190.5
IMM1259	2 1/2" Drive MM 6pt	125MM	173.8	127	132.6	196.9
IMM1309	2 1/2" Drive MM 6pt	130MM	179.4	127	132.6	196.9
IMM1359	2 1/2" Drive MM 6pt	135MM	185.7	127	138.9	203.2
IMM1409	2 1/2" Drive MM 6pt	140MM	191.3	127	142.9	209.6
IMM1459	2 1/2" Drive MM 6pt	145MM	196.9	127	142.1	209.6
IMM1509	2 1/2" Drive MM 6pt	150MM	203.2	127	147.6	215.9
IMM1559	2 1/2" Drive MM 6pt	155MM	208.8	127	146.1	215.9
IMM1609	2 1/2" Drive MM 6pt	160MM	215.1	127	151.6	222.3
IMM1659	2 1/2" Drive MM 6pt	165MM	220.7	127	150.8	222.3
IMM1709	2 1/2" Drive MM 6pt	170MM	226.2	127	156.4	228.6
IMM1759	2 1/2" Drive MM 6pt	175MM	232.6	127	161.9	235.0
IMM1809	2 1/2" Drive MM 6pt	180MM	238.1	127	160.3	235.0
IMM1859	2 1/2" Drive MM 6pt	185MM	243.7	127	165.9	241.3
IMM1909	2 1/2" Drive MM 6pt	190MM	250.0	127	165.1	241.3
IMM2009	2 1/2" Drive MM 6pt	200MM	261.9	127	169.9	247.7



WARNING



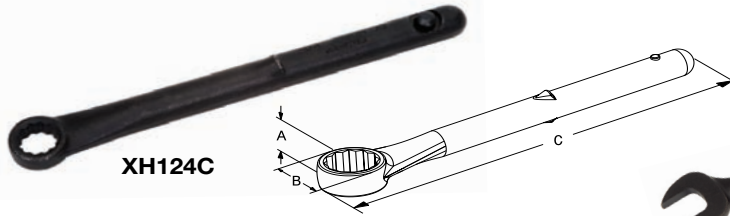
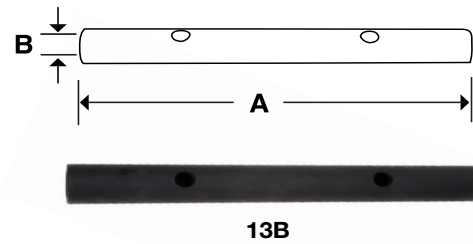
• Read safety precautions on pages 586 to 589

WRENCHES

Tubular Handle Wrenches

Tubular Handles

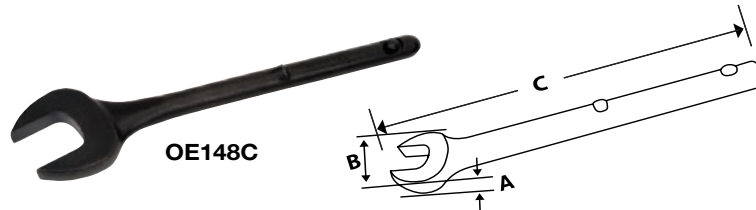
Snap-on Part #	Description	Size	A - Overall Length	B - Inside Diameter
13B	Tubular Handles	13"	13 1/2	7/8
24B	Tubular Handles	24"	24	7/8
36B	Tubular Handles	36"	36	1 9/64



An assembly of the OE148C open end tubular wrench, the 13B tubular handle and the XH124C straight box tubular wrench.

Straight Box Tubular Wrenches

Snap-on Part #	Description	Size	MM	A - Head Depth	B - Head Diameter	C - Overall Length	Suggested Handle		
							13B	24B	36B
XH124C	Straight Box - Tubular	3/4	-	1/2	1 1/4	10 13/16	•	•	
XH126C	Straight Box - Tubular	13/16	-	1/2	1 1/4	10 13/16	•	•	
XH128C	Straight Box - Tubular	7/8	-	5/8	1 7/16	10 15/16	•	•	
XH130C	Straight Box - Tubular	15/16	-	5/8	1 7/16	10 15/16	•	•	
XH132C	Straight Box - Tubular	1	-	11/16	1 9/16	11	•	•	
XH134C	Straight Box - Tubular	1 1/16	27	11/16	1 9/16	11	•	•	
XH136C	Straight Box - Tubular	1 1/8	-	11/16	1 11/16	11 1/8	•	•	
XH140C	Straight Box - Tubular	1 1/4	32	3/4	1 15/16	13 1/2	•	•	
XH142C	Straight Box - Tubular	1 5/16	33	3/4	1 15/16	13 1/2	•	•	
XH146C	Straight Box - Tubular	1 7/16	36	7/8	2 3/16	13 5/8	•	•	
XH148C	Straight Box - Tubular	1 1/2	38	7/8	2 3/16	13 5/8	•	•	
XH152C	Straight Box - Tubular	1 5/8	41	15/16	2 3/8	13 3/4	•	•	
XH1100C	Straight Box - Tubular	3 1/8	79	1 3/4	4 5/16	14 7/8			•



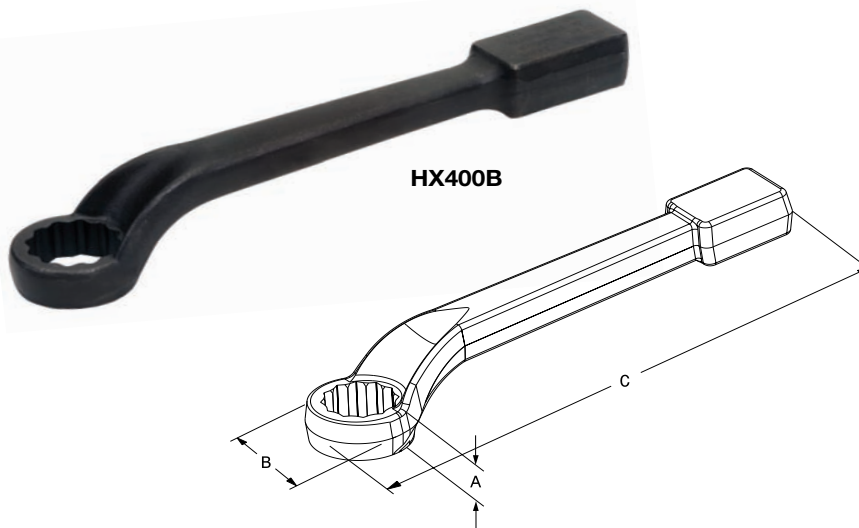
Open End Tubular Wrenches

Snap-on Part #	Description	Size	MM	A - Head Depth	B - Head Diameter	C - Overall Length	Suggested Handle		
							13B	24B	36B
OE128C	Open End - Tubular	7/8	-	1/2	1 15/16	10 1/2	•	•	
OE130C	Open End - Tubular	15/16	-	1/2	1 15/16	10 1/2	•	•	
OE132C	Open End - Tubular	1	-	9/16	2 5/16	11 5/16	•	•	
OE134C	Open End - Tubular	1 1/16	27	9/16	2 5/16	11 5/16	•	•	
OE136C	Open End - Tubular	1 1/8	-	9/16	2 5/16	11 1/4	•	•	
OE140C	Open End - Tubular	1 1/4	32	5/8	2 3/4	12 5/16	•	•	
OE142C	Open End - Tubular	1 5/16	33	5/8	2 3/4	12 5/16	•	•	
OE144B	Open End - Tubular	1 3/8	35	5/8	2 3/4	12 1/4	•	•	
OE146C	Open End - Tubular	1 7/16	36	11/16	3 1/8	13 1/4	•	•	
OE148C	Open End - Tubular	1 1/2	38	11/16	3 1/8	13 5/16	•	•	

Contact your Snap-on Industrial Representative for more information, or call our Customer Service Center at (877) 740-1900

TUBULAR HANDLE

Offset Striking Wrenches



Flank Drive® Offset Sledge Hammer 12

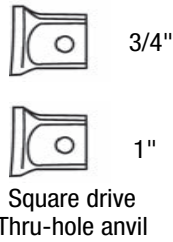
Snap-on Part #	Description	Size	MM	A - Head Depth	B - Head Diameter	C - Overall Length
HX340A	Offset - Striking Wrench	1 1/16	27	11/16	1 5/8	10
HX360A	Offset - Striking Wrench	1 1/8	—	3/4	1 15/16	11
HX380A	Offset - Striking Wrench	1 3/16	30	3/4	1 15/16	11
HX400B	Offset - Striking Wrench	1 1/4	32	3/4	1 15/16	11
HX420A	Offset - Striking Wrench	1 5/16	33	3/4	1 15/16	11
HX440A	Offset - Striking Wrench	1 3/8	35	7/8	2 1/8	11 1/2
HX460A	Offset - Striking Wrench	1 7/16	36	7/8	2 1/8	11 1/2
HX480A	Offset - Striking Wrench	1 1/2	38	1	2 7/16	12
HX520A	Offset - Striking Wrench	1 5/8	41	1	2 7/16	12
HX540A	Offset - Striking Wrench	1 11/16	43	1 1/8	2 5/8	12 1/2
HX560A	Offset - Striking Wrench	1 3/4	44	1 1/8	2 5/8	12 1/2
HX580A	Offset - Striking Wrench	1 13/16	46	1 1/8	2 5/8	12 1/2
HX600A	Offset - Striking Wrench	1 7/8	47	1 1/4	2 7/8	13
HX620A	Offset - Striking Wrench	1 15/16	49	1 1/4	2 7/8	13
HXM50	Offset - Striking Wrench	—	50	1 1/4	2 7/8	13
HX640A	Offset - Striking Wrench	2	51	1 1/4	2 7/8	13
HX680A	Offset - Striking Wrench	2 1/8	—	1 3/8	3 1/4	13 9/16
HX700A	Offset - Striking Wrench	2 3/16	55	1 3/8	3 1/4	13 9/16
HX720A	Offset - Striking Wrench	2 1/4	57	1 3/8	3 1/4	13 9/16
HX740A	Offset - Striking Wrench	2 5/16	59	1 3/8	3 1/4	13 9/16
HX760A	Offset - Striking Wrench	2 3/8	60	1 1/2	3 5/8	14 1/8
HX800A	Offset - Striking Wrench	2 1/2	64	1 1/2	3 5/8	14 1/8
HX820A	Offset - Striking Wrench	2 9/16	65	1 1/2	3 5/8	14 1/8
HX840A	Offset - Striking Wrench	2 5/8	67	1 5/8	3 15/16	15
HX880A	Offset - Striking Wrench	2 3/4	70	1 5/8	3 15/16	15
HX920A	Offset - Striking Wrench	2 7/8	73	1 3/4	4 7/16	16
HX940A	Offset - Striking Wrench	2 15/16	75	1 3/4	4 7/16	16
HX960A	Offset - Striking Wrench	3	76	1 3/4	4 7/16	16
HX1000A	Offset - Striking Wrench	3 1/8	80	1 3/4	4 7/16	16
HX1080A	Offset - Striking Wrench	3 3/8	85	2	6 1/4	18 1/4
HX1120A	Offset - Striking Wrench	3 1/2	89	2	6 1/4	18 1/4
HX1200A	Offset - Striking Wrench	3 3/4	95	2	6 1/4	18 1/4
HX1240A	Offset - Striking Wrench	3 7/8	98	2	6 1/4	18 1/4
HX1320A	Offset - Striking Wrench	4 1/8	105	2	6 1/4	18 1/4
HX1360A	Offset - Striking Wrench	4 1/4	108	2	6 1/4	18 1/4



• Read safety precautions on pages 586 to 589



Industrial-Duty Impact Wrenches



Thru-hole anvil for maximum socket security



Sioux Industrial-Duty Pistol Grip Impact Wrenches

- Thru-Hole Anvil for positive socket retention
- Three piece housing construction for ease of maintenance
- Two jaw impact mechanism
- Aluminum handle with steel hammer case
- Suspension bail included
- Down handle exhaust directs air away from the operator
- Conveniently located reverse

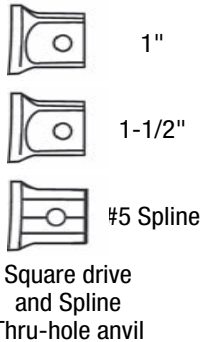


Stock Number	Drive Size		Bolt Cap. Grade 5		Working Torque Range ¹		Maximum Torque		Blows Per Minute	Free Speed rpm	Weight		Length		Side To Center		Avg Air Consumption	
	in.	mm	in.	mm	ft lb	Nm	ft lb	Nm			lb	kg	in.	mm	in.	mm	cfm	l/s
IW75BP-6H	3/4	19	3/4	19	800	1085	1000	1356	1000	5700	11.6	5.3	7.6	193	1.75	45	15	7
IW75BP-8H	1	25	3/4	19	825	1119	1100	1492	1000	5700	11.7	5.3	7.6	193	1.75	45	15	7

¹Maximum working torque determined by 5-second rundown on appropriate Skidmore-Wilhelm Torque-Tension Tester



IW100HAI-8H



Sioux Industrial-Duty D-Handle Impact Wrenches

- Thru-Hole Anvil for positive socket retention
- 3 piece housing construction for ease of maintenance
- Thru-Hole Anvil for positive socket retention
- Aluminum housing with steel hammer case
- Available with inside or outside trigger
- Conveniently located reverse
- Front exhaust directs air away from the operator
- Side handle included
- Available with 1", 1 1/2" and #5 spline anvils and 6" extended anvils



Description	Stock Number	Drive Size		Bolt Cap. Grade 5		Working Torque Range ¹		Maximum Torque		Blows Per Minute	Free Speed rpm	Weight		Length		Side To Center		Avg Air Consumption			
		in.	mm	in.	mm	ft lb	Nm	ft lb	Nm			lb	kg	in.	mm	in.	mm	cfm	l/s		
Inside Trigger	IW100HAI-8H	1	25	1 3/8	35	1600	2170	2000	2710	850	5000	22.0	10.0	12.4	315	2	51	38	18		
	IW100HAI-5S	#5 Spline																			
	IW150HAI-12H	1 1/2	38	2	50	2500	3390	3000	4070			650	3750	33.1	15.0	14.5	368	2.5	65	60	28
	IW150HAI-5S	#5 Spline																			
Inside Trigger - with 6" Extended Anvil	IW100HAI-8H6	1	25	1 3/8	35	1600	2170	2000	2710	850	5000	26.2	11.8	18.4	467	2	51	38	18		
	IW100HAI-5S6	#5 Spline																			
Outside Trigger	IW100HA0-8H	1	25	1 3/8	35	1600	2170	2000	2710	850	5000	22.0	10.0	12.4	315	2	51	38	18		
	IW100HA0-5S	#5 Spline																			
	IW150HA0-12H	1 1/2	38	2	50	2500	3390	3000	4070			650	3750	33.1	15.0	14.5	368	2.5	65	60	28
	IW150HA0-5S	#5 Spline																			
Outside Trigger - with 6" Extended Anvil	IW100HA0-8H6	1	25	1 3/8	35	1600	2170	2000	2710	850	5000	26.2	11.8	18.4	467	2	51	38	18		
	IW100HA0-5S6	#5 Spline																			

¹Maximum working torque determined by 5-second rundown on appropriate Skidmore-Wilhelm Torque-Tension Tester

Lightweight Hydraulic Punch

Hydraulic Punches & Sets

- Much Faster than Drilling
- 35 tons capacity
- .50" mild steel maximum thickness
- Punches hole sizes 0.31 to 0.81 inch
- Round, oblong and square punches and dies are available to solve your punching applications
- Long life Enerpac single-acting, spring return design
- Durable steel case keeps tools and dies together and provides for easy carrying and storage
- CR-400 female coupler and SPK-10 tool kit included
- May be ordered by itself or as a complete ready-to-use set that includes a pump and hose
- Punch oil capacity: 4.58 in3



ENEMSP351

Stock Number	Description	Punch & Die Set	Pump	Pump Type	Hose	Weight (lbs)
ENESP35	Hydraulic Punch Only	—	—	—	—	35
ENESP35S	Hydraulic Punch with Punch & Die Set	Standard**	—	—	—	40
ENESP35SP	Complete Hydraulic Punch with Punch & Die Set and Pump & Hose	Standard**	ENEPUD1100B	Electric	HC-7206	70
ENEMSP351	Hydraulic Punch with Punch & Die Set	Metric***	—	—	—	40
ENESTP35H	Complete Hydraulic Punch with Punch & Die Set and Pump & Hose	Standard**	ENEP392	Hand	HC-7206	55
ENESTP35A	Complete Hydraulic Punch with Punch & Die Set and Pump & Hose	Standard**	ENEPATG1102N	Air Operated	HC-7206	63

Includes the following punch and die sets:

** SPD-438, SPD-688, SPD-563 and SPD-813 - Standard Punch & Die Set

*** SPD-375, SPD-531, SPD-438 and SPD-688 - Metric Punch & Die Set

Punch & Die Set Selection Chart

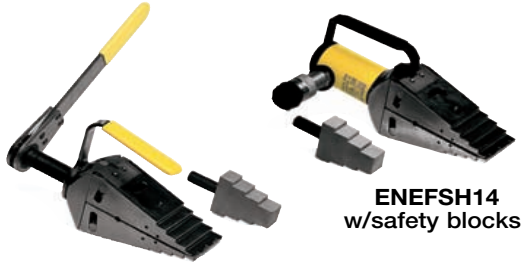
Maximum Allowable Material Thickness To Be Punched																
Punch & Die Set Stock Number	Hole Shape	Imperial* Hole Size (in)	Imperial* Bolt Size (in)	Metric* Hole Size (mm)	Metric* Bolt Size (mm)	Steel Qualities (see chart below) ++										
						1 (in)	2 (in)	3 (in)	4 (in)	5 (in)	6 (in)	7 (in)	8 (in)	9 (in)	10 (in)	11 (in)
ENESPD313	Round	0.31	1/4	7,9	-	0.31	0.31	0.25	0.25	0.25	0.25	0.13	0.19	0.25	0.25	0.25
ENESPD375	Round	0.38	5/16	9,5	M8	0.38	0.38	0.31	0.31	0.31	0.31	0.19	0.25	0.31	0.31	0.31
ENESPD438	Round	0.44	3/8	11,1	M10	0.44	0.44	0.38	0.38	0.38	0.31	0.19	0.31	0.31	0.31	0.31
ENESPD531	Round	0.53	7/16	13,5	M12	0.5	0.5	0.44	0.44	0.44	0.38	0.25	0.31	0.38	0.38	0.38
ENESPD563	Round	0.56	1/2	14,3	-	0.5	0.5	0.5	0.44	0.5	0.44	0.25	0.38	0.44	0.44	0.44
ENESPD688	Round	0.69	5/8	17,5	M16	0.5	0.5	0.5	0.44	0.5	0.4	0.25	0.31	0.4	0.4	0.4
ENESPD781	Round	0.78	-	19,8	M18	0.5	0.5	0.5	0.44	0.5	0.38	0.25	0.31	0.38	0.39	0.38
ENESPD813	Round	0.81	3/4	20,6	-	0.5	0.5	0.5	0.44	0.5	0.31	0.19	0.31	0.31	0.31	0.31
ENESPD458	Square	0.31	1/4	7,9	-	0.31	0.31	0.25	0.25	0.25	0.25	0.13	0.19	0.25	0.25	0.25
ENESPD549	Square	0.38	5/16	9,5	M8	0.38	0.38	0.31	0.31	0.31	0.31	0.19	0.25	0.31	0.31	0.31
ENESPD639	Square	0.44	3/8	11,1	M10	0.44	0.44	0.38	0.38	0.38	0.31	0.19	0.31	0.31	0.31	0.31
ENESPD728	Square	0.5	7/16	12,7	M12	0.5	0.5	0.44	0.44	0.44	0.38	0.25	0.31	0.38	0.38	0.34
ENESPD106	Oblong	.31 x .75	1/4	7,9 x 19	-	0.31	0.31	0.25	0.25	0.25	0.25	0.13	0.19	0.25	0.25	0.25
ENESPD125	Oblong	.38 x .75	5/16	9,5 x 19	M8	0.38	0.38	0.31	0.31	0.31	0.31	0.19	0.25	0.31	0.31	0.31
ENESPD188	Oblong	.44 x .75	3/8	11,1 x 19	M10	0.44	0.44	0.38	0.38	0.38	0.31	0.19	0.31	0.31	0.31	0.31
ENESPD250	Oblong	.50 x .75	7/16	12,7 x 19	M12	0.5	0.5	0.44	0.44	0.44	0.38	0.25	0.31	0.38	0.38	0.38

++ Steel Qualities			
1	Mild A-7	7	Hot Rolled C-1095
2	Boiler Plate	8	Hot Rolled C-1095 Annealed
3	Structural A-36	9	Stainless Annealed
4	Struct Corten (ASTM A242)	10	Stainless 304 Hot Rolled
5	Cold Rolled C-1018	11	Stainless 316 Cold Rolled
6	Hot Rolled C-150		

- Thickness chart is for reference only! Maximum allowable material thickness to be punched varies with tool wear
- Material thickness should not exceed hole diameter



• Read safety precautions on pages 586 to 589



ENEFSH14
w/safety blocks

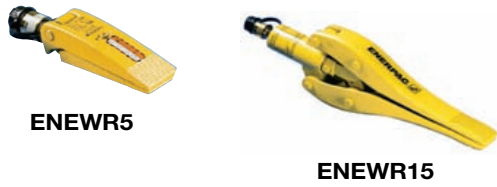
ENEFSM8
w/safety blocks

Hydraulic & Mechanical Industrial Spreaders

- For maintenance, commissioning, shutdowns, testing and valve change outs
- For disassembling and assembling flange joints safely & efficiently
- Safety blocks included with **ENEFSH14** and **ENEFSM8**
- **ENEFSB1** safety blocks sold separately in pairs

Stock Number	Maximum Spreading Force (ton)	Tip Clearance	Maximum Spread* in (mm)	Type	Weight (lbs.)
ENEFSH14	14	.24 in (6mm)	3.16 (81)	Hydraulic	15.7
ENEFSM8	8	.24 in (6mm)	3.16 (81)	Mechanical	14.3

* Using stepped blocks ENEFSB1



ENEWR5

ENEWR15

Hydraulic Spreader Cylinders

- **ENEWR5** for use in very confined work areas
- **ENEWR15** for long stroke spreading applications

Stock Number	Cylinder Capacity (tons)	Tip Clearance (in)	Length (in)	Oil Capacity (in3)	Stroke (in)	Weight (lbs.)
ENEWR5	1.00	.38	8.78	.61	3.70	5.0
ENEWR15	.75	1.26	21.65	3.91	11.50	25.0

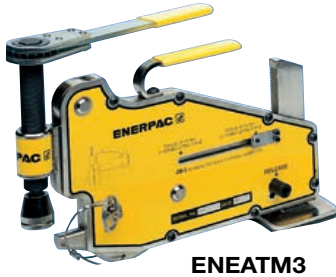


ENEFS56

Hydraulic Flange Spreaders

- Adjustable jaw widths from 2.75" to 8.5" for a wide range of application
- Lightweight, ergonomic design for ease of use
- Single-acting, spring return Enerpac RC cylinders for fast trouble-free operation

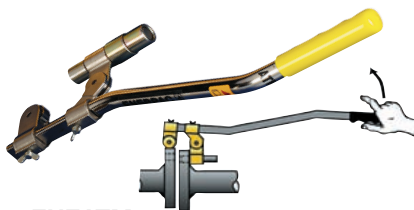
Stock Number	Maximum Flange Thickness (in)	Stud Size (in)	Standard Wedge (in)	Capacity (tons)	Stroke (in)	Oil Capacity (in3)	Weight (lbs.)
ENEFS56	2 x 2.25	.75 - 1.13	.13 - 1.13	5	1.5	1.5	2.0
ENEFS109	2 x 3.63	1.25 - 1.63	.13 - 1.13	10	2.13	4.8	9.1



ENEATM3

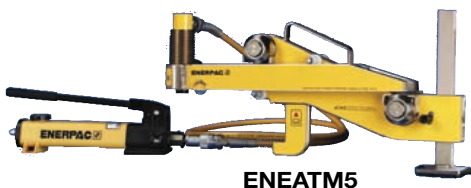
Hydraulic & Mechanical Flange Alignment Tools

- Rectifies twist and rotational misalignment without additional stress in pipe lines
- For most commonly used ANSI, API, BS and DIN flanges
- No slings, hooks, or lifting gear. Extremely safe, high precision
- ATM-1 supplied with three bushings for different bolt hole sizes. Can be used in reversed position
- ATM-3 fits when flange joint is between 1.18 - 5.23" apart and bolt hole size is 0.95" or greater
- ATM-5 fits when flange joint is between 3.75 - 9" apart and bolt hole size is 1.25" or greater



ENEATM1

Stock Number	Type	Maximum Lifting Force (ton)	Bolt Hole Range		Flange Wall Thickness		Weight (lbs.)
			(in)	(mm)	(in)	(mm)	
ENEATM1	Mechanical	0.3	1 ¹ / ₁₆ - 1 ¹ / ₈	17 - 27,2	1 ¹ / ₁₆ - 2	17 - 50	4.4
ENEATM3	Mechanical	3.3	1 - 2 ¹ / ₈	25 - 54	1 ³ / ₁₆ - 4 ¹ / ₂	30 - 115	21.4
ENEATM5	Hydraulic	5.5	= or > 1 ¹ / ₄	= or > 31,5	3 ¹ / ₈ - 8	80 - 203	35.7



ENEATM5



Two ENEFSH14 spreaders used simultaneously with Enerpac handpump & hoses.



Flange alignment with ENEATM1

Hydraulic Nut Splitters

- Heavy-duty chisels can be reground
- Applications include servicing trucks, piping industry, tank cleaning, railroad, petrochemical, steel construction, mining, etc. Does not damage stud of bolt. (Not for use on square nuts)
- Nut splitters include a spare chisel, a spare set screw, and the wrench used to secure the chisel
- Maximum allowable hardness of nuts to split is HRC44

Stock Number	Bolt Range (in)	Hexagon Nut Range (in)	Capacity (ton)	Oil Capacity (in3)	Weight (lbs)	Replacement Blades Stock Number
ENENC1319	.31-.50	.50-.75	5	.92	1.8	ENENCB1319
ENENC1924	.50-.63	.75-.94	10	1.22	4.4	ENENCB1924
ENENC2432	.63-.88	.94-1.13	15	3.66	6.6	ENENCB2432
ENENC3241	.88-1.13	1.13-1.56	20	4.88	9.7	ENENCB3241
ENENC4150	1.13-1.38	1.56-2.00	35	9.46	18	ENENCB4150
ENENC5060	1.38-1.50	2.00-2.25	50	14.64	26	ENENCB5060
ENENC6075	1.50-1.88	2.38-2.88	90	30.00	75.1	ENENCB6075



ENENC2432



Easily removing rusty nuts during railroad construction is just one of many application examples for the Enerpac Nut Splitter.

Hydraulic Cutterheads

- Single acting, spring return on all models, except WHR-1250
- Guillotine action for efficient operation
- Lifting handles on larger models
- Carrying bag included for easy carrying and tool protection
- Ideal for use with most Enerpac pumps featuring 3-way valve or dump valve and 10,000 psi pressure rating (except WHR-1250, which requires 4-way valve)
- CR-400 coupler and dust cap included on all models
- Selection chart provides cutting capacity for each tool

Type	Stock Number	Capacity (ton)	Oil Capacity (in3)	Length (in)	Steel Wire Rope, Hempcore or IWRC 6x7, 6x12 or 6x19	Round Bar				Wire Strand			Cable		Wt. (lbs)	Replacement Blades Stock Number	
						Copper Wire or Bar	Alum. Wire or Bar	Soft Steel Bolts	Reinforcing Bar	Bare Copper Wire Strands	Bare Alum. Wire Strands 6x7	ACSR Wire Strands	Guy Steel Wire Strands 1x7 1x19	Telephone Cable CPP			Underground Cable (Power)
Single-Acting Hydraulic Cutterheads with Spring Return	ENEWHC750	4	1.20	5.00	0.63	0.75	0.75	0.75	.50***	0.75	.75	0.75	0.63	##	##	7	ENEWCB750
	ENEWHC1250	20	8.20	11.00	1.25	1.13	1.25	1.13	1.00	1.25	1.25	1.25	0.88	##	##	25	ENEWCB1250
	ENEWHC2000	13	7.30	15.00	1.00	1.25	1.25	0.88	##	2.00	2.00	2.00	0.75	##	2.00	23	ENEWCB2000
	ENEWHC3380	3	4.00	19.00	##	##	##	##	##	1.63	1.69	##	##	3.38	3.38	20	ENEWCB3380
	ENEWHC4000	8	8.40	24.00	##	##	##	##	##	##	##	##	##	4.00	4.00	32	ENEWCB4000
Double-Acting Hydraulic Cutterhead	ENEWHR1250	20	7.50	16.50	1.25	1.25	1.25	1.13	1.00	1.25	1.25	1.25	0.88	##	##	26	ENEWCB1250

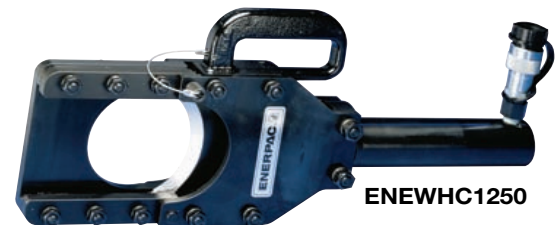
Will not cut designated material

*** Low alloy material

Hydraulic Cutterhead Sets

- Everything needed to start the job immediately
- Sets include cutterhead, pump, and hose
- Foot pump frees hands for versatility

Stock Number	Pump Type	Cutter Stock Number	Pump Stock Number
ENESTC750H	Hand Pump	ENEWHC750	ENEP392
ENESTC750A	Air Operated Pump	ENEWHC750	ENEPATG1102N
ENESTC1250H	Hand Pump	ENEWHC1250	ENEP392
ENESTC1250A	Air Operated Pump	ENEWHC1250	ENEPATG1102N
ENESTC750FP	Foot Pump	ENEWHC750	ENEP392FP
ENESTC1250FP	Foot Pump	ENEWHC1250	ENEP392FP



ENEWHC1250



ENEWHC750



• Read safety precautions on pages 586 to 589


Self-Contained Hydraulic Cutters


- Self-contained cutters contain built-in hydraulic pumps to achieve maximum convenience and portability
- Rotating heads for operator convenience
- Guillotine action (except WMC-1000) for efficient operation
- Carrying bag included for easy carrying and tool protection
- Velcro straps to secure handles on larger models for easy transportation
- Spring return on all models
- Lightweight, self-contained tool, can be used anywhere
- Selection chart provides cutting capacity for each tool




Stock Number	Capacity (ton)	Length (in)	Steel Wire Rope, Hempcore or IWRC 6x7, 6x12 or 6x19	Round Bar				Wire Strand					Cable		Weight (lbs)	Replacement Blades Stock Number
				Copper Wire or Bar	Alum. Wire or Bar	Soft Steel Bolts	Reinforcing Bar	Bare Copper Wire Strands	Bare Alum. Wire Strands 6x7	ACSR Wire Strands	Guy Steel Wire Strands 1x7	Guy Steel Wire Strands 1x19	Telephone Cable CPP	Underground Cable (Power)		
ENEWMC580	4	15.00	.63	.63	.63	.63	.38	.63	.63	.63	.56	.56	##	.63	8	ENEWCB750
ENEWMC750	4	15.00	.63	.69	.69	.69	.50***	.75	.75	.75	.56	.56	##	.68	8	ENEWCB750
ENEWMC1000*	20	26.75	##	.75	.75	.75	.75	##	##	##	##	##	##	##	25	ENEWCB1000
ENEWMC1250	20	26.75	1.25	1.13	1.25	1.25	.88	1.25	1.25	1.25	.88	1.00	##	##	23	ENEWCB1250
ENEWMC1580	6	22.00	.75	.75	.75	.75	##	1.50	1.63	1.63	.63	.63	33	1.63	15	ENEWCB1580
ENEWMC2000	13	24.75	1.00	1.25	1.25	.88	##	2.00	2.00	2.00	.75	.75	##	2.00	24	ENEWCB2000
ENEWMC3380	3	26.00	##	##	##	##	##	1.83	1.69	##	##	##	3.37	3.38	22	ENEWCB3380

* ENEWMC1000 cuts .50" alloy chain grade 70 (type G7 transport or tie-down or grade 80 (for overhead lifting applications)
Will not cut designated material
*** Low alloy material





In addition to the Heavy-Duty Bolting products on these pages, Snap-on offers a broad selection of tools in our standard products pages. No one offers a more diverse assortment of unique, high-quality solutions than Snap-on Industrial.



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HAND TOOLS

QUALITY, INNOVATION AND PERFORMANCE ADD UP TO THE MOST PREFERRED HAND TOOLS.

For more than 90 years, professionals have reached for Snap-on® hand tools. The reason is simple. Snap-on tools reach where others won't, turn when others don't and perform over and over again for a lifetime.

Quality. From Start To Finish.

Snap-on hand tools are crafted from the highest quality materials and built to the most rigorous standards to ensure they exceed your daily use requirements.

- Born of special steel that boasts a higher alloy content than most, Snap-on produces a stronger, longer-lasting tool.
- Exacting processes during manufacture produce tools with stringent tolerances, to fit tight to the fastener.
- Snap-on's signature nickel-chrome finish provides corrosion resistance and keeps the tool shining and performing for years to come.

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Since 1920, Snap-on has taken the most basic of hand tools and made them more productive, more versatile and more comfortable to use.

- Innovation—Snap-on was the first with the Flank Drive® wrenching system. This allows the socket or box end wrench to grip fasteners on the flats instead of the corners, adding 15-20% more torque and preventing rounding off of fasteners.



HAND TOOLS

- **Patented**—Snap-on holds hundreds of hand tool patents. Recent innovations include PowerEdge™ Cutters and Talon Grip™ Pliers that allow cleaner cuts, more pulling power and increased durability— all with greater comfort and leverage.
- **Award winning**—Snap-on is a perennial award winner in the world of hand tools, including honors for the low profile ratchet and socket system, ratchets with Dual 80® Technology and variable length extensions.
- **Technology**—Snap-on uses the latest technology to design and manufacture its tools. One example is the patented TechAngle® Torque Wrench, which uses aircraft technology to provide the most accurate and fastest way to achieve the torque and angle tightening sequences.

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Snap-on® hand tools are unsurpassed when it comes to performing the job quickly and accurately.

- **Strength**—Whether it's the materials, the design or the processes, strength means open end jaws that don't spread, ratchets that don't slip and screwdrivers that stand up to the torque requirements of today.
- **Accessibility**—You can't do the job if you can't get to it. Snap-on hand tools give you the ability to access and, more importantly, perform work in the tightest quarters.
- **Versatility**—Snap-on's broad and deep hand tool line provides you with the right tool for the job.



RATCHETS

Designed To Last A Lifetime.

Snap-on® ratchets perform day after day, year after year, generation after generation.

- Highest quality materials—Each ratchet is built with our proprietary alloy steel and precision-crafted gears, springs and pawls.
- Sealed mechanism—Ratchet heads are 100% sealed to protect gears from debris and liquids that cut into the tool life of lesser ratchets.
- Tested under extreme conditions—Snap-on ratchets are put through rigorous testing to perform in the real world.

The Ultimate System.

Snap-on ratchets and sockets are synonymous with productivity. They get into the tightest spots—and work with the shortest swing arc.

- Lowest combined height—Combined with Snap-on sockets, our ratcheting systems have the lowest profile in the industry giving you better access to restricted areas.
- Dual 80® Technology—Dual pawls and an 80 tooth gear provide more power in less lateral space.
- Variety—Snap-on offers a wide range of ratchets including flex-head, long handle, swivel head, palm ratchets and more.





Dual 80 Technology Based Ratchets

Stop, Turn and Listen. A smoother, stronger ratchet.
Try them to believe them.

Based on Dual 80 Technology These Ratchets Feature:

- 72 tooth gear
- 7 teeth in contact with gear to provide strength and durability
- Ratchet Arc - Dual 80 Technology ratchet has up to 25% less ratcheting arc to engage the next gear tooth
- Sealed head keeps dirt and other contaminants out of the head mechanism



TF72



T72



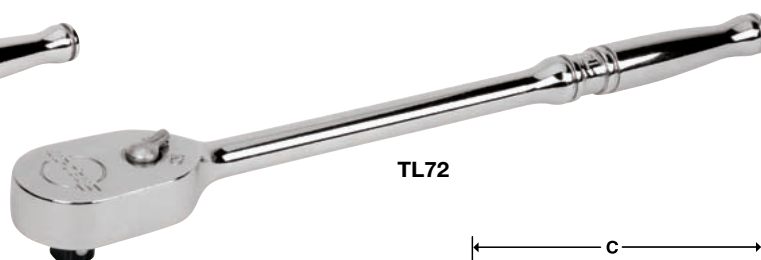
THLF72



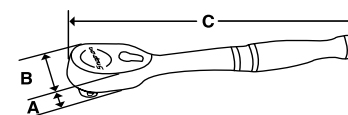
THL72



TX72



TL72



Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
T72	1/4	Standard Handle	72	5°	7/16	15/16	4 7/16	RKRT72
G72	1/4	Standard Handle, Industrial Finish	72	5°	7/16	15/16	4 7/16	RKRT72
THL72	1/4	Long Handle	72	5°	7/16	15/16	6 7/8	RKRT72
TL72	1/4	Long Handle	72	5°	7/16	15/16	6 1/2	RKRT72
TF72*	1/4	Long Flex Head	72	5°	7/16	15/16	6 1/4	RKRT72
THLF72*	1/4	Long Flex Head	72	5°	7/16	15/16	8 1/4	RKRT72
TX72**	1/4	Locking Flex Head	72	5°	7/16	15/16	6 1/4	RKRT72

ASME/ANSI B107-10M-2005

*Uses RKRT841JT Flex Joint Repair Kit.

**Uses RKRT841JT Flex Joint Repair Kit and RKRT841LM Locking Mechanism Repair Kit.

TH936-12 Soft Grip Replacement Handle.



WARNING



• Read safety precautions on pages 594 to 597

RATCHETS

3/8" Drive



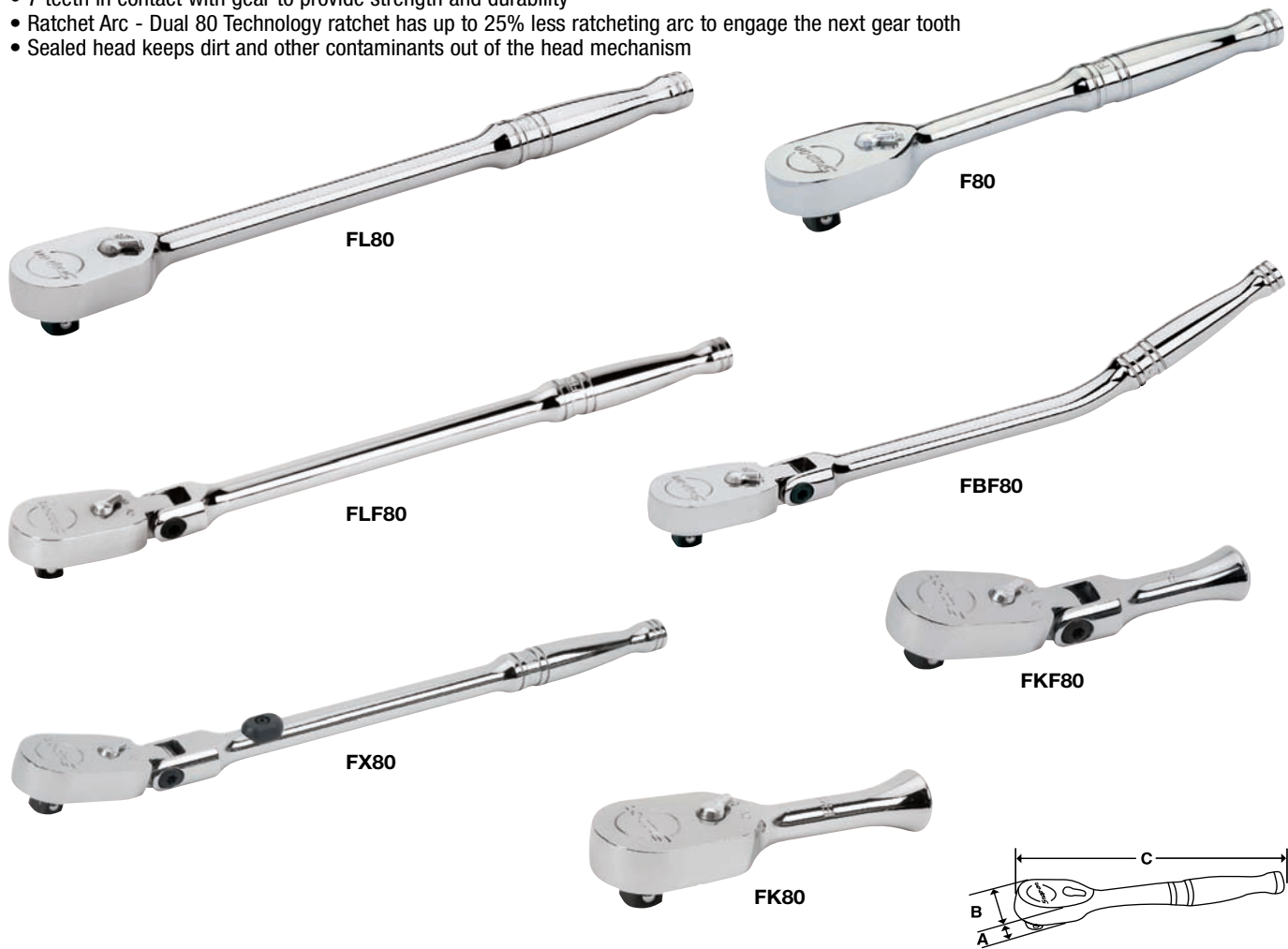
Dual 80 Technology Ratchets

Stop, Turn and Listen. A smoother, stronger ratchet.

Try them to believe them.

Dual 80 Technology Ratchet Features:

- 80 tooth gear
- 7 teeth in contact with gear to provide strength and durability
- Ratchet Arc - Dual 80 Technology ratchet has up to 25% less ratcheting arc to engage the next gear tooth
- Sealed head keeps dirt and other contaminants out of the head mechanism



Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
F80	3/8	Standard Handle	80	4.5°	9/16	1 1/4	7 7/16	RKRF80
FL80	3/8	Long Handle	80	4.5°	9/16	1 1/4	10 5/16	RKRF80
GF80	3/8	Standard Handle, Black Industrial	80	4.5°	9/16	1 1/4	7 7/16	RKRF80
FLF80*	3/8	Long Flex Head	80	4.5°	9/16	1 1/4	11 1/2	RKRF80
FBF80*	3/8	Bent Handle Flex Head	80	4.5°	9/16	1 1/4	11 1/4	RKRF80
FX80**	3/8	Locking Flex Head	80	4.5°	9/16	1 1/4	11 1/2	RKRF80
FKF80*	3/8	Stubby Flex Head	80	4.5°	9/16	1 1/4	4 3/4	RKRF80
FK80	3/8	Stubby Handle	80	4.5°	9/16	1 1/4	4 3/16	RKRF80

ASME/ANSI B107-10M-2005

*Uses RKRF841JT Flex Joint Repair Kit.

**Uses RKRF841JT Flex Joint Repair Kit and RKRFX936ALM Locking Mechanism Repair Kit.

RATCHETS

3/8" Drive



FH80



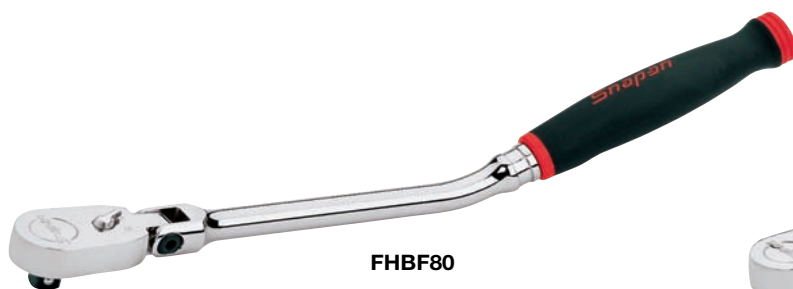
FHL80



FHF80



FHLF80



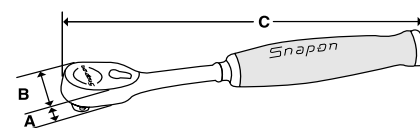
FHBF80



FHOF80



FHX80



Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
FH80	3/8	Standard Length	80	4.5°	9/16	1 1/4	9 9/16	RKRF80
FHL80	3/8	Long Handle	80	4.5°	9/16	1 1/4	12 7/16	RKRF80
FHF80*	3/8	Flex Head	80	4.5°	9/16	1 1/4	9 5/8	RKRF80
FHLF80*	3/8	Long Flex Head	80	4.5°	9/16	1 1/4	13 11/16	RKRF80
FHBF80*	3/8	Bent Handle Flex Head	80	4.5°	9/16	1 1/4	13 5/16	RKRF80
FHOF80*	3/8	Offset Flex Head	80	4.5°	9/16	1 1/4	9 15/16	RKRF80
FHX80**	3/8	Locking Flex Head	80	4.5°	9/16	1 1/4	11 15/16	RKRF80

ASME/ANSI B107-10M-2005

*Uses RKRF841JT Flex Joint Repair Kit.

**Uses RKRF841JT Flex Joint Repair Kit and RKRFX936LM Locking Mechanism Repair Kit.

FH936-12 Soft Grip Replacement Handle.



WARNING



• Read safety precautions on pages 594 to 597

RATCHETS

1/2" Drive



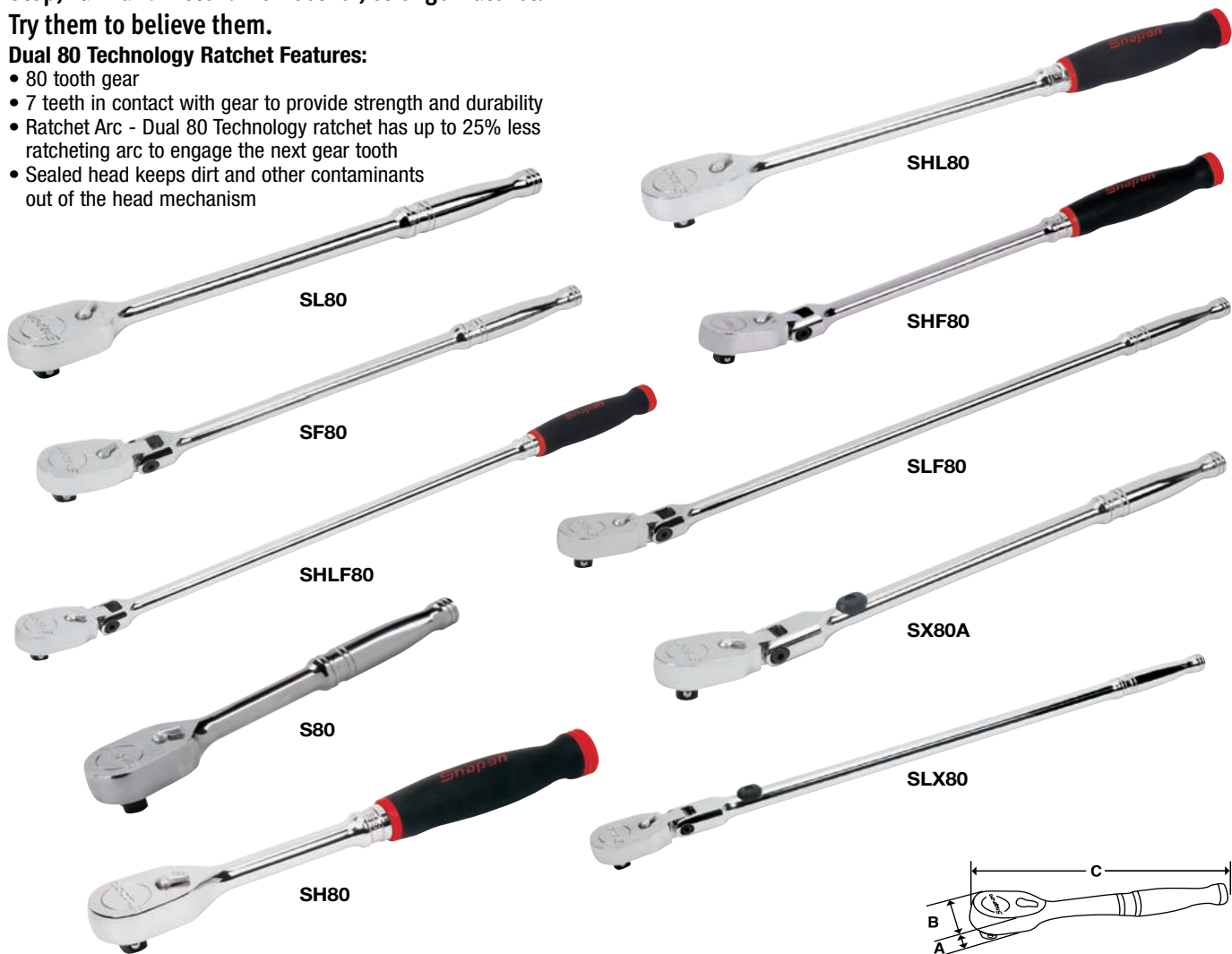
Dual 80 Technology Ratchets

Stop, Turn and Listen. A smoother, stronger ratchet.

Try them to believe them.

Dual 80 Technology Ratchet Features:

- 80 tooth gear
- 7 teeth in contact with gear to provide strength and durability
- Ratchet Arc - Dual 80 Technology ratchet has up to 25% less ratcheting arc to engage the next gear tooth
- Sealed head keeps dirt and other contaminants out of the head mechanism



Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
S80	1/2	Standard Handle	80	4.5°	3/4	1 5/8	10 5/16	RKRS80
GS80	1/2	Industrial Finish	80	4.5°	3/4	1 5/8	10 5/16	RKRS80
SH80	1/2	Standard Handle	80	4.5°	3/4	1 5/8	12	RKRS80
SL80	1/2	Long Handle	80	4.5°	3/4	1 5/8	15	RKRS80
SHL80	1/2	Long Handle	80	4.5°	3/4	1 5/8	16 5/8	RKRS80
SF80*	1/2	Flex Head	80	4.5°	3/4	1 5/8	17 11/16	RKRS80
SHF80*	1/2	Long Handle	80	4.5°	3/4	1 5/8	17 11/16	RKRS80
SLF80*	1/2	Long Flex Head	80	4.5°	3/4	1 5/8	24 13/16	RKRS80
SHLF80*	1/2	Long Flex Head	80	4.5°	3/4	1 5/8	25 3/4	RKRS80
SX80A*	1/2	Locking Flex Head	80	4.5°	3/4	1 5/8	17 5/8	RKRS80
SLX80**	1/2	Locking Flex Head	80	4.5°	3/4	1 5/8	24 13/16	RKRS80

ASME/ANSI B107-10M-2005

*Uses RKRSX936JT Flex Joint Repair Kit

**Uses RKRSX936JT Flex Joint Repair Kit and RKRSX936LM Locking Mechanism Repair Kit.

SH936-12 Soft Grip Replacement Handle.

RATCHETS

Round Head

Round Head

The Snap-on® Round Head features up to 100 teeth to achieve the lowest possible swing arc. Slim round head ratchets are perfect for the tightest of space constraints.



Round Head Ratchets

Feature a slim design plus a strong 39, 60, 72 or 100 tooth gear action for use in confined areas.

Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
TK860	1/4	Short Handle	60	6°	9/16	15/16	3 1/16	RKRT860
T860	1/4	Standard Handle	60	6°	7/16	15/16	4 1/2	RKRT860
THNF72*	1/4	Swivel Head	72	5°	7/16	1 1/4	6 7/8	RKRTHNF72
TMR860	1/4	Fingertip	60	6°	7/16	1 1/2	4 1/2	RKRT860
F872	3/8	Standard Handle	72	5°	11/16	1 1/4	7 7/16	RKRF872B
FHNF100**	3/8	Swivel Head	100	3.6°	11/16	1 3/4	12 1/2	RKRFHNF100
FHC737*	3/8	Compact Swivel Head	39	9°	7/16	1 1/4	6 7/8	RKRFHC737

ASME/ANSI B107-10M-2005

*TH936-12 Soft Grip Replacement Handle.

**FH936-12 Soft Grip Replacement Handle.

Specialty



Ratchet Features:

- Compact head design offers greater accessibility
- Swivel head ratchets provide a variety of ratcheting positions



Specialty

Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
SKF80	1/2	Stubby Handle	80	4.5°	3/4	1 5/8	7 9/16	RKRS80
FC72	3/8	Compact Head	72	5°	7/16	15/16	4 7/16	RKRF72
FCF72	3/8	Compact Flex Head	72	5°	7/16	15/16	6 1/4	RKRF72

ASME/ANSI B107-10M-2005



WARNING



• Read safety precautions on pages 594 to 597

RATCHETS

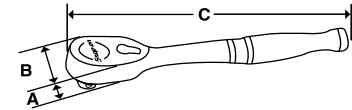
Quick Release



FR936



SR936



Quick Release

Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
FR936	3/8	Quick Release	36	10°	5/8	1 3/16	7 7/16	RKRF936
SR936	1/2	Quick Release	36	10°	3/4	1 5/8	10 5/16	RKRSR936

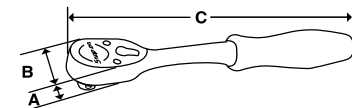
ASME/ANSI B107-10M-2005



BPR703



BPR703SG



Quick Release—Blue-Point®

- Quick release button for rapid socket/accessory changes, even with greasy or oily hands
- Contoured handle for comfort and control
- Chrome finish for easy cleanup

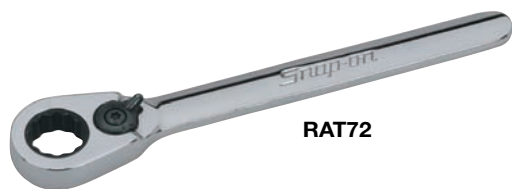
Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit		
BPRTR936	1/4	Standard Handle	36	10°	15/32	31/32	5 5/8	RKRBPRTR936	•	
BPRTR936SG	1/4	Soft Grip Handle	36	10°	15/32	31/32	5 5/8	RKRBPRTR936		•
BPRFR938	3/8	Standard Handle	38	9.5°	9/16	1 9/32	7 3/4	RKRBPRFR938	•	
BPRFR938SG	3/8	Soft Grip Handle	38	9.5°	9/16	1 9/32	7 3/4	RKRBPRFR938		•
BPRSR940	1/2	Standard Handle	40	9°	23/32	1 23/32	9 7/8	RKRBPRSR940	•	
BPRSR940SG	1/2	Soft Grip Handle	40	9°	23/32	1 23/32	9 7/8	RKRBPRSR940		•

Set Contains:
BPR703
BPR703SG

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RATCHETS

Low Profile



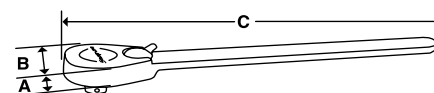
RAT72



RAF80

Low Profile

- Square drive design works with low profile sockets to access restricted clearance areas without loss of strength
- Use with standard 3/8" drive sockets or other attachments
- Thin handle cross section allows for increased accessibility in tight quarters
- Dual 80° Technology requires less arc to engage the next gear tooth
- 7 teeth in contact with gear to provide strength and durability
- See low profile sockets on p. 27



Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
RAT72	1/4	Low Profile	72	5°	3/8	15/16	4 7/8	—
RAF80	3/8	Low Profile	80	4.5°	7/16	1 1/4	7 1/2	RKRAF80

FOD (Foreign Object Damage)



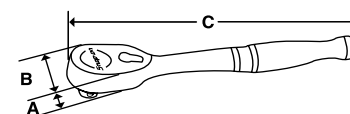
F936FOD



S936FOD

FOD (Foreign Object Damage)

- Designed to help prevent foreign object damage in sensitive work environments
- Coverplate and reverse lever permanently affixed to ratchet head with rivets to prevent chance of small parts debris



Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
T936FOD	1/4	Standard Handle	36	10°	3/8	1 7/32	4 7/16	—
F936FOD	3/8	Standard Handle	36	10°	5/8	1 3/16	7 7/16	—
S936FOD	1/2	Standard Handle	36	10°	3/4	1 5/8	17 5/8	—

Adaptors



TM77



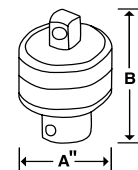
F77



S77A



L672B



Adaptors

Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	Repair Kit
TM77	1/4	Ratchet Adaptor	20	18°	15/16	1 5/8	—
F77	3/8	Ratchet Adaptor	20	18°	13/16	2 3/16	—
S77A	1/2	Ratchet Adaptor	20	18°	1 5/8	3	RKRS77
L672B	3/4	Ratchet Adaptor	44	8°	2 1/2	3 15/16	RKR881B

ASME/ANSI B107-10M-2005



WARNING



• Read safety precautions on pages 594 to 597

RATCHETS

Special Application



Special Application

Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
TFY936	1/4	HY-LOK® Ratchet	36	10°	7/16	7/8	6 1/4	—
FZ936A	3/8	Multi-Purpose	36	10°	5/8	1 3/16	3 1/4	RKRF936
PALMRAT	3/8	Palm Style	20	18°	1 3/16	—	2 5/8	RKRPALMRAT
SA936A	1/2	Scaffold	36	10°	4 3/16	1 5/8	10 5/16	RKRSA936
GSP936	1/2	Spud	36	10°	3/4	1 5/8	15 5/8	RKRGSP936-1

GSP936 Spud Ratchet. The “spud” ratchet is ideal for lining up holes in scaffolding and other construction jobs. A long reverse lever provides easy reversing while wearing heavy work gloves. Locking button retention. Taper diameter is 3/16"-7/8". Taper length is 8".

Spinners



Spinners

Stock No.	Square Drive, inches	Description	A	B	Set Contains:	Blue-Point®
TMS70A	1/4	Ratchet Spinner	1	7/8		•
FSDR	1/4 male to 1/4 female	Finger Ratchet	—	—		•
BLPSD14	1/4	Ratchet Spinner	—	27/32		
FRS70A	3/8	Ratchet Spinner	1 1/4	1 5/16		
FSDR1	3/8 male to 1/4 female	Finger Ratchet	—	—		•
FSD1	3/8 male to 3/8 female	Spinner Adaptor	—	—		•
FSD14	3/8 male to 1/4 female	Spinner Adaptor	—	—		•
FSD38	1/4 male to 3/8 female	Spinner Adaptor	—	—		•
LRS70A	1/2	Ratchet Spinner	1 3/4	1 5/8		

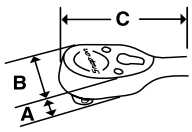
ASME/ANSI B107-10M-2005

FSDR1 Finger Ratchet. Reversible finger ratchet. Small size works great for extremely tight areas. Aluminum knurled outer ring for sure grip. 3/8" external square drive on one side and 1/4" internal square drive on other side.

FSDR Finger Ratchet. Reversible finger ratchet. Small size works great for extremely tight areas. Aluminum knurled outer ring for sure grip. 1/4" external square drive on one side and 1/4" internal hex drive on other side.

RATCHETS

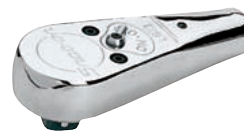
Heads & Handles



L872



GL872



L873



GL873

Heads

Stock No.	Drive Size	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
L872	3/4	Sealed	32	11°	1 1/4	2 1/2	5 15/16	RKRQC4
GL872	3/4	Sealed	32	11°	1 1/4	2 1/2	5 15/16	RKRQC4
L873	1	Sealed	30	12°	1 1/2	3 1/8	7 7/8	RKRQC5
GL873	1	Sealed	30	12°	1 1/2	3 1/8	7 7/8	RKRQC5



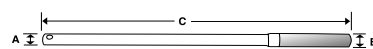
L872H



L872RM

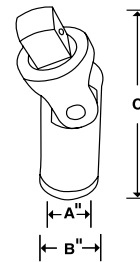


L872RJ



3/4" Heads

Stock No.	Description	A	B	C
L872H	Plain w/locking Button	13/16	15/16	19 1/4
L872RM	Knurled	15/16	1 1/8	36
L872RJ	Knurled	15/16	1 1/8	19 1/4



L8112A



L53HB



L853HA1

1" Handle/Handle Extension

Stock No.	A	C
L53HB	1 1/8	29
L853HA1	1 3/8	36

L53HB Handle.

- Plain handle with locking buttons at both ends
- Use on 1" drive ratchet heads, breaker bar heads and sliding T-heads

L853HA1 Handle Extension.

- Knurled grip extension handle attaches to L53HB handle for added leverage
- Only used with L53HB handle; L853HA1 will not connect directly to L873 ratchet head

1" Head and Handle Combinations

Stock No.	Description	Required Handle	Optional Handle Extension
L873	Ratchet Head	L53HB	L853HA1
L113H	Breaker Bar	L53HB	—
L53A	Sliding T-handle	L53HB	—

3/4" Head and Handle Combinations

	Heads using 13/16" (small) diameter handle holes	Heads using 15/16" (large) diameter handle holes	
	L52B Sliding-T	L872 Ratchet Head	L8112A Breaker Bar
Short 19 1/4" Handle (Lock Button Both Ends)	L872H	—	—
Short 19 1/4" Handle (Lock Button End/Knurled End)	—	L872RJ	L872RJ
Long 36" Handle (Lock Button End/Knurled End)	—	L872RM	L872RM



L113H

Breaker Bar/Breaker Bar Head

Drive Size	Handle w/Head	Length	Head Only	A	B	C	Handle Only
3/4	—	—	L8112A	15/16	1 9/16	3 11/16	—
1	L113H	32 13/16	L113	—	2 1/8	6 7/16	L53HB



WARNING



• Read safety precautions on pages 594 to 597

BREAKER BARS



TM10G



THBB10



F12LA



F10LC



SN25A



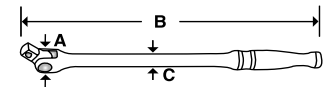
FHBB12



SN15B



SHBB24



Breaker Bars

	Stock No.	Square Drive, inches	Description	A	B	C	Repair Kit
Snap-on®	TM10G*	1/4	Standard Handle	5/8	6	5/16	RKBB1
	THBB10*	1/4	Comfort Handle	5/8	6 1/2	5/16	RKBB1
	F10LC*	3/8	Standard Handle	13/16	9 9/16	1/2	RKBB2
	F12LA*	3/8	Long Handle	13/16	11 9/16	1/2	RKBB2
	FHBB12*	3/8	Comfort Handle	13/16	13	1/2	RKBB2
	SN15B*	1/2	Standard Handle	1 1/8	15	11/16	RKBB3
	SN18B*	1/2	Standard Handle	1 1/8	18	11/16	RKBB3
	GSN18B*	1/2	Standard Handle, Industrial Finish	1 1/8	18	11/16	RKBB3
	SN24C*	1/2	Standard Handle	1 1/8	24	11/16	RKBB3
	SHBB24*	1/2	Comfort Handle	1 1/8	24	11/16	RKBB3
Blue-Point®	SN25A*	1/2	45° Offset Square	1 1/8	24	11/16	RKBB3
	BLPBB146	1/4	Standard Handle	—	6	—	—
	BLPBB3810	3/8	Standard Handle	—	9 31/32	—	—
	BLPBB1215	1/2	Standard Handle	—	15	—	—
	BLPBB1224	1/2	Telescoping Handle	—	12–24	—	—

*ASME/ANSI B107.10M-2005



BLPBB146



BLPBB3810



BLPBB1215



BLPBB1224

From Start To Finish, Strong, Powerful Sockets.

Snap-on® sockets are designed to fit and built to perform for a lifetime.

- Special alloy-steel—Made with proprietary high alloy content steel for a stronger, more durable tool.
- Thin wall design—Uniform wall thickness provides greater access and improved performance where you need it most.
- Broach depth—Snap-on sockets have a broach depth that allows rethreading a nut without removing it from the socket. Just another way Snap-on pays attention to the details.
- Flank Drive® wrenching system—Grabs fasteners on the flats, increasing torque and preventing fastener corners from rounding off.

Yes, We Have That.

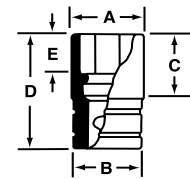
Snap-on offers a variety of socket options.

- Single and double hex
- Chrome deep, semi-deep and shallow
- Impact deep, semi-deep and shallow
- Low profile
- Swivel deep, semi-deep and shallow



SOCKETS

1/4" Drive Flank Drive®



Shallow, mm

mm	Set Contains:		112TMMY					111TMMY	
	6	12	A	B	C	D	E	6	12
4	TMM4*	—	6.7	12.1	13.3	22.2	4.6		
4.5	TMM4.5*	—	7.2	12.1	13.3	22.2	4.3		
5	TMM5*	TMMD5*	7.7	12.1	13.3	22.2	4.3	•	•
5.5	TMM5.5	TMMD5.5	8.3	12.1	13.3	22.2	4.6	•	•
6	TMM6	TMMD6	9.3	12.1	13.3	22.2	5.6	•	•
7	TMM7	TMMD7	10.5	12.1	13.3	22.2	6.1	•	•
8	TMM8	TMMD8	11.5	12.1	13.3	22.2	6.9	•	•
9	TMM9	TMMD9	12.7	12.1	13.3	22.2	7.4	•	•
10	TMM10	TMMD10	13.2	13.2	13.3	22.2	7.4	•	•
11	TMM11	TMMD11	15.2	14.6	13.3	22.2	9.4	•	•
12	TMM12	TMMD12	16.5	15.6	13.3	22.2	9.4	•	•
13	TMM13	TMMD13	17.6	16.7	13.3	22.2	9.4	•	•
14	TMM14	TMMD14	18.8	17.8	14.1	22.2	9.7	•	•
15	TMM15	—	20.4	19.4	14.1	23.0	9.1	•	
16	TMM16	—	21.0	20.2	16.1	25.0	10.2		

*Conventional hex

Sets shown include storage tray

Shallow, inches

In	Set Contains:		110TMY					111TMY	
	6	12	A	B	C	D	E	6	12
1/8	TM04	—	7/32	7/16	1/2	7/8	1/8		
5/32	TM05*	—	9/32	15/32	1/2	7/8	5/32		
3/16	TM6*	TMD6*	9/32	15/32	1/2	7/8	5/32	•	•
7/32	TM7*	TMD7*	11/32	15/32	1/2	7/8	3/16	•	•
1/4	TM8	TMD8	3/8	15/32	1/2	7/8	7/32	•	•
9/32	TM9	TMD9	13/32	15/32	1/2	7/8	1/4	•	•
5/16	TM10	TMD10	15/32	15/32	1/2	7/8	9/32	•	•
11/32	TM11	TMD11	1/2	15/32	5/16	7/8	9/32	•	•
3/8	TM12	TMD12	17/32	1/2	1/2	7/8	9/32	•	•
7/16	TM14	TMD14	19/32	9/16	1/2	7/8	3/8	•	•
1/2	TM16	TMD16	11/16	21/32	1/2	7/8	3/8	•	•
9/16	TM18	TMD18	25/32	23/32	1/2	29/32	3/8	•	•
5/8	TM20	—	27/32	25/32	19/32	31/32	13/32		

*Conventional hex

Sets shown include storage tray

120STTM 6-Point Shallow/Deep Set.

- TM6 thru TM18 shallow sockets (pg. 18) and STM6 thru STM18 deep sockets (pg. 19)
- (20 pcs) (3/16" to 9/16")



Semi Deep, mm

mm	Set Contains:		112TMMSY					111TMMSY	
	6	12	A	B	C	D	E	6	12
5	TMMS5*	TMMS5.5*	7.7	12.1	22.9	31.8	5.1	•	•
5.5	TMMS5.5*	TMMS5.5	8.3	12.1	22.9	31.8	5.3	•	•
6	TMMS6	TMMS6	9.3	12.1	22.9	31.8	5.8	•	•
7	TMMS7	TMMS7	10.5	12.1	22.9	31.8	6.1	•	•
8	TMMS8	TMMS8	11.5	12.1	18.4	31.8	6.9	•	•
9	TMMS9	TMMS9	12.7	12.1	18.4	31.8	7.4	•	•
10	TMMS10	TMMS10	14.0	13.2	18.4	31.8	7.4	•	•
11	TMMS11	TMMS11	15.4	14.6	18.4	31.8	9.4	•	•
12	TMMS12	TMMS12	16.5	15.6	18.4	31.8	9.4	•	•
13	TMMS13	TMMS13	17.6	16.7	18.4	31.8	9.4	•	•
14	TMMS14	TMMS14	18.8	17.8	18.4	31.8	9.7	•	•
15	TMMS15	TMMS15	20.4	19.4	18.4	31.8	9.7	•	•

*Conventional hex

Sets shown include storage tray

Semi Deep, inches

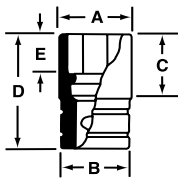
In	Set Contains:		110TMSY					111TMSY	
	6	12	A	B	C	D	E	6	12
3/16	TMS6*	TMS6*	5/16	15/32	29/32	1 1/4	7/32	•	•
7/32	TMS7*	TMS7*	11/32	15/32	29/32	1 1/4	7/32	•	•
1/4	TMS8	TMS8	3/8	15/32	29/32	1 1/4	1/4	•	•
9/32	TMS9	TMS9	13/32	15/32	23/32	1 1/4	1/4	•	•
5/16	TMS10	TMS10	15/32	15/32	23/32	1 1/4	9/32	•	•
11/32	TMS11	TMS11	1/2	15/32	23/32	1 1/4	5/16	•	•
3/8	TMS12	TMS12	9/16	1/2	23/32	1 1/4	5/16	•	•
7/16	TMS14	TMS14	5/8	19/32	23/32	1 1/4	3/8	•	•
1/2	TMS16	TMS16	11/16	21/32	23/32	1 1/4	3/8	•	•
9/16	TMS18	TMS18	3/4	23/32	23/32	1 1/4	3/8	•	•

*Conventional hex

Sets shown include storage tray

SOCKETS

1/4" Drive Flank Drive®



112STMMY



STMMD14



110STMY



STMD16 GSTMD14

Deep, mm

mm	Set Contains:		112STMMY					111STMMY	
	6	12	A	B	C	D	E	6	12
4	STMM4*	—	6.7	12.1	42.2	50.8	4.6		
4.5	STMM4.5*	—	7.2	12.1	42.2	50.8	4.6		
5	STMM5*	STMMD5*	7.7	12.1	42.2	50.8	5.1	•	•
5.5	STMM5.5	STMMD5.5	8.3	12.1	42.2	50.8	5.3	•	•
6	STMM6	STMMD6	9.3	12.1	42.2	50.8	5.8	•	•
7	STMM7	STMMD7	10.5	12.1	42.2	50.8	6.1	•	•
8	STMM8	STMMD8	11.5	12.1	42.2	50.8	6.9	•	•
9	STMM9	STMMD9	12.7	12.1	38.1	50.8	7.4	•	•
10	STMM10	STMMD10	14.0	13.2	38.1	50.8	7.4	•	•
11	STMM11	STMMD11	15.2	14.6	38.1	50.8	9.4	•	•
12	STMM12	STMMD12	16.5	15.6	38.1	50.8	9.4	•	•
13	STMM13	STMMD13	17.6	16.7	38.1	50.8	9.4	•	•
14	STMM14	STMMD14	18.8	17.8	38.1	50.8	9.7	•	•
15	STMM15	—	20.4	19.4	38.1	50.8	9.1	•	•

*Conventional hex

Sets shown include storage tray

124STTMM Metric 6-Point Shallow/Deep Set.

- TMM4 thru TMM14 shallow sockets (except TMM4.5) (pg. 18) plus STMM4 thru STMM14 Deep Sockets (except STMM4.5) (pg. 19)
- (24 pcs)
- (4.5 to 14mm)

Deep, inches

In	Set Contains:		110STMY					111STMY	
	6	12	A	B	C	D	E	6	12
1/8	STM04*	—	7/32	7/16	1 21/32	2	1/8		
5/32	STM05*	—	1/4	15/32	1 21/32	2	3/16		
3/16	STM6*	STMD6*	5/16	15/32	1 21/32	2	3/16	•	•
7/32	STM7*	STMD7*	11/32	15/32	1 21/32	2	7/32	•	•
1/4	STM8	STMD8	3/8	15/32	1 21/32	2	7/32	•	•
9/32	STM9	STMD9	13/32	15/32	1 21/32	2	1/4	•	•
5/16	STM10	STMD10	15/32	15/32	1 21/32	2	7/32	•	•
11/32	STM11	STMD11	1/2	15/32	1 21/32	2	9/32	•	•
3/8	STM12	STMD12	17/32	9/16	1 21/32	2	9/32	•	•
7/16	STM14	STMD14	5/8	9/16	1 21/32	2	3/8	•	•
1/2	STM16	STMD16	11/16	21/32	1 21/32	2	3/8	•	•
9/16	STM18	STMD18	3/4	23/32	1 21/32	2	3/8	•	•

*Conventional hex

Sets shown include storage tray

**Larger bolt clearance diameter for servicing aerospace fasteners

1/4" Drive Low Profile



110RTSM



111RT

Low Profile, mm

mm	Set Contains:		110RTSM				
	6	12	A	B	C	D	E
5	RTSM5	—	7.7	12.1	-	20.2	2.2
5.5	RTSM5.5	—	8.3	12.1	-	20.2	2.6
6	RTSM6	—	9.3	12.1	-	19.3	2.7
7	RTSM7	—	10.5	12.1	-	19.0	2.8
8	RTSM8	—	11.5	12.1	-	19.0	3.6
9	RTSM9	—	12.7	12.1	9.2	18.7	3.9
10	RTSM10	—	14.0	12.1	9.4	19.0	4.7
11	RTSM11	—	15.4	12.1	6.2	17.3	4.5
12	RTSM12	—	16.5	12.1	6.1	17.8	4.9
13	RTSM13	—	17.6	12.1	5.9	18.1	5.1
	RAT72	Low Profile Ratchet					•

Set shown includes storage tray

Low Profile, inches

In	Set Contains:		111RT				
	12	12	A	B	C	D	E
3/16	RT61	—	5/16	15/32	11/32	25/32	3/32
7/32	RT71	—	11/32	15/32	3/8	13/16	3/32
1/4	RT81	—	3/8	15/32	5/16	3/4	1/8
9/32	RT91	—	13/32	15/32	5/16	3/4	1/8
5/16	RT101	—	15/32	15/32	5/16	3/4	5/32
11/32	RT111	—	1/2	15/32	13/32	9/32	3/16
3/8	RT121	—	17/32	15/32	9/32	11/16	3/16
7/16	RT141	—	19/32	15/32	1/4	11/16	7/32
1/2	RT161	—	11/16	15/32	7/32	23/32	7/32
9/16	RT181	—	3/4	15/32	1/4	3/4	1/4
	RAT72	Low Profile Ratchet					•

Set shown includes storage tray



WARNING



- Do not use chrome or industrial finish tools with impact drivers
- Read safety precautions on pages 594 to 597

SOCKETS

1/4" Drive Blue-Point®



BLPSM145



BLPSM149



BLPSM1412





BLPS1414





BLPS14716

Shallow, mm

		Length, mm
4	BLPSM144	24.8
4.5	BLPSM144.5	24.8
5	BLPSM145	24.8
5.5	BLPSM145.5	24.8
6	BLPSM146	24.8
7	BLPSM147	24.8
8	BLPSM148	24.8
9	BLPSM149	24.8
10	BLPSM1410	24.8
11	BLPSM1411	24.8
12	BLPSM1412	24.8
13	BLPSM1413	24.8
14	BLPSM1414	24.8

Shallow, inches

		Length, inches
3/16	BLPS14316	1
7/32	BLPS14732	1
1/4	BLPS1414	1
9/32	BLPS14932	1
5/16	BLPS14516	1
11/32	BLPS141132	1
3/8	BLPS1438	1
7/16	BLPS14716	1
1/2	BLPS1412	1
9/16	BLPS14916	1
5/8	BLPS1458	1





BLPLSM145



BLPLSM1412

Deep, mm

		Length, mm
4	BLPLSM144	50.0
5	BLPLSM145	50.0
6	BLPLSM146	50.0
7	BLPLSM147	50.0
8	BLPLSM148	50.0
9	BLPLSM149	50.0
10	BLPLSM1410	50.0
11	BLPLSM1411	50.0
12	BLPLSM1412	50.0
13	BLPLSM1413	50.0
14	BLPLSM1414	50.0





BLPLS1414



BLPLS1412



Deep, inches

		Length, inches
3/16	BLPLS14316	1 31/32
7/32	BLPLS14732	1 31/32
1/4	BLPLS1414	1 31/32
9/32	BLPLS14932	1 31/32
5/16	BLPLS14516	1 31/32
11/32	BLPLS141132	1 31/32
3/8	BLPLS1438	1 31/32
7/16	BLPLS14716	1 31/32
1/2	BLPLS1412	1 31/32
9/16	BLPLS14916	1 31/32
5/8	BLPLS1458	1 31/32



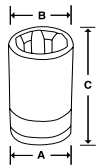
BLPS81438

8-Point, inches

		Length, inches
1/4	BLPS81414	1
5/16	BLPS814516	1
3/8	BLPS81438	1

SOCKETS

1/4" Drive Special Purpose



213AFLEY



STLE50

Torx®/Shallow

#	Stock No.	A	B	C
E4	TLE40A	7/16	7/8	17/64
E5	TLE50A	7/16	7/8	19/64
E6	TLE60A	7/16	7/8	21/64
E7	TLE70A	7/16	7/8	23/64
E8	TLE80A	7/16	7/8	27/64
E10	TLE100A	1/2	7/8	7/16

Sets shown include storage tray

213AFLEY Combination Drive Shallow Torx Set.

- 1/4" drive TLE40A thru TLE100A (page 21), 3/8" drive FLE110A thru FLE140A (page 29) and 1/2" drive SLE160A thru SLE240A (page 38) (13 pcs) (E4 to E24)

210AFLEY Combination Drive Shallow Torx Set.

- 1/4" drive TLE40A thru TLE80A (page 21) plus 3/8" drive FLE100A thru FLE180A (10 pcs) (E4 to E18) (page 29)



BLPTE145

External Torx-Blue-Point®

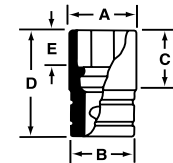
#	Stock No.	Length, inches
E4	BLPTE144	1
E5	BLPTE145	1
E6	BLPTE146	1
E7	BLPTE147	1
E8	BLPTE148	1

Torx/Deep

#	Stock No.	A	B	C
E4	STLE40	15/32	9/32	2
E5	STLE50	15/32	5/16	2



TM412



Double Square

#	Stock No.	A	B	C	D	E
1/4	TM408	15/32	15/32	17/32	7/8	1/4
5/16	TM410	9/16	17/32	17/32	7/8	9/32
3/8	TM412	21/32	5/8	17/32	7/8	5/16

1/4" Drive Flank Drive® Impact



IMTMM10

Shallow, mm

mm	6	A	B	C	D	E
5	IMTMM5	8.5	12.1	13.1	22.2	4.1
5.5	IMTMM5.5	9.3	12.1	13.1	22.2	4.1
6	IMTMM6	10.2	12.1	13.1	22.2	6.1
7	IMTMM7	11.5	12.1	13.1	22.2	6.1
8	IMTMM8	12.7	12.7	13.1	22.2	6.1
9	IMTMM9	14.0	14.0	13.1	22.2	6.1
10	IMTMM10	15.2	15.2	13.0	22.2	6.1
11	IMTMM11	16.4	16.4	12.8	22.2	6.4
12	IMTMM12	17.3	17.3	12.7	22.2	7.1
13	IMTMM13	18.7	18.7	12.5	22.2	7.4
14	IMTMM14	20.3	20.3	13.1	23.0	8.6
15	IMTMM15	21.1	21.1	13.9	23.8	8.9



SIMTMM10

Deep, mm

mm	6	A	B	C	D	E
5	SIMTMM5	8.5	12.1	41.9	50.8	4.1
5.5	SIMTMM5.5	9.3	12.1	41.9	50.8	4.1
6	SIMTMM6	10.2	12.1	41.9	50.8	6.1
7	SIMTMM7	11.5	12.1	41.9	50.8	6.1
8	SIMTMM8	12.7	12.7	41.9	50.8	6.1
9	SIMTMM9	14.0	14.0	41.9	50.8	6.1
10	SIMTMM10	15.2	15.2	41.9	50.8	6.1
11	SIMTMM11	16.4	16.4	41.9	50.8	6.4
12	SIMTMM12	17.3	17.3	41.9	50.8	7.1
13	SIMTMM13	18.7	18.7	41.9	50.8	7.4
14	SIMTMM14	20.3	20.3	41.9	50.8	8.6
15	SIMTMM15	21.1	21.1	41.9	50.8	8.9



WARNING



- Do not use chrome or industrial finish tools with impact drivers
- Read safety precautions on pages 594 to 597



SOCKETS

1/4" Drive Flank Drive® Impact



IMTM16A

Shallow, inches



		A	B	C	D	E
1/4	IMTM8A	13/32	1/2	17/32	7/8	1/4
5/16	IMTM10A	1/2	1/2	17/32	7/8	1/4
3/8	IMTM12A	9/16	1/2	17/32	7/8	1/4
7/16	IMTM14A	21/32	1/2	17/32	7/8	1/4
1/2	IMTM16A	23/32	1/2	17/32	7/8	9/32
9/16	IMTM18A	13/16	1/2	9/16	29/32	11/32

ASME/ANSI B107.2-2002

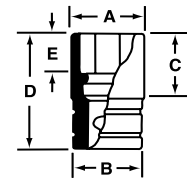


SIMTM16

Deep, inches

		A	B	C	D	E
1/4	SIMTM8	13/32	15/32	1 1/2	2	1/4
5/16	SIMTM10	1/2	1/2	1 1/2	2	1/4
3/8	SIMTM12	9/16	9/16	1 1/2	2	1/4
7/16	SIMTM14	21/32	21/32	1 1/2	2	1/4
1/2	SIMTM16	11/16	11/16	1 1/2	2	9/32
9/16	SIMTM18	13/16	13/16	1 1/2	2	11/32

ASME/ANSI B107.2-2002





1/4" Drive Torx® Impact



IMTLE40A

Torx/Shallow



		A	B	C	D	E
E4	IMTLE40A	9/32	1/2	17/32	7/8	5/32
E5	IMTLE50A	5/16	1/2	17/32	7/8	3/16
E6	IMTLE60A	11/32	1/2	17/32	7/8	3/16
E7	IMTLE70A	3/8	1/2	17/32	7/8	1/4
E8	IMTLE80A	7/16	1/2	17/32	7/8	1/4

1/4" Drive Flank Drive Magnetic Power



MGMM10



Shallow Magnetic, mm

		A	B	D	E
5.5	MGMM5.5	9.9	12.4	22.2	1.9
7	MGMM7	11.5	14.0	22.2	2.0
8	MGMM8	12.7	14.0	22.2	2.4
10	MGMM10	14.8	14.8	23.8	3.1



MGM8D



Shallow Magnetic, inches

		A	B	D	E
1/4	MGM8D	7/16	1/2	7/8	3/32
5/16	MGM10C	1/2	1/2	15/16	3/32
3/8	MGM12C	9/16	19/32	15/16	1/8
7/16	MGM14C	11/16	11/16	15/16	1/8



MGMS11B



Deep Magnetic, mm

		A	B	D	E
7	MGMS7A	10.7	12.4	50.8	5.8
8	MGMS8A	11.8	12.4	50.8	5.8
10	MGMS10A	14.1	14.1	50.8	6.4
11	MGMS11B	15.6	15.6	50.8	6.4
12	MGMS12B	17.3	17.3	50.8	7.1
13	MGMS13A	18.1	18.1	50.8	7.6



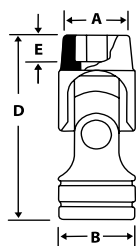
MGMS10A

Deep Magnetic, inches

		A	B	D	E
1/4	MGMS8A	3/8	7/16	2	3/32
5/16	MGMS10A	3/8	15/32	2	5/16

SOCKETS

1/4" Drive Flank Drive® Universal



TMUM8A



111TMUSMA

Shallow Universal, mm

mm	Set Contains:		A	B	D	E	Set Contains:	
	6	12					6	6
5	TMUM5A	TMUM5A	8.1	12.7	29.2	3.3		
5.5	TMUM5.5A	—	8.5	12.7	29.2	3.6	•	
6	TMUM6A	TMUM6A	9.6	12.7	29.7	3.8	•	
7	TMUM7A	TMUM7A	10.7	12.7	30.5	4.3	•	
8	TMUM8A	TMUM8A	11.8	12.7	30.5	4.8	•	•
9	TMUM9A	TMUM9A	12.7	12.7	31.2	4.8	•	
10	TMUM10A	TMUM10A	14.0	12.7	32.5	5.8	•	•
11	TMUM11A	—	15.4	12.7	33.0	6.6	•	
12	TMUM12A	TMUM12A	16.5	12.7	34.5	6.9	•	•
13	TMUM13A	TMUM13A	17.3	12.7	36.8	7.6	•	•
14	TMUM14A	—	18.8	12.7	38.6	8.6	•	•
15	TMUM15A	—	20.4	12.7	41.1	8.9	•	•

Sets shown include storage tray



106TMUSA



TMUS161A



GTMU141A

Shallow Universal, inches

Inch	Set Contains:		A	B	D	E	Set Contains:	
	6	12					6	12
3/16	—	TMU61A*	19/64	1/2	1 17/64	1/4		
7/32	—	TMU71A*	11/32	1/2	1 17/64	1/4		
1/4	TMUS81A	TMU81B	3/8	1/2	1 17/64	1/4	•	•
9/32	—	TMU91A	27/64	1/2	1 5/16	9/32		
5/16	TMUS101A	TMU101A	15/32	1/2	1 11/32	9/32	•	•
11/32	—	TMU111A	1/2	1/2	1 3/8	9/32		
3/8	TMUS121A	TMU121A	17/32	1/2	1 27/64	9/32	•	•
7/16	TMUS141A	TMU141A	19/32	1/2	1 29/64	13/32	•	•
1/2	TMUS161A	TMU161A	11/16	1/2	1 33/64	13/32	•	•
9/16	TMUS181A	TMU181A	3/4	1/2	1 35/64	13/32	•	•

*Conventional hex

Sets shown include storage tray



WARNING



- Do not use chrome or industrial finish hand sockets with impact drivers
- Read safety precautions on pages 594 to 597


SOCKETS

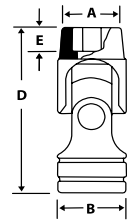
1/4" Drive Flank Drive® Universal



Deep Universal, inches


GSTMU101A

	12	A	B	D	E
5/16	GSTMU101A	15/32	15/32	1 11/16	9/32



Deep Universal, mm

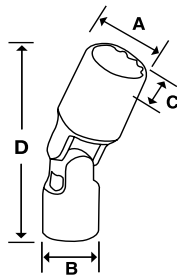
STMUM10A

	12	A	B	D	E
10	STMUM10A	14.0	12.7	41.4	5.8

1/4" Drive Torx® Universal



TSE120



Torx/Universal

#	Stock No.	A	B	D
E8	TSE80	13/32	1/2	1 3/8
E10	TSE100	1/2	1/2	1 3/8
E12	TSE120	1/2	1/2	1 3/8

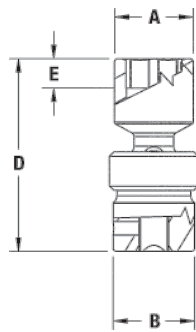
TSE80 Applications: Mercedes-Benz turbo chargers, crankshaft position sensor, sensors and intake bolts, bell housing bolts and ignitions switch.

TSE100 and TSE120 Applications: Mercedes-Benz oil pan bolts, interior and engine fasteners, water pumps, power steering pumps and engine covers on newer models.


1/4" Drive Flank Impact Swivel



IPTMM7



Shallow Swivel, mm

	6	A	B	D	E
7	IPSTM7	11.5	15.4	37.4	4.3
8	IPSTM8	12.7	15.4	38.6	4.8
10	IPSTM10	15.2	15.4	41.0	5.8
12	IPSTM12	17.3	17.9	44.9	6.9
13	IPSTM13	18.7	17.9	46.1	7.4

1/4" and 3/8" Drive Shallow/Deep Combination Sets



120STTM



124STTMM



222SFFS



224SFFSM

120STTM 6-Point Shallow/Deep Set. TM6 thru TM18 shallow sockets (pg. 18) and STM6 thru STM18 deep sockets (pg. 19) (20 pcs) (3/16" to 9/16").

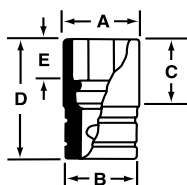
124STTMM Metric 6-Point Shallow/Deep Set. TMM4 thru TMM14 shallow sockets (except TMM4.5) (pg. 18) plus STMM4 thru STMM14 deep sockets (except STMM4.5) (pg. 19) (24 pcs) (4.5 to 14mm).

222SFFS 6-Point Shallow/Deep Set. FS081 thru FS281 shallow sockets (except FS111) (pg. 25) plus SFS081 thru SFS281 deep sockets (except SFS111) (1/4" to 7/8") (22pcs) (pg. 26).

224SFFSM Metric 6-Point Shallow/Deep Set. FSM81 thru FSM191 shallow sockets (pg. 25) plus SFSM8 thru SFSM19 deep sockets (pg. 26) (24 pcs) (8 to 19mm).

SOCKETS

3/8" Drive Flank Drive®



Shallow, mm

212FSMY

FM14

GFM9A

Set Contains:

212FSMY

212FSMY

mm	6	12	12	A	B	C	D	E	6	12
6	FSM61	—	—	9.1	17.2	11.1	23.0	5.6		
7	FSM71	—	—	10.4	17.2	11.1	23.0	5.6		
8	FSM81	FM8	—	11.6	17.2	11.1	23.0	6.4	•	•
9	FSM91	FM9	GFM9A	13.1	17.2	11.0	23.0	7.1	•	•
10	FSM101	FM10	—	14.3	17.2	11.0	23.0	7.1	•	•
11	FSM111	FM11	—	15.4	17.2	11.0	23.0	7.1	•	•
12	FSM121	FM12	—	16.5	17.2	11.9	23.8	8.1	•	•
13	FSM131	FM13	—	18.0	17.2	12.6	24.6	8.1	•	•
14	FSM141	FM14	—	19.6	18.6	13.2	26.2	9.1	•	•
15	FSM151	FM15	—	20.3	19.4	13.7	27.0	9.1	•	•
16	FSM161	FM16	—	21.1	20.2	15.0	27.8	10.4	•	•
17	FSM171	FM17	—	22.7	21.8	15.0	28.6	10.4	•	•
18	FSM181	FM18	—	24.3	23.2	15.7	28.6	10.9	•	•
19	FSM191	FM19	—	25.1	24.0	16.3	30.2	11.9	•	•
20	FSM201	FM20	—	26.3	25.3	16.6	40.0	12.4		
21	FSM211	FM21	—	27.4	26.4	17.4	31.8	12.2		
22	FSM221	FM22	—	28.3	27.2	17.4	32.5	13.2		
23	FSM231	FM23	—	29.9	28.8	18.2	33.8	13.2		
24	FSM241	FM24	—	31.5	30.5	19.0	35.0	14.4		
25	FSM251	—	—	32.3	31.3	19.8	35.3	14.5		
26	FSM261	FM26	—	33.8	32.9	20.6	37.0	14.3		

Sets shown include storage tray

224SFFSM Metric 6-Point Shallow/Deep Set. FSM81 thru FSM191 shallow sockets (pg. 25) plus SFSM81 thru SFSM191 deep sockets (pg. 26) (24 pcs) (8 to 19mm).



Shallow, inches

211FSY

F201

GF201

Set Contains:

211FSY

214FSY

211FY

	6	12	12	A	B	C	D	E	6	6	12
1/4	FS081	F081	GF081	13/32	11/16	7/16	29/32	7/32	•	•	•
5/16	FS101	F101	GF101	15/32	11/16	7/16	29/32	1/4	•	•	•
11/32	FS111	F111	GF111	1/2	11/16	7/16	29/32	9/32		•	
3/8	FS121	F121	GF121	9/16	11/16	7/16	29/32	9/32	•	•	•
7/16	FS141	F141	GF141	5/8	11/16	7/16	29/32	9/32	•	•	•
1/2	FS161	F161	GF161	23/32	11/16	1/2	15/16	5/16	•	•	•
9/16	FS181	F181	GF181	25/32	3/4	1/2	1 1/32	3/8	•	•	•
19/32	—	—	GF191	13/16	25/32	9/16	1 1/16	3/8			
5/8	FS201	F201	GF201	27/32	25/32	19/32	1 3/32	1/2	•	•	•
11/16	FS221	F221	GF221	15/16	7/8	5/8	1 1/8	17/32	•	•	•
3/4	FS241	F241	GF241	1	15/16	11/16	1 3/16	15/32	•	•	•
13/16	FS261	F261	GF261	1 1/16	1	11/16	1 7/32	1/2	•	•	•
7/8	FS281	F281	GF281	1 5/32	1 1/32	23/32	1 9/32	9/16	•	•	•
15/16	FS301	F301	GF301	1 1/4	1 3/16	25/32	1 11/32	9/16		•	
1	FS321	F321	GF321	1 5/16	1 1/4	13/16	1 3/8	19/32		•	

Sets shown include storage tray

222SFFS 6-Point Shallow/Deep Set. FS081 thru FS281 shallow sockets (except FS111) (pg. 25) plus SFS081 thru SFS281 deep sockets (except SFS111) (1/4" to 7/8") (22pcs) (pg. 26).



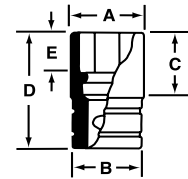
WARNING



- Do not use chrome or industrial finish hand sockets with impact drivers
- Read safety precautions on pages 594 to 597

SOCKETS

3/8" Drive Flank Drive®



Semi Deep, mm

mm	212FSMSY		Set Contains:					6
	6	12	A	B	C	D	E	
8	FSMS8	FMS8	11.4	17.2	29.3	41.3	7.1	•
9	FSMS9	FMS9	12.8	17.2	29.3	41.3	7.1	•
10	FSMS10	FMS10	14.3	17.2	29.3	41.3	7.9	•
11	FSMS11	—	15.7	17.2	29.3	41.3	9.7	•
12	FSMS12	FMS12	16.5	17.2	29.3	41.3	9.9	•
13	FSMS13	FMS13	17.9	17.2	23.2	41.3	10.7	•
14	FSMS14	FMS14	19.6	18.6	23.2	41.3	10.7	•
15	FSMS15	FMS15	20.3	19.4	23.2	41.3	10.7	•
16	FSMS16	FMS16	21.1	20.2	23.0	41.3	10.7	•
17	FSMS17	FMS17	22.6	21.8	23.0	41.3	11.2	•
18	FSMS18	FMS18	24.2	23.2	23.0	41.3	11.2	•
19	FSMS19	—	25.1	24.0	22.7	41.3	11.7	•

Sets shown include storage tray

Semi Deep, inches

11	211FSSY		Set Contains:					6
	6	12	A	B	C	D	E	
1/4	FSS081	—	13/32	11/16	1 1/8	1 5/8	7/32	•
5/16	FSS101	FDS101	15/32	11/16	1 1/8	1 5/8	9/32	•
3/8	FSS121	FDS121	9/16	11/16	1 1/8	1 5/8	5/16	•
7/16	FSS141	FDS141	5/8	11/16	1 1/8	1 5/8	3/8	•
1/2	FSS161	FDS161	23/32	11/16	31/32	1 5/8	13/32	•
9/16	FSS181	FDS181	25/32	23/32	31/32	1 5/8	13/32	•
5/8	FSS201	—	27/32	51/64	31/32	1 5/8	13/32	•
11/16	FSS221	—	15/16	7/8	31/32	1 5/8	7/16	•
3/4	FSS241	—	1	15/16	31/32	1 5/8	15/32	•
13/16	FSS261	—	1 1/16	1	31/32	1 5/8	1/2	•
7/8	FSS281	—	1 5/32	1 3/32	31/32	1 5/8	17/32	•

Set shown includes storage tray



Deep, mm

mm	212SFSMY		Set Contains:					6	12
	6	12	A	B	C	D	E		
6	SFSM6	SFM6	9.1	17.2	42.0	54.0	5.6		
7	SFSM7	SFM7	10.5	17.2	42.0	54.0	5.6		
8	SFSM8	SFM8	11.4	17.7	42.0	54.0	7.1	•	•
9	SFSM9	SFM9	12.8	17.2	42.0	54.0	7.1	•	•
10	SFSM10	SFM10	14.3	17.2	42.0	54.0	7.9	•	•
11	SFSM11	SFM11	15.7	17.2	42.0	54.0	9.7	•	•
12	SFSM12	SFM12	16.5	17.2	42.0	54.0	9.9	•	•
13	SFSM13	SFM13	18.0	17.2	42.0	54.0	10.7	•	•
14	SFSM14	SFM14	19.6	18.6	43.3	60.3	10.7	•	•
15	SFSM15	SFM15	20.3	19.4	43.3	60.3	10.7	•	•
16	SFSM16	SFM16	21.1	20.0	43.3	60.3	10.7	•	•
17	SFSM17	SFM17	22.7	21.8	43.6	66.7	11.2	•	•
18	SFSM18	SFM18	24.3	23.2	49.0	66.7	11.2	•	•
19	SFSM19	SFM19	25.1	24.0	49.0	66.7	15.5	•	•
20	SFSM20	—	26.3	25.3	48.1	66.7	12.2		
21	SFSM21	—	27.5	26.4	47.6	66.7	12.4		

Sets shown include storage tray ASME/ANSI B107.1-2002

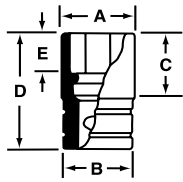
Deep, inches

11	211SFSY		211SFY		214SFY		Set Contains:					
	6	12	6	12	A	B	C	D	E	6	12	12
1/4	SFS081	SF081	GSFS081	GSF081	15/32	11/16	1 11/16	2 1/8	1/4	•	•	•
5/16	SFS101	SF101	GSFS101	GSF101	15/32	11/16	1 11/16	2 1/8	7/32	•	•	•
11/32	SFS111	—	—	—	1/2	11/16	1 11/16	2 1/8	9/32			
3/8	SFS121	SF121	—	GSF121	9/16	11/16	1 11/16	2 1/8	5/16	•	•	•
7/16	SFS141	SF141	—	GSF141	5/8	11/16	1 11/16	2 1/8	3/8	•	•	•
1/2	SFS161	SF161	—	GSF161	23/32	11/16	1 11/16	2 1/8	7/16	•	•	•
9/16	SFS181	SF181	—	GSF181	25/32	23/32	1 29/32	2 3/8	7/16	•	•	•
19/32	—	SF191	—	—	13/16	25/32	1 29/32	2 3/8	7/16			•
5/8	SFS201	SF201	—	GSF201	27/32	13/16	1 29/32	2 3/8	15/32	•	•	•
11/16	SFS221	SF221	—	GSF221	15/16	7/8	2 3/16	2 5/8	1/2	•	•	•
3/4	SFS241	SF241	—	GSF241	1	1	2 3/16	2 5/8	5/8	•	•	•
13/16	SFS261	SF261	—	GSF261	1 1/16	1	2 1/4	2 3/4	5/8	•	•	•
7/8	SFS281	SF281	—	GSF281	1 5/32	1 1/8	2 1/4	2 3/4	23/32	•	•	•
15/16	SFS301	SF301	—	GSF301	1 1/4	1 3/16	2 1/4	2 3/4	23/32			•
1	SFS321	SF321	—	GSF321	1 5/16	1 1/4	2 1/4	2 3/4	13/16			•

Sets shown include storage tray

SOCKETS

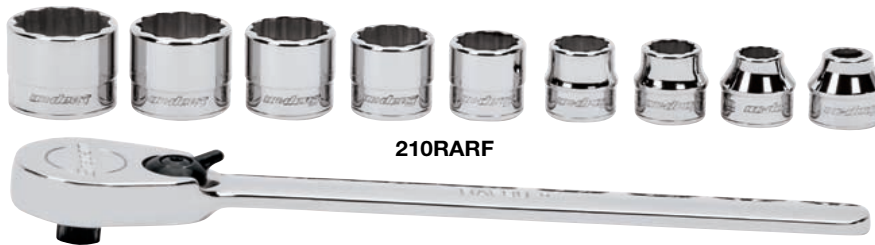
3/8" Drive Low Profile



Low Profile, mm

mm	Set Contains:		A	B	C	D	E	210RAF5M	
	6	12						6	12
8	RFSM8	RFM8	11.6	16.5	—	16.8	3.8	•	•
9	RFSM9	RFM9	13	16.5	—	17	4.1		
10	RFSM10	RFM10	14.3	16.5	—	17.3	4.3	•	•
11	RFSM11	RFM11	16	16.5	—	17.7	4.8		
12	RFSM12	RFM12	17.2	16.5	9.8	18.1	5.1	•	•
13	RFSM13	RFM13	18	17.2	10.3	18.5	5.6	•	•
14	RFSM14	RFM14	19.6	18.8	10.5	18.7	6.1	•	•
15	RFSM15	RFM15	20.4	19.6	10.8	19.1	6.6	•	•
16	RFSM16	RFM16	21.1	20.4	11.4	19.6	7.1	•	•
17	RFSM17	RFM17	22.8	22	11.9	20.1	7.4	•	•
18	RFSM18	RFM18	24.3	23.6	12.5	20.8	7.9	•	•
19	RFSM19	RFM19	25.1	16.5	13.3	21.5	8.2		
20	RAF80	Low Profile Ratchet						•	•

Sets shown include storage tray



Low Profile, inches

11	Set Contains:		A	B	C	D	E	210RARF	
	12	12						12	12
1/4	RF081		.46	.65	—	.66	.11	•	
5/16	RF101		.46	.65	—	.66	.15	•	
11/32	RF111		.49	.65	—	.68	.17		
3/8	RF121		.56	.65	—	.69	.18	•	
7/16	RF141		.61	.65	—	.70	.19	•	
1/2	RF161		.71	.69	.39	.72	.21	•	
9/16	RF181		.77	.74	.42	.75	.24	•	
5/8	RF201		.83	.80	.47	.79	.28	•	
11/16	RF221		.93	.90	.49	.81	.30	•	
3/4	RF241		.99	.96	.50	.82	.31	•	
	RAF80	Low Profile Ratchet						•	

Dimensions in decimal inches.

Sets shown include storage tray



WARNING



- Do not use chrome or industrial finish hand sockets with impact drivers
- Read safety precautions on pages 594 to 597

SOCKETS

3/8" Drive-Blue-Point®



BLPSM389



BLPSM3815



BLPSM3822



BLPS3838



BLPS3878

Shallow, mm

mm	6	Length, mm
6	BLPSM386	25.5
7	BLPSM387	25.5
8	BLPSM388	25.5
9	BLPSM389	25.5
10	BLPSM3810	25.5
11	BLPSM3811	25.5
12	BLPSM3812	25.5
13	BLPSM3813	25.5
14	BLPSM3814	27
15	BLPSM3815	27
16	BLPSM3816	27
17	BLPSM3817	27
18	BLPSM3818	27
19	BLPSM3819	29
20	BLPSM3820	29
21	BLPSM3821	29
22	BLPSM3822	31
23	BLPSM3823	31
24	BLPSM3824	31

Shallow, inches

11	6	Length, inches
1/4	BLPS3814	1
5/16	BLPS38516	1
3/8	BLPS3838	1
7/16	BLPS38716	1
1/2	BLPS3812	1
9/16	BLPS38916	1 1/16
5/8	BLPS3858	1 1/16
11/16	BLPS381116	1 1/16
3/4	BLPS3834	1 5/32
13/16	BLPS381316	1 5/32
7/8	BLPS3878	1 7/32
15/16	BLPS381516	1 7/32
1	BLPS381	1 7/32



BLPLM3810



BLPLM3816



BLPLM3822



BLPL3838



BLPL3834

Deep, mm

mm	12	Length, mm
6	BLPLM386	64
7	BLPLM387	64
8	BLPLM388	64
9	BLPLM389	64
10	BLPLM3810	64
11	BLPLM3811	64
12	BLPLM3812	64
13	BLPLM3813	64
14	BLPLM3814	64
15	BLPLM3815	64
16	BLPLM3816	64
17	BLPLM3817	64
18	BLPLM3818	64
19	BLPLM3819	64
20	BLPLM3820	64
21	BLPLM3821	64
22	BLPLM3822	64
23	BLPLM3823	64
24	BLPLM3824	64

Deep, inches

11	12	Length, inches
1/4	BLPL3814	2 17/32
5/16	BLPL38516	2 17/32
3/8	BLPL3838	2 17/32
7/16	BLPL38716	2 17/32
1/2	BLPL3812	2 17/32
9/16	BLPL38916	2 17/32
5/8	BLPL3858	2 17/32
11/16	BLPL381116	2 17/32
3/4	BLPL3834	2 17/32
13/16	BLPL381316	2 17/32
7/8	BLPL3878	2 17/32
15/16	BLPL381516	2 17/32
1	BLPL381	2 17/32

3/8" Drive Torx® and Special Application



213AFLEY

FLE180A



FLEP180

FLEPL100

Torx®/Shallow

#	Stock No.	A	B	C	Set Contains:	
					213AFLEY	210AFLEY
E8	FLE80A	15/32	11/16	1 5/32		
E10	FLE100A	1/2	11/16	1 5/32		•
E11	FLE110A	9/16	11/16	1 5/32	•	•
E12	FLE120A	9/16	11/16	1 5/32	•	•
E14	FLE140A	5/8	11/16	1 5/32	•	•
E16	FLE160A	3/4	11/16	1 1/4		•
E18	FLE180A	13/16	25/32	1 5/16		•

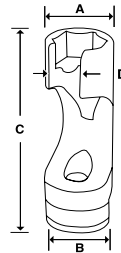
Sets shown include storage tray

213AFLEY Combination Drive Shallow Torx Set.
Includes 1/4" drive TLE40A thru TLE100A (page 21), 3/8" drive FLE110A thru FLE140A (page 29) and 1/2" drive SLE160A thru SLE240A (page 38) (13 pcs) (E4 to E24).

210AFLEY Combination Drive Shallow Torx Set.
1/4" drive TLE40A thru TLE80A (page 21) plus 3/8" drive FLE100A thru FLE180A (10 pcs) (E4 to E18) (page 29).



FRXM19



Flank Drive® Flare Nut, mm

mm	Stock No.	A	B	C	D
10	FRXM10	16.9	18.3	53.3	7.2
12	FRXM12	19.3	18.3	53.3	8.8
14	FRXM14	22.0	20.5	62.5	10.4
16	FRXM16	23.5	21.9	71.6	11.7
17	FRXM17	25.1	23.5	78.0	12.7
18	FRXM18	25.9	24.3	83.8	13.5
19	FRXM19	26.7	25.1	89.9	14.2

Torx

#	Stock No.	Length, inches
E4	BLPTE384	1 7/32
E5	BLPTE385	1 7/32
E6	BLPTE386	1 7/32
E7	BLPTE387	1 7/32
E8	BLPTE388	1 7/32
E10	BLPTE3810	1 7/32
E12	BLPTE3812	1 7/32
E14	BLPTE3814	1 7/32
E16	BLPTE3816	1 7/32
E18	BLPTE3818	1 7/32
E20	BLPTE3820	1 7/32



BLPTE3810



BLPTE3818

Torx Plus®

#	Stock No.	A	B	C
EP18	FLEP180	3/4	13/16	1 5/16

FLEP180 Torx Plus Socket. Use to remove seat hold down nuts on 1999 and later GM full size pickup trucks. 3/8" square drive.

FLEPL100 Torx Plus Socket. For removal and installation of low profile transmission bolts that secure the valve body to the inside of the transmission. To access the valve body, the bottom pan and filter, which are secured by six low profile Torx Plus 10EPL bolts, need to be removed. The low profile fasteners are used on the following GM 6 speed automatic transmissions: 6L50, 6L80, 6L90 and the BMW model 6L45.



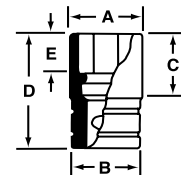
FRX181

Flank Drive/Flare Nut, inches

#	Stock No.	A	B	C	D
3/8	FRX121	5/8	3/4	2 3/32	9/32
7/16	FRX141	23/32	3/4	2 3/32	11/32
1/2	FRX161	13/16	3/4	2 1/8	3/8
9/16	FRX181	7/8	13/16	2 15/32	13/32
5/8	FRX201	15/16	7/8	2 27/32	15/32
11/16	FRX221	1	15/16	3 7/32	1/2
3/4	FRX241	1 1/16	1	3 11/32	9/16



F318



Double Square, inches

#	Stock No.	A	B	C	D	E
1/4	F308	1/2	21/32	3/8	27/32	7/32
5/16	F310	9/16	21/32	3/8	27/32	1/4
3/8	F312	21/32	11/16	15/32	15/16	9/32
7/16	F314	25/32	11/16	17/32	1	5/16
1/2	F316	7/8	25/32	17/32	1	5/16
9/16	F318	1	29/32	19/32	1 1/8	7/16
5/8	F320	1 1/16	31/32	19/32	1 1/8	7/16



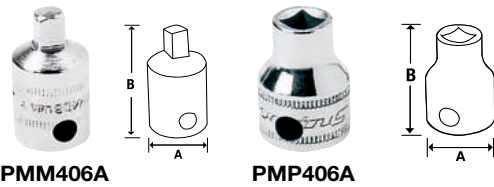
WARNING



- Do not use chrome or industrial finish hand sockets with impact drivers
- Read safety precautions on pages 594 to 597

SOCKETS

3/8" Drive Special Application



211PPPMY

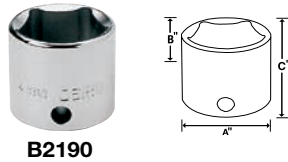
Pipe Plug, mm

mm	Stock No.	A	B	Stock No.	A	B
6	PMM406A	16.4	31.0	PMP406A	17.2	25.8
8	PMM408A	17.2	31.0	—	17.2	28.6
10	PMM410A	17.2	28.4	PMP410A	18.8	25.4

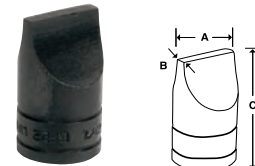
Pipe Plug, inches

"	Stock No.	B	Stock No.	B
3/16	PPM406A	1 1/8	—	1
1/4	PPM408A	1 1/8	PP408A	1
9/32	PPM409A	1 1/8	PP409A	1
5/16	PPM410A	1 1/8	PP410A	1
11/32	PPM411A	1 1/8	PP411A	1
3/8	PPM412A	1 1/8	PP412A	1

211PPPMY Internal/External Set. PPM406 thru PPM412 external sockets plus PP408 thru PP412 internal sockets (11 pcs) (3/16" to 3/8").



B2190



GF22

Flank Drive®/Pentagon (5-Point)

Stock No.	A	B	C
B2190	1 1/8	1/2	1 1/16

A specialty socket for servicing recessed 5-point nuts found on tamper resistant Buffalo covers used by gas, electric and some water companies to protect shutoff gates.

Drag Link

Stock No.	A	B	C
GF22	11/16	7/64	1 1/4

Applications include use on the engine oil fill cap on Kawasaki UN1500, UN1600 and UN2000 motorcycles.



PFSXM910A

GFLXM13

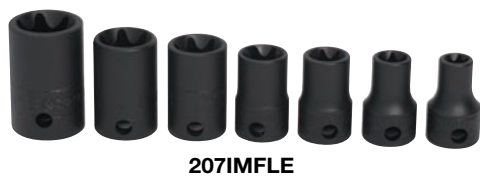
Swivel Ball Extension, mm

mm	6	12	A	B	C	D	E
10	PFSXM910A	—	17.2	14.4	14.4	10	243.4
12	PFSXM912A	—	17.2	17.2	17	10	244.6
13	—	GFLXM13	19.1	19.1	17.3	9.5	320.3

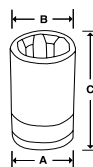
PFSXM910A and PFSXM912A Applications: Toyota and Lexus: transmission pan bolts plus several underdash applications. Volvo: removing intake faster and easier.

GFLXM13 Applications: Removing water pumps and transmission bolts for Mercedes. Various applications for Caterpillar.

3/8" Drive Torx® Impact



2071MFLE



#	Stock No.	Square Drive, In.	A	B	C	2071MFLE
E8	IMFLE80A	3/8	15/32	11/16	1 5/32	•
E10	IMFLE100A	3/8	1/2	11/16	1 5/32	•
E12	IMFLE120A	3/8	19/32	11/16	1 5/32	•
E14	IMFLE140A	3/8	5/8	11/16	1 5/32	•
E16	IMFLE160A	3/8	3/4	3/4	1 1/4	•
E18	IMFLE180A	3/8	25/32	25/32	1 5/16	•
E20	IMFLE200	1/2	15/16	15/16	1 1/2	•

Set shown includes storage tray

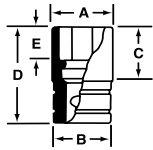
Various applications on heavy duty trucks with Mercedes engines.

Use E18 size for F550 brake rotor.

Use E20 size for rear brake caliper bolts on BMW X5.

SOCKETS

3/8" Drive Flank Drive® Impact



Shallow, mm

mm	Set Contains:								
	6	12	A	B	C	D	E	6	12
8	IMFM8A	IMDFM8A	12.8	17.2	11.1	23.0	6.4	•	
9	IMFM9A	—	14.0	17.2	11.0	23.0	7.1	•	
10	IMFM10A	IMDFM10A	15.1	17.2	11.0	23.0	7.1	•	•
11	IMFM11A	IMDFM11A	16.7	18.8	11.6	23.8	7.1	•	•
12	IMFM12	IMDFM12	18.8	18.0	11.6	23.8	7.1	•	•
13	IMFM13	IMDFM13	18.8 (19.4)	18.8 (19.4)	12.4 (10.9)	24.6 (23.8)	7.4 (7.6)	•	•
14	IMFM14	IMDFM14	20.4	20.4	13.5	27.0	9.1	•	•
15	IMFM15	IMDFM15	21.2	21.2	13.5	27.0	9.1	•	•
16	IMFM16	IMDFM16	22.7	22.7	14.1	27.8	10.4	•	
17	IMFM17	IMDFM17	24.3	24.3	14.4	28.2	10.2	•	•
18	IMFM18	IMDFM18	25.1	25.1	14.3	29.0	10.9	•	•
19	IMFM19	IMDFM19	26.7	26.7	15.6	30.6	11.7	•	
20	IMFM20	IMDFM20	28.3	28.3	16.5	30.9	12.2		
21	IMFM21	IMDFM21	28.8 (29.1)	28.8 (29.1)	17.5	29.5 (32.1)	12.2 (12.4)	•	
22	IMFM22	IMDFM22	29.9	29.9	18.3	32.9	13.0		
23	IMFM23	—	31.5	31.5	19.3	31.5	13.2		
24	IMFM24	—	32.6	32.6	21.1	33.0	14.5	•	

Dimensions in () apply to 12-point sockets only.

Sets shown include storage tray



Semi Deep, mm

mm	Set Contains:							
	6	12	A	B	C	D	E	6
8	IMFMS8A	—	12.8	17.2	29.3	41.3	6.4	•
9	IMFMS9A	—	14.0	17.2	29.3	41.3	7.1	•
10	IMFMS10A	—	15.1	17.2	29.3	41.3	9.7	•
11	IMFMS11A	—	17.2	17.2	29.3	41.3	9.7	•
12	IMFMS12	—	18.0	18.0	29.3	41.3	9.7	•
13	IMFMS13	—	19.6	19.6	29.3	41.3	10.4	•
14	IMFMS14	—	20.4	20.4	29.3	41.3	10.4	•
15	IMFMS15	—	21.2	21.2	29.3	41.3	10.4	•
16	IMFMS16	—	22.7	22.7	29.3	41.3	10.4	•
17	IMFMS17	—	24.3	24.3	29.3	41.3	11.2	•
18	IMFMS18	—	25.1	25.1	29.3	41.3	11.2	•
19	IMFMS19	—	26.7	26.7	29.3	41.3	11.7	•

Set shown includes storage tray

Shallow, inches

Inches	Set Contains:								
	6	12	A	B	C	D	E	6	12
5/16	IMF100A	—	1/2	11/16	3/8	7/8	1/4	•	
3/8	IMF120A	IMDF120A	9/16	11/16	7/16	7/8	3/16	•	•
7/16	IMF140A	IMDF140A	21/32	3/4	7/16	15/16	9/32	•	•
1/2	IMF160	IMDF160	3/4	3/4	7/16	15/16	9/32	•	•
9/16	IMF180	IMDF180	13/16	13/16	7/16	15/16	9/32	•	•
5/8	IMF200	IMDF200	29/32	29/32	7/16	15/16	9/32	•	•
11/16	IMF220	IMDF220	31/32	31/32	9/16	11/32	3/8	•	•
3/4	IMF240	IMDF240	1 1/16	1 1/16	9/16	13/32	13/32	•	•
13/16	IMF260	—	1 1/8	1 1/8	11/16	13/16	1/2	•	
7/8	IMF280	—	1 3/16	1 3/16	3/4	19/32	1/2	•	
15/16	IMF300	—	1 9/32	1 9/32	13/16	15/16	17/32	•	
1	IMF320	—	1 11/32	1 9/32	13/16	15/16	9/16	•	

Sets shown include storage tray

Semi Deep, inches

Inches	Set Contains:							
	6	12	A	B	C	D	E	6
5/16	IMFS10A	—	1/2	11/16	1 5/32	1 5/8	1/4	•
3/8	IMFS12A	—	9/16	11/16	1 5/32	1 5/8	9/32	•
7/16	IMFS14A	—	21/32	3/4	1 5/32	1 5/8	11/32	•
1/2	IMFS16	—	3/4	3/4	1 5/32	1 5/8	13/32	•
9/16	IMFS18	—	13/16	13/16	1 5/32	1 5/8	13/32	•
5/8	IMFS20	—	29/32	29/32	1 5/32	1 5/8	13/32	•
11/16	IMFS22	—	31/32	31/32	1 5/32	1 5/8	7/16	•
3/4	IMFS24	—	1 1/16	1 1/16	1 5/32	1 5/8	15/32	•
13/16	IMFS26	—	1 1/8	1 1/8	1 5/32	1 5/8	1/2	•
7/8	IMFS28	—	1 3/16	1 3/16	1 5/32	1 5/8	17/32	•

Set shown includes storage tray



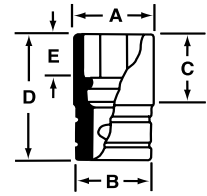
WARNING



- Do not use chrome or industrial finish hand sockets with impact drivers
- Read safety precautions on pages 594 to 597

SOCKETS

3/8" Drive Flank Drive® Impact



214SIMFMYA



SIMDFM14



212SIMFYA



SIMF260

Deep, mm

mm	Set Contains:										
	6	12	A	B	C	D	E	6	12		
8	SIMFM8A	SIMDFM8A	12.8	17.2	38.1	54.0	6.4	•	•		
9	SIMFM9A	SIMDFM9A	14.0	17.2	38.1	54.0	7.1	•	•		
10	SIMFM10A	SIMDFM10A	15.1	17.2	38.1	54.0	9.7	•	•		
11	SIMFM11A	SIMDFM11A	17.2	17.2	38.1	54.0	9.7	•	•		
12	SIMFM12	SIMDFM12	18.0	18.0	38.1	54.0	9.7	•	•		
13	SIMFM13	SIMDFM13	19.6	19.6	38.1	54.0	10.4	•	•		
14	SIMFM14	SIMDFM14	20.4	20.4	42.7	60.3	10.4	•	•		
15	SIMFM15	SIMDFM15	21.2	21.2	42.7	60.3	10.4	•	•		
16	SIMFM16	SIMDFM16	22.7	22.7	42.7	60.3	10.4	•	•		
17	SIMFM17	SIMDFM17	24.3	24.3	47.0	66.7	11.2	•	•		
18	SIMFM18	SIMDFM18	25.1	25.1	47.0	66.7	11.2	•	•		
19	SIMFM19	SIMDFM19	26.7	26.7	47.0	66.7	14.2	•	•		
20	SIMFM20	—	28.3	28.3	47.0	66.7	12.2				
21	SIMFM21	SIMDFM21	28.9	28.9	47.0	66.7	12.4	•	•		
22	SIMFM22	—	29.9	29.9	51.6	73.0	13.0				
23	SIMFM23	—	31.5	31.5	51.6	73.0	13.0				
24	SIMFM24	SIMDFM24	33.0	33.0	58.2	73.0	14.7	•	•		

Sets shown include storage tray

Deep, inches

in	Set Contains:										
	6	6	A	B	C	D	E	6	6		
5/16	SIMF100A		1/2	11/16	1 1/2	2 1/8	3/16		•		
3/8	SIMF120A		9/16	11/16	1 1/2	2 1/8	9/32	•	•		
7/16	SIMF140A		21/32	3/4	1 1/2	2 1/8	5/16	•	•		
1/2	SIMF160		3/4	3/4	1 1/2	2 1/8	3/8	•	•		
9/16	SIMF180		13/16	13/16	1 1/2	2 3/8	7/16	•	•		
5/8	SIMF200		29/32	29/32	1 1/2	2 3/8	7/16	•	•		
11/16	SIMF220		31/32	31/32	1 1/2	2 5/8	1/2	•	•		
3/4	SIMF240		1 1/16	1 1/16	1 1/2	2 5/8	9/16	•	•		
13/16	SIMF260		1 1/8	1 1/8	2 1/16	2 3/4	9/16		•		
7/8	SIMF280		1 3/16	1 3/16	2 1/16	2 3/4	9/16		•		
15/16	SIMF300		1 9/32	1 9/32	2 1/32	2 3/4	9/16		•		
1	SIMF320		1 11/32	1 11/32	2 3/16	2 3/4	5/8		•		

Sets shown include storage tray

3/8" Drive Impact/Special Purpose

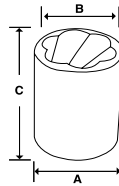
- Removes rounded/damaged fasteners



209TFSMYA



TFSY241A



213TSFSYA



TSFSY241A

Twist, Shallow, inches/mm

in	mm	Set Contains:								
		6	6	A	B	C	6	6		
3/8		TFSY121A		11/16 (17.5)	9/16 (14.3)	1 1/4 (31.8)		•		
7/16 (11)		TFSY141A		11/16 (17.5)	21/32 (16.7)	1 1/4 (31.8)	•	•		
1/2		TFSY161A		3/4 (19.1)	3/4 (19.1)	1 1/4 (31.8)		•		
9/16		TFSY181A		13/16 (20.6)	13/16 (20.6)	1 1/4 (31.8)		•		
5/8 (16)		TFSY201A		29/32 (23.0)	29/32 (23.0)	1 1/4 (31.8)	•	•		
11/16		TFSY221A		31/32 (24.6)	31/32 (24.6)	1 3/8 (35.0)		•		
3/4 (19)		TFSY241A		1 1/16 (27.0)	1 1/16 (27.0)	1 3/8 (35.0)	•	•		
10		TFSY10A		11/16 (17.5)	19/32 (15.1)	1 1/4 (31.8)	•	•		
12		TFSY12A		11/16 (17.5)	11/16 (17.5)	1 1/4 (31.8)	•	•		
13		TFSY13A		3/4 (19.1)	3/4 (19.1)	1 1/4 (31.8)	•	•		
14		TFSY14A		13/16 (20.6)	13/16 (20.6)	1 1/4 (31.8)	•	•		
15		TFSY15A		13/16 (20.6)	27/32 (21.4)	1 1/4 (31.8)	•	•		
17		TFSY17A		31/32 (24.6)	31/32 (24.6)	1 3/8 (35.0)	•	•		

Sets shown include storage tray

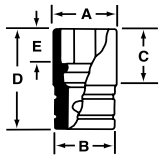
Twist, Deep, inches/mm

in	mm	Set Contains:								
		6	6	A	B	C	6	6		
3/8		TSFSY121A		11/16 (17.5)	9/16 (14.3)	2 1/8 (54.0)		•		
7/16 (11)		TSFSY141A		11/16 (17.5)	21/32 (16.7)	2 1/8 (54.0)		•		
1/2		TSFSY161A		3/4 (19.1)	3/4 (19.1)	2 1/8 (54.0)		•		
9/16		TSFSY181A		13/16 (20.6)	13/16 (20.6)	2 3/8 (60.3)		•		
5/8 (16)		TSFSY201A		29/32 (23.0)	29/32 (23.0)	2 3/8 (60.3)		•		
11/16		TSFSY221A		31/32 (24.6)	31/32 (24.6)	2 5/8 (66.7)		•		
3/4 (19)		TSFSY241A		1 1/16 (27.0)	1 1/16 (27.0)	2 5/8 (66.7)		•		
10		TSFSY10A		11/16 (17.5)	19/32 (15.1)	2 1/8 (54.0)		•		
12		TSFSY12A		11/16 (17.5)	11/16 (17.5)	2 1/8 (54.0)		•		
13		TSFSY13A		3/4 (19.1)	3/4 (19.1)	2 1/8 (54.0)		•		
14		TSFSY14A		13/16 (20.6)	13/16 (20.6)	2 3/8 (60.3)		•		
15		TSFSY15A		13/16 (20.6)	27/32 (21.4)	2 3/8 (60.3)		•		
17		TSFSY17A		31/32 (24.6)	31/32 (24.6)	2 5/8 (66.7)		•		

Set shown includes storage tray

SOCKETS

3/8" Drive Magnetic/Surface Drive/Special Purpose



MFIMM15



MFIM101

Shallow Magnetic, mm

mm	6	12	A	B	D	E
10	MFIMM10A	MFIMMD10	15.1	17.2	29.1 (28.6)	4.7 (7.1)
12	MFIMM12	—	18.1	19.1	28.6	3.7
13	MFIMM13	—	19.4	19.4	28.6	3.9
15	MFIMM15	—	21.6	21.8	28.6	3.9

Dimensions in () apply to 12-point sockets only.

MFIMMD10 Applications: For use on Detroit Diesel 60 series. Use on the three camshaft gear thrust plate bolts located inside the camshaft gear cover within the front gear case on the engine. The technician has to go through the cover to start the bolts. If one is dropped, it is very labor intensive and time consuming to retrieve. Applies to 2002 and later 60 series Detroit Diesel engines with the compact gear case. Earlier engines with the tall gear case have 13mm six point bolts. Please use MFIMM13 for this application.

Shallow Magnetic, inches

II	6	A	B	D	E
5/16	MFIM101	15/32	11/16	1 1/16	3/32
3/8	MFIM121	17/32	11/16	1 1/16	1/8
7/16	MFIM141	5/8	11/16	1 1/16	5/32
1/2	MFIM161	25/32	25/32	1 1/16	5/32
9/16	MFIM181	7/8	7/8	1 1/16	5/32

Deep Magnetic-Spring Loaded, mm

mm	6	A	B	D	E
10	SMFIMM10B	15.1	17.2	50.8	7.1
12	SMFIMM12B	18.1	19.1	50.8	7.1
13	SMFIMM13B	19.4	19.4	50.8	7.6



SMFIMM13B

Deep, mm

mm	6	A	B	C	D	E
10	DFSM10	14.5	17.2	42.5	54.0	8.4

Deep, inches

II	6	A	B	C	D	E
7/16	DFSM14	21/32	11/16	1 21/32	2 1/8	11/32



DFSM10



DFS14

Deep Surface Drive

Use in the industrial market for assembly line work. The lead in chamfer and special design of these sockets will engage with a fastener while rotating on a power nut runner.



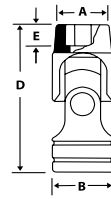
WARNING



• Read safety precautions on pages 594 to 597

SOCKETS

3/8" Drive Flank Drive® Universal



206FSUMA



FUM18A



206AFSA



FU16B

Shallow, mm

mm	Set Contains:		206FSUMA		209FUMY			
	6	12	A	B	D	E	6	12
8	FSUM8A	—	11.9	17.2	43.1	6.4		
10	FSUM10A	FUM10A	14.0	18.1	43.5	6.4	•	•
11	FSUM11A	—	15.3	18.1	43.5	7.1		
12	FSUM12A	FUM12A	16.8	18.1	45.5	7.9	•	•
13	FSUM13A	FUM13A	18.1	18.1	45.5	7.9	•	•
14	FSUM14A	FUM14A	18.9	18.1	47.9	8.9	•	•
15	FSUM15A	FUM15A	20.5	18.1	47.9	8.9	•	•
16	FSUM16A	FUM16A	21.3	18.1	47.9	10.2		•
17	FSUM17A	FUM17A	22.9	18.9	50.7	10.4	•	•
18	FSUM18A	FUM18A	24.5	18.9	50.7	10.7		•
19	FSUM19A	FUM19A	25.3	18.9	52.5	11.7		•
22	FSUM22A	—	28.4	18.9	53.9	13.0		

Sets shown include storage tray

Shallow, inches

In	Set Contains:		206AFSA		206FUA			
	6	12	A	B	D	E	6	12
5/16	—	FU10B	15/32	11/16	1 5/8	1/4		
3/8	FS12B	FU12B	17/32	11/16	1 5/8	1/4		
7/16	FS14B	FU14B	5/8	11/16	1 5/8	9/32	•	•
1/2	FS16B	FU16B	23/32	11/16	1 11/16	9/32	•	•
9/16	FS18B	FU18B	25/32	11/16	1 23/32	11/32	•	•
5/8	FS20B	FU20B	27/32	11/16	1 25/32	3/8	•	•
11/16	FS22B	FU22B	15/16	3/4	2	3/8	•	•
3/4	FS24B	FU24B	1	3/4	2 1/16	7/16	•	•
13/16	—	FU26B	1 3/32	3/4	2 3/32	15/32		
7/8	—	FU28B	1 5/32	3/4	2 3/32	1/2		
15/16	—	FU30B	1 1/4	3/4	2 9/32	9/16		
1	—	FU32B	1 5/16	3/4	2 9/32	9/16		

Sets shown include storage tray



206SFSUM



207FSU

Deep, mm

mm	Set Contains:		206SFSUM			
	6	6	A	B	D	E
8	SFSUM8		11.9	17.2	63.6	6.9
10	SFSUM10		14.4	18.1	63.6	7.4
11	SFSUM11		15.6	18.1	63.6	7.6
12	SFSUM12		17.1	18.1	63.6	8.1
13	SFSUM13		18.1	18.1	63.6	8.4
14	SFSUM14		18.9	18.1	63.6	9.1
15	SFSUM15		20.5	18.1	63.6	9.7
16	SFSUM16		21.3	18.1	63.6	10.4
17	SFSUM17		22.9	18.9	63.6	10.9
18	SFSUM18		24.5	18.9	63.6	10.9
19	SFSUM19		25.3	18.9	63.6	11.9

Set shown includes storage tray

Deep, inches

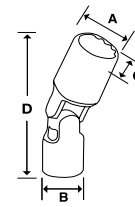
In	Set Contains:		207FSU			
	6	6	A	B	D	E
3/8	FSU12		9/16	11/16	2 13/32	3/8
7/16	FSU14		5/8	11/16	2 13/32	7/16
1/2	FSU16		23/32	11/16	2 13/32	15/32
9/16	FSU18		25/32	11/16	2 13/32	17/32
5/8	FSU20		27/32	11/16	2 13/32	9/16
11/16	FSU22		15/16	3/4	2 15/32	9/16
3/4	FSU24		1	3/4	2 15/32	9/16

Set shown includes storage tray

3/8" Drive Torx®/Universal

Torx/Universal

#	Stock No.	A	B	C	D
E8	FSE80	3/8	11/16	9/32	1 5/8
E10	FSE100	15/32	11/16	5/16	1 11/16
E12	FSE120	9/16	11/16	11/32	1 25/32
E14	FSE140	5/8	11/16	13/32	1 7/8
E16	FSE160	23/32	3/4	15/32	2 1/16
E18	FSE180	13/16	3/4	1/2	2 1/16
E20	FSE200	15/16	3/4	9/16	2 1/8



FSE180

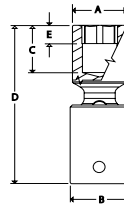
3/8" Drive Flank Drive®/Impact Swivel



207IPFM



IPDFM12A



205IPF

Shallow, mm

Set Contains: 207IPFM

mm	6	12	A	B	D	E	6
8	IPFM8C	—	13.2	22.2	49.8	6.4	
9	IPFM9C	—	14.0	22.2	49.8	6.4	
10	IPFM10C	IPDFM10A	15.4	22.2	50.8	7.1	•
11	IPFM11C	—	16.7	22.2	52.1	7.1	
12	IPFM12C	IPDFM12A	18.1	22.2	53.1	7.1	•
13	IPFM13C	IPDFM13A	18.9	22.2	54.1	7.9	•
14	IPFM14B	IPDFM14A	20.5	22.2	55.4	7.9	•
15	IPFM15C	—	21.2	22.2	56.4	7.9	•
16	IPFM16C	IPDFM16A	22.6	22.2	57.4	8.6	
17	IPFM17C	—	23.4	23.0	62.2	8.6	•
18	IPFM18C	—	25.1	23.0	64.0	9.7	•
19	IPFM19C	—	26.4	23.0	65.0	10.4	
21	IPFM21C	—	29.2	25.1	65.7	12.4	
22	IPFM22C	—	29.9	23.0	68.1	13.0	

Set shown includes storage tray



IPFSFM21A

Shallow, inches

Set Contains: 205IPF

mm	6	A	B	D	E	6
3/8	IPF12C	9/16	7/8	1 31/32	1/4	
7/16	IPF14C	21/32	7/8	2 1/16	9/32	•
1/2	IPF16C	3/4	7/8	2 1/8	5/16	•
9/16	IPF18C	13/16	7/8	2 3/16	5/16	•
5/8	IPF20C	7/8	7/8	2 1/4	11/32	•
11/16	IPF22C	31/32	29/32	2 17/32	13/32	
3/4	IPF24C	1 1/16	29/32	2 19/32	7/16	•

Set shown includes storage tray



IPLFM12B



IPLF18B

Semi Deep, mm

mm	6	A	B	D	E
8	IPFSFM8A	12.8	22.2	62.5	6.4
10	IPFSFM10A	15.1	22.2	64.1	9.7
11	IPFSFM11A	17.2	22.2	65.6	9.7
12	IPFSFM12A	18.0	23.0	70.9	9.7
13	IPFSFM13A	19.6	23.0	71.9	10.4
14	IPFSFM14A	20.4	23.0	72.9	10.4
15	IPFSFM15A	22.0	23.0	74.4	10.4
16	IPFSFM16A	22.7	23.0	74.9	10.4
17	IPFSFM17A	24.3	23.0	76.0	11.2
18	IPFSFM18A	25.1	23.0	77.5	11.2
19	IPFSFM19A	26.7	23.0	79.0	14.2
21	IPFSFM21A	29.2	25.1	77.7	12.4

Deep, mm

mm	6	A	B	D	E
8	IPLFM8B	15.8	24.9	70.1	9.1
10	IPLFM10B	15.8	24.9	70.1	9.1
12	IPLFM12B	16.6	24.9	70.1	9.7
13	IPLFM13A	18.8	22.2	79.5	10.4
14	IPLFM14A	20.4	22.2	81.0	10.4
15	IPLFM15A	21.2	22.2	82.6	10.4
17	IPLFM17A	23.4	23.0	88.3	10.2
18	IPLFM18A	25.1	23.0	90.1	10.7
19	IPLFM19A	26.7	23.0	91.2	14.2

Deep, inches

mm	6	A	B	D	E
3/8	IPLF12B	9/16	7/8	2 15/16	1/4
7/16	IPLF14B	21/32	7/8	2 3/4	9/32
1/2	IPLF16B	3/4	7/8	2 3/4	5/16
9/16	IPLF18B	13/16	7/8	3 3/16	5/16
5/8	IPLF20B	7/8	7/8	3 1/4	11/32



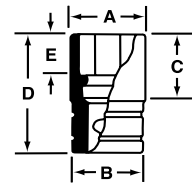
WARNING



- Do not use chrome or industrial finish hand sockets with impact drivers
- Read safety precautions on pages 594 to 597

SOCKETS

1/2" Drive Flank Drive®



Shallow, mm

mm	Set Contains:		A	B	C	D	E	Set Contains:				
	6	12						313TWMYA	310TWMYA	313SWMYA	310SWMYA	323SWM
10	TWM10A	SWM101A	15.0	23.2	22.2	38.1	7.9	•	•	•	•	•
11	TWM11A	SWM111A	16.6	23.2	22.2	38.1	8.7	•	•	•	•	•
12	TWM12A	SWM121A	18.2	23.2	22.2	38.1	9.5	•	•	•	•	•
13	TWM13A	SWM131A	19.0	23.2	22.2	38.1	10.3	•	•	•	•	•
14	TWM14A	SWM141A	20.6	23.2	22.2	38.1	10.3	•	•	•	•	•
15	TWM15A	SWM151A	22.2	22.2	22.2	38.1	10.3	•	•	•	•	•
16	TWM16	SWM161	23.8	22.2	22.2	38.1	11.9	•	•	•	•	•
17	TWM17	SWM171	24.6	23.2	22.2	38.1	12.7	•	•	•	•	•
18	TWM18	SWM181	25.4	23.8	21.4	38.1	14.2	•	•	•	•	•
19	TWM19	SWM191	26.3	24.8	21.3	38.1	13.9	•	•	•	•	•
20	TWM20	SWM201	26.7	26.1	21.2	38.1	14.0	•	•	•	•	•
21	TWM21	SWM211	28.3	27.5	21.1	38.1	14.0	•	•	•	•	•
22	TWM22	SWM221	29.9	28.6	20.9	38.1	14.2	•	•	•	•	•
23	TWM23	SWM231	31.2	29.9	20.8	38.1	14.5	•	•	•	•	•
24	TWM24	SWM241	32.5	30.9	22.2	38.8	15.8	•	•	•	•	•
25	TWM25	SWM251	33.3	31.7	22.2	38.8	15.8	•	•	•	•	•
26	TWM26	SWM261	34.9	33.3	23.8	41.2	15.8	•	•	•	•	•
27	TWM27	SWM271	36.5	34.9	25.4	42.8	17.4	•	•	•	•	•
28	TWM28	SWM281	38.1	36.5	26.9	44.4	17.4	•	•	•	•	•
29	TWM29	SWM291	39.3	38.0	26.1	44.5	17.8	•	•	•	•	•
30	TWM30	SWM301	41.0	39.6	26.1	44.5	18.5	•	•	•	•	•
31	TWM31	SWM311	42.5	41.2	29.1	47.6	19.1	•	•	•	•	•
32	TWM32	SWM321	42.5	41.2	28.9	47.6	19.8	•	•	•	•	•

Sets shown include storage tray



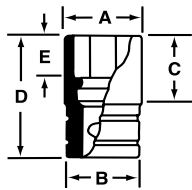
Shallow, inches

in	Set Contains:		A	B	C	D	E	Set Contains:				
	6	12						313TWYA	3146TWYA	313SWYA		
3/8	TW121A	SW121A	GTW121A	GSW121A	19/32	29/32	7/8	1 1/2	5/16	•	•	•
7/16	TW141A	SW141A	GTW141A	GSW141A	11/16	29/32	7/8	1 1/2	11/32	•	•	•
1/2	TW161A	SW161A	GTW161A	GSW161A	3/4	29/32	7/8	1 1/2	13/32	•	•	•
9/16	TW181A	SW181A	GTW181A	GSW181A	13/16	29/32	7/8	1 1/2	13/32	•	•	•
5/8	TW201	SW201	GTW201	GSW201	15/16	7/8	7/8	1 1/2	15/32	•	•	•
11/16	TW221	SW221	GTW221	GSW221	31/32	29/32	7/8	1 1/2	1/2	•	•	•
3/4	TW241	SW241	GTW241	GSW241	1 1/32	31/32	7/8	1 1/2	9/16	•	•	•
13/16	TW261	SW261	GTW261	GSW261	1 1/8	1 1/16	7/8	1 1/2	9/16	•	•	•
7/8	TW281	SW281	GTW281	GSW281	1 3/16	1 1/8	7/8	1 1/2	25/32	•	•	•
15/16	TW301	SW301	GTW301	GSW301	1 9/32	1 7/32	27/32	1 17/32	3/4	•	•	•
1	TW321	SW321	GTW321	GSW321	1 11/32	1 9/32	7/8	1 9/16	3/4	•	•	•
1 1/16	TW341	SW341	GTW341	GSW341	1 7/16	1 3/8	1 31/32	1 11/16	3/4	•	•	•
1 1/8	TW361	SW361	GTW361	GSW361	1 1/2	1 7/16	1 31/32	1 3/4	1 3/16	•	•	•
1 3/16	TW381	SW381	—	GSW381	1 5/8	1 9/16	1 1/8	1 3/4	3/4	•	•	•
1 1/4	TW401	SW401	GTW401	GSW401	1 11/16	1 5/8	1 1/4	1 7/8	3/4	•	•	•
1 5/16	TW421	SW421	—	GSW421	1 3/4	1 11/16	1 1/4	1 7/8	1	•	•	•
1 3/8	TW441	SW441	—	GSW441	1 13/16	1 3/4	1 7/16	2 1/16	1	•	•	•
1 7/16	TW461	SW461	—	—	1 15/16	1 7/8	1 5/8	2 1/4	1	•	•	•
1 1/2	TW481	SW481	—	GSW481	2	1 15/16	1 5/8	2 1/4	1	•	•	•

Sets shown include storage tray

SOCKETS

1/2" Drive Flank Drive®



Deep, mm

mm	Set Contains:		A	B	C	D	E	313TSMYA		
	6	6						6	6	12
10	TSM10A	SM10A	15.0	23.2	66.7	82.6	7.9		•	
11	—	SM11A	16.6	23.2	66.7	82.6	8.7			
12	TSM12A	SM12B	18.2	23.2	66.7	82.6	9.5	•	•	•
13	TSM13A	SM13A	19.0	23.2	66.7	82.6	10.3	•	•	•
14	TSM14A	SM14A	20.6	23.2	66.7	82.6	10.3	•	•	•
15	TSM15A	SM15A	22.2	22.2	66.7	82.6	10.3	•	•	•
16	TSM16	SM16	23.8	22.2	51.0	82.6	11.9	•	•	•
17	TSM17	SM17	24.6	23.2	51.0	82.6	12.7	•	•	•
18	TSM18	SM18	25.4	23.8	51.0	82.6	14.3	•	•	•
19	TSM19	SM19	26.3	24.6	52.5	82.6	14.2	•	•	•
20	TSM20	SM20	26.7	26.1	58.5	82.6	14.0	•	•	•
21	TSM21	SM21	28.3	27.5	58.5	82.6	14.0	•		•
22	TSM22	SM22	29.9	28.6	58.5	82.6	14.2	•		•
23	TSM23	SM23	31.2	29.9	58.0	82.6	14.5	•		•
24	TSM24	SM24	32.5	30.9	50.0	82.6	15.8	•		•
25	TSM25	SM25	33.3	31.7	50.0	82.6	15.8			
26	TSM26	SM26	34.9	33.3	50.0	82.6	15.8			
27	TSM27	SM27	36.2	34.9	50.0	82.6	17.5			
28	TSM28	SM28	37.8	36.5	50.0	82.6	17.5			
29	TSM29	SM29	39.3	38.0	64.3	82.6	17.8			
30	TSM30	SM30	41.0	39.6	64.0	82.6	18.5			
31	TSM31	SM31	42.5	41.2	64.0	82.6	19.1			
32	TSM32	SM32	42.5	41.2	63.8	82.6	19.8			

Sets shown include storage tray



Deep, inches

in	Set Contains:				A	B	C	D	E	313TSYA		
	6	12	6	12						6	6	12
3/8	TS121A	S121A	GTS121A	—	19/32	29/32	2 5/8	3 1/4	5/16	•	•	•
7/16	TS141A	S141A	GTS141A	—	3/4	29/32	2 5/8	3 1/4	11/32	•	•	•
1/2	TS161A	S161A	GTS161A	GS161A	3/4	29/32	2 5/8	3 1/4	13/32	•	•	•
9/16	TS181A	S181A	GTS181A	GS181A	13/16	29/32	2 5/8	3 1/4	13/32	•	•	•
5/8	TS201	S201	GTS201	GS201	15/16	7/8	1 31/32	3 1/4	15/32	•	•	•
11/16	TS221	S221	GTS221	GS221	31/32	29/32	1 31/32	3 1/4	1/2	•	•	•
3/4	TS241	S241	GTS241	GS241	1 1/32	31/32	2 5/8	3 1/4	9/16	•	•	•
13/16	TS261	S261	GTS261	GS261	1 1/8	1 1/16	2 5/8	3 1/4	9/16	•	•	•
7/8	TS281	S281	GTS281	GS281	1 3/16	1 1/8	2 5/8	3 1/4	9/16	•	•	•
15/16	TS301	S301	GTS301	GS301	1 9/32	1 7/32	1 31/32	3 1/4	3/4	•	•	•
1	TS321	S321	GTS321	GS321	1 11/32	1 9/32	1 31/32	3 1/4	3/4	•	•	•
1 1/16	TS341	S341	GTS341	GS341	1 7/16	1 3/8	1 31/32	3 1/4	3/4	•	•	•
1 1/8	TS361	S361	GTS361	GS361	1 1/2	1 7/16	1 31/32	3 1/4	1 3/16	•	•	•
1 3/16	TS381	S381	GTS381	GS381	1 5/8	1 9/16	2 5/8	3 1/4	1 3/16			
1 1/4	TS401	S401	GTS401	GS401	1 11/16	1 5/8	2 5/8	3 1/4	1			
1 5/16	TS421	S421	—	—	1 3/4	1 11/16	2 9/16	3 1/4	1			
1 3/8	TS441	S441	—	—	1 13/16	1 3/4	2 9/16	3 1/4	1			
1 7/16	TS461	S461	—	—	1 15/16	1 7/8	2 5/8	3 1/4	1			
1 1/2	TS481	S481	—	—	2	1 15/16	2 5/8	3 1/4	1 1/16			

Sets shown include storage tray

ASME/ANSI B107.1-2002



WARNING



- Do not use chrome or industrial finish sockets with impact drivers
- Read safety precautions on pages 594 to 597

SOCKETS

1/2" Drive Flank Drive®



320TSWMA

320TSWMA Metric 6-Point Shallow/Deep Set. Includes TWM10A thru TWM19 shallow sockets (pg 36) and TSM10A thru TSM20 deep sockets (pg 37) (20 pcs) (10 to 20mm).

1/2" Drive-Blue-Point®



BLPSM1216



BLPS1234

Shallow, mm

mm	6	Length, mm
12	BLPSM1212	38.1
13	BLPSM1213	38.1
14	BLPSM1214	38.1
15	BLPSM1215	38.1
16	BLPSM1216	38.1
17	BLPSM1217	38.1
18	BLPSM1218	38.1
19	BLPSM1219	38.1
20	BLPSM1220	38.1
21	BLPSM1221	38.1
22	BLPSM1222	38.1
24	BLPSM1224	38.1

Shallow, inches

11	6	Length, inches
3/8	BLPS1238	1 1/2
7/16	BLPS12716	1 1/2
1/2	BLPS1212	1 1/2
9/16	BLPS12916	1 1/2
5/8	BLPS1258	1 1/2
11/16	BLPS121116	1 1/2
3/4	BLPS1234	1 1/2
13/16	BLPS121316	1 1/2
7/8	BLPS1278	1 1/2
15/16	BLPS121516	1 9/16
1	BLPS121	1 9/16
1 1/16	BLPSB121116	1 9/16
1 1/8	BLPSB12118	1 3/4
1 3/16	BLPSB121316	1 3/4
1 1/4	BLPSB12114	1 3/4

1/2" Drive Torx®



213AFLEY



SLEPL200

Torx Plus®/External

SLEPL200 Low Profile Torx Plus Socket. For removal and installation of low profile drive plate and flywheel bolts on QR25 Nissan motors with automatic transmissions. It is similar to the J-45816 Nissan specialty tool. Size is 20EPL. 1/2" drive. Please note: For flywheel bolts on QR25 Nissan motors with manual transmissions, use the 3/8" drive FTX50TPE male T50 Torx Plus socket (pg 53).



IMSLE200

Torx, Impact

#	Stock No.	A	B	D
E20	IMSLE200	15/16	15/16	1 1/2

Torx/Shallow

#	Stock No.	A	B	D
E14	SLE140	21/32	7/8	1 1/2
E16	SLE160A	23/32	27/32	1 1/2
E18	SLE180A	27/32	7/8	1 1/2
E20	SLE200A	15/16	7/8	1 1/2
E24	SLE240	1 1/16	1	1 1/2

213AFLEY Combination Drive Shallow Torx Set.

Includes 1/4" drive TLE40A thru TLE100A (page 21), 3/8" drive FLE110A thru FLE140A (page 29) and 1/2" drive SLE160A thru SLE240A (page 38) (13 pcs) (E4 to E24).



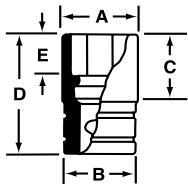
BLPTE1220

Torx Plus/External

#	Stock No.	Length, inches
E18	BLPTE1218	1 1/2
E20	BLPTE1220	1 1/2
E22	BLPTE1222	1 1/2
E24	BLPTE1224	1 1/2


SOCKETS

1/2" Drive Special Application

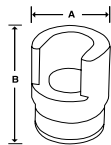


Double Square, inches

SW420


 Stock No.	A	B	C	D	E
3/8 SW412	23/32	7/8	7/8	1 1/2	5/16
7/16 SW414	51/64	7/8	7/8	1 1/2	3/8
1/2 SW416	29/32	7/8	7/8	1 1/2	13/32
9/16 SW418	31/32	29/32	7/8	1 1/2	7/16
5/8 SW420	1 1/16	1	7/8	1 1/2	1/2
11/16 SW422	1 3/16	1 1/8	7/8	1 1/2	1/2
3/4 SW424	1 9/32	1 3/16	7/8	1 1/2	9/16
13/16 SW426	1 7/16	1 3/8	1	1 5/8	5/8
7/8 SW428	1 1/2	1 7/16	1 1/8	1 3/4	5/8
15/16 SW430	1 5/8	1 9/16	1 1/8	1 13/16	11/16
1 SW432	1 11/16	1 5/8	1 1/4	1 7/8	11/16

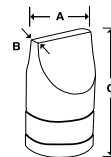
ASME/ANSI B107.1-2002



WH290

Weatherhead®, inches

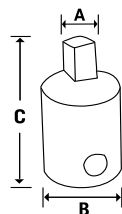
 Stock No.	A	B
7/8 WH280	1 3/8	1 13/16
29/32 WH290	1 7/16	1 13/16
15/16 WH300	1 1/2	1 13/16



A26A

Drag Link

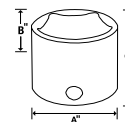
Stock No.	A	B	C
A26A	3/4	.109	1 11/16
A17A	15/16	.150	1 11/16
A15A	1 3/16	.150	1 11/16



PPM516A

Pipe Plug, inches

Stock No.	A	B	C
PPM516A	1/2	15/16	1 7/16





B2191

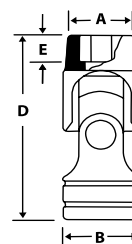
Flank Drive® Pentagon

Stock No.	A	B	C
B2191	1 1/8	1/2	1 1/16

B2191 Pentagon Socket. Services recessed 5-point nuts found on tamper resistant Buffalo covers used by gas, electric and water companies to protect shutoff gates.

Universal, inches

 Stock No.	 Stock No.	A	B	D	E
9/16 SU18		27/32	15/16	2 7/16	11/32
5/8 SU20		15/16	15/16	2 15/32	3/8
11/16 SU22		1 1/16	1 1/16	2 9/16	7/16
3/4 SU24		1 1/8	1 1/8	2 7/8	1/2
13/16 SU26		1 3/16	1 1/8	2 15/16	9/16
7/8 SU28		1 1/4	1 1/8	2 15/16	9/16
15/16 SU30		1 5/16	1 1/8	3	9/16



SU24

ASME/ANSI B107.1-1993



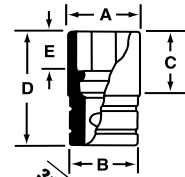
WARNING



- Do not use chrome or industrial finish sockets with impact drivers
- Read safety precautions on pages 594 to 597

SOCKETS

1/2" Drive Flank Drive® Impact



Shallow, mm

315IMMYA

IMDM150A

Set Contains:

315IMMYA

310IMMYA

315IMMYA

mm	6	12	A	B	C	D	E	6	6	12
10	IMM100A	IMDM100A	15	22.6	22.2	38.1	7.9	•	•	•
11	IMM110A	IMDM110A	18.2	22.6	22.2	38.1	8.7	•	•	•
12	IMM120A	IMDM120A	19	24.3	22.2	38.1	9.5	•	•	•
13	IMM130A	IMDM130A	20.6	24.3	22.2	38.1	10.3	•	•	•
14	IMM140A	IMDM140A	22.2	24.3	22.2	38.1	10.3	•	•	•
15	IMM150A	IMDM150A	23.8	26.4	22.2	38.1	10.3	•	•	•
16	IMM160A	IMDM160A	24.6	26.4	22.2	38.1	11.9	•	•	•
17	IMM170A	IMDM170A	25.4	26.7	22.2	38.1	12.7	•	•	•
18	IMM180	IMDM180	26.7	26.7	19.1	38.1	12.7	•	•	•
19	IMM190	IMDM190	28.3	28.3	21.3	38.1	12.7	•	•	•
20	IMM200	IMDM200	29.9	29.9	21.1	38.1	14.2	•	•	•
21	IMM210	IMDM210	31.5	31.5	21	38.1	14.2	•	•	•
22	IMM220	IMDM220	33.3	33.3	21.4	38.1	15.9	•	•	•
23	IMM230	IMDM230	34.1	34.1	27.8	44.5	15.9	•	•	•
24	IMM240	IMDM240	34.9	34.9	27.8	44.5	15.9	•	•	•
25	IMM250	—	29.8	29.8	27	44.5	15.9			
26	IMM260	—	38.1	38.1	33.3	50.8	15.9			
27	IMM270	—	39.4	39.4	27.1	50.8	20.3			
29	IMM290	—	41.1	41.1	33.3	50.8	21.1			
30	IMM300	—	42.7	42.7	32.1	50.8	21.6			
32	IMM320	IMDM320	45.8 (45.7)	45.8 (45.7)	32.1 (36.8)	50.8	22.4 (20.6)			
34	IMM340	—	47.6	42.9	40.5	52.4	22.4			
36	IMM360	IMDM360	50.5 (50.8)	45.8 (46.0)	40.5 (41.3)	57.2	22.4 (22.2)			
39	—	IMDM390	53.8	39.6	36.8	50.8	22.3			
46	IMM460	—	64.8	47.6	50.3	69.9	29.7			

Dimensions in () apply to 12-point sockets only.

Sets shown include storage tray

IMDM320 Applications: Uses include axle nuts on Mercedes W140 chassis 1992 to 1999 SC and SL Class, Porsche Boxer, Cayenne and K944 plus BMW X3, X5 and X6 Series 2007 and later. Other uses include drive shaft nuts on VW Touareg 2003 and later.

IMDM360 Applications: Use to remove pinion nuts on 2003 GM and 2004 Dodge Trucks with 11.5 AAM Axles. Other uses include Duramax Diesel Front Crankshaft bolts and late model BMW axle shafts.

IMDM390 Applications: Use on front axle hub of 2007 Toyota Tundra.



Shallow, inches

311IMYA

IMD200

Set Contains:

311IMYA

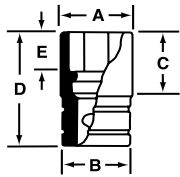
313IMD

307IMDYA

mm	6	12	A	B	C	D	E	6	12	12
3/8	IM120A	IMD120A	19/32	29/32	7/8	1 1/2	5/16	•	•	•
7/16	IM140A	IMD140A	23/32	29/32	7/8	1 1/2	11/32	•	•	•
1/2	IM160A	IMD160A	13/16	29/32	7/8	1 1/2	13/32	•	•	•
9/16	IM180A	IMD180A	7/8	29/32	7/8	1 1/2	13/32	•	•	•
5/8	IM200	IMD200	15/16	1	7/8	1 1/2	15/32	•	•	•
11/16	IM220	IMD220	1 1/16	1 1/16	3/4	1 1/2	1/2	•	•	•
3/4	IM240	IMD240	1 1/8	1 1/8	3/4	1 1/2	1/2	•	•	•
13/16	IM260	IMD260	1 1/4	1 1/4	3/4	1 1/2	1/2	•	•	•
7/8	IM280	IMD280	1 5/16	1 5/16	13/16	1 1/2	9/16	•	•	•
15/16	IM300	IMD300	1 3/8	1 3/8	1 1/16	1 3/4	3/4	•	•	•
1	IM320	IMD320	1 7/16	1 7/16	1 1/16	1 3/4	3/4	•	•	•
1 1/16	IM340	—	1 9/16	1 9/16	1	2	13/16			
1 1/8	IM360	IMD360	1 5/8	1 5/8	1	2	13/16		•	
1 3/16	IM380	—	1 11/16	1 1/2	1 3/32	2	13/16			
1 1/4	IM400	IMD400	1 3/4	1 1/2	1 5/32	2	13/16		•	
1 5/16	IM420H	—	1 7/8	1 1/2	1 3/8	2	7/8			
1 3/8	IM440	—	1 15/16	1 1/2	1 3/8	2	7/8			
1 7/16	IM460	—	2	1 1/2	1 3/8	2	15/16			
1 1/2	IM480	—	2 1/8	1 9/16	1 3/8	2	15/16			
1 9/16	IM500	—	2 1/4	1 5/8	1 11/16	2 5/16	15/16			

SOCKETS

1/2" Drive Flank Drive® Impact



315SIMMYA

Deep, mm

mm	6	A	B	C	D	E	Set Contains:			
							315SIMMYA	310SIMMYA	305SIMMY	325SIMM
10	SIMM100A	15.0	23.2	66.7	82.6	7.9	•	•		•
11	SIMM110A	18.2	23.2	66.7	82.6	8.7	•	•		•
12	SIMM120A	19.0	23.2	66.7	82.6	9.5	•	•		•
13	SIMM130A	20.6	23.2	66.7	82.6	10.3	•	•		•
14	SIMM140A	22.2	23.2	66.7	82.6	10.3	•	•		•
15	SIMM150A	23.8	23.8	50.0	82.6	10.3	•	•		•
16	SIMM160A	24.6	24.6	50.0	82.6	11.9	•	•		•
17	SIMM170	25.1	25.1	57.9	82.6	11.2	•	•		•
18	SIMM180	26.7	26.7	61.0	82.6	12.7	•	•		•
19	SIMM190	28.3	28.3	61.0	82.6	14.2	•	•		•
20	SIMM200	29.9	29.9	61.0	82.6	14.2	•			•
21	SIMM210	31.5	31.5	61.0	82.6	14.2	•			•
22	SIMM220	33.1	33.1	71.6	88.9	15.7	•			•
23	SIMM230	33.1	33.1	64.3	88.9	15.9	•			•
24	SIMM240	34.9	34.9	63.5	88.9	15.9	•			•
25	SIMM250	36.5	36.5	63.5	88.9	15.9				•
26	SIMM260	34.9	33.3	50.0	88.9	19.8				•
27	SIMM270	39.4	39.4	71.0	88.9	20.3				•
29	SIMM290	41.3	41.3	71.6	88.9	21.3			•	•
30	SIMM300	42.9	42.9	71.1	88.9	21.6			•	•
32	SIMM320	45.8	45.8	71.1	88.9	22.4				•
33	SIMM330	46.0	44.5	72.8	88.9	22.4				•
34	SIMM340	49.3	44.5	72.8	88.9	22.6			•	•
35	SIMM350	50.8	45.8	72.8	88.9	22.9			•	•
36	SIMM360	50.8	45.8	72.8	88.9	22.9			•	•

Sets shown include storage tray



313SIMA

Deep, inches

T	6	A	B	C	D	E	Set Contains:		
							313SIMA	309SIMA	320SIM
3/8	SIM120A	19/32	29/32	2 5/8	3 1/4	5/16			•
7/16	SIM140A	23/32	29/32	2 5/8	3 1/4	11/32			•
1/2	SIM160A	13/16	29/32	2 5/8	3 1/4	3/8	•	•	•
9/16	SIM180A	7/8	29/32	2 5/8	3 1/4	13/32	•	•	•
5/8	SIM200	31/32	29/32	2 5/8	3 1/4	15/32	•	•	•
11/16	SIM220	1 1/16	1 1/16	2 5/8	3 1/4	1/2	•	•	•
3/4	SIM240	1 1/8	1 1/8	2 5/8	3 1/4	9/16	•	•	•
13/16	SIM260	1 1/4	1 1/4	2 5/8	3 1/4	19/32	•	•	•
7/8	SIM280	1 5/16	1 5/16	2 3/32	3 1/2	9/16	•	•	•
15/16	SIM300	1 3/8	1 3/8	2 3/32	3 1/2	3/4	•	•	•
1	SIM320	1 7/16	1 7/16	2 7/8	3 1/2	3/4	•	•	•
1 1/16	SIM340	1 9/16	1 9/16	2 11/16	3 1/2	25/32	•		•
1 1/8	SIM360	1 5/8	1 5/8	2 11/16	3 1/2	25/32	•		•
1 3/16	SIM380	1 11/16	1 1/2	2 11/16	3 1/2	25/32	•		•
1 1/4	SIM400	1 3/4	1 1/2	2 11/16	3 1/2	1	•		•
1 5/16	SIM420H	1 7/8	1 1/2	2 11/16	3 1/2	15/16			•
1 3/8	SIM440	2	1 1/2	2 11/16	3 1/2	15/16			•
1 7/16	SIM460	2	1 1/2	2 21/32	3 1/2	15/16			•
1 1/2	SIM480	2 1/8	1 9/16	2 5/8	3 1/2	15/16			•
1 9/16	SIM500	2 1/4	1 5/8	2 5/8	3 1/2	15/16			•

Sets shown include storage tray



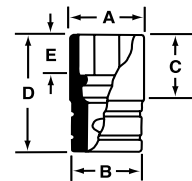
WARNING



• Read safety precautions on pages 594 to 597

SOCKETS

1/2" Drive Flank Drive® Impact



311IMFSY

Set Contains: 311IMFSY

Shallow Thin Wall, inches

11	6	A	B	C	D	E	6
3/8	IMFS120	19/32	7/8	3/8	1 1/2	7/32	•
7/16	IMFS140	11/16	7/8	9/16	1 1/2	11/32	•
1/2	IMFS160	3/4	7/8	5/8	1 1/2	3/8	•
9/16	IMFS180	13/16	7/8	11/16	1 1/2	13/32	•
5/8	IMFS200	29/32	29/32	3/4	1 1/2	15/32	•
11/16	IMFS220	1	1	13/16	1 1/2	1/2	•
3/4	IMFS240	1 1/16	1 1/16	13/16	1 1/2	1/2	•
13/16	IMFS260	1 1/8	1 1/8	25/32	1 1/2	1/2	•
7/8	IMFS280	1 7/32	1 7/32	29/32	1 1/2	9/16	•
15/16	IMFS300	1 5/16	1 5/16	1 3/16	1 17/32	3/4	•
1	IMFS320	1 3/8	1 3/8	1 3/16	1 9/16	3/4	•
1 1/16	IMFS340	1 7/16	1 7/16	1 1/4	1 11/16	13/16	•
1 1/8	IMFS360	1 1/2	1 1/2	1 1/4	1 3/4	13/16	•
1 3/16	IMFS380	1 5/8	1 5/8	1 1/4	1 3/4	13/16	•
1 1/4	IMFS400	1 11/16	1 11/16	1 1/4	1 7/8	13/16	•
1 5/16	IMFS420	1 3/4	1 3/4	1 1/4	1 7/8	13/16	•
1 3/8	IMFS440	1 13/16	1 13/16	1 1/4	2 1/16	13/16	•
1 7/16	IMFS460	1 29/32	1 29/32	1 3/8	2 1/16	13/16	•
1 1/2	IMFS480	2	2	1 3/8	2 1/16	13/16	•



SIMML150



Extra Deep, inches SIML200

Extra Deep, mm

mm	6	A	B	C	D	E
15	SIMML150	23.2	26.4	91.4	127.0	10.7



SIMMF21A

Extra Deep/Thin Wall, mm

Sockets are 34% thinner than a standard thin wall socket. Use to access nut on long studs and other hard-to-reach areas. Ideal for wheel lugs.

mm	6	A	B	C	D	E
14	SIMMF14A	20.6	23.8	50.8	76.2	25.4
17	SIMMF17A	23.8	23.8	50.8	76.2	25.4
19	SIMMF19A	25.4	25.4	50.8	76.2	25.4
21	SIMMF21A	28.6	28.6	50.8	76.2	25.4
22	SIMMF22	30.2	30.2	50.8	76.2	25.4

11	6	A	B	C	D	E
1/2	SIML160*	25/32	15/16	4 1/4	5	3/8
9/16	SIML180	7/8	15/16	4 1/4	5	13/32
5/8	SIML200	31/32	1	4 1/4	5	15/32
11/16	SIML220	1 1/16	1 1/16	4 1/4	5	1/2
3/4	SIML240	1 1/8	1 1/8	4 1/4	5	9/16
13/16	SIML260	1 1/4	1 1/4	4 1/4	5	19/32
7/8	SIML280	1 5/16	1 5/16	4 1/4	5	21/32
15/16	SIML300	1 3/8	1 3/8	4 1/4	5	23/32
1	SIML320	1 7/16	1 7/16	4 3/8	5	3/4
1 1/16	SIML340	1 9/16	1 9/16	4 3/8	5	25/32
1 1/8	SIML360	1 5/8	1 5/8	4 3/8	5	26/32

ASME/ANSI B107.2-2002

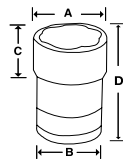
- Use for removing or replacing fuel tank retaining strap nuts
- Also has applications on emergency brake adjustment nuts and stabilizer retainers

1/2" Drive Special Application Impact

- Removes rounded/damaged fasteners



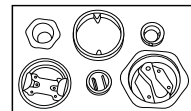
TTWY281A



SPS10



A172A



Twist/Shallow, inches

11	Stock No.	A	B	C	D
3/4	TTWY241A	1 1/32	1	1	1 5/8
13/16	TTWY261A	1 1/8	1	1	1 5/8
7/8	TTWY281A	1 3/16	1 1/16	1	1 5/8
15/16	TTWY301A	1 1/4	1 3/16	1	1 5/8
1	TTWY321A	1 5/16	1 1/4	1	1 5/8

305TTWYA Shallow Twist Set. TTWY241A thru TTWY321A (5 pcs) (3/4" to 1").

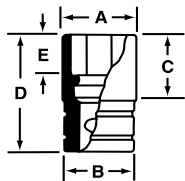
Shackle Pin

Designed with an oval configuration to service shackle pins on International Harvester and Kenworth semi trucks.
SPS10 41/64" x 1 3/32". 1 3/4" long.
SPS11 21/32" x 1 17/32". 1 3/4" long

Drum Plug

A172A One socket removes virtually all screws in drum plugs or caps. Spring-loaded inner wrench handles smaller plugs and recesses automatically when removing large plugs. Use with a 1/2" drive ratchet or impact wrench.

SOCKETS



1/2" Drive Special Application Impact



SIP18A

Deep Swivel, inches

		A	B	D	E
9/16	SIP18A	13/16	1 3/16	3 13/16	1 1/32
3/4	SIP24A	1 1/32	1 3/16	4 1/4	7/16

Semi-Deep Swivel, mm

		A	B	C	D	E
21	IPSM21	30.0	31.5	33.8	89.2	12.7



IPSM21

IPSM21 Metric Semi Deep Impact Swivel Socket.

Designed for GM and Ford upper control arm bolts. Welded pivot pin reinforces socket wall and allows full 30° of uninterrupted smooth action for efficient power transfer at any angle.

1/2" Drive Flank Drive®/Surface Drive



SPM19

Flank Drive® Deep, mm

		A	B	C	D	E
17	SPM17	24.6	24.6	66.6	82.6	12.7
19	SPM19	26.4	26.4	64.8	82.6	11.9
21	SPM21	28.3	28.3	64.8	82.6	12.3



DTM15A

Surface Drive Shallow, mm

		A	B	C	D	E
15	DTM15A	22.3	22.9	21.3	38.1	10.7



DTSM13A

Surface Drive Deep, mm

		A	B	C	D	E
13	DTSM13A	19.3	21.8	65.8	82.6	10.2
15	DTSM15A	22.3	21.8	65.8	82.6	10.7

- Surface drive sockets will engage with a fastener while rotating on a power nut runner

Surface Drive Deep, inches

		A	B	C	D	E
1/2	DTS16A	3/4	29/32	2 19/32	3 1/4	13/32
9/16	DTS18A	13/16	29/32	2 19/32	3 1/4	13/32

1/2" Drive Special Application Power



P412

Shallow Double Square, inches

		A	B	C	D	E
3/8	P412	13/32	7/8	7/8	1 1/2	5/16
7/16	P414	13/16	15/16	7/8	1 1/2	3/8
1/2	P416	29/32	1	7/8	1 1/2	5/16
9/16	P418	1	1 1/8	7/8	1 1/2	1/2
5/8	P420	1 3/32	1 3/16	7/8	1 1/2	1/2
11/16	P422	1 7/32	1 1/4	7/8	1 1/2	13/32
3/4	P424	1 5/16	1 3/8	7/8	1 1/2	9/16
13/16	P426	1 7/16	1 7/16	7/8	1 1/2	5/8
7/8	P428	1 1/2	1 9/16	7/8	1 1/2	5/8
1	P432	1 23/32	1 3/4	1 1/8	1 3/4	3/4



SIPR426

Deep Double Square, inches

		A	B	C	D	E
13/16	SIPR426	1 7/16	1 3/8	2 9/16	3 1/4	5/8
1	SIPR432	1 3/4	1 1/2	2 11/16	3 1/2	3/4
1 1/8	SIPR436	1 15/16	1 51/64	2 23/32	3 1/2	27/32



SIPRL436

Extra Deep Double Square, inches

		A	B	C	D	E
1 1/8	SIPRL436	1 15/16	1 1/2	4 13/32	5	27/32



MPK121A

Flank Drive/Magnetic, inches

		A	B	D	E
3/8	MPK121A	19/32	7/8	1 1/2	1/8
7/16	MPK141A	11/16	7/8	1 1/2	5/32
1/2	MPK161A	25/32	15/16	1 1/2	5/32
9/16	MPK181A	7/8	15/16	1 1/2	5/32



WARNING



- Do not use chrome or power sockets with impact drivers
- Read safety precautions on pages 594 to 597

SOCKETS

1/2" Drive Flank Drive® Impact Swivel



307IPLMY IPDLM12 Set Contains: 307IPLMY

mm	6	12	A	B	D	E	6
10	IPLM10C	—	15.6	23.8	73.7	9.7	
11	IPLM11C	—	17.8	23.8	73.7	9.7	
12	IPLM12C	IPDLM12	18.9	23.8	73.7	9.7	
13	IPLM13C	—	19.7	23.8	73.7	8.6	
14	IPLM14C	—	21.3	23.8	73.7	8.6	•
15	IPLM15C	—	22.6	23.8	73.7	8.6	•
16	IPLM16C	IPDLM16A	24.1	30.2	77.8	10.4	
17	IPLM17C	IPDLM17A	25.6	30.2	77.7	10.4	•
18	IPLM18C	IPDLM18A	26.7	30.2	77.7	10.4	•
19	IPLM19C	—	28.3	30.2	77.7	11.2	•
21	IPLM21C	—	31.5	30.2	77.7	12.7	•
22	IPLM22C	—	33.1	30.2	77.8	14.2	
24	IPLM24C	—	34.8	30.2	81.0	15.0	•

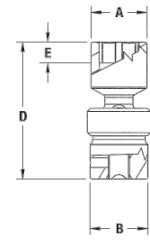
Set shown includes storage tray



307IPLY Set Contains: 307IPLY

11	6	12	A	B	D	E	6
1/2	IPL16C	IPDL16	3/4	15/16	2 29/32	11/32	
9/16	IPL18C	—	13/16	15/16	2 29/32	11/32	•
5/8	IPL20C	IPDL20	7/8	15/16	2 29/32	11/32	•
11/16	IPL22C	—	31/32	1 3/16	3 1/16	13/32	•
3/4	IPL24C	—	1 1/32	1 3/16	3 1/16	7/16	•
13/16	IPL26C	—	1 1/8	1 3/16	3 1/16	1/2	
7/8	IPL28C	—	1 3/16	1 3/16	3 1/16	9/16	•
15/16	IPL30C	—	1 9/32	1 3/16	3 1/16	5/8	•
1	IPL32C	—	1 11/32	1 3/16	3 1/16	11/16	
1 1/16	IPL34C	—	1 7/16	1 3/16	3 5/32	11/16	
1 1/8	IPL36C	—	1 1/2	1 3/16	3 11/32	3/4	•
1 3/16	IPL38C	—	1 9/16	1 3/16	3 11/32	3/4	
1 1/4	IPL40C	—	1 5/8	1 3/16	3 13/32	13/16	
1 5/16	IPL42C	—	1 3/4	1 3/16	3 13/32	7/8	

Set shown includes storage tray



3/4" Drive Flank Drive

Shallow, inches

11	12	A	B	C	D	E
3/4	LDH242	1 1/8	1 7/16	1 1/4	2	17/32
13/16	LDH262	1 7/32	1 7/16	1 1/4	2	11/16
7/8	LDH282	1 5/16	1 7/16	1 1/4	2	11/16
15/16	LDH302	1 3/8	1 7/16	1 1/4	2	23/32
31/32	LDH312	1 13/32	1 7/16	1 1/4	2	23/32
1	LDH322	1 15/32	1 1/2	1 5/16	2 1/16	3/4
1 1/16	LDH342	1 9/16	1 1/2	1 3/8	2 1/8	3/4
1 1/8	LDH362	1 5/8	1 1/2	1 7/16	2 3/16	13/16
1 3/16	LDH382	1 11/16	1 1/2	1 1/2	2 1/4	7/8
1 1/4	LDH402	1 3/4	1 1/2	1 1/2	2 1/4	15/16
1 5/16	LDH422A	1 7/8	1 5/8	1 9/16	2 5/16	7/8
1 3/8	LDH442	1 15/16	1 5/8	1 9/16	2 5/16	7/8
1 7/16	LDH462	2	1 5/8	1 5/8	2 3/8	15/16

ASME/ANSI B107.1-1993

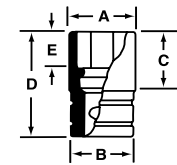
Shallow, inches



LDH482

11	12	A	B	C	D	E
1 1/2	LDH482	2 1/8	1 5/8	1 11/16	2 1/2	1 1/16
1 9/16	LDH502	2 3/16	1 3/4	1 7/8	2 5/8	1 5/32
1 5/8	LDH522	2 1/4	1 3/4	1 7/8	2 5/8	1 5/32
1 11/16	LDH542	2 3/8	1 3/4	2	2 3/4	1 3/16
1 3/4	LDH562	2 7/16	1 3/4	2	2 3/4	1 3/16
1 13/16	LDH582	2 1/2	1 3/4	2 1/8	2 7/8	1 1/4
1 7/8	LDH602	2 9/16	1 3/4	2 1/4	3	1 5/16
2	LDH642	2 3/4	1 3/4	2 3/8	3 1/8	1 3/8
2 1/16	LDH662	2 15/16	1 3/4	2 3/8	3 1/8	1 3/8
2 1/8	LDH682	2 15/16	1 3/4	2 1/2	3 1/4	1 7/16
2 3/16	LDH702	2 15/16	1 3/4	2 1/2	3 1/4	1 1/2
2 1/4	LDH722	3 1/8	1 3/4	2 5/8	3 3/8	1 1/2
2 3/8	LDH762	3 1/4	1 3/4	2 7/8	3 5/8	1 3/4

ASME/ANSI B107.1-1993



3/4" Drive Special Application



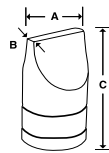
LDHM362

Shallow, mm

mm	12	A	B	C	D	E
22	LDHM222	31.1	34.6	30.2	50.8	17.1
24	LDHM242	33.4	34.6	31.8	50.8	17.9
27	LDHM272	37.3	39.5	31.8	54.0	19.9
30	LDHM302	41.0	39.8	34.0	57.2	21.8
36	LDHM362	49.3	41.2	35.1	58.7	22.1
41	LDHM412	55.1	44.5	42.9	66.5	26.7



GLD139



Deep, inches

11	6	A	B	C	D	E
1 1/16	LS342	1 9/16	1 1/2	2 3/4	3 1/2	1



LS342

Drag Link, inches

Stock No.	B x A	A	B	D
GLD138	13/64 x 1 3/8	1 3/8	13/64	2 3/16
GLD139	1/4 x 1 11/16	1 11/16	1/4	2 3/16

3/4" Drive Flank Drive® Impact

Shallow, mm

mm	6	12	A	B	C	D	E
17	IMM172A	—	29.2	41.1	27.2	50.8	13.7
18	IMM182A	—	31.6	41.1	27.2	50.8	12.7
19	IMM192A	—	31.8	41.1	27.2	50.8	13.7
20	IMM202A	IMMD202B	35.1	41.1	27.2	50.8	14.0
21	IMM212A	—	34.9	41.1	27.2	50.8	15.2
22	IMM222A	—	38.1	41.1	27.2	50.8	15.2
23	IMM232A	—	36.3	41.1	27.2	50.8	16.5
24	IMM242A	—	39.5	41.1	26.4	50.8	16.5
25	IMM252A	—	39.6	41.1	26.4	50.8	16.3
26	IMM262A	—	39.6	41.1	26.4	50.8	17.5
27	IMM272A	—	42.6	41.1	26.4	50.8	19.0
28	IMM282	—	44.7	41.1	32.8	57.2	17.5
29	IMM292	—	46.0	41.1	32.8	57.2	18.0
30	IMM302	—	47.0	44.5	32.8	57.2	19.1
31	IMM312	—	49.2	44.5	32.8	57.2	19.1
32	IMM322	—	50.8	44.5	32.8	57.2	20.6
33	IMM332	—	50.8	44.5	32.8	57.2	20.3
34	IMM342	—	50.8	44.5	32.8	57.2	22.4
35	IMM352	—	54.0	44.5	32.8	57.2	22.4
36	IMM362	—	54.0	44.5	32.8	57.2	22.4
38	IMM382	—	57.2	44.5	32.8	57.2	23.9
40	IMM402	—	59.7	44.5	45.5	69.9	28.4
41	IMM412	—	60.5	44.5	33.5	57.2	26.2
46	IMM462	—	66.7	44.5	45.5	69.9	29.0
50	IMM502	—	71.4	44.5	52.6	76.2	31.0

IMMD202B 12-Point Metric Shallow Impact Socket.
Specific applications include removing the head bolts on Caterpillar C7, C8, C9 and C10 engines.

Shallow, inches

	6	12	A	B	C	D	E
9/16	IM182A	IMD182A	1	1 5/8	1	1 3/4	7/16
5/8	IM202A	IMD202A*	1 3/32	1 5/8	1	1 3/4	1/2
11/16	IM222A	IMD222A	1 5/32	1 5/8	1	1 3/4	9/16
3/4	IM242A	IMD242A	1 1/4	1 5/8	1	1 3/4	9/16
13/16	IM262A	IMD262A	1 3/8	1 5/8	1 1/8	1 7/8	5/8
7/8	IM282A	IMD282A	1 1/2	1 5/8	1 1/8	1 7/8	5/8
15/16	IM302A	IMD302A*	1 9/16	1 5/8	1 1/8	1 7/8	3/4
1	IM322A	IMD322A*	1 5/8	1 5/8	1 1/4	2	3/4
1 1/16	IM342A	IMD342A	1 11/16	1 5/8	1 1/4	2	3/4
1 1/8	IM362	IMD362A	1 7/8	1 5/8	1 3/8	2 1/8	3/4
1 3/16	IM382	IMD382	1 7/8	1 5/8	1 5/16	2 1/8	3/4
1 1/4	IM402	IMD402	2	1 3/4	1 3/8	2 1/8	13/16
1 5/16	IM422	IMD422	2 1/8	1 3/4	1 1/2	2 1/4	7/8
1 3/8	IM442	IMD442	2 1/8	1 3/4	1 1/2	2 1/4	7/8
1 7/16	IM462	IMD462	2 1/4	1 3/4	1 1/2	2 1/4	7/8
1 1/2	IM482	IMD482	2 1/4	1 3/4	1 1/2	2 1/4	15/16
1 9/16	IM502	IMD502	2 7/16	1 3/4	1 9/16	2 3/8	15/16
1 5/8	IM522	IMD522	2 7/16	1 3/4	1 5/8	2 3/8	7/8
1 11/16	IM542	IMD542	2 1/2	1 3/4	1 13/16	2 9/16	1
1 3/4	IM562	IMD562	2 1/2	1 3/4	1 13/16	2 9/16	1
1 13/16	IM582	IMD582	2 5/8	1 3/4	1 5/8	2 5/8	1 1/4
1 7/8	IM602	IMD602	2 5/8	1 3/4	1 3/4	2 3/4	1 1/8
1 15/16	IM622A	IMD622	2 3/4	1 3/4	1 9/16	2 27/32	1 3/32
2	IM642A	IMD642	2 7/8	1 3/4	1 15/16	2 7/8	1 1/8
2 1/16	IM662A	IMD662	3	1 3/4	1 7/8	2 7/8	1 3/16
2 1/8	IM682A	IMD682	3	1 3/4	1 3/4	3	1 1/4
2 3/16	IM702A	IMD702	3 1/4	1 3/4	2 3/16	3 3/16	1 5/16
2 1/4	IM722A	IMD722	3 1/4	1 3/4	2 3/16	3 3/16	1 3/8
2 3/8	IM762A	IMD762	3 1/2	1 3/4	2 3/8	3 1/2	1 7/16

* Applications include repair of heavy duty trucks and off-road equipment, most diesel engines including Caterpillar and Cummins plus head bolts and bearing cap bolts.

IMD242A Applications: • Most Caterpillar head bolts
• Detroit Diesel main bearing cap bolts • K19 Cummins head bolts



Thin Wall, inches

	12	A	B	C	D	E
3/4	IMFDL242	1 3/8	1 5/8	4 3/4	5 3/4	1/2

Larger sizes available on special order.

IMFDL242 Deep Thin Wall Impact Socket

- Clearance on certain Caterpillar head bolts requires a thin walled socket that needs to be a certain length
- Designed to remove the head bolts on Caterpillar C12, C15, C16 and 3406Es where the front 2 and back 2 head bolts are positioned under the valve covers
- Additional applications include Detroit Diesel main bearing cap bolts and 19mm head bolts on Mercedes Benz MBE904 / MBE906 EGR engines (2007 and later)



Deep, mm

mm	6	12	A	B	C	D	E
17	SIMM172	—	28.9	41.1	52.6	76.2	12.7
19	SIMM192	—	32.4	41.1	51.8	76.2	14.2
21	SIMM212	SIMDM212	34.2 (33.3)	41.1 (41.3)	37.5 (19)	76.2	14.2 (18.3)
22	SIMM222	—	35.8	41.1	37.4	76.2	14.2
23	SIMM232	—	35.8	41.1	37.2	76.2	16.3
24	SIMM242	—	37.7	41.1	37.0	76.2	16.5
26	SIMM262	—	39.6	41.1	36.7	76.2	16.3
27	SIMM272	—	42.8	41.1	38.4	76.2	19.1
30	SIMM302	—	46.8	41.1	58.2	82.6	18.5
32	SIMM322	—	50.8	44.5	58.9	82.6	19.1
33	SIMM332	—	52.4	44.5	57.4	82.6	22.4
35	SIMM352	—	52.7	44.5	57.2	82.6	21.6
36	SIMM362	—	54.0	44.5	62.5	88.9	22.9
38	SIMM382	—	57.2	44.5	65.3	88.9	23.8
41	SIMM412*	—	55.1	44.5	74.9	100.1	26.7

* Applications include usage on Stud piloted, Budd style wheels.

Dimensions in () apply to 12-point sockets only.

SIMDM212 Application: Flywheel bolts on Cummins ISX engines.



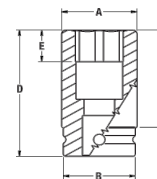
WARNING



- Do not use chrome or industrial finish hand sockets with impact drivers
- Read safety precautions on pages 594 to 597



SOCKETS

3/4" Drive Flank Drive® Impact



Deep, inches

SIM482

		A	B	C	D	E
9/16	SIM182	1	1 5/8	2 1/16	3	9/16
5/8	SIM202	1 1/16	1 5/8	2 1/16	3	9/16
11/16	SIM222	1 1/8	1 5/8	2 1/16	3	9/16
3/4	SIM242	1 1/4	1 5/8	2	3	9/16
13/16	SIM262	1 3/8	1 5/8	2	3	5/8
7/8	SIM282	1 1/2	1 5/8	2	3	5/8
15/16	SIM302	1 5/8	1 5/8	2	3	5/8
1	SIM322	1 5/8	1 5/8	2	3	11/16
1 1/16	SIM342	1 3/4	1 5/8	2	3	11/16
1 1/8	SIM362	1 3/4	1 5/8	2	3	3/4
1 3/16	SIM382	2	1 3/4	2 1/4	3 1/4	3/4
1 1/4	SIM402	2	1 3/4	2 1/4	3 1/4	7/8
1 5/16	SIM422	2 1/8	1 3/4	2 9/16	3 1/4	7/8
1 3/8	SIM442	2 1/8	1 3/4	2 1/4	3 1/4	7/8
1 7/16	SIM462	2 3/16	1 3/4	2 1/2	3 1/2	7/8
1 1/2	SIM482	2 1/4	1 3/4	2 1/2	3 1/2	15/16
1 9/16	SIM502	2 5/16	1 3/4	2 1/2	3 1/2	15/16
1 5/8	SIM522	2 7/16	1 3/4	2 1/2	3 1/2	15/16
1 11/16	SIM542	2 1/2	1 3/4	2 1/2	3 1/2	1
1 3/4	SIM562	2 1/2	1 3/4	2 1/2	3 1/2	1
1 13/16	SIM582	2 5/8	1 3/4	2 3/4	3 3/4	1 1/16
1 7/8	SIM602	2 11/16	1 3/4	2 3/4	3 3/4	1 1/8
2	SIM642A	2 13/16	1 3/4	2 3/4	3 3/4	1 1/8

Larger sizes available on special order.



IM243R



IM243P

3/4" Locking Rings and Pins

For use on SIM, IM, IMM and SIMM sockets and other sockets on this page.



Stock No.	Drive Size	Description	Use with
IM182R	3/4"	Rubber Locking Ring	All 3/4" Drive Sockets/Accessories
IMR2	3/4"	Socket Retainer	All 3/4" Drive Sockets/Accessories
Use the following for the IM124B Adaptor:			
IM243R	1"	Locking Ring	1" Drive Sockets/Accessories Up to 1 3/8"
IM243P	1"	Steel Locking Pin	1" Drive Sockets/Accessories Up to 1 3/8"

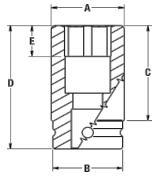
1" Drive Flank Drive Impact



IMM503

Shallow, 6-Point, mm



		A	B	C	D	E
27	IMM273	44.5	53.8	27.0	57.2	17.5
30	IMM303	47.8	53.8	27.0	57.2	17.5
32	IMM323	50.8	53.8	33.3	63.5	19.1
33	IMM333	52.3	53.8	33.3	63.5	22.4
36	IMM363	57.2	57.2	34.3	63.5	22.4
35	IMM353	53.8	53.8	33.5	63.5	22.4
38	IMM383	59.7	57.2	40.1	69.9	23.6
41	IMM413A	59.9	57.2	39.6	69.9	26.4
46	IMM463	69.9	60.5	44.2	76.2	30.0
50	IMM503	69.9	60.5	49.3	82.6	31.2
55	IMM553	82.6	60.3	46.7	82.6	31.8
60	IMM603	88.9	57.2	51.6	88.9	38.1
65	IMM653	92.1	60.5	63.8	101.6	45.7
70	IMM703	95.3	60.5	62.2	101.6	45.7
75	IMM753	104.8	60.5	67.1	108.0	51.6



SOCKETS

1" Drive Flank Drive® Impact



Shallow, 6-Point, inches

		A	B	C	D	E
7/8	IM283	1 1/2	2 1/8	1	2 1/8	11/16
15/16	IM303	1 19/32	2 1/8	1	2 1/8	11/16
1	IM323	1 11/16	2 1/8	1 1/16	2 1/4	11/16
1 1/8	IM363	1 7/8	2 1/8	1 1/16	2 1/4	11/16
1 3/16	IM383	1 7/8	2 1/8	1 1/16	2 1/4	11/16
1 1/4	IM403	2	2 1/8	1 3/16	2 3/8	3/4
1 5/16	IM423	2 1/16	2 1/8	1 15/16	2 1/2	7/8
1 3/8	IM443	2 1/8	2 1/8	1 15/16	2 1/2	7/8
1 7/16	IM463	2 1/4	2 1/4	1 7/16	2 1/2	15/16
1 1/2	IM483B	2 3/8	2 1/4	1 7/16	2 5/8	15/16
1 9/16	IM503A	2 3/8	2 1/4	1 7/16	2 5/8	15/16
1 5/8	IM523A	2 3/8	2 1/4	1 5/8	2 3/4	1 1/16
1 11/16	IM543	2 9/16	2 3/8	1 5/8	2 3/4	1 1/16
1 3/4	IM563	2 5/8	2 3/8	1 23/32	2 7/8	1 5/32
1 13/16	IM583	2 3/4	2 3/8	1 23/32	2 15/16	1 3/16
1 7/8	IM603	2 3/4	2 3/8	1 23/32	2 15/16	1 3/16
1 15/16	IM623	2 3/4	2 3/8	1 23/32	2 15/16	1 3/16
2	IM643	3	2 3/8	1 31/32	3 1/8	1 9/32
2 1/16	IM663	3	2 3/8	1 31/32	3 1/8	1 9/32
2 1/8	IM683	3 1/8	2 3/8	2 3/32	3 1/4	1 9/32
2 3/16	IM703	3 1/4	2 3/8	2 5/32	3 11/32	1 7/16
2 1/4	IM723	3 1/4	2 3/8	2 5/32	3 11/32	1 7/16
2 5/16	IM743	3 3/8	2 3/8	2 5/32	3 1/2	1 1/2
2 3/8	IM763	3 1/2	2 3/8	2 5/32	3 1/2	1 1/2
2 7/16	IM783	3 1/2	2 3/8	2 5/32	3 1/2	1 1/2
2 1/2	IM803	3 1/2	2 3/8	2 1/8	3 5/8	1 5/8
2 9/16	IM823	3 5/8	2 3/8	2 1/8	3 5/8	1 5/8
2 5/8	IM843	3 3/4	2 3/8	2 5/16	3 3/4	1 5/8
2 11/16	IM863	3 3/4	2 3/8	2 1/2	4	1 13/16
2 3/4	IM883	3 3/4	2 3/8	2 7/16	4	1 13/16
2 13/16	IM903	4	2 3/8	2 7/16	4	1 13/16
2 7/8	IM923	4	2 3/8	2 7/16	4	1 13/16
2 15/16	IM943	4 1/8	2 3/8	2 5/8	4 1/4	2
3	IM963	4 1/4	2 3/8	2 5/8	4 1/4	2 1/16
3 1/8	IM1003	4 1/4	2 3/8	2 9/16	4 1/4	2 1/16
3 1/4	IM1043	4 1/2	2 3/8	2 9/16	4 1/4	2 1/16
3 3/8	IM1083	4 5/8	2 3/8	2 3/4	4 1/2	2 1/4
3 1/2	IM1123	4 3/4	2 3/8	3	4 3/4	2 1/4
3 5/8	IM1163	5	2 3/8	2 15/16	4 3/4	2 5/16
3 11/16	IM1183	5 5/16	2 3/8	3 3/16	5	2 7/16
3 3/4	IM1203	5 1/8	2 3/8	2 7/8	4 3/4	2 3/8
3 13/16	IM1223	5 3/8	2 3/8	3 1/8	5	2 1/2
3 7/8	IM1243	5 1/4	2 3/8	3 1/8	5	2 9/16
3 15/16	IM1263	5 3/5	2 3/8	3 3/8	5 1/4	2 9/16
4	IM1283	5 1/2	2 3/8	3 1/16	5	2 9/16
4 1/16	IM1303	5 1/2	2 3/8	3 1/16	5	2 9/16
4 1/8	IM1323	5 9/16	2 3/8	3 1/16	5	2 9/16
4 3/16	IM1343	6	2 3/8	3	5	2 9/16
4 1/4	IM1363	5 3/4	2 3/8	3 1/4	5 1/4	2 5/8
4 5/16	IM1383	5 25/32	2 3/8	3 7/16	5 1/2	2 5/8
4 3/8	IM1403	5 13/16	2 3/8	3 3/16	5 1/4	2 5/8
4 7/16	IM1423	6	2 3/8	3 3/16	5 1/4	2 11/16
4 1/2	IM1443	6	2 3/8	3 3/16	5 1/4	2 5/8
4 9/16	IM1463	6 1/2	2 3/8	3 7/16	5 1/2	2 3/4
4 5/8	IM1483	6 7/16	2 3/8	3 7/8	6	3 1/16
4 3/4	IM1523	6 5/8	2 3/8	3 5/8	5 3/4	2 7/8
4 7/8	IM1563	7	2 3/8	3 9/16	5 3/4	3
5	IM1603	7	2 3/8	3 1/2	5 3/4	3
5 3/8	IM1723	7 1/2	2 3/8	4 7/16	6 3/4	3 9/16
5 3/4	IM1843	8 1/4	2 3/8	4 5/16	6 3/4	3 9/16



IM703

Deep, mm

		A	B	C	D	E
30	SIMM303	46.0	53.7	46.0	76.2	19.1
32	SIMM323	52.3	53.7	76.2	82.6	22.4
33	SIMM333*	52.3	53.7	53.3	88.6	22.4
38	SIMM383	60.3	57.2	59.7	88.9	25.4

* Applications include use on wheel lug nuts on Hub-Piloted wheel systems.



WARNING



• Read safety precautions on pages 594 to 597



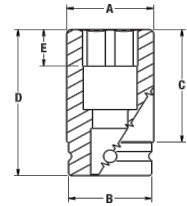
SIMM323

SOCKETS



1" Drive Flank Drive® Impact



SIM563



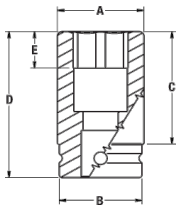
Deep, inches

		A	B	C	D	E
7/8	SIM283	1 19/32	2 1/8	1 13/16	3	5/8
15/16	SIM303	1 19/32	2 1/8	1 13/16	3	11/16
1	SIM323	1 19/32	2 1/8	1 13/16	3	3/4
1 1/16	SIM343	1 13/16	2 1/8	1 13/16	3	3/4
1 1/8	SIM363	1 13/16	2 1/8	1 13/16	3	3/4
1 3/16	SIM383	1 13/16	2 1/8	1 13/16	3	3/4
1 1/4	SIM403	2 1/16	2 1/8	2 1/16	3 1/4	7/8
1 5/16	SIM423*	2 1/16	2 1/8	2 1/16	3 1/4	7/8
1 3/8	SIM443	2 1/16	2 1/8	2 1/16	3 1/4	7/8
1 7/16	SIM463A	2 1/4	2 1/8	2 3/32	3 1/4	29/32
1 1/2	SIM483B**	2 3/8	2 1/4	2 11/32	3 1/2	1
1 9/16	SIM503A	2 3/8	2 1/4	2 11/32	3 1/2	1
1 5/8	SIM523B	2 3/8	2 1/4	2 1/2	3 5/8	1
1 11/16	SIM543	2 1/2	2 3/8	2 7/16	3 5/8	1 1/8
1 3/4	SIM563	2 3/4	2 3/8	2 11/16	3 7/8	1 1/8
1 13/16	SIM583	2 3/4	2 3/8	2 11/16	3 7/8	1 3/16
1 7/8	SIM603	2 3/4	2 3/8	2 11/16	3 7/8	1 3/16
1 15/16	SIM623	3	2 3/8	2 15/16	4 1/8	1 1/4
2	SIM643	3	2 3/8	2 15/16	4 1/8	1 5/16
2 1/16	SIM663	3	2 1/4	2 15/16	4 1/4	1 5/16
2 1/8	SIM683	3 1/8	2 1/4	2 7/8	4 1/4	1 5/16
2 3/16	SIM703	3 1/4	2 1/4	3 1/8	4 1/2	1 1/2
2 1/4	SIM723	3 1/4	2 3/8	3 1/8	4 1/2	1 1/2
2 5/16	SIM743	3 3/8	2 3/8	3 1/16	4 1/2	1 1/2
2 3/8	SIM763	3 1/2	2 3/8	3 1/16	4 1/2	1 1/2
2 7/16	SIM783	3 1/2	2 3/8	3 1/16	4 1/2	1 1/2
2 1/2	SIM803	3 1/2	2 3/8	3 1/4	4 3/4	1 5/8
2 9/16	SIM823	3 5/8	2 3/8	3 1/4	4 3/4	1 5/8
2 5/8	SIM843	3 3/4	2 3/8	3 1/4	4 3/4	1 5/8
2 11/16	SIM863	3 3/4	2 3/8	3 1/2	5	1 13/16
2 3/4	SIM883	3 3/4	2 3/8	3 7/16	5	1 13/16
2 13/16	SIM903	4	2 3/8	3 7/16	5	1 3/4
2 7/8	SIM923	4	2 3/8	3 7/16	5	1 3/4
2 15/16	SIM943	4 1/8	2 3/8	3 3/8	5	1 3/4
3	SIM963	4 1/4	2 3/8	3 5/8	5 1/4	1 3/4
3 1/8	SIM1003	4 1/4	2 3/8	3 9/16	5 1/4	1 7/8
3 1/4	SIM1043	4 1/2	2 3/8	3 9/16	5 1/4	1 7/8
3 3/8	SIM1083	4 1/2	2 3/8	4	5 3/4	2 1/4
3 1/2	SIM1123	4 3/4	2 3/8	4	5 3/4	2 1/4
3 5/8	SIM1163	5	2 3/8	3 15/16	5 3/4	2 1/4
3 11/16	SIM1183	5 5/16	2 3/8	3 15/16	5 3/4	2 7/16
3 3/4	SIM1203	5 1/8	2 3/8	3 7/8	5 3/4	2 1/4
3 13/16	SIM1223	5 3/8	2 3/8	4 1/8	6	2 1/2
3 7/8	SIM1243	5 1/4	2 3/8	4 3/8	6 1/4	2 9/16
3 15/16	SIM1263	5 1/2	2 3/8	4 3/8	6 1/4	2 3/8
4	SIM1283	5 1/2	2 3/8	4 5/16	6 1/4	2 9/16
4 1/16	SIM1303	5 1/2	2 3/8	4 5/16	6 1/4	2 1/2
4 1/8	SIM1323	5 9/16	2 3/8	4 5/16	6 1/4	2 9/16
4 3/16	SIM1343	6	2 3/8	4 1/4	6 1/4	2 1/2
4 7/16	SIM1423	6	2 3/8	4 3/16	6 1/4	2 11/16
4 1/2	SIM1443	6	2 3/8	4 7/16	6 1/2	2 3/4
4 9/16	SIM1463	6 1/2	2 3/8	4 7/16	6 1/2	2 3/4
4 5/8	SIM1483	6 5/8	2 3/8	4 3/8	6 1/2	2 13/16
4 3/4	SIM1523	6 5/8	2 3/8	4 5/8	6 3/4	2 7/8
4 7/8	SIM1563	7	2 3/8	4 9/16	6 3/4	3
5	SIM1603	7	2 3/8	4 1/2	6 3/4	3
5 3/8	SIM1723	7 1/2	2 3/8	5 7/16	7 3/4	3 9/16
5 3/4	SIM1843	8 1/4	2 3/8	5 5/16	7 3/4	3 9/16



* Applications include use on heavy duty wheel lug nuts.

** Applications include use on wheel lug nuts on stud-piloted/budd style wheel systems.

1" Drive Special Application Impact





Shallow Single Square, inches

		A	B	C	D	E
3/4	IM724	1 15/16	2 1/8	31/32	2 1/8	21/32
13/16	IM726	1 15/16	2 1/8	31/32	2 1/8	21/32
7/8	IM728	2 1/16	2 1/8	31/32	2 1/8	21/32
15/16	IM730	2 1/16	2 1/8	15/16	2 1/8	5/8
1	IM732	2 1/8	2 1/8	1 3/32	2 1/4	25/32
1 1/8	IM736	2 1/4	2 1/4	1 3/32	2 1/4	25/32



IM724



Shallow Double Square, inches

		A	B	C	D	E
1 1/4	IM740	2 3/8	2 3/8	1 1/8	2 3/8	13/16



IM740

Shallow Crawler Track Bolt, inches

		A	B	C	D	E
3/4	IMT243	1 7/16	2 1/8	15/16	2 1/8	11/16
15/16	IMT303	1 19/32	2 1/8	15/16	2 1/8	11/16



IMT243



IM243R





IM243P

1" Drive Locking Rings and Pins

Stock No.	Drive Size	Description	Use with
IM483R	1" Spline	Rubber Locking Pin, use with IM243R	All Spline Drive Sockets/Accessories 1" Drive Sockets from 1 7/16" and from 35mm
IM243R	1"	Synthetic Rubber Locking Ring for IM243 to IM443 , and SIM233 to SIM353	1" Drive Sockets/Accessories up to 1 3/8" and up to 35mm
IM243P	1"	Steel Locking Pin, use with IM243R	1" Drive Sockets/Accessories up to 1 3/8" and up to 35mm
IMR3	1" Spline	Socket Retainer	All Spline Drive Sockets/Accessories All 1" Drive Sockets/Accessories
IM483P	1" Spline	Steel Locking Pin	All Spline Drive Sockets/Accessories 1" Drive Sockets from 1 7/16" and from 35mm

1 1/2" Drive Flank Drive® Impact

Shallow, mm

		A	B	C	D	E
36	IMM365	73.0	82.6	34.5	76.2	25.4
38	IMM385	73.0	82.6	34.5	76.2	25.4
41	IMM415	73.0	82.6	34.5	76.2	27.7
46	IMM465	79.4	82.6	40.9	82.6	29.7
50	IMM505	79.4	82.6	47.2	88.9	31.8
55	IMM555	88.9	82.6	47.2	88.9	35.6
60	IMM605	94.5	82.6	58.2	101.6	38.6
65	IMM655	99.2	82.6	56.6	101.6	41.4
70	IMM705	105.6	82.6	61.7	108.0	45.7
75	IMM755	111.1	82.6	66.5	114.3	47.2



IMM365



WARNING



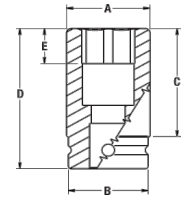
• Read safety precautions on pages 594 to 597

SOCKETS



1 1/2" Drive Flank Drive® Impact

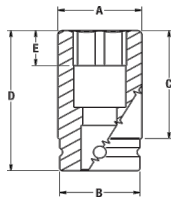


IM445



Shallow, inches

		A	B	C	D	E
1 3/8	IM445	2 7/8	3 1/4	1 3/8	3	1
1 7/16	IM465	2 7/8	3 1/4	1 3/8	3	1
1 1/2	IM485	3	3 1/4	1 3/8	3	1
1 9/16	IM505	3	3 1/4	1 3/8	3	1
1 5/8	IM525	2 7/8	3 1/4	1 3/8	3	1 1/16
1 11/16	IM545	3	3 1/4	1 3/8	3	1 1/16
1 3/4	IM565	3 1/8	3 1/4	1 5/8	3 1/4	1 1/8
1 13/16	IM585	3 1/8	3 1/4	1 5/8	3 1/4	1 3/16
1 7/8	IM605	3 1/8	3 1/4	1 7/8	3 1/2	1 3/16
1 15/16	IM625A	3 1/8	3 1/4	1 7/8	3 1/2	1 1/4
2	IM645	3 1/2	3 1/4	1 7/8	3 1/2	1 1/4
2 1/16	IM665	3 1/2	3 1/4	1 7/8	3 1/2	1 7/16
2 1/8	IM685	3 1/2	3 1/4	1 7/8	3 1/2	1 7/16
2 3/16	IM705	3 1/2	3 1/4	1 7/8	3 1/2	1 1/2
2 1/4	IM725A	3 3/4	3 1/4	2 1/8	3 3/4	1 7/16
2 5/16	IM745	3 3/4	3 1/4	2	3 3/4	1 1/2
2 3/8	IM765	3 7/8	3 1/4	2 1/4	4	1 1/2
2 7/16	IM785	3 7/8	3 1/4	2 1/4	4	1 9/16
2 1/2	IM805	3 7/8	3 1/4	2 1/4	4	1 5/8
2 9/16	IM825	3 7/8	3 1/4	2 1/4	4	1 5/8
2 5/8	IM845	4 1/16	3 1/4	2 1/2	4 1/4	1 11/16
2 11/16	IM865	4 1/8	3 1/4	2 1/2	4 1/4	1 11/16
2 3/4	IM885	4 1/4	3 1/4	2 3/8	4 1/4	1 13/16
2 13/16	IM905	4 3/8	3 1/4	2 3/8	4 1/4	1 13/16
2 7/8	IM925	4 3/8	3 1/4	2 3/8	4 1/4	1 13/16
2 15/16	IM945	4 3/8	3 1/4	2 5/8	4 1/2	1 15/16
3	IM965	4 7/16	3 1/4	2 5/8	4 1/2	1 15/16
3 1/16	IM985	4 11/16	3 1/4	2 5/8	4 1/2	1 15/16
3 1/8	IM1005	4 3/4	3 1/4	2 7/8	4 3/4	2
3 3/16	IM1025	4 3/4	3 1/4	2 1/2	4 1/2	2
3 1/4	IM1045	4 3/4	3 1/4	2 3/4	4 3/4	2 1/8
3 5/16	IM1065	5	3 1/4	2 3/4	4 3/4	2 1/8
3 3/8	IM1085	5	3 1/4	2 3/4	4 3/4	2 1/4
3 7/16	IM1105	5	3 1/4	3	5	2 1/4
3 1/2	IM1125	5 1/8	3 1/4	3	5	2 1/4
3 9/16	IM1145	5 1/8	3 1/4	2 7/8	5	2 1/4
3 5/8	IM1165	5 1/8	3 1/4	2 7/8	5	2 5/16
3 11/16	IM1185	5 1/4	3 1/4	3 1/8	5 1/4	2 3/8
3 3/4	IM1205	5 3/8	3 1/4	3 1/8	5 1/4	2 1/2
3 13/16	IM1225	5 3/8	3 1/4	3 1/8	5 1/4	2 1/2
3 7/8	IM1245	5 1/2	3 1/4	3 1/8	5 1/4	2 9/16
3 15/16	IM1265	5 1/2	3 1/4	3 1/8	5 1/4	2 9/16
4"	IM1285	5 5/8	3 1/4	3 1/4	5 1/2	2 5/8
4 1/16	IM1305	5 3/4	3 1/4	3 1/4	5 1/2	2 11/16
4 1/8	IM1325	5 13/16	3 1/4	3 1/4	5 1/2	2 3/4
4 1/4	IM1365	6	3 1/4	3 1/2	5 3/4	2 3/4
4 5/16	IM1385	6 1/4	3 1/4	3 1/2	5 3/4	2 7/8
4 3/8	IM1405	6 1/4	3 1/4	3 3/8	5 3/4	2 15/16
4 7/16	IM1425	6 1/4	3 1/4	3 3/8	5 3/4	3
4 1/2	IM1445	6 1/4	3 1/4	3 5/8	6	3 1/8
4 5/8	IM1485	6 1/2	3 1/4	3 7/8	6 1/4	3 1/8
4 3/4	IM1525	6 9/16	3 1/4	3 7/8	6 1/4	3 1/8
4 7/8	IM1565	6 11/16	3 1/4	3 3/4	6 1/4	3 3/16
5	IM1605	6 7/8	3 1/4	3 3/4	6 1/4	3 3/16
5 3/8	IM1725	7 5/16	3 1/4	3 5/8	6 1/4	3 7/16
5 3/4	IM1845	7 11/16	3 1/4	4 1/2	7 1/4	3 11/16
6 1/8	IM1965	8	3 1/4	4 3/8	7 1/4	3 15/16
6 1/2	IM2085	8 3/8	3 1/4	5	8	4 3/16
6 7/8	IM2205	8 13/16	3 1/4	4 7/8	8	4 3/8
7 1/4	IM2325	9 3/16	3 1/4	6 1/8	9 1/4	4 5/8
7 5/8	IM2445	9 1/2	3 1/4	6 1/4	9 1/2	4 7/8
8	IM2565	10	3 1/4	6 5/8	10	5 1/8





SOCKETS

1 1/2" Drive Flank Drive® Impact



SIM485

Deep, inches

		A	B	C	D	E
1 3/16	SIM445	2 7/8	3 1/4	2 5/8	4 1/4	1
1 7/16	SIM465	2 7/8	3 1/4	2 5/8	4 1/4	1
1 1/2	SIM485	2 7/8	3 1/4	2 5/8	4 1/4	1
1 5/8	SIM525	2 7/8	3 1/4	2 5/8	4 1/4	1 1/8
1 11/16	SIM545	3	3 1/4	2 5/8	4 1/4	1 1/8
2	SIM645	3 3/8	3 1/4	3 1/8	4 3/4	1 1/4
2 1/16	SIM665	3 7/16	3 1/4	3 1/8	4 3/4	1 5/16
2 3/16	SIM705	3 1/2	3 1/4	3 3/8	5	1 3/8
2 1/4	SIM725	3 9/16	3 1/4	3 5/8	5 1/4	1 1/2
2 5/16	SIM745	3 5/8	3 1/4	3 1/2	5 1/4	1 9/16
2 3/8	SIM765	3 3/4	3 1/4	3 1/2	5 1/4	1 9/16
2 7/16	SIM785	3 3/4	3 1/4	3 1/2	5 1/4	1 9/16
2 1/2	SIM805	3 7/8	3 1/4	3 1/2	5 1/4	1 5/8
2 9/16	SIM825	3 7/8	3 1/4	3 3/4	5 1/2	1 5/8
2 5/8	SIM845	4	3 1/4	3 3/4	5 1/2	1 11/16
2 11/16	SIM865	4 1/8	3 1/4	3 3/4	5 1/2	1 3/4
2 3/4	SIM885	4 1/8	3 1/4	3 5/8	5 1/2	1 13/16
2 13/16	SIM905	4 1/4	3 1/4	3 7/8	5 3/4	1 13/16
2 7/8	SIM925	4 5/16	3 1/4	3 7/8	5 3/4	1 7/8
2 15/16	SIM945	4 3/8	3 1/4	3 7/8	5 3/4	1 15/16
3	SIM965	4 7/16	3 1/4	4 1/8	6	1 15/16
3 1/16	SIM985	4 9/16	3 1/4	4 1/8	6	2
3 1/8	SIM1005	4 5/8	3 1/4	4 1/8	6	2 1/16
3 3/16	SIM1025	4 11/16	3 1/4	4 1/4	6 1/4	2 1/8
3 1/4	SIM1045	4 3/4	3 1/4	4 1/4	6 1/4	2 1/8
3 5/16	SIM1065	4 7/8	3 1/4	4 1/4	6 1/4	2 3/16
3 3/8	SIM1085	4 15/16	3 1/4	4 1/4	6 1/4	2 1/4
3 7/16	SIM1105	5	3 1/4	4 1/2	6 1/2	2 1/4
3 1/2	SIM1125	5 1/16	3 1/4	4 1/2	6 1/2	2 5/16
3 9/16	SIM1145	5 1/8	3 1/4	4 3/8	6 1/2	2 3/8
3 5/8	SIM1165	5 1/4	3 1/4	4 5/8	6 3/4	2 7/16
3 11/16	SIM1185	5 5/16	3 1/4	4 5/8	6 3/4	2 7/16
3 3/4	SIM1205	5 3/8	3 1/4	4 5/8	6 3/4	2 1/2
3 13/16	SIM1225	5 7/16	3 1/4	4 7/8	7	2 1/2
3 7/8	SIM1245	5 1/2	3 1/4	4 7/8	7	2 9/16
3 15/16	SIM1265	5 5/8	3 1/4	5 1/8	7 1/4	2 9/16
4	SIM1285	5 5/8	3 1/4	5	7 1/4	2 5/8
4 1/16	SIM1305	5 3/4	3 1/4	5 1/4	7 1/2	2 11/16
4 1/8	SIM1325	5 13/16	3 1/4	5 1/4	7 1/2	2 3/4
4 1/4	SIM1365	6	3 1/4	5 1/2	7 3/4	2 13/16
4 5/16	SIM1385	6 1/4	3 1/4	5 1/2	7 3/4	3
4 3/8	SIM1405	6 1/4	3 1/4	5 3/8	7 3/4	3
4 1/2	SIM1445	6 1/4	3 1/4	5 5/8	8	3
4 5/8	SIM1485	6 3/8	3 1/4	5 5/8	8	3 1/16
4 3/4	SIM1525	6 1/2	3 1/4	5 5/8	8	3 1/16



IM243R



IM243P

Locking Rings and Pins for 1 1/2" Extensions, Adaptors, Impact Sockets and 2 1/2" Impact Sockets

Stock No.	Drive Size	Description	Use with
IM243R	1 1/2"	Synthetic Rubber Locking Ring, for IM35	1" Drive Sockets/Accessories up to 1 3/8" and up to 35mm
IM243P	1 1/2" Spline	Steel Locking Pin, for IM35	1" Drive Sockets/Accessories up to 1 3/8" and up to 35mm
IM445R	1 1/2"	Synthetic Rubber Locking Ring, for IM105, IM205, IM59, IP85, and "IGE Series" sockets	All 1 1/2" Drive Sockets/Accessories
IM729P	2 1/2"	Steel Locking Pin, for IM95	All 2 1/2" Drive Sockets



WARNING



• Read safety precautions on pages 594 to 597

SOCKETS

Torx® Bit Sockets



212EFTXY

GFTX45E

Torx/Standard

Set Contains:

#	Stock No.	Stock No.	Square Drive, In.	A	B		
T8	TTX8E	GTTX8E	1/4	1 9/16	TTX8E2	•	
T10	TTX10E	GTTX10E	1/4	1 9/16	TTX10E2	•	
T15	TTX15E	GTTX15E	1/4	1 9/16	TTX15E2	•	
T20	TTX20E	GTTX20E	1/4	1 9/16	TTX20E2	•	
T25	TTX25E	GTTX25E	1/4	1 9/16	TTX25E2	•	
T27	TTX27E	—	1/4	1 9/16	FTX27E2		
T30	TTX30E	—	1/4	1 9/16	FTX30E2		
T40	TTX40E	—	1/4	1 9/16	FTX40E2		
T27	FTX27E	GFTX27E	3/8	1 3/4	FTX27E2	•	•
T30	FTX30E	GFTX30E	3/8	1 3/4	FTX30E2	•	•
T40	FTX40E	GFTX40E	3/8	1 3/4	FTX40E2	•	•
T45	FTX45E	GFTX45E	3/8	2 1/16	FTX45E2	•	•
T50	FTX50E	GFTX50E	3/8	2 1/16	FTX50E2	•	•
T55	FTX55E	GFTX55E	3/8	2 1/32	FTX55E2	•	•
T60	FTX60E	—	3/8	2 5/16	FTX60E2		
T55	STX55E	—	1/2	2 9/16	FTX55E2		
T60	STX60E	—	1/2	3 11/32	STX60E2		
T70	STX70E	—	1/2	3 1/2	STX70E2		

Sets shown include storage tray

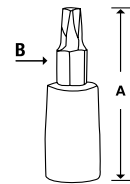
212EFTXY and 207EFTXY sets also include the FTX47SE GM Style Torx Socket Driver. **STX70E** Applications: include brake rotor retaining bolts on GM C4500 Trucks (2003 and later) and torque converter drain plug on Subaru, Legacy, Impreza and Forester (2003 and later).



FTXL40E

Torx/Long

#	Stock No.	Square Drive, In.	A	B
T8	TTXL8E	1/4	4 1/6	TTXL8E2
T10	TTXL10E	1/4	4 1/6	TTXL10E2
T15	TTXL15E	1/4	4 1/6	TTXL15E2
T20	TTXL20E	1/4	4 1/6	TTXL20E2
T25	TTXL25E	1/4	4 1/6	TTXL25E2
T27	FTXL27E	3/8	4 1/4	FTXL27E2
T30	FTXL30E	3/8	4 1/4	FTXL30E2
T40	FTXL40E	3/8	4 1/4	FTXL40E2
T45	FTXL45E	3/8	4 1/4	FTXL45E2
T50	FTXL50E	3/8	4 1/4	FTXL50E2
T45	STXL45E	1/2	4 5/8	STXL45E2
T50	STXL50E	1/2	4 5/8	STXL50E2
T55	STXL55E	1/2	4 5/8	STXL55E2
T60	STXL60E	1/2	4 5/8	STXL60E2



207EFTXYSE

Torx/Stubby

Set Contains:

#	Stock No.	Square Drive, In.	A	B	
T27	FTX27SE	3/8	1 13/32	FTX27SE2	•
T30	FTX30SE	3/8	1 13/32	FTX30SE2	•
T40	FTX40SE	3/8	1 13/32	FTX40SE2	•
T45	FTX45SE	3/8	1 13/32	FTX45SE2	•
T47	FTX47SE	3/8	1 13/32	FTX47SE2	•
T50	FTX50SE	3/8	1 13/32	FTX50SE2	•
T55	FTX55SE	3/8	1 7/16	FTX55SE2	•

Sets shown include storage tray

207EFTXYSE Applications: BMW under dash and sensors in engine compartment. Porsche 911 and Cayenne ignition coil bolts. Honda airbag control module inside passenger compartment of dashboard. Cadillac water pump and oil drain plugs. Various applications on motorcycles.



105TUTX

Torx/Stubby Universal

Set Contains:

#	Stock No.	Square Drive, In.	A	
T20	TUTX20E	1/4	1 3/4	•
T25	TUTX25E	1/4	1 3/4	•
T27	TUTX27E	1/4	1 3/4	•
T30	TUTX30E	1/4	1 3/4	•
T40	TUTX40E	1/4	1 3/4	•

Sets shown include storage tray

105TUTX Applications: T40 for Porsche 2005 and newer 911, Boxer Cayenne for ignition coil bolts. T30 for Volvo turbo return lines. T30 for Honda airbag control module inside passenger compartment of dashboard. T30 for pump alignment on Mitsubishi F4A51 transmissions (97 and later). Numerous other applications for Mercedes that require a stubby Torx where a regular Torx bit socket will not fit in T20, T25 and T27.



209EFTXBY

Torx/Heavy Duty Removal

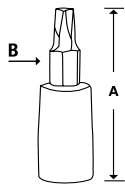
Set Contains:

#	Stock No.	Square Drive, In.	A	B	
T15	TTXB15E	1/4	1 9/16	TTXB15E2	•
T20	TTXB20E	1/4	1 9/16	TTXB20E2	•
T25	TTXB25E	1/4	1 9/16	TTXB25E2	•
T27	FTXB27E	3/8	1 13/16	FTXB27E2	•
T30	FTXB30E	3/8	1 13/16	FTXB30E2	•
T40	FTXB40E	3/8	1 13/16	FTXB40E2	•
T45	FTXB45E	3/8	1 1/16	FTXB45E2	•
T50	FTXB50E	3/8	1 1/16	FTXB50E2	•
T55	STXB55E	3/8	1 1/16	STXB55E2	•

Sets shown include storage tray

SOCKETS

Torx® Bit



210EFTXRY

Torx/Tamper Resistant

Set Contains: 210EFTXRY

#	Stock No.	Square Drive, In.	A	B	
T8	TTXR8E	1/4	1 9/16	TTXR8E2	•
T10	TTXR10E	1/4	1 9/16	TTXR10E2	•
T15	TTXR15E	1/4	1 9/16	TTXR15E2	•
T20	TTXR20E	1/4	1 9/16	TTXR20E2	•
T25	TTXR25E	1/4	1 9/16	TTXR25E2	•
T27	FTXR27E	3/8	1 3/4	FTXR27E2	•
T30	FTXR30E	3/8	1 3/4	FTXR30E2	•
T40	FTXR40E	3/8	1 3/4	FTXR40E2	•
T45	FTXR45E	3/8	2 1/16	FTXR45E2	•
T50	FTXR50E	3/8	2 1/16	FTXR50E2	•



211EFTXRTPY

Torx Plus/Tamper Resistant

Set Contains: 211EFTXRTPY

#	Stock No.	Square Drive, In.	A	B	
8IPR	TTXR8TPE	1/4	1 9/16	TTXR8TPE2	•
10IPR	TTXR10TPE	1/4	1 9/16	TTXR10TPE2	•
15IPR	TTXR15TPE	1/4	1 9/16	TTXR15TPE2	•
20IPR	TTXR20TPE	1/4	1 9/16	TTXR20TPE2	•
25IPR	TTXR25TPE	1/4	1 9/16	TTXR25TPE2	•
27IPR	FTXR27TPE	3/8	1 3/4	FTXR27TPE2	•
30IPR	FTXR30TPE	3/8	1 3/4	FTXR30TPE2	•
40IPR	FTXR40TPE	3/8	1 3/4	FTXR40TPE2	•
45IPR	FTXR45TPE	3/8	2 1/32	FTXR45TPE2	•
50IPR	FTXR50TPE	3/8	2 5/32	FTXR50TPE2	•
55IPR	FTXR55TPE	3/8	2 11/32	FTXR55TPE2	•

211EFTXRTPY Applications: 2003 Ford Mustang transmissions, 2004 Ford F150 transfer case, 2004 Porsche Cayenne turbo air sensor, Delphi and Stanadyne pumps, Cummins B and C engine injection pumps and John Deere diesel injector pumps.



FTXEL45E

Special Application Torx (3/8" Drive)

#	Stock No.	Description	A	B
T40	FTXEL40E	Extra Long	7 1/2	FTXEL40E2
T47	FTX47E	GM Style	2 1/16	FTX47E2
T45	FTXEL45E	Extra Long	7 11/16	FTXEL45E2
T40	FTXR40TPE	Tamper Resistant	1 3/4 (44.7)	FTXR40TPE2
T47	GFTX500E	GM Style	2 1/16	FTX500E2

FTXEL40E Applications include service on intake manifold bolts on Ford 5.0L engines with fuel injection, model years 1985 to 1990.

FTXEL45E Quickly and easily access intake bolts on Cummins N14 diesel engines without removing the air pump. Can also be used on older Cummins NH Big Cam 4 diesel engines. 3/8" square drive.

FTX47E For use on GM door strikers.

GFTX500E For use on GM door strikers and seat belt bolts.



WARNING



- Do not use chrome or power sockets with impact drivers
- Read safety precautions on pages 594 to 597



211EFTXTPY

Torx Plus®

Set Contains: 211EFTXTPY

#	Stock No.	Square Drive, In.	A	B	
8IP	TTX8TPE	1/4	1 9/16	TTX8TPE2	•
10IP	TTX10TPE	1/4	1 9/16	TTX10TPE2	•
15IP	TTX15TPE	1/4	1 9/16	TTX15TPE2	•
20IP	TTX20TPE	1/4	1 9/16	TTX20TPE2	•
25IP	TTX25TPE	1/4	1 9/16	TTX25TPE2	•
27IP	FTX27TPE	3/8	1 3/4	FTX27TPE2	•
30IP	FTX30TPE	3/8	1 3/4	FTX30TPE2	•
40IP	FTX40TPE	3/8	1 3/4	FTX40TPE2	•
45IP	FTX45TPE	3/8	2 1/8	FTX45TPE2	•
50IP	FTX50TPE	3/8	2 1/8	FTX50TPE2	•
55IP	FTX55TPE	3/8	2 5/16	FTX55TPE2	•

Torx Plus fasteners may be found in almost all vehicles from the 1999 model year to present. Common applications include GM transmissions bell housing bolts and Ford seat belt anchors. T27IP size can be used to service Taurus and Sable front spring shields. Use of a standard Torx driver on Torx Plus fasteners may result in a rounded out fastener head or damaged driver.



PFTX30E

Torx/Power Drivers

#	Stock No.	Square Drive, In.	A	B
T20	PTTX20E	1/4	1 9/16	PTTX20E2
T25	PTTX25E	1/4	1 9/16	PTTX25E2
T27	PFTX27E	3/8	1 3/4	PTTX27E2
T30	PFTX30E	3/8	1 3/4	PTTX30E2
T40	PFTX40E	3/8	1 3/4	PTTX40E2
T45	PSTX45E	1/2	2 7/16	PTTX45E2
T50	PSTX50E	1/2	2 7/16	PTTX50E2
T50	PSTX500*	1/2	2 7/16	PTTX500E2
T55	PSTX55E	1/2	2 7/16	PTTX55E2

* GM Style



GFTX500E

SOCKETS

Torx® Bit-Blue-Point®



BLPTORX1410



BLPTS1425TP

Torx/Stubby

Set Contains:

BLPTORX1410

#	Stock No.	Square Drive, in.	A	
T10	BLPTS1410	1/4	3/4	•
T15	BLPTS1415	1/4	3/4	•
T20	BLPTS1420	1/4	3/4	•
T25	BLPTS1425	1/4	3/4	•
T27	BLPTS1427	1/4	3/4	•
T30	BLPTS1430	1/4	3/4	•
T40	BLPTS1440	1/4	3/4	•
T45	BLPTS1445	1/4	3/4	•
T47	BLPTS1447	1/4	3/4	•
T50	BLPTS1450	1/4	3/4	•

Sets shown include storage tray

Torx/ Tamer Resistant, Stubby

#	Stock No.	Square Drive, in.	A
T8	BLPTS148TP	1/4	3/4
T10	BLPTS1410TP	1/4	3/4
T15	BLPTS1415TP	1/4	3/4
T20	BLPTS1420TP	1/4	3/4
T25	BLPTS1425TP	1/4	3/4
T27	BLPTS1427TP	1/4	3/4
T30	BLPTS1430TP	1/4	3/4
T40	BLPTS1440TP	1/4	3/4
T45	BLPTS1445TP	1/4	3/4
T50	BLPTS1450TP	1/4	3/4

Torx/ Tamer Resistant, Long



BLPTL1425TP

#	Stock No.	Square Drive, in.	A
T6	BLPTL146TP	1/4	3 15/16
T7	BLPTL147TP	1/4	3 15/16
T8	BLPTL148TP	1/4	3 15/16
T9	BLPTL149TP	1/4	3 15/16
T10	BLPTL1410TP	1/4	3 15/16
T15	BLPTL1415TP	1/4	3 15/16
T20	BLPTL1420TP	1/4	3 15/16
T25	BLPTL1425TP	1/4	3 15/16
T27	BLPTL1427TP	1/4	3 15/16
T30	BLPTL1430TP	1/4	3 15/16
T40	BLPTL3840TP	3/8	4 3/8
T45	BLPTL3845TP	3/8	4 3/8
T50	BLPTL3850TP	3/8	4 3/8
T55	BLPTL1255TP	1/2	4 5/8
T60	BLPTL1260TP	1/2	4 5/8



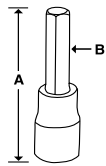
BLPT3820TP

Torx/ Tamer Resistant, Standard

#	Stock No.	Square Drive, in.	A
T6	BLPT146TP	1/4	1 7/16
T7	BLPT147TP	1/4	1 7/16
T8	BLPT148TP	1/4	1 7/16
T9	BLPT149TP	1/4	1 7/16
T10	BLPT1410TP	1/4	1 7/16
T15	BLPT1415TP	1/4	1 7/16
T20	BLPT1420TP	1/4	1 7/16
T25	BLPT1425TP	1/4	1 7/16
T27	BLPT1427TP	1/4	1 7/16
T30	BLPT1430TP	1/4	1 7/16
T10	BLPT3810TP	3/8	1 27/32
T15	BLPT3815TP	3/8	1 27/32
T20	BLPT3820TP	3/8	1 27/32
T25	BLPT3825TP	3/8	1 27/32
T27	BLPT3827TP	3/8	1 27/32
T30	BLPT3830TP	3/8	1 27/32
T40	BLPT3840TP	3/8	2
T45	BLPT3845TP	3/8	2
T50	BLPT3850TP	3/8	2
T55	BLPT3855TP	3/8	2
T55	BLPT1255TP	1/2	2 5/16
T60	BLPT1260TP	1/2	2 5/16

SOCKETS

Hex Bit



211EFAMY



210EFTAMY

Hex/Standard, mm

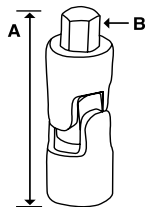
mm	Hexagon	Square Drive, In.	Set Contains:		Set Contains:				
			A	B	210EFTAMY	211EFAMY	307ESAMY	207EFAMY	106EFTAMY
2	TMAM2E	1/4	47.8	TMAM2E2A	•				
2.5	TMAM2.5E	1/4	47.8	TMAM2.5E2	•				
3	TMAM3E	1/4	47.8	TMAM3E2	•				
4	TMAM4E	1/4	47.8	FAM4E2	•				
5	TMAM5E	1/4	47.8	FAM5E2	•				
6	TMAM6E	1/4	47.8	FAM6E2	•				
4	FAM4E	3/8	52.3	FAM4E2		•	•	•	
5	FAM5E	3/8	52.6	FAM5E2		•	•	•	
6	FAM6E	3/8	52.6	FAM6E2		•	•	•	
7	FAM7E	3/8	52.6	FAM7E2		•	•	•	
8	FAM8E	3/8	52.6	FAM8E2		•	•	•	
9	FAM9E	3/8	52.6	FAM9E2		•	•	•	
10	FAM10E	3/8	52.6	SAM10E2		•	•	•	
11	FAM11E	3/8	69.9	FAM11E2				•	
12	FAM12E	3/8	69.9	FAM12E2				•	
13	FAM13E	3/8	69.9	FAM13E2				•	
14	FAM14E	3/8	69.9	FAM14E2				•	
6	SAM6E	1/2	60.5	FAM6E2					•
8	SAM8E	1/2	62	FAM8E2					•
10	SAM10E	1/2	62.8	SAM10E2					•
12	SAM12E	1/2	81	SAM12E2					•
14	SAM14E	1/2	81	SAM14E2					•
17	SAM17E	1/2	93.7	SAM17E2					•
19	SAM19E	1/2	103.1	SAM19E2					•



208EFTAMXSY

Hex/Stubby, mm

mm	Hexagon	Square Drive, In.	A	B	Hexagon	Set Contains:
						208EFTAMXSY
3	TMAMXS3E	1/4	26.0	TMAMXS3E2	•	
4	TMAMXS4E	1/4	27.0	TMAMXS4E2	•	
5	TMAMXS5E	1/4	27.0	TMAMXS5E2	•	
6	TMAMXS6E	1/4	29.0	TMAMXS6E2	•	
7	FAMXS7E	3/8	34.7	FAMXS7E2	•	
8	FAMXS8E	3/8	35.7	FAMXS8E2	•	
9	FAMXS9E	3/8	36.7	FAMXS9E2	•	
10	FAMXS10E	3/8	37.7	FAMXS10E2	•	



TUAM6E

Hex/Universal Stubby, mm

mm	Hexagon	Square Drive, In.	A
5	TUAM5E	1/4	38.1
6	TUAM6E	1/4	38.1



206EFAML

Hex/Long, mm

mm	Hexagon	Square Drive, In.	A	B	Hexagon	Set Contains:
						206EFAML
4	FAML4E	3/8	153.9	FAML4E2	•	
5	FAML5E	3/8	153.9	FAML5E2	•	
6	FAML6E	3/8	153.9	FAML6E2	•	
7	FAML7E	3/8	153.9	FAML7E2	•	
8	FAML8E	3/8	153.9	FAML8E2	•	
10	FAML10E	3/8	153.4	FAML10E2	•	
12	SAM12LE	1/2	98.0	SAM12LE		•

Ball Hex/Standard, mm

mm	Ball Hexagon	Square Drive, In.	Set Contains:		Ball Hexagon
			A	B	
3	TMABM3E	1/4	47.7	TMABM3E2	•
4	TMABM4E	1/4	47.6	TMABM4E2	•
5	TMABM5E	1/4	47.9	TMABM5E2	•
6	TMABM6E	1/4	47.9	TMABM6E2	•
7	FABM7E	3/8	52.5	FABM7E2	•
8	FABM8E	3/8	52.5	FABM8E2	•
9	FABM9E	3/8	52.5	FABM9E2	•
10	FABM10E	3/8	52.5	FABM10E2	•

SAM12LE Applications: Essential for removal or installation of bolt found on the lower forks of 2006 and newer Harley-Davidson® Dyna® series. Used when servicing the internal parts of the fork.



208EFTABMY



WARNING



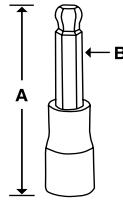
- Do not use chrome or industrial finish tools with impact drivers
- Read safety precautions on pages 594 to 597

SOCKETS

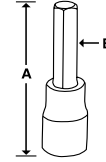
Metric Hex Bit



206EFABLM



FADM8E



Double Hex socket drivers and Triple Square socket drivers cannot be interchanged between applications. Triple square socket drivers have 90° corners. Double hex socket drivers have 120° corners. Using a Triple Square tool in a Double Hex application will strip the bolt head. In general, Triple Square tools are used on European vehicles and Double Hex tools are used on Asian vehicles.

Ball Hex/Long, mm

Set Contains: 206EFABLM

mm	Icon	Square Drive, In.	A	B	Icon
4	FABLM4E	3/8	129.3	FABLM4E2	•
5	FABLM5E	3/8	128.5	FABLM5E2	•
6	FABLM6E	3/8	128.5	FABLM6E2	•
7	FABLM7E	3/8	128.5	FABLM7E2	•
8	FABLM8E	3/8	127.3	FABLM8E2	•
10	FABLM10E	3/8	128.3	FABLM10E2	•

Set shown includes storage tray

Double Hex, mm

mm	Icon	Square Drive, In.	A	B
8	FADM8E	3/8	51.3	FADM8E2
8	FADM8LE	3/8	121.9	FADM8LE2
10	SADM10E	1/2	100	SADM10E2

FADM8E / FADM8LE Applications: Removal/installation of head bolts on Toyota Tercel 1995 and later, and Paseo (1992 to 1997).

SADM10E Applications: Removal/installation of head bolts on Toyota Highlander, 4Runner, Camry, Matrix, Corolla and Lexus IS300, GS300, SC300 vehicles.

Hex, mm (Power)

mm	Icon	Square Drive, In.	A	B
4	PFAM4E	3/8	52.3	FAM4E2
5	PFAM5E	3/8	52.6	FAM5E2
6	PFAM6E	3/8	52.6	FAM6E2
7	PFAM7E	3/8	52.5	FAM7E2
8	PFAM8E	3/8	52.1	FAM8E2
9	PFAM9E	3/8	52.5	FAM9E2
10	PFAM10E	3/8	52.5	SAM10E2



PFAM6E

Metric Hex Bit–Blue-Point®



BLPH3810



BLPHEXS1418

Hex, mm

mm	Icon	Square Drive, In.	Length, mm
7	BLPH387	3/8	47
8	BLPH388	3/8	50.5
10	BLPH3810	3/8	50.5

Hex/Stubby, mm

mm	Icon	Square Drive, In.	A
2	BLPHSM142	1/4	19.05
2.5	BLPHSM142.5	1/4	19.05
3	BLPHSM143	1/4	19.05
4	BLPHSM144	1/4	19.05
5	BLPHSM145	1/4	19.05
6	BLPHSM146	1/4	19.05
7	BLPHSM147	1/4	19.05
8	BLPHSM148	1/4	19.05
9	BLPHSM149	1/4	19.05
10	BLPHSM1410	1/4	19.05

Hex/Stubby, Tamper Resistant, mm

mm	Stock No.	Square Drive, in.	A
2	BLPTHSM142	1/4	3/4
2.5	BLPTHSM142.5	1/4	3/4
3	BLPTHSM143	1/4	3/4
4	BLPTHSM144	1/4	3/4
5	BLPTHSM145	1/4	3/4
6	BLPTHSM146	1/4	3/4
7	BLPTHSM147	1/4	3/4
8	BLPTHSM148	1/4	3/4
9	BLPTHSM149	1/4	3/4
10	BLPTHSM1410	1/4	3/4

BLPHEXS1418 Hex Driver Set. Includes all BLPHSM metric bit sockets listed above plus all BLPHS SAE bit sockets.

BLPTHESX1418 Tamper Resistant Hex Driver Set. Includes all BLPTHSM bit sockets listed above plus all BLPHS SAE bit sockets in storage tray.

SOCKETS

Hex Bit

Hex/Standard, inches

Hex Bit	Hex Bit	Hex Bit	Square Drive, In.	A	B	Length with Opt. Long Bit	Optional Long Bit	Set Contains:				
								110ETMAX	208EFAY	208EGFAY	212EFTAY	307ESAY
1/16	TMA2E	—	1/4	1 7/8	TMA2E2A	6	TMAL2E2	•				•
5/64	TMA2.5E	GTMA2.5E	1/4	1 7/8	TMA2.5E2	6	TMAL2.5E2	•				•
3/32	TMA3E	GTMA3E	1/4	1 7/8	TMA3E2	6	TMAL3E2	•				•
7/64	TMA3.5E	—	1/4	1 7/8	TMA3.5E2	6	TMAL3.5E2	•				•
1/8	TMA4E	GTMA4E	1/4	1 7/8	TMA4E2	6	TMAL4E2	•				•
9/64	TMA4.5E	—	1/4	1 7/8	TMA4.5E2	6	TMAL4.5E2	•				•
5/32	TMA5E	GTMA5E	1/4	1 7/8	FA5E2	—	—	•				•
3/16	TMA6E	GTMA6E	1/4	1 15/16	FA6E2	—	—	•				•
7/32	TMA7E	GTMA7E	1/4	1 7/8	FA7E2	—	—	•				•
1/4	TMA8E	GTMA8E	1/4	1 7/8	FA8E2	—	—	•				•
Hex Bit	Hex Bit	Hex Bit	Square Drive, In.	A	B	Fits These Cap Screws	Fits These Set Screws	Hex Bit	Hex Bit	Hex Bit	Hex Bit	Hex Bit
1/8	FA4E	GFA4E	3/8	2 1/16	TMA4E2	—	1/4		•	•	•	•
9/64	FA4.5E	GFA4.5E	3/8	2 1/16	TMA4.5E2	#8	—		•	•	•	•
5/32	FA5E	GFA5E	3/8	2 1/16	FA5E2	#10	5/16		•	•	•	•
3/16	FA6E	GFA6E	3/8	2 1/16	FA6E2	1/4	3/8		•	•	•	•
7/32	FA7E	GFA7E	3/8	2 1/16	FA7E2	—	7/16		•	•	•	•
1/4	FA8E	GFA8E	3/8	2 1/16	FA8E2	5/16	1/2		•	•	•	•
5/16	FA10E	GFA10E	3/8	2 1/16	FA10E2	3/8	5/8		•	•	•	•
3/8	FA12E	GFA12E	3/8	2 3/32	FA12E2	7/16 and 1/2	3/4		•	•	•	•
5/16	SA10E	GSA10E	1/2	2 3/8	FA10E2	—	—					•
3/8	SA12E	GSA12E	1/2	2 1/2	SA12E2	—	—					•
7/16	SA14E	GSA14E	1/2	2 7/8	SA14E2	—	—					•
1/2	SA16E	GSA16E	1/2	3 1/16	SA16E2	—	—					•
9/16	SA18E	GSA18E	1/2	3 3/16	SA18E2	—	—					•
5/8	SA20E	GSA20E	1/2	3 11/32	LAW120E2	—	—					•
3/4	SA24E	GSA24E	1/2	4 1/16	LAW124E2	—	—					•
5/8	LAW120E	—	3/4	3 3/4	LAW120E2	—	—					•
3/4	LAW124E	—	3/4	4 3/8	LAW124E2	—	—					•
7/8	IMA283	—	1	5 5/8	IMA283-2	—	—					•
1	IMA323	—	1	5 5/8	IMA323-2	—	—					•



212EFTAY



208EGFAY



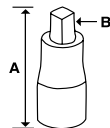
IMA283

NOTE: Optional long bits are not included in the listed sets.

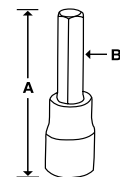
Sets shown include storage tray



208EFTAXSY



206EFAL



Hex/Stubby, inches

Hex Bit	Hex Bit	Square Drive, In.	A	B	Fits These Cap Screws	Fits These Set Screws	Set Contains:
							208EFTAXSY
1/8	TMAXS4E	1/4	1 1/32	TMAXS4E2	—	—	•
9/64	TMAXS4.5E	1/4	1 1/16	TMAXS4.5E2	—	—	•
5/32	TMAXS5E	1/4	1 1/16	TMAXS5E2	—	—	•
3/16	TMAXS6E	1/4	1 3/32	TMAXS6E2	—	—	•
7/32	FAXS7E	3/8	1 5/16	FAXS7E2	—	—	•
1/4	FAXS8E	3/8	1 11/32	FAXS8E2	5/16"	1/2"	•
5/16	FAXS10E	3/8	1 13/32	FAXS10E2	3/8"	5/8"	•
3/8	FAXS12E	3/8	1 15/32	FAXS12E2	1/2"	3/4"	•

Set shown includes storage tray

Hex/Extra Long, inches

Hex Bit	Hex Bit	A	Fits These Cap Screws	Fits These Set Screws	B	Set Contains:
						206EFAL
5/32	FA5LE	6 1/16	#10	5/16"	FA5LE2	•
3/16	FA6LE	6 1/8	1/4"	3/8"	FA6LE2	•
7/32	FA7LE	6 1/8	—	7/16"	FA7LE2	•
1/4	FA8LE	6 1/8	5/16"	1/2"	FA8LE2	•
5/16	FA10LE	6 1/16	3/8"	5/8"	FA10LE2	•
3/8	FA12LE	6 1/16	1/4"	3/4"	FA12LE2	•

Set shown includes storage tray



WARNING



- Do not use chrome or industrial finish sockets with impact drivers
- Read safety precautions on pages 594 to 597

SOCKETS

Hex Bit



208EFTABY

Ball Hex/Standard, inches

Set Contains: 208EFTABY

Hex Size	Part No.	Square Drive, in.	A	B	Diagram
1/8	TMAB4E	1/4	1 7/8	TMAB4E2	•
9/64	TMAB4.5E	1/4	1 7/8	TMAB4.5E2	•
5/32	TMAB5E	1/4	1 7/8	TMAB5E2	•
3/16	TMAB6E	1/4	1 7/8	TMAB6E2	•
7/32	FAB7E	3/8	2 3/32	FAB7E2	•
1/4	FAB8E	3/8	2 3/32	FAB8E2	•
5/16	FAB10E	3/8	2 3/32	FAB10E2	•
3/8	FAB12E	3/8	2 3/32	FAB12E2	•

Sets shown include storage tray



PFA8E

Hex, inches (Power)

Hex Size	Part No.	Square Drive, in.	A	Fits These Cap Screws	Fits These Set Screws	B
1/8	PFA4E	3/8	2 1/16	—	1/4"	TMA4E2
9/64	PFA4.5E	3/8	2 1/16	#8	—	TMA4.5E2
5/32	PFA5E	3/8	2 1/16	#10	5/16"	FA5E2
3/16	PFA6E	3/8	2 1/16	1/4"	3/8"	FA6E2
7/32	PFA7E	3/8	2 1/16	—	5/16"	FA7E2
1/4	PFA8E	3/8	2 1/16	7/16"	1/2"	FA8E2
5/16	PFA10E	3/8	2 1/16	3/8"	5/8"	FA10E2
3/8	PFA12E	3/8	2 1/16	1/4" and 1/2"	3/4"	FA12E2



206EFABL

Ball Hex/Long, inches

Set Contains: 206EFABL

Hex Size	Part No.	Square Drive, in.	A	B	Diagram
5/32	FABL5E	3/8	5 1/16	FABL5E2	•
3/16	FABL6E	3/8	5 1/16	FABL6E2	•
7/32	FABL7E	3/8	5 1/16	FABL7E2	•
1/4	FABL8E	3/8	5 1/16	FABL8E2	•
5/16	FABL10E	3/8	5 1/16	FABL10E2	•
3/8	FABL12E	3/8	5 1/16	FABL12E2	•

Sets shown include storage tray

Hex, inches

Hex Size	Part No.	A	B
5/16	PSA10E	2 7/16	FA10E2
3/8	PSA12E	2 9/16	SA12E2
7/16	PSA14E	2 7/8	SA14E2
1/2	PSA16E	3 1/16	SA16E2
9/16	PSA18E	3 1/8	SA18E2
5/8	PSA20E	3 7/16	LAW120E2
3/4	PSA24E	4 1/16	LAW124E2



PSA10E

Hex Bit—Blue-Point®



BLPH1414



BLPHEXS1418

Hex Standard, inches

Hex Size	Part No.	Square Drive, in.	A
1/8	BLPH1418	1/4	1 7/16
5/32	BLPH14532	1/4	1 7/16
3/16	BLPH14316	1/4	1 7/16
7/32	BLPH14732	1/4	1 7/16
1/4	BLPH1414	1/4	1 7/16
5/16	BLPH14516	1/4	1 7/16

Hex/Stubby, inches

Hex Size	Part No.	Square Drive, in.	A
5/64	BLPHS14564	1/4	3/4
3/32	BLPHS14332	1/4	3/4
7/64	BLPHS14764	1/4	3/4
5/32	BLPHS14532	1/4	3/4
3/16	BLPHS14316	1/4	3/4
7/32	BLPHS14732	1/4	3/4
1/4	BLPHS1414	1/4	3/4
5/16	BLPHS14516	1/4	3/4
3/8	BLPHS1438	1/4	3/4

BLPHEXS1418 Hex Driver Set. Includes all BLPHS bit sockets listed above plus all BLPHSM metric bit sockets in storage tray.

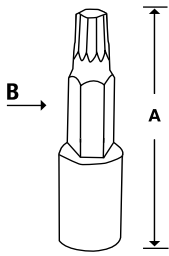
Hex/Stubby, Tamper Resistant, inches

Hex Size	Part No.	Square Drive, in.	A
3/32	BLPTHS14332	1/4	3/4
7/64	BLPTHS14764	1/4	3/4
1/8	BLPTHS1418	1/4	3/4
5/32	BLPTHS14532	1/4	3/4
3/16	BLPTHS14316	1/4	3/4
7/32	BLPTHS14732	1/4	3/4
1/4	BLPTHS1414	1/4	3/4
5/16	BLPTHS14516	1/4	3/4
3/8	BLPTHS1438	1/4	3/4

BLPHEXS1418 Tamper Resistant Hex Driver Set. Includes all BLPTHS bit sockets listed above plus all BLPTHSM metric bit sockets in storage tray.

SOCKETS

Triple Square Drivers



Triple Square, mm

	mm	Stock No.	Square Drive, In.	A	B	Set Contains:
						TSSKIT
Standard Length	4	FTSM4E	3/8	48.5	FTSM4E2	
	5	FTSM5E	3/8	48.5	FTSM5E2	
	6	FTSM6E	3/8	48.5	FTSM6E2	•
	8	FTSM8E	3/8	58	FTSM8E2	•
	10	FTSM10E	3/8	67.8	FTSM10E2	•
Long	8	FTSM8LE	3/8	84.6	FTSM8LE2	
	10	FTSM10LE	3/8	101.6	FTSM10LE2	
	10	STSM10E	1/2	88.9	STSM10E2	
	12	STSM12E	1/2	109.5	STSM12E2	•
	12	STSM12LE	1/2	147.6	STSM12LE2	
	14	STSM14E	1/2	108.0	STSM14E2	•
	16	STSM16E*	1/2	108.0	STSM16E2	•
	18	STSM18E	1/2	108.0	STSM18E2	•

*Tamper Resistant

Set shown includes storage tray

Double Hex socket drivers and Triple Square socket drivers cannot be interchanged between applications. Triple square socket drivers have 90° corners. Double hex socket drivers have 120° corners. Using a Triple Square tool in a Double Hex application will strip the bolt head. In general, Triple Square tools are used on European vehicles and Double Hex tools are used on Asian vehicles.



TSSKIT

Applications:

FTSM6E (6mm, 3/8" drive) - Various applications on European vehicles.

FTSM8E (8mm, 3/8" drive) - Remove and install head and accessory bolts on Mercedes, and remove and install axle shaft bolts on VW and Audis.

FTSM10E (10mm, 3/8" drive) - Used for cylinder head bolts and drive shaft bolts on Mercedes, and remove and install axle shaft bolts on VW and Audis.

STSM12E (12mm, 1/2" drive) - Remove and install cylinder head bolts on Mercedes, rear toe adjustment on 1999 and newer Audi A6, and axel shaft bolts on new VWs.

STSM14E Metric Triple Square Driver. Applications include 2003 and later VW Touareg front axle bolts, 2003 and later Porsche Cayenne front axle bolts, various Audi / VW axle bolts plus Audi TT differential mount bolts and transmission drain plugs.

STSM16E Metric Triple Square Driver. Applications include Audi TT Clutch and Belly Pan, various VW / Audi transmission drain plugs (tamper resistant), 2003 and later VW Touareg front and rear brake caliper bolts, 2003 and later Porsche Cayenne brake caliper bolts, plus Detroit Diesel flywheel bolts and front crank pulley on 900 and 4000 engines and head bolts on 900 engines.

STSM18E Metric Triple Square Driver. Applications include removing and installing rear axle bolts of 2006 VW Jetta and Golf.

Triple Square Bit-Blue-Point®



BLPXZNM389

Triple Square, mm

mm	Stock No.	Square Drive, in.	Set Contains:
			BLPXZNM389
4	BLPXZNM384	3/8	•
5	BLPXZNM385	3/8	•
6	BLPXZNM386	3/8	•
8	BLPXZNM388	3/8	•
10	BLPXZNM3810	3/8	•
12	BLPXZNM3812	3/8	•
14	BLPXZNM3814	3/8	•
16	BLPXZNM3816	3/8	•
18	BLPXZNM3818	3/8	•

Set shown includes storage tray



BLPXZN146

Triple Square/Stubby, mm

mm	Stock No.	Square Drive, in.	A
4	BLPXZN144	1/4	1 1/16
5	BLPXZN145	1/4	1 1/16
6	BLPXZN146	1/4	1 1/16
8	BLPXZN148	1/4	1 1/16
10	BLPXZN1410	1/4	1 1/16
12	BLPXZN1412	1/4	1 1/16



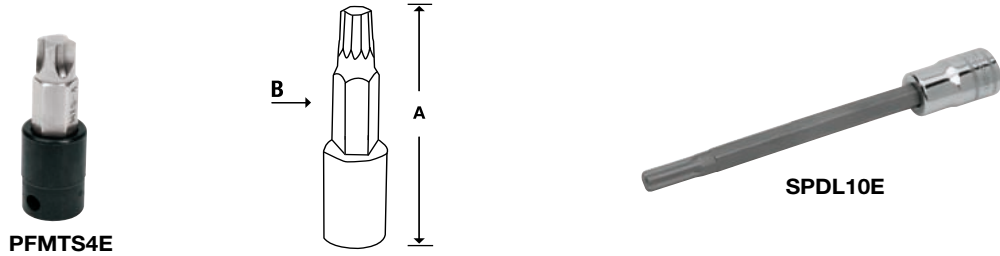
WARNING



- Do not use chrome or industrial finish sockets with impact drivers
- Read safety precautions on pages 594 to 597

SOCKETS

Special Application Bit



Mortorq®/Super Bit

#	Stock No.	Square Drive, In.	A	B
MTS-0	PFMTS0E	3/8	—	PFMTS0E2
MTS-1	PFMTS1E	3/8	1 3/4	PFMTS1E2
MTS-4	PFMTS4E	3/8	2 1/8	PFMTS4E2

PFMTS1E Socket Driver. Applications: For seat tracks on 2009 Mazda 6. Other seat applications: Cadillac CTS, Nissan Maxima and Altima.

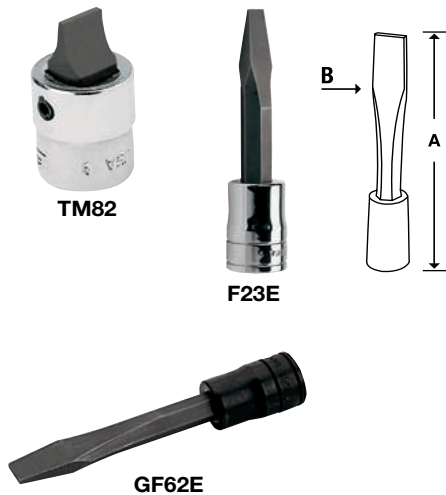
PFMTS4E Socket Driver. Applications: Remove/install the bolts that secure the bell housing to the transmission on GM 4L60 transmissions.

Polydrive Head Bolt, mm

mm	Stock No.	Description	A	B
10	SPDL10E	#10 Polydrive Head Bolt Socket Driver	159	SPDL10E2

SPDL10E Socket Driver. Use to remove and install #10 Polydrive cylinder head bolts on 1998 and later VW/Audi vehicles with 5 valve motors. 1/2" Drive.

Flat Tip Bit



Flat Tip, inches

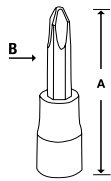
	#	Stock No.	Industrial Stock No.	Square Drive, In.	A	B
Standard Length	3/16 x .032	TMC104E	—	1/4	2 7/8	TMC104E2
	1/4" x .032	TMC105E	—	1/4	2 15/16	TMC105E2
	3/8 x .042	TMC106E	—	1/4	2 7/8	TMC106E2
	1/4 x 1/32	F23E	—	3/8	3	—
	5/16 x 3/64	F25E	GF25E	3/8	3	F25E2A
	3/8 x 1/16	F31E	GF31E	3/8	3 7/16	F31E2A
	7/16 x .050	SW28E	—	1/2	3 1/16	SW28E2
	1/2 x .075	SW32E	—	1/2	3 1/16	SW32E2A
Short	5/8 x .093	SW40E	—	1/2	3 1/4	SW40E2
	1/4 x .036	TM82	—	1/4	7/8	TM82-2C
	1/4 x 1/32	F42E	—	3/8	1 13/16	F42E2
	5/16 x 1/16	F52E	—	3/8	1 13/16	F52E2
	3/8 x 1/16	F62E	GF62E	3/8	1 27/32	F62E2



Flat Tip-Blue-Point®, inches

	#	Stock No.	Square Drive, In.	A
Standard Length	5/32	BLPFT14532	1/4	1 7/16
	7/32	BLPFT14732	1/4	1 7/16
	9/32	BLPFT14932	1/4	1 7/16
Short	1/4	BLPFS1414	1/4	3/4
	3/8	BLPFS1438	1/4	3/4

SOCKETS



Phillips®/Pozidriv® Clutch Bit

Phillips/Standard

		Stock No.	Industrial Stock No.	Square Drive, In.	A	B
Standard Length	#1	TMP12E	GTMP12E	1/4	1 7/8	TMP12E2
	#2	TMP22E	—	1/4	1 7/8	FP22E2
	#2	FP22E	GFP22E	3/8	2 1/16	FP22E2
	#3	FP32E	—	3/8	2 5/16	FP32E2
	#4	FP41E	—	3/8	1 21/32	FP41E2
	#3	SP32E	—	1/2	2 3/16	SP32E2
	#4	SP42E	—	1/2	2 5/16	SP42E2
	Short	#2	TMP21E	—	1/4	1 1/4
#2		TMP82	—	1/4	15/16	TMP82-2B
#3		FPS32E	—	3/8	1 29/32	SP32E2
Long	#2	TMP23E	—	1/4	3 1/16	TMP23E2
	#2	FP24E	—	3/8	4 1/32	FP24E2
	#3	FP34E	—	3/8	4 1/32	FP34E2
	#3	FP42E	—	3/8	2 9/16	FP42E2



GFP22E



FPS32E



BLPP383

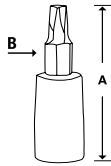


FP34E

Phillips-Blue-Point®

		Stock No.	Square Drive, In.	A
Standard Length	#0	BLPP140	1/4	1 7/16
	#1	BLPP141	1/4	1 7/16
	#2	BLPP142	1/4	1 7/16
	#3	BLPP383	3/8	1 27/32
	#4	BLPP384	3/8	1 27/32
Stubby	#1	BLPPS141	1/4	3/4
	#2	BLPPS142	1/4	3/4

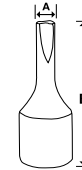
Pozidriv and Clutch® Drivers



FPD32E



BLPPD383



F29E

Pozidriv

#	Stock No.	Square Drive, In.	A	B
#2	FPD22E	3/8	2 1/16	FPD22E2
#3	FPD32E	3/8	2	FPD32E2
#4	FPD41E	3/8	1 11/16	FPD41E2

Pozidriv

Size	Stock No.	Square Drive, In.	A
#3	BLPPD383	3/8	1 27/32
#4	BLPPD384	3/8	1 27/32

Clutch, Standard Length

		Stock No.	Square Drive, In.	A	B
3/16	TM27E	—	1/4	3/16	1 3/8
1/4	TM30E	—	1/4	1/4	1 3/8
5/32	TM31E	—	1/4	5/32	1 3/8
3/8	F29E	—	3/8	3/8	1 3/4
5/16	F30E	—	3/8	19/64	1 3/4

Bit Holder and 1/4" Bits-Blue-Point

Stock No.	Description	Size	Stock No.	Description	Size
BLPTMBS1414	Bit Holder (for 1/4" hex bits)	—	BLPTB20TP	Tamper Resistant Torx® Bit	T20
BLPTMBS3814	Bit Holder (for 1/4" hex bits)	3/8"	BLPTB25TP	Tamper Resistant Torx Bit	T25
BLPHB18	Hex Bit	1/8"	BLPTB30TP	Tamper Resistant Torx Bit	T30
BLPHB964	Hex Bit	9/64"	BLPFB532	Flat Tip Bit	5/32"
BLPHB532	Hex Bit	5/32"	BLPFB732	Flat Tip Bit	7/32"
BLPHB316	Hex Bit	3/16"	BLPFB932	Flat Tip Bit	9/32"
BLPHB732	Hex Bit	7/32"	BLPFB316	Flat Tip Bit	3/16"
BLPHB14	Hex Bit	1/4"	BLPFB14	Flat Tip Bit	1/4"
BLPHBM3	Metric Hex Bit	3mm	BLPPB0	Phillips Tip Bit	#0
BLPHBM4	Metric Hex Bit	4mm	BLPPB1	Phillips Tip Bit	#1
BLPHBM5	Metric Hex Bit	5mm	BLPPB2	Phillips Tip Bit	#2
BLPHBM6	Metric Hex Bit	6mm	BLPPB3	Phillips Tip Bit	#3
BLPTB10TP	Tamper Resistant Torx Bit	T10	BLPSQB1	Square Tip Bit	#1
BLPTB15TP	Tamper Resistant Torx Bit	T15	BLPSQB2	Square Tip Bit	#2



BLPTMBS1414



WARNING



- Do not use chrome or industrial finish tools with impact drivers
- Read safety precautions on pages 594 to 597

SOCKETS

3/8" and 1/2" Impact Drivers and Sets



208EPIT



PIT2230E



PIT160



PIT3120EB

3/8" Drive Impact Sets

208EPIT Set. 8 pcs Includes:

Stock No.	Description
PIT120	Impact Driver
F42E	1/4" Flat Tip Driver
F52E	5/16" Flat Tip Driver
F62E	3/8" Flat Tip Driver
FP22E	#2 Phillips® Driver
FP32E	#3 Phillips® Driver
FP42E	#4 Phillips® Driver
FPD22E	#2 Pozidriv® Driver
PB108A	Storage Case

PIT120 Impact Driver.

Delivers cam action impact when struck with a hammer for loosening or tightening fasteners. Industrial finish.

PIT2230E Impact Driver Set.

Includes PIT120 impact driver plus all sockets, screwdrivers and replacement bits (24 pcs) conveniently displayed in a storage tray that fits in the KRA142 metal box.

PIT2230E Set. 24 pcs Includes:

Stock No.	Description
PIT120	Impact Driver
FAGE	3/16" Hex Driver w/extra FA6E2 Bit
FA7E	7/32" Hex Driver w/extra FA7E2 Bit
FA8E	1/4" Hex Driver w/extra FA8E2 Bit
FA10E	5/16" Hex Driver w/extra FA10E2 Bit
FA12E	3/8" Hex Driver w/extra FA12E2 Bit
F42E	1/4" Flat Tip Driver w/extra F42E2 Bit
F52E	5/16" Flat Tip Driver w/extra F52E2 Bit
F62E	3/8" Flat Tip Driver w/extra F62E2 Bit
FP22E	#2 Phillips® Driver w/extra FP22E2 Bit
FP32E	#3 Phillips® Driver w/extra FP32E2 Bit
FP41E	#4 Phillips® Driver w/extra FP41E2 Bit
FP42E	#4 Phillips® Driver w/extra FP42E2 Bit
F29E	3/8" Clutch Driver
F30E	5/16" Clutch Driver
FPD22E	#2 Pozidriv® Driver
IMF120A	3/8" 6-point Impact Socket
IMF140A	7/16" 6-point Impact Socket
IMF160	1/2" 6-point Impact Socket
IMF180	9/16" 6-point Impact Socket
IMF200	5/8" 6-point Impact Socket
IMF220	11/16" 6-point Impact Socket
IMF240	3/4" 6-point Impact Socket
GF22	11/16" Drag Link Socket
KRA142	Metal Box

1/2" Drive Impact Sets

Stock No.	Description
PIT160	Impact Driver
A26A	Drag Link Socket
SA10E	5/16" Hex Head Driver
SA12E	3/8" Hex Head Driver
SA14E	7/16" Hex Head Driver
SA16E	1/2" Hex Head Driver
SA18E	9/16" Hex Head Driver
SA20E	5/8" Hex head Driver
SP32E	#3 Phillips® Driver
SP42E	#3 Phillips® Driver
SW28E	7/16" x .050" Socket Driver
SW32E	1/2" x .075" Socket Driver
KRA142	Metal Box

Includes:

PIT160 This 1/2" drive unit delivers cam action impact when struck with a hammer. U.S. Fed. Spec. GGG-W-641E.

PIT3120EB Impact Driver Set. PIT160 impact driver plus sockets and socket drivers (12 pcs) in KRA142 metal box.

Combination Bit Sets–Blue-Point®



BLPBSS40

1/4" Drive Stubby Bit Socket Set (40 pcs.)

	Stock No.	Size
Torx Tamper Resistant	BLPTS148TP	TP8
	BLPTS1410TP	TP10
	BLPTS1415TP	TP15
	BLPTS1420TP	TP20
	BLPTS1425TP	TP25
	BLPTS1427TP	TP27
	BLPTS1430TP	TP30
	BLPTS1440TP	TP40
	BLPTS1445TP	TP45
	BLPTS1450TP	TP50
Triple Square	BLPXZN144	XZN4
	BLPXZN145	XZN5
	BLPXZN146	XZN6
	BLPXZN148	XZN8
	BLPXZN1410	XZN10
	BLPXZN1412	XZN12
Flat Tip	BLPFS1414	1/4" Wide
	BLPFS1438	3/8" Wide
Phillips®	BLPPS141	P1
	BLPPS142	P2
Hex, inches	BLPHS14564	5/64"
	BLPHS14332	3/32"
	BLPHS14764	7/64"
	BLPHS1418	1/8"
	BLPHS14532	5/32"
	BLPHS14316	3/16"
	BLPHS14732	7/32"
	BLPHS1414	1/4"
	BLPHS14516	5/16"
	BLPHS1438	3/8"
Hex, mm	BLPHSM142	2mm
	BLPHSM142.5	2.5mm
	BLPHSM143	3mm
	BLPHSM144	4mm
	BLPHSM145	5mm
	BLPHSM146	6mm
	BLPHSM147	7mm
	BLPHSM148	8mm
	BLPHSM149	9mm
	BLPHSM1410	10mm
	BLPCSS400PB Storage Case	



BLPTSSC43

Combination Torx®/Socket and Bit Socket Set (43 pcs.)

	Stock No.	Size	Drive Size, inches	
External Torx Sockets	BLPTE144	E4	1/4"	
	BLPTE145	E5	1/4"	
	BLPTE146	E6	1/4"	
	BLPTE147	E7	1/4"	
	BLPTE148	E8	1/4"	
	BLPTE3810	E10	3/8"	
	BLPTE3812	E12	3/8"	
	BLPTE3814	E14	3/8"	
	BLPTE3816	E16	3/8"	
	BLPTE1218	E18	1/2"	
	BLPTE1220	E20	1/2"	
	BLPTE1222	E22	1/2"	
	BLPTE1224	E24	1/2"	
	Torx Tamper Resistant Bit Sockets	BLPT146TP	T6	1/4"
		BLPT147TP	T7	1/4"
BLPT148TP		T8	1/4"	
BLPT149TP		T9	1/4"	
BLPT1410TP		T10	1/4"	
BLPT1415TP		T15	1/4"	
BLPT1420TP		T20	1/4"	
BLPT1425TP		T25	1/4"	
BLPT1427TP		T27	1/4"	
BLPT1430TP		T30	1/4"	
BLPT3840TP		T40	3/8"	
BLPT3845TP		T45	3/8"	
BLPT3850TP		T50	3/8"	
BLPT1255TP		T55	1/2"	
BLPT1260TP		T60	1/2"	
Torx Tamper Resistant Long Bit Sockets	BLPTL146TP	T6	1/4"	
	BLPTL147TP	T7	1/4"	
	BLPTL148TP	T8	1/4"	
	BLPTL149TP	T9	1/4"	
	BLPTL1410TP	T10	1/4"	
	BLPTL1415TP	T15	1/4"	
	BLPTL1420TP	T20	1/4"	
	BLPTL1425TP	T25	1/4"	
	BLPTL1427TP	T27	1/4"	
	BLPTL1430TP	T30	1/4"	
	BLPTL3840TP	T40	3/8"	
	BLPTL3845TP	T45	3/8"	
	BLPTL3850TP	T50	3/8"	
BLPTL1255TP	T55	1/2"		
BLPTL1260TP	T60	1/2"		
	BLPTSSC43PB Storage Case			



WARNING



- Do not use chrome or industrial finish tools with impact drivers
- Read safety precautions on pages 594 to 597

EXTENSIONS

Built For Performance.

Each Snap-on® extension is constructed from a high-performance alloy-steel blend and finished with corrosion-resistant nickel-chrome plating. But it's what happens in the middle that makes them truly special.

- Cold formed—Each piece is precision extruded and cold formed, using the metal's grain structure to maximize strength.
- Knurled shaft—The knurled area on some extensions allows for finger control when starting or removing fasteners.
- Chamfered and trued drive ends—Provide easy and secure engagement for superior performance.

Enhanced Accessibility.

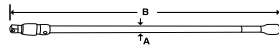
Snap-on incorporates smart features into extensions that allow you more accessibility than ever before.

- Wobble engagement—Provides additional accessibility.
- Smallest diameter shank—Allows access into tighter spaces, while still maintaining maximum strength.
- Specialty extensions—Snap-on gives you more options with award-winning variable-length extensions, non-conductive extensions for electrical applications and more.



EXTENSIONS

1/4" Drive (Chrome/Industrial Finish)



Knurled

Stock No.	Industrial Stock No.	A	B	Set Contains:
TMX1*	—	5/16	1 1/4	•
TMXK2*	GTMX2*	5/16	2	•
TMXK4	GTMX4*	5/16	4	•
TMXK60*	GTMX60*	5/16	6	•
TMXK80*	GTMXK80	5/16	8	•
TMXK110	GTMXK110	5/16	11	•
TMXK140	GTMX140*	5/16	14	•
TMX240*	—	3/8	24	•
TMX360	—	3/8	36	•

*Not knurled •ASME/ANSI B107.10-2005 Set shown includes storage tray



103TMXKLA

Locking - Knurled

- Quick release sleeve releases socket quickly and easily
- Knurling at the drive end provides for easy fingertip turning

Stock No.	A	B	Set Contains:
TMXKL60A	5/16	6	•
TMXKL110A	5/16	11	•
TMXKL240	3/8	24	•

Set shown includes storage tray

TMXKLP

- Locking pins for TMXKLP Series Extensions

TMXKLRK

- Repair kit for TMXKLP Series Extensions
- 5 pack



BLPLLEXT103

Extra Long Locking—Blue-Point

Stock No.	B	Set Contains:
BLPEXTL1412	12	•
BLPEXTL1418	18	•
BLPEXTL1424	24	•

Set shown includes storage tray



WARNING



- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages 594 to 597



BLPTXK3

Knurled—Blue-Point®

Stock No.	B
BLPTXK1.5	1 9/16
BLPTXK2	2 3/32
BLPTXK3	2 15/16
BLPTXK4	4
BLPTXK6	6



103TMXLBP

Locking

Stock No.	B	Set Contains:
TMXLBP4	4	•
TMXLBP6	6	•
TMXLBP10	10	•

Set shown includes storage tray



YA515A

Locking (Set Screw)

Stock No.	Finish	A	B
YA515A	Chrome	1/2	1 11/16

YA515A Set Screw Locking Extension.

- Allows easy and secure tool stacking
- Securely connects breaker bar, extensions and ratchets to socket and socket drivers for overhead work
- Sliding sleeve for easy removal
- Not for use with power or impact tools

Connectors

TZ1 Extension Connector.

- 1/4" drive extension connector adds versatility to extensions, breaker bars, ratchets and crowfoot wrenches
- Connect one or more tools for a variety of ways to reach limited access fasteners
- For use in marine, heavy truck, plumbing and manufacturing applications

TZ2 Extension Connector Set.

- Set of two TZ1s



TZ1

EXTENSIONS

1/4" Drive (Chrome/Industrial Finish)



102TMXKV

Variable Length

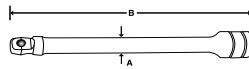
- Reach recessed fasteners easier and quicker in limited access applications
- For use under automotive dashboards and aircraft engines
- Spring loaded extension maintains contact with fastener
- Chamfered ends for easy engagement and knurling for easy hand turning

Stock No.	Finish	Extended Length, inches	Set Contains:
TMXKV3	Chrome	3	•
TMXKV5	Chrome	5	•

Set shown includes storage tray



106ATMXW



106ATMXWP

Wobble

- Provides 16° of additional accessibility
- Knurled shanks for easy fingertip turning

Set Contains:

Stock No.	A	B	Set Contains:
TMXW1*	5/16	1 1/4	•
TMXWK2	5/16	2	•
TMXWK4	5/16	4	•
TMXWK60	5/16	6	•
TMXWK80	5/16	8	•
TMXWK110	5/16	11	•

*Not knurled

Set shown includes storage tray

Wobble Plus

- Useable in both wobble and rigid functionality
- Provides 16° of additional accessibility

Set Contains:

Stock No.	A	B	Set Contains:
TMXWP1*	5/16	1 1/4	•
TMXWP2	5/16	2	•
TMXWP4	5/16	4	•
TMXWP6	5/16	6	•
TMXWP8	5/16	8	•
TMXWP11	5/16	11	•

*Not knurled

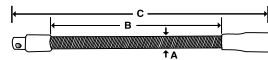
Set shown includes storage tray



TM61A



BLPEXTF146

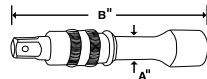


Flexible

Stock No.	A	B	C
TM61A*	5/16	5	6
BLPEXTF146	—	—	6

*ASME/ANSI B107.10M

1/4" Drive (Impact)



TMIXL62

Impact Locking

- Quick release locking sleeve provides secure connection and easy socket removal
- Knurled release collar for easy one hand operation, even with slippery hands
- Female drive end recessed to accommodate new style impact guns
- Positive pin lock retains socket securely
- Heavy duty shank for high torque applications

Impact Locking

Set Contains:

Stock No.	A	B	Set Contains:
TMIXL32	11/32	2 7/8	•
TMIXL62	11/32	5 7/8	•
TMIXL122	11/32	11 7/8	•
TMIXL182	11/32	17 3/4	•
TMIXL242	11/32	23 3/4	•

Set shown includes storage tray

EXTENSIONS

3/8" Drive (Chrome/Industrial Finish)



Knurled

Knurling at the drive end provides for easy fingertip turning.

Stock No.	Industrial Stock No.	A	B	Set Contains:	
FX1*	GFX1	1/2	1 1/2	•	•
FXK3	GFXK3	13/32	3	•	•
FXK4	—	13/32	4	•	•
FXK6	GFXK6	13/32	6	•	•
FXK8	GFXK8	13/32	8	•	•
FXK11	GFXK11	13/32	11	•	•
FX18	—	1/2	18	•	
FX24A	—	1/2	24	•	
FX36	—	1/2	36		

*Not Knurled

Sets shown include storage tray



BLPEXTK386

Knurled

Stock No.	B
BLPEXTK383	2 31/32
BLPEXTK386	5 29/32
BLPEXTK3810	9 29/32

Variable Length

- Reach recessed fasteners easier and quicker in limited access applications
- Applications include limited access areas around water pumps, fuel pumps and turbo mounting bolts
- Spring loaded extension maintains contact with fastener
- Chamfered drive ends for easy engagement and knurling for easy hand turning

Variable Length

Stock No.	Extended Length, inches	Set Contains:
FXKV4	4	•
FXKV7	7	•

Set shown includes storage tray



202FXKV



202FXKLV

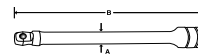
Variable Length (Locking)

Stock No.	Extended Length, inches	Set Contains:
FXKLV5	5	•
FXKLV7	7	•

Set shown includes storage tray



203FXLBP



YA525A

Locking

Stock No.	B	Set Contains:
FXLBP3	3	•
FXLBP6	6	•
FXLBP10	10	•

Set shown includes storage tray

Locking (Set Screw)

- Allows easy and secure tool stacking
- Securely connects breaker bar, extensions and ratchets to socket and socket driver for overhead work
- Sliding sleeve for easy removal
- Not for use with power or impact tools

Stock No.	A	B
YA525A	3/4	2 1/8



WARNING



- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages 594 to 597

EXTENSIONS

3/8" Drive (Chrome/Industrial Finish)



204FXKLA

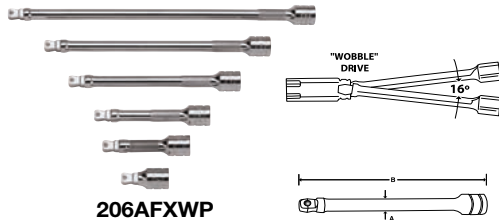
Quick Release, Locking

- Releases socket from extension quickly and easily
- Knurling at drive end provides easy fingertip turning

Stock No.	A	B	Set Contains:
FXKL3A	1/2	3	•
FXKL6A	1/2	6	•
FXKL11A	1/2	11	•
FXKL24A	1/2	24	•

Set shown includes storage tray

FXKLP Pins. Locking pins for FXKL Series Extensions. 5 pack.
FXKLRK Repair Kit. Repair kit for FXKL Series Extensions.



206AFXWP

Wobble Plus

- Useable in wobble and rigid functionality
- Wobble function provides 16° additional accessibility
- Knurled shanks for easy fingertip turning

Stock No.	A	B	Set Contains:
FXWP1*	1/2	1 1/2	•
FXWP3	13/32	3	•
FXWP4	13/32	4	•
FXWP6	13/32	6	•
FXWP8	13/32	8	•
FXWP11	13/32	11	•

*Not Knurled

Set shown includes storage tray



FZ1

Connectors

FZ1 Connector.

- 3/8" drive extension connector adds versatility to extensions, breaker bars, ratchets and crowfoot wrenches
- Connect one or more tools for a variety of ways to reach limited access fasteners
- Use in automotive, aircraft, marine, heavy truck, plumbing and manufacturing applications

FZ2 Connector Set.

- Set of two FZ1s



BLPLEXT203

Extra-Long Locking

- Smooth, durable chrome finish
- Made from tough 6130 steel
- Secure socket retention
- Lifetime warranty on individual extensions
- Do not use with power or impact tools

Stock No.	B	Set Contains:
BLPEXTL3812	12	•
BLPEXTL3818	18	•
BLPEXTL3824	24	•

Set shown includes storage tray



206AFXW

Wobble

- Wobble function provides 16° of additional accessibility
- Knurled shanks for easy fingertip turning

Stock No.	A	B	Set Contains:
FXW1*	1/2	1 1/2	•
FXWK3	13/32	3	•
FXWK4	13/32	4	•
FXWK6	13/32	6	•
FXWK8	13/32	8	•
FXWK11	13/32	11	•

*Not Knurled

Set shown includes storage tray



203FXWKL

Locking Wobble Set

- Provides 16° of additional accessibility
- Quick release locking sleeve provides secure connection and easy socket removal
- Knurled release collar for easy one hand operation, even with slippery hands

Stock No.	A	B	Set Contains:
FXWKL3	1/2	3	•
FXWKL6	1/2	6	•
FXWKL11	1/2	11	•

Set shown includes storage tray

EXTENSIONS

3/8" Drive (Power)

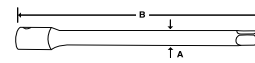
Locking Button

Use with impact sockets with retention holes.

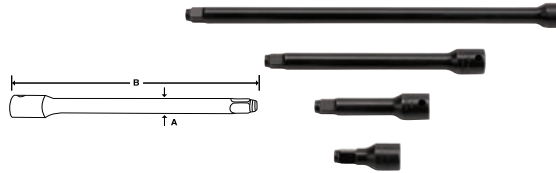
Stock No.	A	B
PF3	1/2	3
PF6	1/2	6
PF11A	1/2	11



PF11A



3/8" Drive (Impact)



204IMXA

Snap Ring Retention Device

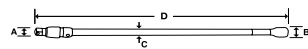
Set Contains: 204IMXA

Stock No.	A	B	
IMX11	1/2	1 3/4	•
IMX31	1/2	3	•
IMX61	1/2	6	•
IMX111	1/2	11	•

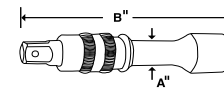
Set shown includes storage tray



IMSFXL24



IMXL61



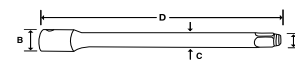
Locking

- Quick release locking sleeve provides a secure connection plus easy socket removal
- Knurled release collar for easy one hand operation, even with slippery hands

Stock No.	A	B
IMXL31	1/2	3
IMXL61	1/2	6
IMXL111	1/2	11



IMXA42



Locking Adaptors

- Quick release locking sleeve at the 3/8" drive

Stock No.	A	B	C	D
IMSFXL18	3/8 (locking)	1/2	21/32	18
IMSFXL24	3/8 (locking)	1/2	21/32	24
IMSFXL33	3/8 (locking)	1/2	21/32	33

Adaptors

- 1/2" to 3/8" drive
- Snap ring retention device

Stock No.	A	B	C	D
IMXA42	3/8	1/2	1/2	4

1/2" Drive (Chrome/Industrial Finish)

Extensions

Set Contains: 305ASX

Stock No.	Industrial Stock No.	A	B	
SX2	—	5/8	2 1/8	•
SXK3	GSXK3	5/8	3 1/2	•
SXK5	GSXK5	5/8	5	•
SXK8	—	5/8	8	•
SXK11	GSXK11	5/8	11	•
SX15	—	5/8	15	
SX20	—	5/8	20	
SX24	—	5/8	24	
SX36	—	5/8	36	

ASME/ANSI B107.10M-1996

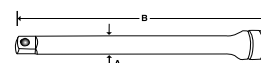
Set shown includes storage tray



305ASX



GSXK5



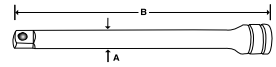
WARNING



- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages 594 to 597

EXTENSIONS

1/2" Drive (Chrome/Industrial Finish)



BLPEXTK123

Extensions—Blue-Point®

Stock No.	B
BLPEXTK123	3
BLPEXTK126	6
BLPEXTK1210	10

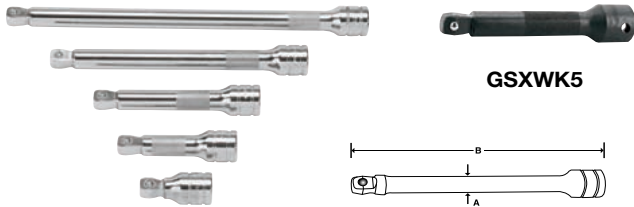


BLPLLEXT303

Extra Long Locking—Blue-Point

Stock No.	B	Set Contains:
BLPEXTL1212	12	•
BLPEXTL1218	18	•
BLPEXTL1224	24	•

Set shown includes storage tray



305ASXW

GSXWK5

Wobble

- Provides 16° of additional accessibility
- Knurled shanks for easy fingertip turning

Stock No.	Industrial Stock No.	A	B	Set Contains:
SXW2*	GSXW2	5/8	2	•
SXWK3	—	5/8	3 1/2	•
SXWK5	GSXWK5	5/8	5	•
SXWK8	—	5/8	8	•
SXWK11	GSXWK11	5/8	11	•

*Not Knurled
ASME/ANSI B107.10-2005

Set shown includes storage tray



303SXWKL



303SXLBP

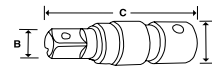
Locking/Knurled—Blue-Point

Stock No.	B	Set Contains:
SXLBP3	3	•
SXLBP6	6	•
SXLBP10	10	•

Set shown includes storage tray



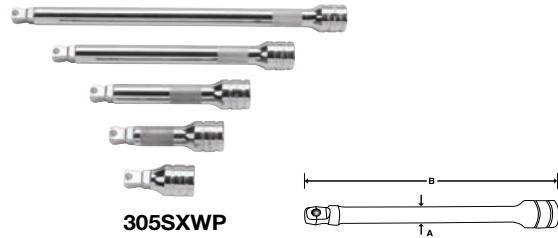
GALX3



Locking Adaptors

Stock No.	A	B	C
GALX3	1/2	1/2	3 1/8

ASME/ANSI B107.10M



305SXWP

Wobble Plus

- Usable in wobble and rigid functionality
- Provides 16° of additional accessibility
- Knurled shanks for easy fingertip turning

Stock No.	A	B	Set Contains:
SXWP2*	5/8	2	•
SXWP3	5/8	3	•
SXWP5	5/8	5	•
SXWP8	5/8	8	•
SXWP11	5/8	11	•

*Not Knurled
ASME/ANSI B107.10-2005

Set shown includes storage tray

1/2" Locking Wobble Set

- Provides 16° of additional accessibility
- Quick release locking sleeve provides secure connection and easy socket removal
- Knurled release collar for easy one hand operation, even with slippery hands

Stock No.	A	B	Set Contains:
SXWKL3	21/32	3	•
SXWKL5	21/32	5	•
SXWKL8	21/32	8	•

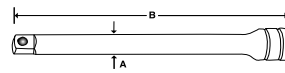
Set shown includes storage tray

EXTENSIONS

1/2" Drive (Power)

Lock Button Retention

Stock No.	A	B
PS2	5/8	2
PS3	5/8	3 1/2
PS5	5/8	5
PS10	5/8	10

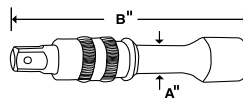


PS2

1/2" Drive (Impact)

Stock No.	A	B	Set Contains:	
			303IMXL	303AIMXL
IMXL32	5/8	3 1/2	•	
IMXL52	5/8	5	•	
IMXL102	5/8	10	•	
IMXL182	5/8	18		•
IMXL242	5/8	24		•
IMXL312	5/8	31		•

Sets shown include storage tray



303IMXL

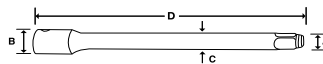
Locking

- Ideal for use on transmission bellhousing bolts, transaxle and suspension service
- Pull back collar for fast and easy attachment and removal of sockets
- Knurled release collar provides easy one hand operation
- Single body construction for maximum strength and locking mechanism specifically for impact use
- Female drive end recessed to accommodate newer style impact guns

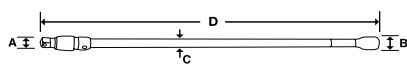
Snap Ring Retention

Stock No.	A	B	Set Contains:	
			304IMX	
IMX32B	5/8	3	•	
IMX52	21/32	5 3/32	•	
IMX112	21/32	11 1/4	•	

Set shown includes storage tray



304IMX



IMSFXL18

Locking Adaptors

- Quick release locking sleeve at 3/8" drive end provides a secure connection plus easy socket removal

Stock No.	A	B	C	D
IMSFXL18	3/8	1/2	0.645	18 (457.2)
IMSFXL24	3/8	1/2	0.645	24 (609.6)
IMSFXL33	3/8	1/2	0.645	33 (838.2)



IMXA42

Adaptor

Stock No.	A	B	C	D
IMXA42	3/8	1/2	1/2	4



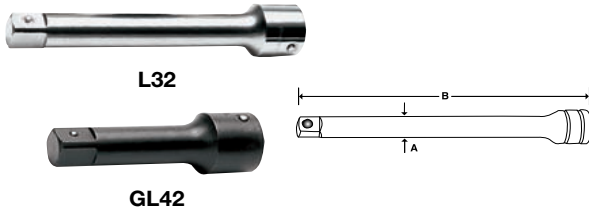
WARNING



- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages 594 to 597

EXTENSIONS

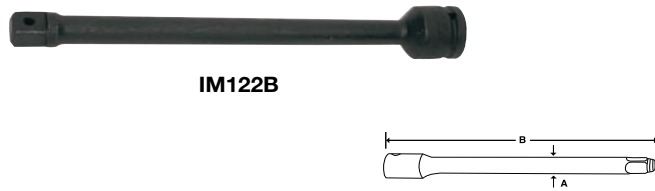
3/4" Drive (Chrome/Industrial Finish)



Extensions-Locking Button

Stock No.	Industrial Stock No.	A	B
L32	GL32	15/16	3
L42	GL42	15/16	5
L62	GL62	15/16	8
L122	GL122	15/16	16

3/4" Drive (Impact)



Extensions

Stock No.	A	B
IM132A	1	3
IM62B	1	7
IM92B	1	10
IM122B	1	13

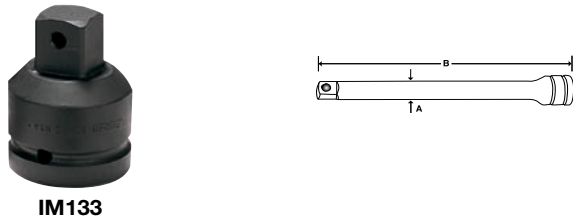
1" Drive (Chrome)



Extension - Locking Button

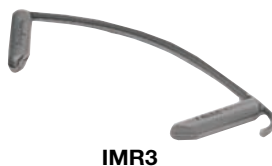
Stock No.	A	B
L63	1 1/4	8

1" Drive (Impact)



Extensions with Pin Hole

Stock No.	A	B
IM133	1	3
IM63B	1 1/8	7 1/8
IM123	1 3/8	13 1/8



Master Ring and Pin Chart for Impact Sockets and Accessories

The following are required for tool use:

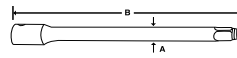
Stock No.	Description	Used With	See Page:
IM182R	Rubber Locking Ring	All 3/4" drive Sockets/Accessories	45, 46, 72, 79, 465
IMR2	Socket Retainer	All 3/4" drive Sockets/Accessories	45, 46, 72, 79, 465
IM243R	Rubber Locking Ring (Use with IM243P)	All 1" drive Sockets/Accessories up to 1 3/8" (35mm) plus 3/4" drive IM124 Adaptor	46-49, 72, 79, 80, 465
IM243P	Steel Locking Pin (Use with IM243R)	All 1" drive Sockets/Accessories up to 1 3/8" (35mm) plus 3/4" drive IM124 Adaptor	46-49, 72, 79, 80, 465
IMR3	Socket Retainer	All 1" drive Sockets/Accessories, All #5 Spline Drive Sockets/Accessories	46-49, 72, 79, 80, 465
IM483R	Rubber Locking Ring (Use with IM483P)	All 1" drive Sockets/Accessories from 1 7/16" (36mm) and larger, All #5 Spline Drive Sockets/Accessories	46-49, 72, 79, 80, 465
IM483P	Steel Locking Pin (Use with IM483R)	All 1" drive Sockets/Accessories from 1 7/16" (36mm) and larger, All #5 Spline Drive Sockets/Accessories	46-49, 72, 79, 80, 465
IM445R	Rubber Locking Ring	All 1 1/2" drive Sockets/Accessories	49-51, 73, 80
IM729P	Steel Locking Pin	All 2 1/2" drive Sockets/Accessories	—

EXTENSIONS/ACCESSORIES

1 1/2" Drive (Impact)

Extensions with Pin Hole

Stock No.	A	B
IM105	2	10
IM155	2	15
IM205	2	20

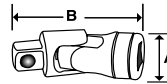


IM105

1/4" Drive Accessories (Chrome/Industrial Finish)

Universal Joint

Stock No.	A	B
TMU8B	1/2	1 5/16
TMUL8	1/2	2 1/4



103UFTS

TMU8B Universal Joint.

- Universal joints help increase access to hard to reach fastener applications
- Pins in the universal joint are laser welded and won't "walk" out over time

TMUL8 Locking Collar Universal Joint.

- Locking pin to ensure better socket retention

103UFTS Combination Drive Universal Joint Set.

- Includes 1/4" drive TMU8B, 3/8" drive FU8A (pg. 75), and 1/2" drive S8 (pg. 77)
- Universal joints (3 pcs) in storage tray

BLPUJ14

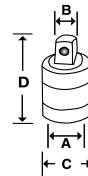
Universal Joint—Blue-Point®

Stock No.	B
BLPUJ14	1 1/2

BLPUJ14

Square Drive Adaptors

Stock No.	Industrial Stock No.	A	B	C	D
—	GFAT1E	3/8	1/4	11/16	1 1/4
TA3	GTA3	1/4	3/8	1/2	15/16



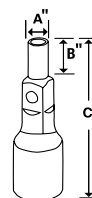
1206GS

1206GS Combination Drive Adaptor Set.

- Includes 1/4" drive GFAT1E (this page) and TA3 adaptors, 3/8" drive A2A (pg. 75) and GSAF1E adaptors and 1/2" drive GLA12B (pg. 77) and GLAS1E adaptors (6 pcs.) in storage tray

Magnetic Adaptors

Stock No.	A	B	C
TMXM17	7/32	13/32	1 21/32
TMXM114	7/32	9/32	1 17/32



TMXM17



WARNING



- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages 594 to 597

ACCESSORIES

1/4" Drive (Chrome/Industrial Finish)



TM40ASA

Handled Driver/Stubby

Stock No.	C	E
TM40ASA	2 1/8	1 3/4



SGT4BR

Handled Drivers/Instinct® Handle

- Provides maximum turning power and increased comfort
- 6 specially designed curves and flutes provide fingertip control and aid in spinning
- Nickel/chrome plating helps protect against corrosion and makes cleaning easy

Stock No.	A	B	C
SGT4BR	5/16	2	6 13/16
SGTL4BR	5/16	6 3/8	10

SGTL4BR Features a locking pin for better socket retention.



TM615



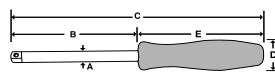
TM62B



BLPCGHD146

Handled Driver—Blue-Point®

Stock No.	Description	C
BLPCGHD146	Spinner Handle	6



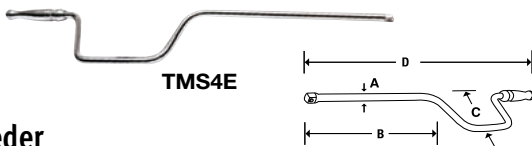
Ratcheting Driver

- Use with any 1/4" drive socket to create a ratcheting nut driver
- Three position ratchet mechanism works in forward, reverse or lock out the ratcheting action completely

Stock No.	B	C	E
TMR4	3 7/8	8 31/32	5 3/32
TMRT8	8	10	2



TMS4EK



TMS4E

Speeder

Stock No.	A	B	C	D
TMS4E	5/16	7 1/8	3	16
TMS4EK	5/16	7 1/8	3	15 1/32

Flexible Drivers

- For low torque applications

Stock No.	A	B	C
TM62B	1/4	2 7/32	6 3/4
TM63A	1/4	4 21/32	9 3/16
TM615	1/4	15	18 5/8



TM5

Sliding T-handle

- Designed for heavier applications
- For use as a T-handle or offset wrench
- Spring and friction ball holds head in position

Stock No.	A	B	C
TM5	13/16	5/16	4 1/2

ASME/ANSI B107.10-2005

ACCESSORIES

1/4" Drive (Power/Impact)

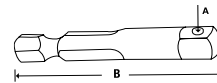
Swivel Ball Universal Joint (Power)

- Lock button retention

Stock No.	A	B
IPM80A	5/8	1 3/8



IPM80A

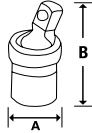


GMB3042

Swivel Ball Universal Joint (Impact)

- Friction ball

Stock No.	A	B
IPM800A	5/8	1 3/8



IPM800A

Hex-To-Square Adaptors (Power)

- 1/4" hex size; 1" length of hex

Stock No.	A	B
GMB3041*	Friction Ball	1
GMB3042	Friction Ball	2
GMB3046	Friction Ball	6
GM3042A	Lock Button	2
GM3043	Lock Button	4
GM3046	Lock Button	6

*Insert Bit Style-non impact

Locking Power Adaptors

- Use with electric/cordless drills and screwdrivers that accept 1/4" shanks
- Manufactured from the highest quality proprietary steel, providing optimum strength and durability
- Knurled sleeve provides easy attachment and removal of sockets even with the greasiest hands
- One-handed lock mechanism with ball retention ensures socket retention and allows for faster socket attachment and removal
- Black oxide finish helps protect against corrosion for longer tool life

Stock No.	A	B	Set Contains:
TMLPA2	1/4	2	•
TMLPA4	1/4	4	•
TMLPA6	1/4	6	•

Set Contains:

103TMLPA



103TMLPA

3/8" Drive (Chrome/Industrial Finish)

Universal Joints

Stock No.	Industrial Stock No.	A	B
FUL8A	—	3/4	3
FU8A*	GFU8A	3/4	2 1/16
FU80B*	—	11/16	1 11/16
FUB8A*	—	3/4	2 5/16

*Swivel Universal Joint • ASME/ANSI B107.10

FUL8A

- Locking pin for better socket retention

103UFTS Combination Drive Universal Joint Set.

- Includes 1/4" drive TMU8B (pg. 73), 3/8" drive FU8A (this page), and 1/2" drive S8 (pg. 77) universal joints (3 pcs) in a storage tray



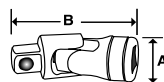
FUL8A



FU8A



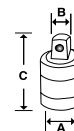
103UFTS



BLPUJ38



206EAU



1206GS

Adaptors

Stock No.	Industrial Stock No.	A	B	C
—	GFAT1E	3/8	1/4	1 1/4
TA3	GTA3	1/4	3/8	15/16
A2A	GAF2A	3/8	1/2	1 5/16
—	GSAF1E	1/2	3/8	1 13/16

206EAU Adaptor/Extension Set.

- Includes GFAT1E and A2A adaptors (this page); FU8A universal joint (this page) and FX1, FXK3 and FXK6 extensions (pg. 67) (6 pcs) in storage tray

1206GS Combination Drive Adaptor Set.

- Includes 1/4" drive GFAT1E and TA3 adaptors (pg. 73); 3/8" drive A2A and GSAF1E adaptors (this page) and 1/2" drive GLA12B and GLAS1E adaptors (pg. 77) (6 pcs)



WARNING



- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages 594 to 597

ACCESSORIES

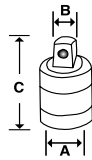
3/8" Drive (Chrome/Industrial Finish)



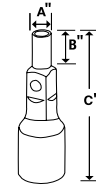
BLPAFM3814



BLPAFM1438



FXM18



Adaptors—Blue-Point®

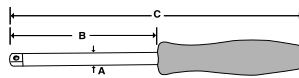
Stock No.	Description	A	B
BLPAFM3814	Square Drive Adaptor	3/8	1/4
BLPAFM1438	Square Drive Adaptor	1/4	3/8

Magnetic Adaptors

Stock No.	A	B	C
FXM112	5/16	9/32	1 25/32
FXM18	3/16	9/32	1 25/32



SGF50BR



F40B



BLPCGHD388

Handled Drivers

Stock No.	A	B	C
SGF50BR*	1/2	3 3/32	8
F40B	1/2	1	5 5/16

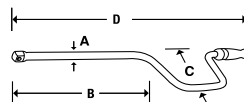
*New Instinct® Handle

Handled Drivers—Blue-Point

Stock No.	Description	C
BLPCGHD388	Spinner Handle	8 5/8



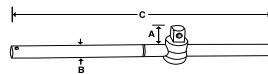
F4LB



F4LBK



F5L



TURBOT103

Speeders

Stock No.	A	B	C	D
F4LB	13/32	7 7/8	3 1/2	17 27/32
F4LBK*	13/32	7 7/8	3 1/2	16 5/8

*Speeder with knob.

Sliding T-handles

Stock No.	A	B	C
F5L	3/4	13/32	8

Turbo T-handle Speed Drivers—Blue-Point

Stock No.	Description	Handle Type
T9TURBO	1/4" square drive	Turbo T-handle
TH10TURBO	1/4" hex	Turbo T-handle
F11TURBO	3/8" square drive	Turbo T-handle

TURBOT103 Turbo T-handle Set.

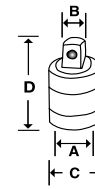
- T9TURBO (1/4" drive), TH10TURBO (1/4" hex) and F11TURBO (3/8" drive)
- 3 pcs in storage tray

ACCESSORIES

3/8" Drive (Power/Impact)

Adaptors (Power)

Stock No.	A	B	C	D
PA2A	3/8	1/2	3/4	1 13/16
PA4E	1/2	3/8	15/16	1 13/16

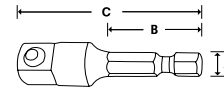


PA2A

Hex-To-Square Adaptors (Power)

- Friction ball

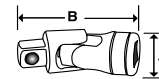
Stock No.	A	B	C
A3042	1/4	1	2
A3046	1/4	1 1/4	6
A3017A	7/16	1 1/4	1 3/4



A3042

Universal Joint (Power)

Stock No.	A	B
PFU8A	3/4	1 31/32



PFU8A

Universal Joints (Impact)

Stock No.	Socket Attachment	A	B
IPF80B	Pin Type	1	2 1/8
IPF800B	Ball Type	1	2 1/8



IPF80B

1/2" Drive (Chrome/Industrial Finish)

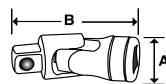
Universal Joints

Stock No.	Industrial Stock No.	A	B
S8	GU8	15/16	2 11/16

ASME/ANSI B107.10M-1996

103UFTS Set.

- Includes 1/4" drive TMU8B (pg. 73), 3/8" drive FU8A (pg. 75) and 1/2" drive S8 (this page) universal joints
- 3 pcs in storage tray



GU8

S8

Universal Joints—Blue-Point®

Stock No.	B
BLPUJ12	2 3/4



BLPUJ12

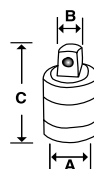
Adaptors

Stock No.	Industrial Stock No.	A	B	C
—	GSAF1E	1/2	3/8	1 1/2
A2A	GAF2A	3/8	1/2	1 5/16
—	GLA12B	1/2	3/4	1 7/8
—	GLAS1E	3/4	1/2	3

ASME/ANSI B107.10-2005



GLA12B



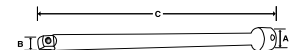
Extension Adaptors

Stock No.	A	B	C
GAX5	1/2	3/8	5
GAX12	1/2	3/8	12
GAX24	1/2	3/8	23 1/4
GAX36	1/2	3/8	36

ASME/ANSI B107.10-2005



GAX12



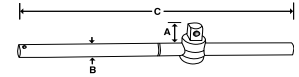
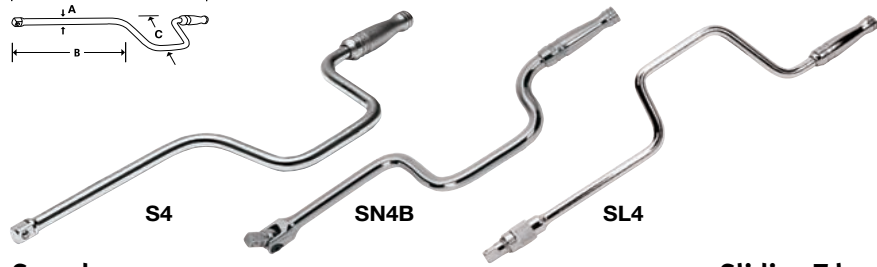
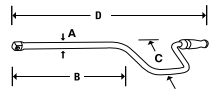
WARNING



- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages 594 to 597

ACCESSORIES

1/2" Drive (Chrome/Industrial Finish)



Speeders

Stock No.	A	B	C	D
S4	1/2	7	4 3/8	18 7/8
SN4B*	5/8	6 3/8	3	17 1/4
SL4	1/2	7 3/8	4 7/16	19 1/8

ASME/ANSI B107.10M-1996

*uses RKBB3 Repair Kit.

SL4 Locking Speeder.

- Sliding collar and locking pin for better socket retention

Sliding T-handle

Stock No.	A	B	C
S12L	1 11/16	5/8	12

ASME/ANSI B107.10M-1996



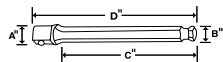
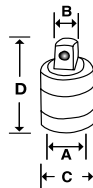
Turbo T-handle Speed Drivers

Stock No.	Description	Handle Type
S13TURBO	1/2" square drive	Turbo T-Handle

1/2" Drive (Power/Impact)



PA2A



A3011A

Adaptors (Power)

Stock No.	A	B	C	D
PA2A	3/8	1/2	3/4	1 5/16
PA4E	1/2	3/8	15/16	1 13/16

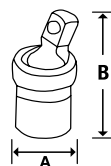
Hex Shank (Power)

Stock No.	A	B	C	D
A3011A	1/2	7/16	1 1/4	2 3/4



IP800

IP80D



Universal Joint (Impact)

Stock No.	Socket Attachment	A	B
IP800	Ball Type	1 1/4	2 3/4
IP80D	Pin Type	1 1/4	2 3/4

ACCESSORIES

3/4" Drive (Chrome/Industrial Finish)

Universal Joints

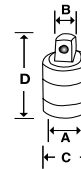
Stock No.	A	B
L82A	1 9/16	3 7/8



L82A

Adaptors

Stock No.	A	B	C	D
GLA12B	1/2	3/4	1 1/8	1 7/8
GLAS1E	3/4	1/2	1 7/16	2 7/16
GLA72A	3/4	1	1 7/16	2 5/8
GLA124A	1	3/4	1 13/16	2 3/4

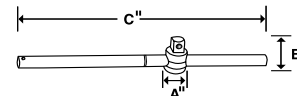


GLAS1E

Sliding T-handle

- Designed for heavier applications
- Can be used as a T-handle or as an offset wrench
- Spring and friction ball hold head in position

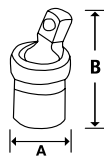
Stock No.	A	B	C
L52B	1 1/2	2 5/16	19 1/4



L52B

Use L52B with L872H.

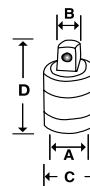
3/4" Drive (Impact)



IP82

Swivel Ball Universal Joint

Stock No.	A	B
IP82	1 3/4	3 5/32



IM124B

Adaptors

Stock No.	A	B	C	D
IM72	3/4	1 with Pin Hole	1 5/8	2 9/16
IM124B	1	3/4 with Pin Hole	2 3/8	2 13/16

Ring and Pin Chart for 3/4" Drive Impact Sockets and Accessories

The following are required for tool use:

Stock No.	Description	Used With
IM182R	Rubber Locking Ring	All 3/4" drive Sockets/Accessories
IMR2	Socket Retainer	All 3/4" drive Sockets/Accessories
IM243R	Rubber Locking Ring (Use with IM243P)	All 1" drive Sockets/Accessories up to 1 3/8" (35mm) plus 3/4" drive IM124 Adaptor
IM243P	Steel Locking Pin (Use with IM243R)	All 1" drive Sockets/Accessories up to 1 3/8" (35mm) plus 3/4" drive IM124 Adaptor



IM182R



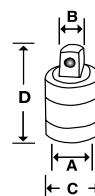
IM243P

1" Drive (Chrome/Industrial Finish)

Adaptors

Stock No.	A	B	C	D
GLA72A	3/4	1	1 7/16	2 5/8
GLA124A	1	3/4	1 13/16	2 3/4

ASME/ANSI B107.10-2005



GLA72A



WARNING



- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages 594 to 597

ACCESSORIES

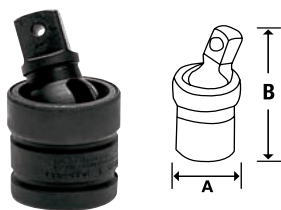
1" Drive (Chrome/Industrial Finish)



Sliding T-handle

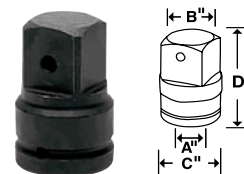
Stock No.	C	Sliding Head Only Stock No.	A	Handle Stock No.
L53	29	L53A	2	L53HB

1" Drive (Impact)



Swivel Universal Joint with Pin Hole

Stock No.	A	B
IP83	2 1/2	4 3/16



Adaptors with Pin Hole

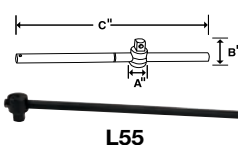
Stock No.	A	B	C	D
IM72	3/4	1	1 5/8	2 9/16
IM124B	1	3/4	2 3/8	2 13/16
IM35	1	1 1/2	2 1/4	3 1/2
IM53	1 1/2	1	3 1/4	4 1/4

1 1/2" and #5 Spline Drive (Impact)



Swivel Universal Joint

Stock No.	Retention Type	A	B
IP85	Pin Hole	3 5/8	6 1/16



Sliding T-handle

Stock No.	C	Sliding Head Only Stock No.	A	Handle Stock No.
L55	36	L55-2	2 7/8	L55-1



Square Drive Adaptors

Stock No.	A	B	C	D
IM35	1	1 1/2	2 1/4	3 1/2
IM53	1 1/2	1	3 1/4	4 1/4
IM59	2 1/2	1 1/2	3 1/4	4 3/4
IM95	1 1/2	2 1/2	5	6 3/8



Spline-to-Square Drive Adaptor

Stock No.	A	B	C	D
IMSA3	1" Square	No. 5, 14 Tooth	2 3/8	3 3/8



IMR3



IM483R



IM483P

Ring and Pin Chart for 1", 1 1/2" and #5 Spline Drive Impact Sockets and Accessories


The following are required for tool use:

Stock No.	Description	Use with
IM243R	Rubber Locking Ring (Use with IM243P)	All 1" drive Sockets/Accessories up to 1 3/8" (35mm) plus 3/4" drive IM124 Adaptor
IM243P	Steel Locking Pin (Use with IM243R)	All 1" drive Sockets/Accessories up to 1 3/8" (35mm) plus 3/4" drive IM124 Adaptor
IMR3	Socket Retainer	All 1" drive Sockets/Accessories, All #5 Spline Drive Sockets/Accessories
IM483R	Rubber Locking Ring (Use with IM483P)	All 1" drive Sockets/Accessories from 1 7/16" (36mm) and larger, All #5 Spline Drive Sockets/Accessories
IM483P	Steel Locking Pin (Use with IM483R)	All 1" drive Sockets/Accessories from 1 7/16" (36mm) and larger, All #5 Spline Drive Sockets/Accessories
IM445R	Rubber Locking Ring	All 1 1/2" drive Sockets/Accessories

GENERAL SERVICE SETS

1/8" Drive

1605TA General Service Torx® Set 5 Tools Include:

	6-Point Sockets	
3/32"	T6	
1/8"	T8	
5/32"	T10	
3/16"	T12	
Also Includes:	T40A	1/8" Drive Handle







1605TA

1/4" Drive



144TMPB


144TMPB 6-Point Metric/Fractional Set 44 Tools, Includes:

	6 Pt. Shallow Sockets		6 Pt. Shallow Sockets		6 Pt. Deep Sockets		6 Pt. Deep Sockets
5.5	TMM5.5	3/16	TM6*	5.5	STMM5.5	3/16	STM6
6	TMM6	7/32	TM7*	6	STMM6	7/32	STM7
7	TMM7	1/4	TM8	7	STMM7	1/4	STM8
8	TMM8	9/32	TM9	8	STMM8	9/32	STM9
9	TMM9	5/16	TM10	9	STMM9	5/16	STM10
10	TMM10	11/32	TM11	10	STMM10	11/32	STM11
11	TMM11	3/8	TM12	11	STMM11	3/8	STM12
12	TMM12	7/16	TM14	12	STMM12	7/16	STM14
13	TMM13	1/2	TM16	13	STMM13	1/2	STM16
14	TMM14	9/16	TM18	14	STMM14	9/16	STM18

Also Includes:	T72	High Strength Sealed Ratchet
	TMU8B	Universal Joint
	TMXK2	2" Knurled Extension
	TMXK60	6" Knurled Extension
	PB99A	Storage Box

*Conventional hex

117TMM Metric 6-Point Starter Set 17 Tools, Includes:

	6-Point Shallow Sockets
4	TMM4
5	TMM5
5.5	TMM5.5
6	TMM6
7	TMM7
8	TMM8
9	TMM9
10	TMM10
11	TMM11
12	TMM12
13	TMM13
14	TMM14
15	TMM15





117TMM

Also Includes:	T72	High Strength Sealed Ratchet
	TMU8B	Universal Joint
	TMXK2	2" Knurled Extension
	TMXK4	4" Knurled Extension



134ATMP

134ATMP 6-Point Fractional Set 34 Tools, Includes:

	6-Point Shallow Sockets		6-Point Deep Sockets
3/16	TM6	3/16	STM6
7/32	TM7	7/32	STM7
1/4	TM8	1/4	STM8
9/32	TM9	9/32	STM9
5/16	TM10	5/16	STM10
11/32	TM11	11/32	STM11
3/8	TM12	3/8	STM12
7/16	TM14	7/16	STM14
1/2	TM16	1/2	STM16
9/16	TM18	9/16	STM18

Also Includes:	T72	High Strength Sealed Ratchet
	TMU8B	Universal Joint
	TMXK2	2" Knurled Extension
	TMXK4	4" Knurled Extension
	TMXK60	6" Knurled Extension
	SGT4BR	Long Shank Driver
	TM10G	6" Breaker Bar
	TM61A	6" Flexible Extension
	TM67A	Ratchet Adaptor
	TM82	Flat Tip Driver .036 x 1/4"
	TM408	Double Square Socket 1/4"
	TM410	Double Square Socket 5/16"
	TM412	Double Square Socket 3/8"
	TMS70A	Ratchet Spinner



- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages 594 to 597


GENERAL SERVICE SETS

1/4" Drive



120DTMPB

120DTMPB 6-Point Fractional General Service
20 Tools, Includes:


	6-Point Shallow Sockets
3/16	TM6
7/32	TM7
1/4	TM8
9/32	TM9
5/16	TM10
11/32	TM11
3/8	TM12
7/16	TM14
1/2	TM16
9/16"	TM18

Also Includes:	SGT4BR	Long Shank Driver
	TM10G	6" Breaker Bar
	TM408	Double Square Socket 1/4"
	TM410	Double Square Socket 5/16"
	TM412	Double Square Socket 3/8"
	T72	High Strength Sealed Ratchet
	TMU8B	Universal Joint
	TMXX2	2" Knurled Extension
	TMXX4	4" Knurled Extension
	TMXX60	6" Knurled Extension
	PB24A	Storage Box



114ATMP

114ATMP 6-Point Fractional Set
14 Tools, Includes:

	6-Point Shallow Sockets
3/16	TM6
7/32	TM7
1/4	TM8
9/32	TM9
5/16	TM10
11/32	TM11
3/8	TM12
7/16	TM14
1/2	TM16
9/16"	TM18

Also Includes:	T72	High Strength Sealed Ratchet
	TMU8B	Universal Joint
	TMXX2	2" Knurled Extension
	TMXX4	4" Knurled Extension

Set (Add-on)

107ATMPB Expandable General Service Set and Additions. Start with the 107ATMPB General Service Set and add any of the suggested socket sets below to custom build exactly the 1/4" drive set you need. The storage case has a large enough cavity to accommodate 2 rows of sockets—standard, semi deep, deep, universal, or any combination of these in U.S. or metric sizes.

7 Tools, Includes:

T72	High Strength Sealed Ratchet
TMU8B	Universal Joint 1/4" Drive
TMXX2	2" Knurled Extension
TMXX4	4" Knurled Extension
TMXX60	6" Knurled Extension
TM10G	Breaker Bar 6"
SGT4BR	Long Shank Driver 1/4"
PB24A	Storage Case



107ATMPB

Suggested additions not included in set:	110TMY	6-Point Shallow Socket Set (10 pcs)
	110STMY	6-Point Deep Socket Set (10 pcs)
	111TMMDY	12-Point Metric Shallow Socket Set (11 pcs)
	111STMMDY	12-Point Metric Deep Socket Set (11 pcs)
	106ETMAMY	Metric Hex Driver Set (6 pcs)

GENERAL SERVICE SETS

1/4" -3/8" – Blue-Point®

BLPGSS1462 General Service Set.

Components (all 1/4" drive):

- 11 fractional (3/16" to 5/8") and 11 metric (4 to 14mm) standard sockets
- 11 fractional (3/16" to 5/8") and 11 metric (4 to 14mm) deep sockets
- 1 bit holder
- 4 hex bits (9/64", 3/16", 7/32", 1/4")
- 3 flat tip bits (5/32", 3/16", 1/4")
- 2 Phillips® bits (#1, #2)
- 7 ratchet/socket accessories
- 1 ratchet
- BLPGSS1462PB storage case



BLPGSS1462

BLPGSS1451A General Service Set

Components (all 1/4" drive):

- 10 fractional (3/16" to 9/16") and 13 metric (4 to 14mm) standard sockets
- 3 fractional (1/4", 5/16", 3/8") 8 pt. sockets
- 6 Torx® socket drivers (T8 to T27)
- 6 fractional hex socket drivers (1/8" to 5/16")
- 3 flat tip socket drivers (5/32", 7/32", 9/32")
- 3 Phillips socket drivers (#0, #1, #2)
- 6 ratchet/socket accessories
- 1 ratchet
- BLPGSS1451AC storage case



BLPGSS1451A

BLPGSSC100 General Service Set

Components (1/4" Drive):

- 10 fractional (3/16" to 9/16") and 13 metric (4 to 14mm) standard sockets
- 5 ratchet/socket accessories
- 1 ratchet

Components (3/8" Drive):

- 13 fractional (1/4" to 1") and 19 metric (6 to 24mm) standard sockets
- 11 external Torx sockets (E4 to E20)
- 2 spark plug sockets (5/8", 13/16")
- 5 ratchet/socket accessories
- 1 ratchet
- 1 spinner handle

Components (Combination Wrenches):

- 9 fractional combination wrenches (1/4" to 3/4")
- 10 metric combination wrenches (10 to 19mm)
- BLPGSSC100PB storage case



BLPGSSC100

BLPGSSC155 General Service Set

Components (1/4" Drive):

- 10 fractional (3/16" to 9/16") and 13 metric (4 to 14mm) standard sockets
- 10 fractional (3/16" to 9/16") and 11 metric (4 to 14mm) deep sockets
- 20 assorted 1/4" hex bits with bit holder
- 5 ratchet/socket accessories
- 1 quick release ratchet

Components (3/8" Drive):

- 13 fractional (1/4" to 1") and 19 metric (6 to 24mm) standard sockets
- 11 fractional (3/8" to 1") and 15 metric (10 to 24mm) deep sockets
- 11 external Torx sockets (E4 to E20)
- 2 spark plug sockets (5/8", 13/16")
- 3 metric hex socket drivers (7, 8, 10mm)
- 4 tamper resistant Torx socket drivers (T40, T45, T50, T55)
- 6 ratchet/socket accessories
- 1 quick release ratchet
- 1 spinner handle
- BLPGSSC155PB storage case



BLPGSSC155



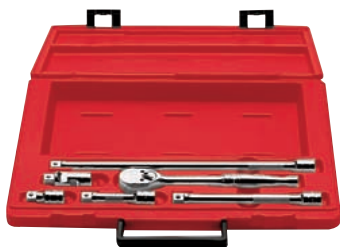
WARNING



- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages 594 to 597

GENERAL SERVICE SETS

3/8" Drive



206AFSP



210AFSP



218AFSP

Build Your Own Set!



The 206AFSP handle set is the foundation for the ideal basic general service set. Add any of the suggested socket sets or choose from various special purpose sockets available in fractional and metric sizes.

206AFSP Handle Set.


Includes:

- F80 sealed ratchet, FU8A universal joint, FX1 extension (1 1/2"), FXK3 knurled extension (3"), FXK6 knurled extension (6") and FXK11 knurled extension (11")
- 6 pcs in convenient PB16B storage case large enough to store 4 rows of standard length sockets, 2 rows of deep or universal sockets or a combination of the two

Suggested additions not included in set:

	Stock No.		Stock No.
6-Point Shallow Set	211FSY	6-Point Shallow Set	212FSMY
6-Point Shallow Set	212FY	6-Point Semi Deep Set	212SFSMY
6-Point Deep Set	211SFSY	12-Point Deep Set	212SFMY
12-Point Shallow Set	211SFY	6-Point Semi Deep Set	212FSMSY
6-Point Deep Universal Set	207FSU	12-Point Semi Deep Set	212FMSY
12-Point Semi Deep Set	211FDSY	12-Point Shallow Set	212FMY

218AFSP 6-Point Fractional General Service Set. 18 Tools, Includes:


	6-Point Shallow Sockets
1/4	FS081
5/16	FS101
3/8	FS121
7/16	FS141
1/2	FS161
9/16	FS181
5/8	FS201
11/16	FS221
3/4	FS241
13/16	FS261
7/8	FS281

Also Includes:	Item	Description
	F80	Standard Handle Sealed Ratchet
	F4LB	Speeder
	F10LC	Breaker Bar
	FU8A	Universal Joint
	FXK3	3" Extension
	FXK6	6" Extension
	FXK11	11" Extension





222AFSP

210AFSP 6-Point Fractional General Service Set. 10 Tools, Includes:

	6-Point Shallow Sockets
3/8	FS121
7/16	FS141
1/2	FS161
9/16	FS181
5/8	FS201
11/16	FS221
3/4	FS241

Also Includes:	Item	Description
	F80	Standard Handle Sealed Ratchet
	FXK3	3" Extension
	FXK6	6" Extension

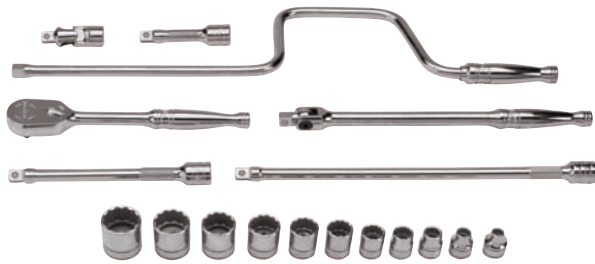
222AFSP 6-Point Fractional General Service Set. 22 Tools, Includes:

	6-Point Shallow Sockets		6-Point Deep Sockets
3/8	FS121	3/8	SFS121
7/16	FS141	7/16	SFS141
1/2	FS161	1/2	SFS161
9/16	FS181	9/16	SFS181
5/8	FS201	5/8	SFS201
11/16	FS221	11/16	SFS221
3/4	FS241	3/4	SFS241

Also Includes:	Item	Description
	F80	Standard Handle Sealed Ratchet
	S9704KA	13/16" Spark Plug Socket
	S9706KA	5/8" Spark Plug Socket
	F10LC	Breaker Bar
	FU8A	Universal Joint
	FXK3	3" Extension
	FXK4	4" Extension
	FXK8	8" Extension


GENERAL SERVICE SETS

3/8" Drive



218AFP

218AFP 12-Point Fractional General Service Set (Tools only). 18 Tools, Includes:




	12-Point Shallow Sockets
1/4	F081
5/16	F101
3/8	F121
7/16	F141
1/2	F161
9/16	F181
5/8	F201
11/16	F221
3/4	F241
13/16	F261
7/8	F281

Also Includes:	F80	Standard Handle Sealed Ratchet
	F4LB	Speeder
	F10LC	Breaker Bar
	FU8A	Universal Joint
	FXK3	3" Extension
	FXK6	6" Extension
	FXK11	11" Extension



248F

248F 12-Point Fractional General Service Set. 46 Tools, Includes:

	12-Point Shallow Sockets		12-Point Deep Sockets		12-Point Universal Sockets
1/4	F081	1/4	SF081	5/16	FU10A
5/16	F101	5/16	SF101	3/8	FU12A
3/8	F121	3/8	SF121	7/16	FU14A
7/16	F141	7/16	SF141	1/2	FU16A
1/2	F161	1/2	SF161	9/16	FU18A
9/16	F181	9/16	SF181	5/8	FU20A
5/8	F201	5/8	SF201	11/16	FU22A
11/16	F221	11/16	SF221	3/4	FU24A
3/4	F241	3/4	SF241	13/16	FU26A
13/16	F261	13/16	SF261	7/8	FU28A
7/8	F281	7/8	SF281	15/16	FU30A
				1	FU32A

Also Includes:	F80	Standard Handle
	F40B	Short Shank Driver
	FXK4	4" Extension Sealed Ratchet
	FRS70A	Ratchet Spinner
	FXK6	6" Extension
	F4LB	Speeder
	F77	Ratchet Adaptor
	FXK11	11" Extension
	F5L	Sliding T-Handle
	FU8A	Universal Joint
	F10LC	Breaker Bar
	FXK3	3" Extension

292F 6/12-Point General Service Set. 92 Tools, Includes:

6-Point Shallow Sockets:	Shallow, 6-Point (11 pcs) (1/4" to 7/8")
6-Point Deep Sockets:	Deep, 6-Point (11 pcs) (1/4" to 7/8")
12-Point Deep Sockets:	Deep, 12-Point (11 pcs) (1/4" to 7/8")
12-Point Shallow Sockets:	Shallow, 12-Point (12 pcs) (1/4" to 7/8")
12-Point Shallow Universal Sockets:	Universal, Shallow, 12-Point (12 pcs) (5/16" to 1")

Also Includes:	F80	Standard Handle Sealed Ratchet	S9704KFUA	13/16" Spark Plug Universal Socket
	FLF80	Sealed Flex Head Ratchet	FX61A	Flexible Extension
	F4LB	Speeder	GF22	Drag Link Socket
	F5L	Sliding T-Handle	F23E	1/4" Flat Tip Socket Driver
	F10LC	Breaker Bar	F25E	5/16" Flat Tip Socket Driver
	F40B	Short Shank Driver	F31E	3/8" Flat Tip Socket Driver
	FRS70A	Ratchet Spinner	F29A	3/8" Clutch Type Driver
	F77	Ratchet Adaptor	F30E	5/16" Clutch Type Driver
	FU8A	Universal Joint	FA5E	5/32" Hex Driver
	FX1	1 1/2" Extension	FA6E	3/16" Hex Driver
	FXK3	3" Extension	FA7E	7/32" Hex Driver
	FXK4	4" Extension	FA8E	1/4" Hex Driver
	FXK6	6" Extension	FA10E	5/16" Hex Driver
	FXK8	8" Extension	FA12E	3/8" Hex Driver
	FXK11	11" Extension	FP32E	#3 Phillips Driver
	FP22E	#2 Phillips Driver	PP409A	9/32" Pipe Plug Socket
	FP42E	#4 Phillips Driver	PP412A	9/32" Pipe Plug Socket
	PP410A	5/16" Pipe Plug Socket		



292F



- Do not use chrome or industrial finish hand tools with impact drivers
- Read complete safety precaution information on pages 594 to 597

GENERAL SERVICE SETS

3/8" Drive



222AFSMP

222AFSMP 6-Point Metric General Service Set. 22 Tools, Includes:

mm	6-Point Shallow Sockets:	mm	6-Point Deep Sockets:
10	FSM101	10	SFSM10
11	FSM111	11	SFSM11
13	FSM131	13	SFSM13
14	FSM141	14	SFSM14
15	FSM151	15	SFSM15
17	FSM171	17	SFSM17
19	FSM191	19	SFSM19

Also Includes:		
F80		Standard Handle Sealed Ratchet
FU8A		Universal Joint
F10LC		Breaker Bar
FXX3		3" Extension
FXX4		4" Extension
FXX8		8" Extension
S9704KA		13/16" Spark Plug Socket
S9706KA		5/8" Spark Plug Socket
PB17B		Storage Case



262MFB

262MFB 6/12-Point Metric General Service Set. 58 Tools, Includes:

mm	6-Point Shallow Sockets	mm	12-Point Shallow Sockets	mm	12-Point Deep Sockets	mm	6-Point Shallow Universal Sockets
8	FSM81	9	FM9	8	SFM8	8	FSUM8A
9	FSM91	10	FM10	9	SFM9	10	FSUM10A
10	FSM101	11	FM11	10	SFM10	11	FSUM11A
11	FSM111	12	FM12	11	SFM11	12	FSUM12A
12	FSM121	13	FM13	12	SFM12	13	FSUM13A
13	FSM131	14	FM14	13	SFM13	14	FSUM14A
14	FSM141	15	FM15	14	SFM14	15	FSUM15A
15	FSM151	16	FM16	15	SFM15	16	FSUM16A
16	FSM161	17	FM17	16	SFM16	17	FSUM17A
17	FSM171	18	FM18	17	SFM17	18	FSUM18A
18	FSM181	19	FM19	18	SFM18	19	FSUM19A
19	FSM191			19	SFM19	22	FSUM22A

Also Includes:		
F80		Standard Handle Sealed Ratchet
F4LB		Speeder
F10LC		Breaker Bar
F40B		Short Shank Driver
FRS70A		Ratchet Spinner
F77		Ratchet Adaptor
FU8A		Universal Joint
FXX3		3" Extension
FXX6		6" Extension
FXX11		11" Extension
S9704KR		13/16" Spark Plug Socket

GENERAL SERVICE SETS

1/4" - 3/8" Drive-Blue-Point®

General Service Sets

BLPGSSCT71 General Service Set.

Set Components (3/8" Drive)

- 9 fractional combination wrenches (1/4" to 3/4")
- 10 metric combination wrenches (1/4" to 3/4")
- 12 fractional (5/16" to 1") and 15 metric (10 to 24mm) 6-pt. standard sockets
- 2 spark plug sockets (5/8", 13/16")
- 1 quick release ratchet
- 1 spinner Handle
- 3 extensions (3", 6" and 10")
- 1 bit holder (3/8" drive)
- 4 hex bits (1/8", 5/32", 7/32" and 1/4")
- 3 flat tip bits (5/32", 3/16" and 1/4")
- 4 Phillips® tip bits (#0, #1, #2 and #3)
- 2 Square tip bits (#1 and #2)
- 1 diagonal cutting pliers (7")
- 1 long nose pliers (6")
- 1 groove joint pullers (10")
- 1 adjustable wrench (8")
- BLPGSSCT71PB storage case

BLPGSS3837 General Service Set.

Set Components (3/8" Drive)

- 8 fractional (5/16" to 3/4") and 14 metric (6 to 19mm) standard 6 point sockets
- 4 fractional (5/16"-3/8", 7/16"-1/2", 9/16"-5/8", 11/16"-3/4") and 5 metric (10-11mm, 12-13mm, 14-15mm, 16-17mm, 18-19mm) double open end wrenches
- 2 extensions: 3" and 6"
- 1 ratchet
- 1 universal joint
- 2 adaptors: 1/4" F x 3/8" M, 3/8" F x 1/4" M
- BLPGSS3837PB storage box

BLPGSS3885 General Service Set.

Set Components (3/8" Drive)

- 13 fractional (1/4" to 1") and 14 metric (6 to 19mm) standard sockets
- 13 fractional (1/4" to 1") and 14 metric (6 to 19mm) deep sockets
- 11 external Torx sockets (E4 to E20)
- 1 Phillips socket drivers (#3 and #4)
- 2 Pozidriv® socket drivers (#3 and #4)
- 8 tamper resistant Torx socket drivers (T10 to T45)
- 2 spark plug sockets (5/8", 13/16")
- 6 ratchet/socket accessories
- 1 ratchet
- BLPGSS3885PB storage case

BLPGSSC100 General Service Set.

Set Components (1/4" Drive)

- 10 fractional (3/16" to 9/16") and 13 metric (4 to 14mm) standard sockets
- 6 ratchet/socket accessories
- 1 ratchet

Set Components (3/8" Drive)

- 13 fractional (1/4" to 1") and 19 metric (6 to 24mm)
- 11 external Torx® sockets (E4 to E20)
- 2 spark plug sockets (5/8", 13/16")
- 5 ratchet/socket accessories
- 1 ratchet

Set Components (Combination Wrenches)

- 9 fractional combination wrenches (1/4" to 3/4")
- 10 metric combination wrenches (10 to 19mm)
- BLPGSSC100PB storage case

BLPGSSC155 General Service Set.

Set Components (1/4" Drive)

- 10 fractional (3/16" to 9/16") and 13 metric (4 to 14mm) standard sockets
- 10 fractional (3/16" to 9/16") and 11 metric (4 to 14mm) deep sockets
- 20 assorted 1/4" hex bits with bit holder
- 6 ratchet/socket accessories
- 1 quick release ratchet

Set Components (3/8" Drive)

- 13 fractional (1/4" to 1") and 19 metric (6 to 24mm) standard sockets
- 11 fractional (3/8" to 1") and 15 metric (10 to 24mm) deep sockets
- 11 external Torx sockets (E4 to E20)
- 2 spark plug sockets (5/8", 13/16")
- 3 metric hex socket drivers (7, 8, 10mm)
- 4 tamper resistant Torx socket drivers (T40, T45, T50, T55)
- 5 ratchet/socket accessories
- 1 quick release ratchet
- BLPGSSC155PB storage case

BLPGSS3849 General Service Set.

Set Components (3/8" Drive)

- 8 fractional (5/16" to 3/4") and 14 metric (6mm to 19mm) standard 6 pt. sockets
- 8 fractional (5/16" to 3/4") and 13 metric (7mm to 19mm) deep 12 pt. sockets
- 2 extensions (3" and 6")
- 1 universal joint
- 1 3/8" female to 1/4" male adaptor
- 1 1/4" female to 3/8" male adaptor
- 1 ratchet
- BLPGSS3849PB storage case



BLPGSSCT71

BLPGSSC100



BLPGSSC155

BLPGSS3837



BLPGSS3885

BLPGSS3849



WARNING



- Do not use chrome or industrial finish hand tools with impact drivers
- Read complete safety precaution information on pages 594 to 597

GENERAL SERVICE SETS

3/8" Drive-Blue-Point®



BLPPTSM10



BLPPTTEXT3



BLPPTA3438



BLPPTSS3822



BPRFPT10

Pass Thru Socket Set

Size, inches (mm)	Stock No.	External Hex, inches	Length, inches
3/8	BLPPTS38	3/4	1 7/16
7/16	BLPPTS716	3/4	1 7/16
1/2	BLPPTS12	3/4	1 7/16
9/16	BLPPTS916	3/4	1 7/16
5/8	BLPPTS58	3/4	1 7/16
1 1/16	BLPPTS1116	3/4	1 7/16
3/4	BLPPTS34	3/4	1 7/16
(8)	BLPPTSM8	3/4	1 7/16
(9)	BLPPTSM9	3/4	1 7/16
(10)	BLPPTSM10	3/4	1 7/16
(11)	BLPPTSM11	3/4	1 7/16
(12)	BLPPTSM12	3/4	1 7/16
(13)	BLPPTSM13	3/4	1 7/16
(14)	BLPPTSM14	3/4	1 7/16
(15)	BLPPTSM15	3/4	1 7/16
(16)	BLPPTSM16	3/4	1 7/16
(17)	BLPPTSM17	3/4	1 7/16
(18)	BLPPTSM18	3/4	1 7/16
(19)	BLPPTSM19	3/4	1 7/16

BLPPTSS3822 Pass Thru Socket Set. Includes: BLPPTS38 through BLPPTS34 (3/8" to 3/4") sockets, BLPPTSM8 thru BLPPTSM19 (8 to 19mm) metric sockets, BLPPTA3438 square drive adaptor, BLPPTTEXT3 extension and BPRFPT10 ratchet (22 pcs) in storage case.

BPRFPT10 Ratchet.

- Flex head has 7 locking positions
- 3/4" hex drive, 10" long

BLPPTTEXT3 Extension.

- 3" extension

BLPPTA3438 Adaptor.

- 3/8" square drive adaptor, 1 1/4" long

BLPPTSS3822PB Storage Case.

1/2" Drive



317MSPC

317MSPC Fractional Chrome Set in a Storage Tray.
17 pieces, Includes:

	6-Point Shallow Sockets
3/8	TW121A
7/16	TW141A
1/2	TW161A
9/16	TW181A
5/8	TW201
1 1/16	TW221
3/4	TW241
13/16	TW261
7/8	TW281
15/16	TW301
1	TW321
1 1/16	TW341
1 1/8	TW361

Also Includes:	Part No.	Description
	S80	Sealed Ratchet
	SN18B	18" Breaker Bar
	SXK5	5" Extension
	SXK11	11" Extension



317AMMPC

317AMMPC Metric 6-Point General Service Set.
17 pieces, Includes:

	6-Point Shallow Sockets
12	TWM12A
13	TWM13A
14	TWM14A
15	TWM15A
16	TWM16
17	TWM17
18	TWM18
19	TWM19
20	TWM20
21	TWM21
22	TWM22
23	TWM23
24	TWM24

Also Includes:	Part No.	Description
	S80	Sealed Ratchet
	SXK5	5" Extension
	SXK11	11" Extension
	SN18B	18" Breaker Bar



GENERAL SERVICE SETS

1/2" Drive




344AMB

344AMB Fractional Chrome General Service Set.
44 pieces, Includes:

	12-Point Shallow Sockets		12-Point Deep Sockets
3/8	SW121A	1/2	S161A
7/16	SW141A	9/16	S181A
1/2	SW161A	5/8	S201
9/16	SW181A	11/16	S221
5/8	SW201	3/4	S241
11/16	SW221	13/16	S261
3/4	SW241	7/8	S281
13/16	SW261	15/16	S301
7/8	SW281	1	S321
15/16	SW301	1 1/16	S341
1	SW321	1 1/8	S361
1 1/16	SW341		
1 1/8	SW361		
1 3/16	SW381		
1 1/4	SW401		
1 5/16	SW421		

6-Point Universal Sockets Set	307SUY	9/16" to 15/16" (7 pcs)
Also Includes:	LRS70A	1 19/32" Ratchet Spinner
	S4	18 7/8" Speeder
	S8	2 11/16" Universal Joint
	S12L	12" Sliding T-Handle
	S77A	Ratcheting Adaptor
	S80	Sealed Ratchet
	SN18B	18" Breaker Bar
	SX2	2" Extension
	SXK5	5" Extension
	SXK11	11" Extension

345MMB Chrome Metric General Service Set.
45 pieces, Includes:




	12-Point Socket Sets
(23 pcs) (10 to 32mm)	323SWMY Metric 12 pt Shallow Socket Set
(13 pcs) (12 to 24mm)	313SMYA Metric 12 pt Deep Socket Set

Also Includes:	S4	18 7/8" Speeder
	S8	2 11/16" Universal Joint
	S12L	12" Sliding T-Handle
	S77A	Ratcheting Adaptor
	S80	Sealed Ratchet
	SN18B	18" Breaker Bar
	SXK3	3 1/2" Extension
	SXK5	5" Extension
	SXK11	11" Extension



360MB

360MB Fractional Chrome General Service Set
in KRA21G Metal Box.
60 pieces, Includes:

	12-Point Shallow Sockets		6-Point Deep Sockets		12-Point Deep Sockets
3/8	SW121A	1/2	TS161A	1/2	S161A
7/16	SW141A	9/16	TS181A	9/16	S181A
1/2	SW161A	5/8	TS201	5/8	S201
9/16	SW181A	11/16	TS221	11/16	S221
5/8	SW201	3/4	TS241	3/4	S241
11/16	SW221	13/16	TS261	13/16	S261
3/4	SW241	7/8	TS281	7/8	S281
13/16	SW261	15/16	TS301	15/16	S301
7/8	SW281	1	TS321	1	S321
15/16	SW301	1 1/16	TS341	1 1/16	S341
1	SW321	1 1/8	TS361		
1 1/16	SW341				
1 1/8	SW361				
1 3/16	SW381				
1 1/4	SW401				
1 5/16	SW421				

6-Point Universal Sockets Set	307SUY	9/16" to 15/16" (7 pcs)
Also Includes:	A17	15/16" Blade Width Drag Link Socket
	S9705K	13/16" 6 pt Spark Plug Socket
	S12L	12" Sliding T-Handle
	S77A	Ratcheting Adaptor
	SN18B	18" Breaker Bar
	SX2	2" Extension
	SXK3	3 1/2" Extension
	SXK5	5" Extension
	SXK11	11" Extension
	A80A	1/4" to 1/2" Capacity Stud Remover
	LRS70A	1 19/32" Ratchet Spinner
	S80	Sealed Ratchet
	SL80	Long Handle Sealed Ratchet
	S4	18 7/8" Speeder
	S8	2 11/16" Universal Joint



345MMB



- Do not use chrome or industrial finish hand tools with impact drivers
- Read complete safety precaution information on pages 594 to 597

GENERAL SERVICE SETS

1/2" Drive-Blue-Point®



BLPGSS1233

BLPGSS1233 1/2" Drive General Service Set.

Set Components:


- 15 fractional (3/8"-1 1/4") and 12 metric (12-24mm) standard sockets
- 1 breaker bar
- 1 universal joint
- 1 quick release ratchet
- 3 extensions (3", 6" and 10")

3/4" Drive



434HDB

434HDB 12-Point Fractional General Service (Tools with Metal Box). 35 Tools, Includes:


	12-Point Shallow Sockets
3/4	LDH242
13/16	LDH262
7/8	LDH282
15/16	LDH302
31/32	LDH312
1	LDH322
1 1/16	LDH342
1 1/8	LDH362
1 3/16	LDH382
1 1/4	LDH402
5/16	LDH422A1
1 3/8	LDH442
1 7/16	LDH462
1 1/2	LDH482
1 9/16	LDH502
1 5/8	LDH522
1 11/16	LDH542
1 3/4	LDH562
1 13/16	LDH582
1 7/8	LDH602
2	LDH642
2 1/16	LDH662
2 1/8	LDH682
2 3/16	LDH702
2 1/4	LDH722
2 3/8	LDH762

Also Includes:		
	L32	3" Extension
	L62	8" Extension
	L122	16" Extension
	L52B	Sliding Head
	L872	Ratchet Head
	L82A	Universal Joint
	L8112A	Breaker Bar Head
	L672B	Ratchet Adaptor
	L872H	19 1/4" Handle
	KRA226BGV	Metal Box



414AHD

414AHD 12-Point Fractional General Service (Tools with Storage Tray). 15 Tools, Includes:

	12-Point Shallow Sockets
1 1/16	LDH342
1 1/8	LDH362
1 1/4	LDH402
1 5/16	LDH422A
1 3/8	LDH442
1 7/16	LDH462
1 1/2	LDH482
1 5/8	LDH522
1 3/4	LDH562
1 7/8	LDH602

Also Includes:		
	L62	8" Extension
	L122	16" Extension
	L872	Ratchet Head
	L872RJ	19 1/4" Handle
	L8112A	Breaker Bar Head

The Finest Wrenches. Period.

Snap-on® wrenches are precision-crafted from a special alloy steel to achieve the results that technicians have come to expect.

- Flank Drive® Plus open end—The series of flutes and notches exceed the performance of any other open end design and provide more turning power and strength.
- Flank Drive box end—12-point design allows you to get the full power out of the wrench's box end.
- Open end offset—Standard open ends are angled 15 degrees so you can flip the wrench for a new bite.
- Continuous arc open end—Minimizes jaw spread for constant contact with the fastener, delivering maximum turning power.
- Nickel-chrome finish—For a corrosion-resistant, distinctive look.
- Longer standard wrenches—All standard length wrenches feature an extended length to provide the most leverage possible.

You Work With Your Hands. Your Hands Work Best With Great Wrenches.

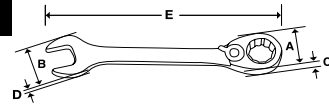
Snap-on offers wrenching solutions for every application.

- Flex head wrenches—Feature a flexible box end equipped with 12-point Flank Drive technology.
- Ratcheting box wrenches—Improve your productivity in tight spaces with options to fit a wide variety of jobs.
- Ergonomic adjustable wrenches—Provide improved turning power while reducing user fatigue.
- Specialty wrenches—From half moon to “S” shaped designs to angle heads, we set the bar on specialty designs for unique jobs.



WRENCHES

Flank Drive® Plus Combination Ratcheting Box/Open End



- Open end features Flank Drive Plus wrenching configurations that deliver up to 62% more turning power than conventional wrenches
- Longer overall length increases leverage to let the wrench do the work

- 12-pt box end features the Flank Drive wrenching configuration, the proven design for turning fasteners
- Up to 80 gear teeth require minimal movement in tight areas



SOEXRM710



SOEXR707

15° Standard Handle, mm

Set Contains: SOEXRM710

mm	12	A	B	C	D	E	Reverse Lever Repair Kit	12
8	SOEXRM8	17.8	17.0	7.1	4.3	149	RKW1	
9	SOEXRM9	19.6	19.2	7.9	4.7	164	RKW2	
10	SOEXRM10	21.5	21.1	8.3	5.1	179	RKW3	•
11	SOEXRM11	22.0	23.4	8.6	5.5	194	RKW3	•
12	SOEXRM12	23.5	25.1	9.3	5.9	207	RKW4	•
13	SOEXRM13	25.0	27.2	10.2	6.3	221	RKW5	•
14	SOEXRM14	27.0	29.2	10.2	6.7	235	RKW6	•
15	SOEXRM15	28.5	31.2	11.1	7.1	249	RKW7	•
16	SOEXRM16	30.5	33.0	11.1	7.4	261	RKW8	•
17	SOEXRM17	32.0	35.1	12.0	7.8	277	RKW9	•
18	SOEXRM18	34.5	37.1	12.0	8.2	291	RKW10	•
19	SOEXRM19	36.5	39.4	12.9	8.6	305	RKW11	•

Set shown includes storage tray

15° Standard Handle, inches

Set Contains: SOEXR707

in	12	A	B	C	D	E	Reverse Lever Repair Kit	12
3/8	SOEXR12	27/32	27/32	5/16	3/16	7	RKW3	•
7/16	SOEXR14	7/8	29/32	11/32	7/32	7 5/8	RKW3	•
1/2	SOEXR16	31/32	1 1/16	13/32	1/4	8 11/16	RKW5	•
9/16	SOEXR18	1 1/16	1 5/32	13/32	1/4	9 1/4	RKW6	•
5/8	SOEXR20	1 3/16	1 5/16	7/16	9/32	10 1/4	RKW8	•
11/16	SOEXR22	1 1/4	1 3/8	15/32	5/16	10 7/8	RKW9	•
3/4	SOEXR24	1 7/16	1 9/16	1/2	11/32	12	RKW11	•

Set shown includes storage tray

Flank Drive Combination Ratcheting Box/Open End



OEXRM710



OEXR707

0° Standard Handle, mm

Set Contains: OEXRM710

mm	12	A	B	C	D	E	Reverse Lever Repair Kit	12
8	OEXRM8	17.8	17.0	7.1	4.3	147		
9	OEXRM9	19.6	19.2	8.0	4.7	159		
10	OEXRM10	21.5	21.1	8.4	5.1	171	•	
11	OEXRM11	22.0	23.4	8.7	5.6	183	•	
12	OEXRM12	23.5	25.1	9.3	5.9	195	•	
13	OEXRM13	25.0	27.2	10.2	6.4	207	•	
14	OEXRM14	27.0	29.2	10.2	6.7	219	•	
15	OEXRM15	28.5	31.2	11.1	7.1	231	•	
16	OEXRM16	30.5	33.0	11.1	7.4	243	•	
17	OEXRM17	32.0	35.1	12.0	7.8	267	•	
18	OEXRM18	34.5	37.1	12.0	8.2	291	•	
19	OEXRM19	36.5	39.4	12.9	8.7	279	•	

Set shown includes storage tray

0° Standard Handle, inches

Set Contains: OEXR707

in	12	A	B	C	D	E	Reverse Lever Repair Kit	12
3/8	OEXR12	27/32	27/32	5/16	3/16	6 3/4	•	
17/16	OEXR14	7/8	29/32	11/32	7/32	7 3/16	•	
1/2	OEXR16	31/32	1 1/16	13/32	1/4	8 3/16	•	
9/16	OEXR18	1 1/16	1 5/32	13/32	1/4	8 5/8	•	
5/8	OEXR20	1 3/16	1 5/16	7/16	9/32	5 9/16	•	
11/16	OEXR22	1 7/32	1 3/8	15/32	5/16	10 1/16	•	
3/4	OEXR24	1 15/32	1 9/16	1/2	11/32	11	•	

Set shown includes storage tray

WRENCHES

Flank Drive® Combination Ratcheting Box/Open End



OXIRM707

Short Handle, mm

mm	12	A	B	C	D	E	Set Contains:	
							OXIRM707	OXIRM705
8	OXIRM8	17.8	17.0	7.1	4.3	88.7	•	
9	OXIRM9	19.6	19.2	8.0	11.9	92.7	•	
10	OXIRM10	21.5	21.1	8.4	5.1	97.0	•	
11	OXIRM11	22.0	23.4	8.7	5.6	101.1	•	
12	OXIRM12	23.5	25.1	9.3	5.9	105.4	•	
13	OXIRM13	25.0	27.2	10.2	6.4	109.5	•	
14	OXIRM14	27.0	29.2	10.2	6.7	113.8	•	
15	OXIRM15	28.5	31.2	11.1	7.1	118.1		•
16	OXIRM16	30.5	33.0	11.1	7.4	122.2		•
17	OXIRM17	32.0	35.1	12.0	7.8	126.5		•
18	OXIRM18	34.5	37.1	12.0	8.2	130.6		•
19	OXIRM19	36.5	39.4	12.9	8.7	135.4		•

Sets shown include storage tray



OXIR707

Short Handle, inches

in	12	A	B	C	D	E	Set Contains:	
							OXIR707	OXIR705
3/8	OXIR12	27/32	27/32	5/16	3/16	3 27/32	•	
7/16	OXIR14	7/8	29/32	11/32	7/32	3 31/32	•	
1/2	OXIR16	31/32	1 1/16	13/32	1/4	4 5/16	•	
9/16	OXIR18	1 1/16	1 5/32	13/32	1/4	4 15/32	•	
5/8	OXIR20	1 3/16	1 5/16	15/32	9/32	4 13/16	•	
11/16	OXIR22	1 7/32	1 3/8	15/32	5/16	4 31/32	•	
3/4	OXIR24	1 15/32	1 9/16	1/2	11/32	5 11/32	•	

Set shown includes storage tray

Combination Reversible Ratcheting Box/Open End—Blue-Point®



BOERM712

Standard Handle,
15° Offset, mm

mm	12	A	B	C	D	E	Set Contains:	
							BOERM712	BOERM704
6	BOERM6	16.3	16.3	6.6	3.6	114.3		
7	BOERM7	16.5	16.4	6.6	3.9	125.0		
8	BOERM8	17.8	17.7	6.5	4.0	135.0	•	
9	BOERM9	19.5	20.0	7.4	4.0	150.0	•	
10	BOERM10	21.5	21.9	8.0	5.0	160.0	•	
11	BOERM11	22.0	23.9	8.5	5.5	170.0	•	
12	BOERM12	23.5	25.0	9.0	5.5	175.0	•	
13	BOERM13	25.0	25.9	10.0	6.3	180.0	•	
14	BOERM14	27.0	29.9	10.0	6.5	190.0	•	
15	BOERM15	28.5	31.1	11.0	7.0	200.0	•	
16	BOERM16	30.5	33.6	11.0	7.0	210.0	•	
17	BOERM17	32.0	36.5	12.0	7.0	230.0	•	
18	BOERM18	34.5	38.5	12.0	8.0	240.0	•	
19	BOERM19	36.5	38.7	12.9	8.7	250.0	•	
21	BOERM21	39.4	43.2	13.7	9.4	266.7		•
22	BOERM22	41.7	45.7	14.5	9.4	285.8		•
24	BOERM24	46.5	49.5	15.5	11.2	304.8		•
25	BOERM25	47.2	52.8	15.5	11.2	327.2		•

Sets shown include storage tray



BOER708

Standard Handle,
15° Offset, inches

in	12	A	B	C	D	E	Set Contains:	
							BOER708	BOER704
1/4	BOER8	21/32	21/32	1/4	5/32	4 1/2		
5/16	BOER10	11/16	11/16	1/4	5/32	5 5/16	•	
3/8	BOER12	27/32	7/8	5/16	3/16	6 5/16	•	
7/16	BOER14	7/8	15/16	11/32	7/32	6 11/16	•	
1/2	BOER16	31/32	1 1/32	13/32	1/4	7 1/16	•	
9/16	BOER18	1 1/16	1 3/16	13/32	1/4	7 1/2	•	
5/8	BOER20	1 3/16	1 5/16	7/16	9/32	8 1/4	•	
11/16	BOER22	1 1/4	1 7/16	15/32	9/32	9 1/16	•	
3/4	BOER24	1 7/16	1 17/32	1/2	11/32	9 13/16	•	
13/16	BOER26	1 9/16	1 23/32	17/32	3/8	10 1/2	•	
7/8	BOER28	1 21/32	1 27/32	9/16	3/8	11 1/4	•	
15/16	BOER30	1 27/32	1 31/32	5/8	7/16	12	•	
1	BOER32	1 7/8	2 3/32	5/8	7/16	12 7/8	•	

Sets shown include storage tray



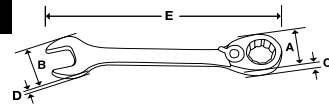
WARNING



• Read safety precautions on pages 594 to 597

WRENCHES

Combination Ratcheting Box/Open End—Blue-Point®



Flex head pivots 90° in either direction to reach hard-to-get fasteners. Reversible, dual pawl ratcheting box end yields smooth operation and maximum strength. 4.5° (5° on smaller wrenches) gear engagement – less movement to engage the next gear. Tough, durable nickel-chrome finish.



BOERMF712A



BOERF708A

Flex Head/Standard, 15° Offset, mm

mm	12	Set Contains:						12
		A	B	C	D	E		
8	BOERMF8A	17.8	17.7	6.5	4.0	142	60	•
9	BOERMF9A	19.5	20.0	7.4	4.0	152	72	•
10	BOERMF10A	21.5	21.9	8.0	5.0	162	72	•
11	BOERMF11A	22.0	23.9	8.5	5.5	172	72	•
12	BOERMF12A	23.5	25.0	9.0	5.5	180	80	•
13	BOERMF13A	25.0	25.9	10.0	6.3	188	80	•
14	BOERMF14A	27.0	29.9	10.0	6.5	196	80	•
15	BOERMF15A	28.5	31.1	11.0	7.0	204	80	•
16	BOERMF16A	30.5	33.6	11.0	7.0	214	80	•
17	BOERMF17A	32.0	36.5	12.0	7.0	228	80	•
18	BOERMF18A	34.5	38.5	12.0	8.0	242	80	•
19	BOERMF19A	36.5	38.7	12.9	8.7	256	80	•

Sets shown include storage tray

Flex Head/Standard, 15° Offset, inches

in	12	Set Contains:						12
		A	B	C	D	E		
5/16	BOERF10A	11/16	11/16	1/4	5/32	5 19/32	72	•
3/8	BOERF12A	27/32	7/8	5/16	3/16	6 3/8	72	•
7/16	BOERF14A	7/8	15/16	11/32	7/32	6 3/4	72	•
1/2	BOERF16A	31/32	1 1/32	13/32	1/4	7 13/32	80	•
9/16	BOERF18A	1 1/16	1 3/16	13/32	1/4	7 23/32	80	•
5/8	BOERF20A	1 3/16	1 5/16	7/16	9/32	8 7/16	80	•
11/16	BOERF22A	1 1/4	1 7/16	15/32	9/32	8 31/32	80	•
3/4	BOERF24A	1 7/16	1 17/32	1/2	11/32	10 1/16	80	•

Set shown includes storage tray

- Up to 80 gear teeth - tooth movement results in less movement required to engage next tooth
- 12 pt Flank Drive® wrenching system is ideal in tight quarters
- Small footprint with 0° offset uni-directional gear

- Low ratcheting torque is less likely to move loose fastener in wrong direction
- High quality steel ensures a better fit and yields a long lasting tool



BOERMS712



BOERS708

Short, 15° Offset, mm

mm	12	Set Contains:						12
		A	B	C	D	E		
8	BOERMS8	17.8	17.7	6.5	4.0	90	•	
9	BOERMS9	19.5	20.0	7.4	4.0	95	•	
10	BOERMS10	21.5	21.9	8.0	5.0	100	•	
11	BOERMS11	22.0	23.9	8.5	5.5	105	•	
12	BOERMS12	23.5	25.0	9.0	5.5	110	•	
13	BOERMS13	25.0	25.9	10.0	6.3	115	•	
14	BOERMS14	27.0	29.9	10.0	6.5	120	•	
15	BOERMS15	28.5	31.1	11.0	7.0	125	•	
16	BOERMS16	30.5	33.6	11.0	7.0	128	•	
17	BOERMS17	32.0	36.5	12.0	7.0	132	•	
18	BOERMS18	34.5	38.5	12.0	8.0	138	•	
19	BOERMS19	36.5	38.7	12.9	8.7	142	•	

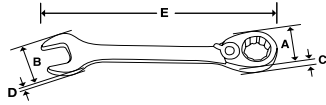
Set shown includes storage tray

Short, 15° Offset, inches

in	12	Set Contains:						12
		A	B	C	D	E		
5/16	BOERS10	11/16	11/16	1/4	5/32	3 9/16	•	
3/8	BOERS12	27/32	7/8	5/16	3/16	3 15/16	•	
7/16	BOERS14	7/8	15/16	11/32	7/32	4 1/8	•	
1/2	BOERS16	31/32	1 1/32	13/32	1/4	4 1/2	•	
9/16	BOERS18	1 1/16	1 3/16	13/32	1/4	4 3/4	•	
5/8	BOERS20	1 3/16	1 5/16	7/16	9/32	5 1/16	•	
11/16	BOERS22	1 1/4	1 7/16	15/32	9/32	5 3/16	•	
3/4	BOERS24	1 7/16	1 17/32	1/2	11/32	5 9/16	•	

Set shown includes storage tray

WRENCHES



Flex Head Ratcheting Box/Open End—Blue-Point®



BOERMSF712



BOERSF708

Flex Head Ratcheting Box/ Open End, Stubby, 15° Offset, mm

Set
Contains:

BOERMSF712

mm	12	A	B	C	D	E	12
8	BOERMSF8	17.8	17.7	6.5	4.0	94	•
9	BOERMSF9	19.5	20.0	7.4	4.0	98	•
10	BOERMSF10	21.5	21.9	8	5	103	•
11	BOERMSF11	22	23.9	8.5	5.5	108	•
12	BOERMSF12	23.5	25	9	5.5	111	•
13	BOERMSF13	25	25.9	10	6.3	115	•
14	BOERMSF14	27	29.9	10	6.5	120	•
15	BOERMSF15	28.5	31.1	11	7	124	•
16	BOERMSF16	30.5	33.6	11	7	128	•
17	BOERMSF17	32	36.5	12	7	133	•
18	BOERMSF18	34.5	38.5	12	8	140	•
19	BOERMSF19	36.5	38.7	12.9	8.7	147	•

Set shown includes kit bag

Flex Head Ratcheting Box/ Open End, Stubby, 15° Offset, inches

Set
Contains:

BOERSF708

11	12	A	B	C	D	E	12
5/16	BOERSF10	11/16	1 1/16	1/4	5/32	3 11/16	•
3/8	BOERSF12	27/32	7/8	5/16	3/16	4 1/16	•
7/16	BOERSF14	7/8	1 15/16	11/32	7/32	4 1/4	•
1/2	BOERSF16	31/32	1 1/32	13/32	1/4	4 17/32	•
9/16	BOERSF18	1 1/16	1 3/16	13/32	1/4	4 23/32	•
5/8	BOERSF20	1 3/16	1 5/16	7/16	9/32	5 1/32	•
11/16	BOERSF22	1 1/4	1 7/16	15/32	9/32	5 1/4	•
3/4	BOERSF24	1 7/16	1 17/32	1/2	11/32	5 25/32	•

Set shown includes kit bag

Locking Flex Head Ratcheting Box—Blue-Point



BOERMFLCG712



BOERFLCG708

Locking Flex Head Ratcheting Box/ Cushion Grip, mm

Set
Contains:

BOERMFLCG712

mm	12	A	B	C	D	12
8	BOERMFLCG8	17.8	6.55	32	228	•
9	BOERMFLCG9	19.5	7.45	34	229	•
10	BOERMFLCG10	21.5	8.05	38	233	•
11	BOERMFLCG11	22	8.55	40	235	•
12	BOERMFLCG12	23.5	9.05	42	285	•
13	BOERMFLCG13	25	10.05	45	287	•
14	BOERMFLCG14	27	10.05	48	289	•
15	BOERMFLCG15	28.5	11.05	52	293	•
16	BOERMFLCG16	30.5	11.05	54	347	•
17	BOERMFLCG17	32	12.05	56	348	•
18	BOERMFLCG18	34.5	12.05	60	352	•
19	BOERMFLCG19	36.5	12.95	64	354	•

Set shown includes kit bag

Locking Flex Head Ratcheting Box/ Cushion Grip, inches

Set
Contains:

BOERFLCG708

11	12	A	B	C	D	12
5/16	BOERFLCG10	23/32	1/4	1 1/4	9	•
3/8	BOERFLCG12	27/32	5/16	1 1/2	9 1/4	•
7/16	BOERFLCG14	7/8	11/32	1 9/16	9 19/32	•
1/2	BOERFLCG16	31/32	13/32	1 25/32	11 9/32	•
9/16	BOERFLCG18	1 1/16	13/32	1 29/32	11 3/8	•
5/8	BOERFLCG20	1 7/32	7/16	2 1/8	13 21/32	•
11/16	BOERFLCG22	1 1/4	15/32	2 7/32	13 23/32	•
3/4	BOERFLCG24	1 7/16	1/2	2 17/32	13 15/16	•

Set shown includes kit bag



WARNING



• Read safety precautions on pages 594 to 597

WRENCHES

Ratcheting Wrench Adaptors



RWA404

Converts ratcheting wrench into a ratchet. Use with reversible ratcheting box wrenches such as the SOEXRM, BOERM, BOERMF and BOERMS series. Can also be used with the combination ratcheting box wrenches such as the OEXRM and OXIRM series. Use reverse lever on wrench to secure or remove adaptor from wrench. Push button on adaptor to release socket.

Ratcheting Wrench Adaptors

Set Contains:

RWA404
RWA404FR

Stock No.	Configuration	Use with Ratcheting Wrench Size		
RWA1	1/4" drive	13mm	•	
RWA2	3/8" drive	16mm	•	
RWA3	1/2" drive	19mm	•	
RWA4	1/4" hex	13mm	•	
RWA1FR	1/4" drive	1/2"		•
RWA2FR	3/8" drive	5/8"		•
RWA3FR	1/2" drive	3/4"		•
RWA4FR	1/4" hex	1/2"		•

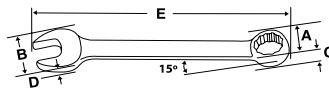
Flank Drive® Plus Combination

Snap-on® Flank Drive Plus combination wrenches exceed the limits of any other open end design. The open end features a series of flutes or notches that allow the open end to grip a fastener away from its corners much like our box ends do. Force is directed away from the weaker corners of the nut and directed to the stronger flats. You can actually see the grip—in fact, on some fasteners that you don't want marked, you should use our standard wrench.

Selection, convenience, and quality. Flank Drive Plus combination wrenches are available in many different styles and sizes. And just like all Snap-on wrenches, they are sized for optimum comfort and balance in your hand. **Mirror-like Finish.** Tough, durable, nickel-chrome plating helps protect against corrosion and makes it easy to wipe the wrenches clean.



SOEXM710



SOEX710

Standard Length, mm

Set Contains:

SOEXM710
SOEXM707

mm	12	A	B	C	D	E	12	12
7	SOEXM7	11	15	5	4	135		
8	SOEXM8	13	17	6	4	146		
9	SOEXM9	14	19	6	5	159		
10	SOEXM10	15	21	7	5	171	•	•
11	SOEXM11	17	23	8	6	184	•	•
12	SOEXM12	18	25	8	6	195	•	•
13	SOEXM13	20	27	9	6	207	•	•
14	SOEXM14	21	29	9	7	219	•	•
15	SOEXM15	22	31	10	7	231	•	•
16	SOEXM16	24	33	10	7	242	•	•
17	SOEXM17	25	35	11	8	255	•	•
18	SOEXM18	27	37	12	8	267	•	•
19	SOEXM19	28	39	12	9	279	•	
20	SOEXM20	30	41	13	9	292		
21	SOEXM21	31	43	13	9	304		
22	SOEXM22	33	46	14	10	318		
23	SOEXM23	34	47	14	10	327		
24	SOEXM24	35	49	15	11	337		
25	SOEXM25	37	52	16	11	356		

Sets shown include storage tray

Standard Length, inches

Set Contains:

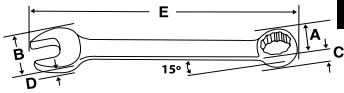
SOEX710
SOEX707

in	12	A	B	C	D	E	12	12
1/4	SOEX8	13/32	17/32	3/16	5/32	5		
5/16	SOEX10	1/2	21/32	7/32	5/32	5 3/4	•	
11/32	SOEX11	17/32	23/32	1/4	3/16	6 1/8	•	
3/8	SOEX12	19/32	25/32	1/4	3/16	6 1/2	•	•
7/16	SOEX14	21/32	29/32	7/32	7/32	7 1/4	•	•
1/2	SOEX16	3/4	1 1/16	11/32	1/4	8	•	•
9/16	SOEX18	27/32	1 5/32	3/8	9/32	8 3/4	•	•
5/8	SOEX20	15/16	1 5/16	13/32	9/32	9 1/2	•	•
11/16	SOEX22	1 1/32	1 13/32	7/16	5/16	10 1/4	•	•
3/4	SOEX24	1 1/8	1 9/16	15/32	11/32	11	•	•
13/16	SOEX26	1 3/16	1 21/32	17/32	3/8	11 3/4	•	
7/8	SOEX28	1 9/32	1 13/16	9/16	3/8	12 1/2		
15/16	SOEX30	1 3/8	1 29/32	19/32	13/32	13 1/4		
1	SOEX32	1 15/32	2 1/32	5/8	7/16	14		
11/16	SOEX34	1 9/16	2 5/32	19/32	15/32	14 3/4		
1 1/8	SOEX36	1 5/8	2 5/16	11/16	15/32	15 17/32		
13/16	SOEX38	1 23/32	2 13/32	23/32	1/2	16 1/4		
1 1/4	SOEX40	1 13/16	2 9/16	3/4	17/32	17		
15/16	SOEX42	1 29/32	2 21/32	3/4	9/16	17 25/32		

Sets shown include storage tray

WRENCHES

Flank Drive® Combination



OSHM713



OEXM710B



OSHM707B



OEXM707B



OEXM713B



GOEXM715

Standard Length, mm

mm	Set Contains:			Wrench Sizes														
	6	12	12	A	B	C	D	E	6	6	12	12	12	12	12	12		
7	OSHM70B	—	—	11	15	5	4	135	•									
8	OSHM80B	OEXM80B	—	13	17	6	4	146	•		•	•						
9	OSHM90B	OEXM90B	—	14	19	6	5	159	•		•	•						
10	OSHM100B	OEXM100B	GOEXM100B	15	21	7	5	171	•	•	•	•	•	•	•	•	•	
11	OSHM110B	OEXM110B	GOEXM110B	17	23	8	6	184	•	•	•	•	•	•	•	•	•	
12	OSHM120B	OEXM120B	GOEXM120B	18	25	8	6	195	•	•	•	•	•	•	•	•	•	
13	OSHM130B	OEXM130B	GOEXM130B	20	27	9	6	207	•	•	•	•	•	•	•	•	•	
14	OSHM140B	OEXM140B	GOEXM140B	21	29	9	7	219	•	•	•	•	•	•	•	•	•	
15	OSHM150B	OEXM150B	GOEXM150B	22	31	10	7	231	•	•	•	•	•	•	•	•	•	
16	OSHM160B	OEXM160B	GOEXM160B	24	33	10	7	242	•	•	•	•	•	•	•	•	•	
17	OSHM170B	OEXM170B	GOEXM170B	25	35	11	8	255	•	•	•	•	•	•	•	•	•	
18	OSHM180B	OEXM180B	GOEXM180B	27	37	12	8	267	•		•	•	•	•	•	•	•	
19	OSHM190B	OEXM190B	GOEXM190B	28	39	12	9	279	•		•	•	•	•	•	•	•	
20	—	OEXM200B	GOEXM200B	30	41	13	9	292			•	•	•				•	
21	—	OEXM210B	GOEXM210B	31	43	13	9	304			•	•	•				•	
22	—	OEXM220B	GOEXM220B	33	46	14	10	318			•	•	•				•	
23	—	OEXM230B	GOEXM230B	34	47	14	10	327			•	•					•	
24	—	OEXM240B	GOEXM240B	35	49	15	11	337			•	•					•	
25	—	OEXM250B	—	37	52	16	11	356			•	•						
26	—	OEXM260B	—	38	53	16	11	363			•	•						
27	—	OEXM270B	—	39	55	17	12	375			•	•						
29	—	OEXM290B	—	42	58	18	12	394			•	•						
30	—	OEXM300B	—	44	61	19	13	413			•	•						
32	—	OEXM320B	—	46	65	19	14	432			•	•						
34	—	OEXM340B	—	48	68	19	14	452			•							
36	—	OEXM360B	—	53	74	22	15	489			•							
		Kit Bag											C2301A					

ASME/ANSI B107.100

*Sets include storage tray



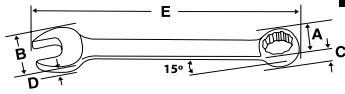
WARNING



• Read safety precautions on pages 594 to 597

WRENCHES

Flank Drive® Combination



Short Handle, mm

mm	12		A	B	C	D	E	Set Contains:		
	12	12						12	12	12
6	OEXM6B	GOEXM6B	10	13	5	4	113	•	•	
7	OEXM7B	GOEXM7B	11	15	5	4	118	•	•	
8	OEXM8B	GOEXM8B	13	17	6	4	123	•	•	
9	OEXM9B	GOEXM9B	14	19	6	5	128	•	•	
10	OEXM10B	GOEXM10B	15	21	7	5	133	•	•	•
11	OEXM11B	GOEXM11B	17	23	8	6	138	•	•	•
12	OEXM12B	GOEXM12B	18	25	8	6	142	•	•	•
13	OEXM13B	GOEXM13B	20	27	9	6	148	•	•	•
14	OEXM14B	GOEXM14B	21	29	9	7	152	•	•	•
15	OEXM15B	GOEXM15B	22	31	10	7	157	•	•	•
16	OEXM16B	GOEXM16B	24	33	10	7	162	•	•	•
17	OEXM17B	GOEXM17B	25	35	11	8	167	•	•	•
18	OEXM18B	GOEXM18B	27	37	12	8	172	•	•	•
19	OEXM19B	GOEXM19B	28	39	12	9	177	•	•	•
20	OEXM20B	—	30	41	13	9	182	•		
21	OEXM21B	—	31	43	13	9	186	•		
22	OEXM22B	—	33	46	14	10	192	•		
23	OEXM23B	—	34	47	14	10	197	•		
24	OEXM24B	—	35	49	15	11	201	•		
Kit Bag									C1402	

*Set includes storage tray



OEXSM710B



GOEXM17B

Short Handle, inches

11	12		A	B	C	D	E	Set Contains:		
	12	12						12	12	12
1/4	OEX080B	GOEX080B	13/32	17/32	3/16	5/32	4 17/32	•	•	
9/32	OEX090B	—	7/16	19/32	7/32	5/32	4 21/32	•	•	
5/16	OEX100B	GOEX100B	1/2	21/32	7/32	5/32	4 27/32	•	•	•
11/32	OEX110B	GOEX110B	17/32	23/32	1/4	3/16	5	•	•	•
3/8	OEX120B	GOEX120B	19/32	25/32	1/4	3/16	5 1/8	•	•	•
7/16	OEX140B	GOEX140B	21/32	29/32	5/16	7/32	5 7/16	•	•	•
1/2	OEX160B	GOEX160B	3/4	1 1/16	11/32	1/4	5 3/4	•	•	•
9/16	OEX180B	GOEX180B	27/32	1 5/32	3/8	9/32	6 1/16	•	•	•
5/5	OEX200B	GOEX200B	15/16	1 5/16	13/32	9/32	6 11/32	•	•	•
11/16	OEX220B	GOEX220B	1 1/32	1 13/32	7/16	5/16	6 21/32	•	•	•
3/4	OEX240B	GOEX240B	1 1/8	1 9/16	15/32	11/32	6 31/32	•	•	•
13/16	OEX260B	GOEX260B	1 3/16	1 21/32	17/32	3/8	7 9/32	•	•	•
7/8	OEX280B	GOEX280B	1 9/32	1 13/16	9/16	3/8	7 9/16	•	•	•
15/16	OEX300B	GOEX300B	1 3/8	1 29/32	19/32	13/32	7 7/8	•	•	•
1	OEX320B	GOEX320B	1 15/32	2 1/32	5/8	7/16	8 3/16	•	•	•
1 1/16	OEX340B	GOEX340B	1 9/16	2 5/32	21/32	15/32	8 17/32	•	•	•
1 1/8	OEX360B	GOEX360B	1 5/8	2 5/16	11/16	1/2	8 27/32	•	•	•
1 3/16	OEX380B	—	1 23/32	2 13/32	23/32	1/2	9 1/8	•		
1 1/4	OEX400B	—	1 13/16	2 9/16	3/4	17/32	9 7/16	•		
1 5/16	OEX420B	—	1 29/32	2 21/32	3/4	9/16	9 3/4	•		
1 3/8	OEX440B	—	2	2 13/16	3/4	19/32	10 1/16	•		
Kit Bag									C1505	

*Set includes storage tray



OEXS715K



GOEX200B



OEXS709B

Long Handle, mm

mm	12		A	B	C	D	E	Set Contains:
	12	12						12
10	OEXLM10B	—	15	21	7	5	186	•
11	OEXLM11B	—	17	23	8	6	203	•
12	OEXLM12B	—	18	25	8	6	218	•
13	OEXLM13B	—	20	27	9	6	234	•
14	OEXLM14B	—	21	29	9	7	250	•
15	OEXLM15B	—	22	31	10	7	266	•
16	OEXLM16B	—	24	33	10	7	282	•
17	OEXLM17B	—	25	35	11	8	298	•
18	OEXLM18B	—	27	37	12	8	314	•
19	OEXLM19B	—	28	39	12	9	330	•

Set includes storage tray



OEXLM710B



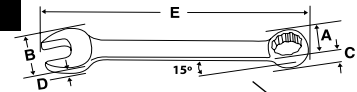
WARNING



• Read safety precautions on pages 594 to 597

WRENCHES

Flank Drive® Combination



OEXL707B

Long Handle, inches

Hex Size	Hex Size	Set Contains:					Hex Size
		A	B	C	D	E	
3/8	OEXL12B	19/32	25/32	1/4	3/16	7	•
7/16	OEXL14B	21/32	29/32	5/16	7/32	8	•
1/2	OEXL16B	3/4	1 1/16	11/32	1/4	9	•
9/16	OEXL18B	27/32	1 5/32	3/8	9/32	10	•
5/8	OEXL20B	15/16	1 5/16	13/32	9/32	11	•
11/16	OEXL22B	1 1/32	1 13/32	7/16	5/16	12	•
3/4	OEXL24B	1 1/8	1 9/16	15/32	11/32	13	•
13/16	OEXL26B	1 3/16	1 21/32	17/32	3/8	14	•
7/8	OEXL28B	1 9/32	1 13/16	9/16	3/8	15	•
15/16	OEXL30B	1 3/8	1 29/32	19/32	13/32	16	•
1	OEXL32B	1 15/32	2 1/32	5/8	7/16	17	•

Set includes storage tray



OXIM707SBK

Midget, mm

Hex Size	Hex Size	Set Contains:					Hex Size	Hex Size	
		A	B	C	D	E			
4	OXIM4SB*	—	7	10	4	3	72	6 pt	•
5	OXIM5SB*	—	8	12	4	3	76	6 pt	•
5.5	OXIM55SB	—	9	13	4	4	79	6 pt	•
6	OXIM6SB	OXIM6B	10	13	5	4	81	12 pt	•
7	OXIM7SB	OXIM7B	11	15	5	4	85	12 pt	•
8	OXIM8SB	OXIM8B	13	17	6	4	89	12 pt	•
9	OXIM9SB	OXIM9B	14	19	6	5	93	12 pt	•
10	—	OXIM10B	15	21	7	5	98	12 pt	•
11	—	OXIM11B	17	23	8	6	102	12 pt	•
12	—	OXIM12B	18	25	8	6	106	12 pt	•
13	—	OXIM13B	20	27	9	6	110	12 pt	•
14	—	OXIM14B	21	29	9	7	115	12 pt	•
15	—	OXIM15B	22	31	10	7	119	12 pt	•
16	—	OXIM16B	24	33	10	7	122	12 pt	•
17	—	OXIM17B	25	35	11	8	127	12 pt	•
18	—	OXIM18B	27	37	12	8	131	12 pt	•
19	—	OXIM19B	28	39	12	9	136	12 pt	•
Kit Bag									C0700

ASME/ANSI B107.100-1994

*Conventional Hex

**Set includes storage tray



OXI709SBK

Midget, inches

Hex Size	Hex Size	Set Contains:					Hex Size	Hex Size	
		A	B	C	D	E			
1/8	OXI4SB*	—	7/32	11/32	1/8	1/8	2 11/16	•	6 pt
5/32	OXI5SB*	—	9/32	13/32	5/32	1/8	2 27/32	•	6 pt
3/16	OXI6SB*	OXI6B*	5/16	7/16	5/32	1/8	2 31/32	•	12 pt
7/32	OXI7SB	OXI7B	3/8	1/2	3/16	1/8	3 3/32	•	12 pt
1/4	OXI8SB	OXI8B	13/32	17/32	3/16	5/32	3 7/32	•	12 pt
9/32	OXI9SB	OXI9B	7/16	19/32	7/32	5/32	3 11/32	•	12 pt
5/16	OXI10SB	OXI10B	1/2	21/32	7/32	5/32	3 1/2	•	12 pt
11/32	OXI11SB	OXI11B	17/32	23/32	1/4	3/16	3 5/8	•	12 pt
3/8	OXI12SB	OXI12B	19/32	25/32	1/4	3/16	3 3/4	•	12 pt
7/16	—	OXI14B	21/32	29/32	5/16	7/32	4 1/32	•	12 pt
1/2	—	OXI16B	3/4	11/16	11/32	1/4	4 9/32	•	12 pt
9/16	—	OXI18B	27/32	15/32	3/8	9/32	4 17/32	•	12 pt
5/8	—	OXI20B	15/16	15/16	13/32	9/32	4 13/16	•	12 pt
11/16	—	OXI22B	11/32	113/32	7/16	5/16	5 1/16	•	12 pt
3/4	—	OXI24B	11/8	19/16	15/32	11/32	5 11/32	•	12 pt
Kit Bag								C0900A	C0700

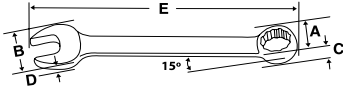
ASME/ANSI B107.100-1994

*Conventional Hex

**Set includes storage tray

WRENCHES

British Standard



Short Handle Combination

BS	Decimal Equiv., inches	12	A	B	C	D	E
3/16	.338	WOEX6B	25/32	19/32	3/16	1/4	5 3/32
1BA	.365	WOEX70B	25/32	19/32	3/16	1/4	5 1/8
OBA	.413	WOEX80B	29/32	21/32	7/32	5/16	5 13/32
1/4	.445	WOEX90B	29/32	21/32	7/32	5/16	5 15/32
5/16	.52	WOEX100B	1 5/32	27/32	9/32	3/8	6 1/32
3/8	.600	WOEX110B	1 5/16	15/16	9/32	13/32	6 11/32
7/16	.710	WOEX120B	1 5/16	1 1/32	5/16	7/16	6 23/32



WOEX90B

Combination Wrenches—Blue-Point®

Standard, mm

mm	Stock No.	Length, mm	Set Contains:
8	BLPCWM8	148	•
9	BLPCWM9	160	•
10	BLPCWM10	167	•
11	BLPCWM11	186	•
12	BLPCWM12	196	•
13	BLPCWM13	205	•
14	BLPCWM14	223	•
15	BLPCWM15	233	•
16	BLPCWM16	243	•
17	BLPCWM17	262	•
18	BLPCWM18	272	•
19	BLPCWM19	281	•

Set includes storage tray

BLPCWSM712



BLPCWSM712

Standard, inches

in	Stock No.	Length, inches	Set Contains:
1/4	BLPCW14	5 1/32	
5/16	BLPCW516	5 7/32	
3/8	BLPCW38	6 9/16	•
7/16	BLPCW716	7 11/32	•
1/2	BLPCW12	8 1/16	•
9/16	BLPCW916	8 25/32	•
5/8	BLPCW58	9 9/16	•
11/16	BLPCW1116	10 5/16	•
3/4	BLPCW34	11 1/16	•
13/16	BLPCW1316	11 27/32	•
7/8	BLPCW78	12 19/16	•
15/16	BLPCW1516	13 11/32	•
1	BLPCW1	14 3/32	•

Set includes storage tray

BLPCWS711



BLPCWS711



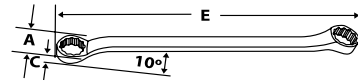
WARNING



• Read safety precautions on pages 594 to 597

WRENCHES

Flank Drive® Offset Box



XID604KA

Midget, 10° Offset, inches

Set Contains:

XID604KA

	12	A	C	E	12
3/16 - 13/64	XID1213A	5/16 - 11/32	1/8 - 5/32	2 13/16	•
7/32 - 15/64	XID1415A	3/8 - 3/8	5/32 - 5/32	3 1/16	•
1/4 - 9/32	XID1618A	13/32 - 7/16	5/32 - 3/16	3 13/32	•
5/16 - 11/32	XID2022A	15/32 - 1/2	3/16 - 7/32	3 31/32	•
	Kit Bag				C41E

ASME/ANSI B107.6-1994



XLE605



Set Contains:

XLE605

#		A	C	E	
E5 - E6	XLE56	9/32 - 5/16	5/32 - 3/16	6 13/32	•
E7 - E8	XLE78	11/32 - 3/8	7/32 - 7/32	7 7/32	•
E10 - E12	XLE1012A	15/32 - 17/32	1/4 - 5/16	8 7/8	•
E14 - E16	XLE1416	5/8 - 23/32	11/32 - 11/32	10 7/16	•
E18 - E20	XLE1820	13/16 - 7/8	13/32 - 7/16	12 3/8	•

Set includes storage tray



XBM605A

Standard Length, 10° Offset, mm

Set Contains:

XBM605A

mm	6	12	A	C	E	12
8 - 10	—	XBM810A	12.3 - 15	6.7 - 7.7	185	
10 - 11	—	XBM1011A	15 - 16.4	7.7 - 8.3	202	•
10 - 12	—	XBM1012A	15 - 17.7	7.7 - 8.8	208	
11 - 13	—	XBM1113A	16.4 - 19.1	8.3 - 9.3	219	
12 - 14	XBM1214SA	XBM1214A	17.7 - 20.4	8.8 - 9.7	230	•
13 - 15	XBM1315SA	XBM1315A	19.1 - 21.8	9.3 - 10.2	241	•
14 - 17	—	XBM1417A	20.4 - 24.5	9.8 - 11.4	248	
16 - 18	—	XBM1618A	23.1 - 25.9	10.9 - 11.9	275	•
17 - 19	—	XBM1719A	24.5 - 27.2	11.4 - 12.3	286	•
18 - 21	—	XBM1821A	25.9 - 29.9	11.9 - 13.3	303	
22 - 24	—	XBM2224A	31.3 - 34	13.7 - 14.7	342	
27 - 30	—	XBM2730A	38.1 - 42.2	16 - 17.3	404	

Set includes storage tray



XB605A

Standard Length, 10° Offset, inches

Set Contains:

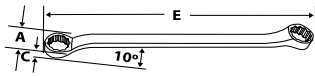
XB605A

	12	A	C	E	12
3/8 - 7/16	XB1214A	9/16 - 21/32	5/16 - 11/32	7 19/32	•
7/16 - 1/2	XB1416A	21/32 - 3/4	5/16 - 11/32	7 15/16	
1/2 - 9/16	XB1618A	3/4 - 13/16	11/32 - 3/8	8 11/16	•
9/16 - 5/8	XB1820A	13/16 - 29/32	13/32 - 7/16	9 13/32	
5/8 - 11/16	XB2022A	29/32 - 1	7/16 - 15/32	10 5/32	•
11/16 - 3/4	XB2224A	1 - 1 1/16	15/32 - 1/2	10 15/16	
3/4 - 13/16	XB2426A	1 1/16 - 1 5/32	1/2 - 17/32	11 21/32	•
7/8 - 15/16	XB2830A	1 1/4 - 1 11/32	17/32 - 9/16	13 1/8	•
15/16 - 1	XB3032A	1 11/32 - 1 13/32	9/16 - 19/32	13 7/8	
1 - 1 1/16	XB3234A	1 13/32 - 1 1/2	19/32 - 5/8	14 19/32	
1 1/16 - 1 1/4	XB3440A	1 1/2 - 1 3/4	5/8 - 23/32	16 3/32	
1 1/8 - 1 3/16	XB3638A	1 9/32 - 1 21/32	21/32 - 11/16	16 3/32	
1 1/4 - 1 5/16	XB4042A	1 3/4 - 1 27/32	23/32 - 3/4	17 19/32	
1 3/8 - 1 7/16	XB4446A	1 31/32 - 2 1/16	3/4 - 25/32	19 1/8	
1 1/2 - 1 5/8	XB4852A	2 3/32 - 2 9/32	13/16 - 7/8	20 15/16	

Set includes storage tray

WRENCHES

Flank Drive® Offset Box



XSM608A

Short Handle, 10° Offset, mm

Set Contains:

XSM608A

mm	12	A	B	C	12
6 - 7	XSM67A	9.6 - 10.9	5.7 - 6.2	86	•
8 - 9	XSM89A	12.3 - 13.7	6.7 - 7.2	103	•
8 - 10	XSM810	12.3 - 15	6.7 - 7.7	107	•
9 - 10	XSM910A	13.7 - 15	7.2 - 7.7	112	•
11 - 12	XSM1112A	16.4 - 17.7	8.3 - 8.8	128	•
13 - 14	XSM1314A	19.1 - 20.4	9.3 - 9.8	146	•
15 - 16	XSM1516A	21.8 - 23.1	10.2 - 10.9	163	•
17 - 19	XSM1719A	24.5 - 27.2	11.4 - 12.3	185	•
18 - 20	XSM1820A	25.9 - 28.6	11.9 - 12.8	194	•

Set includes storage tray



XS609A

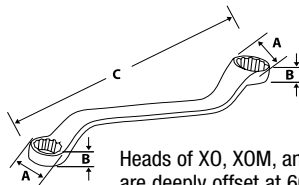
Short Handle, 10° Offset, inches

Set Contains:

XS609A

12	12	A	B	C	12
3/16 - 7/32	XS67A	5/16 - 11/32	7/32 - 7/32	3 27/32	•
1/4 - 5/16	XS810A	13/32 - 15/32	1/4 - 9/32	4 1/4	•
5/16 - 3/8	XS1012A	15/32 - 9/16	9/32 - 5/16	4 9/16	•
3/8 - 7/16	XS1214A	9/16 - 21/32	5/16 - 11/32	4 29/32	•
7/16 - 1/2	XS1416A	21/32 - 3/4	11/32 - 11/32	5 3/16	•
1/2 - 9/16	XS1618A	3/4 - 13/16	3/8 - 3/8	5 17/32	•
9/16 - 5/8	XS1820A	13/16 - 29/32	13/32 - 7/16	5 7/8	•
5/8 - 3/4	XS2024A	29/32 - 1 1/16	7/16 - 1/2	6 3/8	•
11/16 - 13/16	XS2226A	1 - 1 5/32	15/32 - 17/32	6 23/32	•

Set includes storage tray



Heads of XO, XOM, and XSO wrenches are deeply offset at 60° angle to the handles so recessed fasteners may be easily reached.



XOM605

Standard Length, Deep 60° Offset, mm

Set Contains:

XOM605

mm	12	A	B	C	12
8 - 10	XOM810	11.7 - 14.2	6.9 - 7.3	178.1	•
10 - 11	XOM1011	15 - 16.3	7.6	193.0	•
12 - 14	XOM1214	15 - 20.3	9.0	210.0	•
13 - 15	XOM1315	16.3 - 21.2	8.9	223.0	•
16 - 18	XOM1618	17.7 - 25.4	10.8	253.0	•
17 - 19	XOM1719	17.7 - 27.4	11.1	260.0	•
20 - 21	XOM2021	32.5 - 33.3	13.7	329.6	•
22 - 24	XOM2224	31.9 - 34.1	13.7	329.6	•

Sets shown include storage tray



XO605

Standard Length, Deep 60° Offset, inches

Set Contains:

XO605A

12	12	A	B	C	12
1/4 - 5/16	XO810	3/8	9/32 (1/4 - 9/32)	6 13/32	•
5/16 - 3/8	XO1012	15/32 - 9/16	9/32	7	•
3/8 - 7/16	XO1214	9/16 - 5/8	5/16	7 19/32	•
1/2 - 9/16	XO1618	23/32 - 13/16	11/32	8 25/32	•
9/16 - 5/8	XO1820	13/16 - 29/32	13/32	9 3/8	•
5/8 - 11/16	XO2022	29/32 - 1	13/32	9 15/16	•
5/8 - 3/4	XO2024	29/32 - 1 3/32	7/16	10 1/4	•
11/16 - 13/16	XO2226	1 - 1 5/32	15/32	10 27/32	•
3/4 - 7/8	XO2428	1 3/32 - 1 1/4	1/2	11 13/32	•
7/8 - 15/16	XO2830	1 1/4 - 1 11/32	17/32	12 31/32	•
15/16 - 1	XO3032	1 11/32 - 1 7/16	9/16	13 15/16	•

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Sets shown include storage tray



XSO1214A

Short Handle, Deep 60° Offset, inches

12	12	A	B	C
1/4 - 5/16	XS0810A	3/8 - 7/16	3/16 - 7/32	4 5/32
3/8 - 7/16	XS01214A	17/32 - 5/8	1/4 - 9/32	4 13/16
11/16 - 13/16	XS02226A	31/32 - 1 1/8	13/32 - 15/32	7 1/32

ASME/ANSI B107.100



WARNING



• Read safety precautions on pages 594 to 597

WRENCHES

Ratcheting Box



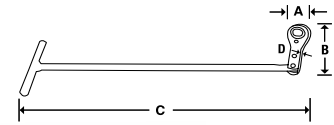
RTBM605

Set Contains:

T-Handle, mm

mm	12	A	B	C	D	12	12
8	RTBM8	17.5	71.4	307.2	9.5	•	
10	RTBM10	23.0	76.2	307.2	9.5	•	
12	RTBM12	29.4	86.5	308.8	12.7	•	
13	RTBM13	29.4	86.5	308.8	12.7	•	
14	RTBM14	29.4	86.5	308.8	12.7	•	
15	RTBM15	36.8	98.6	308.8	12.7		•
16	RTBM16	36.8	98.6	308.8	12.7		•
17	RTBM17	36.8	98.6	308.8	12.7		•
18	RTBM18	36.8	98.6	308.8	12.7		•
19	RTBM19	36.8	98.6	308.8	12.7		•

Sets include storage tray



RTB607

Set Contains:

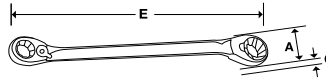
T-Handle, inches

T	12	A	B	C	D	12
1/4	RTB8	11/16	2 13/16	12 3/32	3/8	•
5/16	RTB10	11/16	2 13/16	12 3/32	3/8	•
11/32	RTB11	29/32	3	12 3/32	3/8	•
3/8	RTB12	29/32	3	12 3/32	3/8	•
7/16	RTB14	29/32	3	12 3/32	3/8	•
1/2	RTB16	1 5/32	3 13/32	12 5/32	1/2	•
9/16	RTB18	1 5/32	3 13/32	12 5/32	1/2	•

Set includes storage tray



BXORM706



Standard Length, 25° Offset, mm

Set Contains:

mm	12	A	C	E	12
8 - 9	BXORM89	18.0 - 19.3	6.4 - 7.6	184.2	•
10 - 11	BXORM1011	21.8 - 22.1	8.1 - 8.6	203.2	•
12 - 13	BXORM1213	23.6 - 26.6	8.9 - 10.2	222.3	•
14 - 15	BXORM1415	27.2 - 28.7	10.2 - 10.9	241.3	•
16 - 17	BXORM1617	31.0 - 32.0	10.9 - 11.9	260.4	•
18 - 19	BXORM1819	34.5 - 36.8	12.2 - 13.2	279.4	•

*Blue-Point®

Set includes storage tray



RBM604C

Standard Length, 0° Offset, mm

Set Contains:

mm	6	12	A	C	E	12
7 - 8	RBM78SC	RBM78C	15.1 - 17.1	9.5	114.3	
8 - 10	—	RBM810C	20.2 - 22.6	9.5	139.7	
9 - 10	—	RBM910C	20.2 - 22.6	9.5	139.7	
10 - 11	RBM1011SC	RBM1011C	25.8 - 29.4	12.7	174.6	•
10 - 12	—	RBM1012C	25.8 - 29.4	12.7	174.6	
12 - 13	RBM1213SC	RBM1213C	25.8 - 29.4	12.7	174.6	•
12 - 14	—	RBM1214C	25.8 - 29.4	12.7	174.6	
14 - 15	—	RBM1415C	32.9 - 36.5	12.7	206.4	•
16 - 18	—	RBM1618C	32.9 - 36.5	12.7	206.4	
17 - 19	—	RBM1719C	32.9 - 36.5	12.7	206.4	•

Set shown includes storage tray



BXOR704

Standard Length, 25° Offset, inches

Set Contains:

T	12	A	C	E	12
5/16 - 3/8	BXOR1012	23/32 - 7/8	1/4 - 5/16	7 1/2	•
7/16 - 1/2	BXOR1416	7/8 - 31/32	11/32 - 13/32	8 3/4	•
9/16 - 5/8	BXOR1820	1 1/16 - 7/32	13/32 - 7/16	9 3/4	•
11/16 - 3/4	BXOR2224	1 9/32 - 7/16	15/32 - 7/2	11	•

*Blue-Point®

Set includes storage tray



RB604C

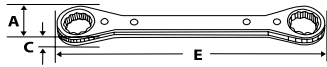
Standard Length, 0° Offset, inches

Set Contains:

T	6	12	A	C	E	12
1/4 - 5/16	R810SC	R810C	19/32 - 43/64	3/8	4 1/2	
5/16 - 11/32	—	R1011C	5/8 - 3/4	11/32	5 3/8	
5/16 - 3/8	—	R1012C	51/64 - 57/64	3/8	5 1/2	
3/8 - 7/16	R1214SC	R1214C	51/64 - 57/64	3/8	5 1/2	•
1/2 - 9/16	R1618SC	R1618C	1 1/64 - 1 5/32	1/2	6 7/8	•
5/8 - 11/16	—	R2022C	1 19/64 - 1 7/16	1/2	8 1/8	•
5/8 - 3/4	—	R2024C	1 19/64 - 1 7/16	1/2	8 1/8	
3/4 - 13/16	—	R2426C	1 13/32 - 1 37/64	1/2	9 1/4	
3/4 - 7/8	—	R2428C	1 13/32 - 1 37/64	1/2	9 1/4	•
13/16 - 15/16	—	R2630C	1 13/32 - 1 37/64	1/2	9 1/4	
7/8 - 15/16	—	R2830C	1 29/32 - 2 17/64	9/16	15	
15/16 - 1	—	R3032C	1 29/32 - 2 17/64	9/16	15	
1 1/16 - 1 1/8	—	R3436A	2 - 2	9/16	12 3/4	
1 1/8 - 1 1/4	R3640SA	—	2 3/32 - 2 3/32	9/16	12 13/16	
1 3/16 - 1 1/4	—	R3840A	2 - 2	9/16	12 3/4	

Set shown includes storage tray

WRENCHES



Ratcheting Box



RBZM605

Set Contains: RBZM605

Latch-on®, 0° Offset, mm

- Latch-on head keeps wrench on fastener
- Ring prevents nut/fastener head from sliding through wrench

mm	12	A	C	E	12
7 - 8	RBZM78	15.1 - 17.1	9.5	114.3	•
9 - 10	RBZM910	20.4 - 22.6	9.5	140.3	•
11 - 12	RBZM1112	25.8 - 29.4	12.7	174.6	•
13 - 14	RBZM1314	25.8 - 29.4	12.7	174.6	•
15 - 17	RBZM1517	32.9 - 36.5	12.7	206.4	•
16 - 18	RBZM1618	32.9 - 36.5	12.7	206.4	•
19 - 21	RBZM1921	35.7 - 40.1	12.7	234.9	•

Set shown includes storage tray



RBZ605

Set Contains: RBZ605

Latch-on, 0° Offset, inches

- Latch-on head keeps wrench on fastener
- Ring prevents nut/fastener head from sliding through wrench

12	A	C	E	12	
1/4 - 5/16	RBZ810	19/32 - 11/16	3/8	4 1/2	•
3/8 - 7/16	RBZ1214	13/16 - 29/32	3/8	5 1/2	•
1/2 - 9/16	RBZ1618	1 1/32 - 1 5/32	1/2	6 7/8	•
5/8 - 11/16	RBZ2022	1 5/16 - 1 7/16	1/2	8 1/8	•
3/4 - 7/8	RBZ2428	1 13/32 - 1 19/32	1/2	9 1/4	•
1/4 - 5/16	RBZ605	29/32 - 29/32	3/8	8	•

Set shown includes storage tray



RBYAM605

Set Contains: RBYAM605

Standard Length, 25° Offset, mm

mm	12	A	C	E	12
7 - 8	RYAM78	15.5 - 16.3	9.5	105.2	•
9 - 10	RYAM910	19.8 - 22.6	9.5	134.5	•
11 - 12	RYAM1112	25.4 - 29	12.7	165.9	•
13 - 14	RYAM1314	25.4 - 29	12.7	165.9	•
15 - 17	RYAM1517	33 - 36.5	12.7	197.2	•
16 - 18	RYAM1618	33 - 36.5	12.7	197.2	•
19 - 21	RYAM1921	35.7 - 40.1	12.7	224.2	•

Sets shown include storage tray



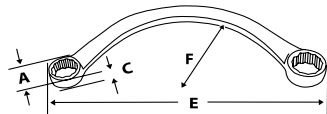
RBYA605

Set Contains: RBYA605

Standard Length, 25° Offset, inches

12	A	C	E	12	
1/4 - 5/16	RYA810	9/16 - 5/8	11/32	4 9/32	•
5/16 - 11/32	RYA1011	19/32 - 11/16	3/8	4 1/32	•
3/8 - 7/16	RYA1214	3/4 - 7/8	11/32	6 5/32	•
1/2 - 9/16	RYA1618	15/16 - 1	13/32	6 31/32	•
5/8 - 11/16	RYA2022	1 1/8 - 1 1/4	13/32	7 27/32	•
3/4 - 7/8	RYA2428	1 3/8 - 1 1/2	7/16	8 5/8	•

Set shown includes storage tray



Flank Drive® Specialty Box



CXM605

Set Contains: CXM605

Half Moon, mm

mm	12	A	C	E	F	12
10 - 12	CXM1012	15 - 17	6 - 7	128	48	•
11 - 13	CXM1113	16 - 18	8 - 8	144	57	•
14 - 17	CXM1417	20 - 23	9 - 9	166	65	•
15 - 19	CXM1519	22 - 27	10 - 11	198	78	•
18 - 21	CXM1821	27 - 31	11 - 13	224	86	•

Set shown includes storage tray



CX605

Set Contains: CX605

Half Moon, inches

12	A	C	E	F	12	
5/16 - 3/8	CX1012	15/32 - 9/16	3/16 - 5/16	4 5/8	2 1/16	•
7/16 - 1/2	CX1416	5/8 - 23/32	5/16 - 5/16	5	2 7/32	•
9/16 - 5/8	CX1820	13/16 - 7/8	11/32 - 3/8	6 1/2	2 9/16	•
5/8 - 3/4	CX2024	7/8 - 1 7/32	13/32 - 7/16	7 3/4	3 1/16	•
11/16 - 13/16	CX2226	31/32 - 1 9/32	13/32 - 15/32	8 1/2	3 1/2	•
7/8 - 15/16	CX2830	1 1/4 - 1 11/32	9/16 - 9/16	10	4 1/16	•

Set includes storage tray



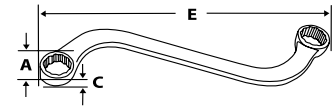
WARNING



- Frequently inspect, clean and lubricate ratchet mechanism with light oil
- Read safety precautions on pages 594 to 597

WRENCHES

Flank Drive® Specialty Box



SBXM605

“S” Shaped, mm

Set Contains:

SBXM605

mm	12	A	C	E	12
10 - 12	SBXM1012	14 - 18	6 - 8	140	•
11 - 13	SBXM1113	16 - 19	7 - 8	155	•
14 - 15	SBXM1415	21 - 22	9 - 9	190	•
16 - 18	SBXM1618	24 - 27	10 - 11	173	•
17 - 19	SBXM1719	25 - 28	10 - 12	240	•

Set includes storage tray



SBX605

“S” Shaped, inches

SBX605

11	12	A	C	E	12
5/16 - 3/8	SBX1012	15/32 - 9/16	9/16 - 7/32	3 3/4	•
7/16 - 1/2	SBX1416	21/32 - 3/4	9/32 - 5/16	5 5/16	•
9/16 - 5/8	SBX1820	27/32 - 15/16	11/32 - 13/32	6 7/8	•
11/16 - 3/4	SBX2224	1 1/32 - 1 1/8	13/32 - 15/32	8 7/16	•
13/16 - 7/8	SBX2628	1 7/32 - 1 5/16	17/32 - 9/16	10	•

Set includes storage tray

Open End



LTAM811

Low Torque Slimline, 15° Offsets, mm

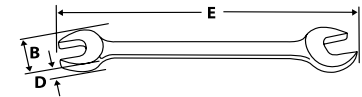
Set Contains:

LTAM811

mm	Stock No.	B	D	E	
6 - 7	LTAM67	13 - 15	3	165	•
8 - 10	LTAM810	17 - 21	3	165	•
10 - 11	LTAM1011	21 - 23	3	165	•
12 - 14	LTAM1214	25 - 29	4	241	•
13 - 15	LTAM1315	27 - 31	4	241	•
16 - 18	LTAM1618	33 - 37	4	241	•
17 - 19	LTAM1719	35 - 39	4	241	•
19 - 22	LTAM1922	39 - 45	4	241	•
21 - 24	LTAM2124	43 - 49	4	241	•
27 - 30	LTAM2730	55 - 61	6	311	•
32 - 36	LTAM3236	65 - 73	6	311	•

ASME/ANSI B107.100

Set includes storage tray



LTA805K

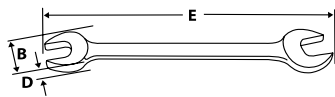
Low Torque Slimline, 15° Offsets, inches

Set Contains:

LTA812

LTA805K

11	Stock No.	B	D	E		
3/8 - 7/16	LTA1214	25/32 - 29/32	3/32	9 1/2	•	
7/16 - 1/2	LTA1416	29/32 - 1 1/32	5/32	9 1/2	•	•
1/2 - 9/16	LTA1618	1 1/32 - 1 5/32	5/32	9 1/2	•	•
5/8 - 11/16	LTA2022	1 9/32 - 1 13/32	5/32	9 1/2	•	•
3/4 - 13/16	LTA2426	1 17/32 - 1 11/16	5/32	9 1/2	•	
3/4 - 7/8	LTA2428	1 17/32 - 1 25/32	5/32	9 1/2	•	•
15/16 - 1	LTA3032	1 29/32 - 2 1/32	5/32	9 1/2	•	•
1 1/16 - 1 1/8	LTA3436	2 5/32 - 2 9/32	1/4	12 1/4	•	
1 1/4 - 1 5/16	LTA4042	2 17/32 - 2 21/32	1/4	12 1/4	•	
1 3/8 - 1 7/16	LTA4446	2 25/32 - 2 29/32	1/4	12 1/4	•	
1 1/2 - 1 5/8	LTA4852	3 1/16 - 3 9/32	9/32	14 1/4	•	
1 11/16 - 1 7/8	LTA5460	3 13/32 - 3 17/32	9/32	14 1/4	•	
	Kit Bag					C0507



WRENCHES

Open End



VOM1415B

Standard, mm

mm	Stock No.	B	D	E
6 - 7	VOM67B	13 - 15	4 - 4	97
7 - 8	VOM78B	15 - 17	4 - 4	106
8 - 10	VOM810B	17 - 21	4 - 5	121
10 - 11	VOM1011B	21 - 23	5 - 6	136
11 - 13	VOM1113B	23 - 27	6 - 6	151
12 - 13	VOM1213B	25 - 27	6 - 6	157
12 - 14	VOM1214B	25 - 29	6 - 7	162
14 - 15	VOM1415B	29 - 31	7 - 7	178
16 - 18	VOM1618B	33 - 37	7 - 8	205
17 - 19	VOM1719B	35 - 38	8 - 9	216
19 - 22	VOM1922B	39 - 46	9 - 10	245
21 - 24	VOM2124B	43 - 49	9 - 10	267
22 - 24	VOM2224B	46 - 49	10 - 10	273
27 - 30	VOM2730B	55 - 61	11 - 12	338
30 - 32	VOM3032B	61 - 65	12 - 12	368

ASME/ANSI B107.100



V0806B

Set Contains:

V0806B*
V0820K

Standard, inches

in	Stock No.	B	D	E
1/4 - 5/16	V0810B	17/32 - 21/32	5/32 - 5/32	4 1/16
5/16 - 3/8	V01012B	21/32 - 25/32	5/32 - 3/16	4 21/32
3/8 - 7/16	V01214B	25/32 - 29/32	3/16 - 7/32	5 5/16
7/16 - 1/2	V01416B	29/32 - 1 1/16	7/32 - 1/4	5 15/16
1/2 - 9/16	V01618B	1 1/16 - 1 5/32	1/4 - 9/32	6 19/32
9/16 - 5/8	V01820B	1 5/32 - 1 5/16	9/32 - 9/32	7 9/32
5/8 - 11/16	V02022B	1 5/16 - 1 13/32	9/32 - 5/16	7 15/16
5/8 - 3/4	V02024B	1 5/16 - 1 9/16	9/32 - 11/32	8 9/32
11/16 - 3/4	V02224B	1 13/32 - 1 9/16	5/16 - 11/32	8 5/8
3/4 - 13/16	V02426B	1 9/16 - 1 21/32	11/32 - 3/8	9 11/32
3/4 - 7/8	V02428B	1 9/16 - 1 13/16	11/32 - 3/8	9 21/32
13/16 - 7/8	V02628B	1 21/32 - 1 13/16	3/8 - 3/8	10 1/32
7/8 - 15/16	V02830B	1 13/16 - 1 29/32	3/8 - 13/32	10 3/4
15/16 - 1	V03032B	1 29/32 - 2 1/32	13/32 - 13/32	11 15/32
1 11/16	V03234B	2 1/32 - 2 5/32	13/32 - 7/16	12 7/32
1 1/16 - 1 1/4	V03440B	2 5/32 - 2 17/32	7/16 - 1/2	12 15/16
1 1/8 - 1 3/16	V03638B	2 5/16 - 2 13/32	7/16 - 15/32	13 23/32
1 1/4 - 1 5/16	V04042B	2 17/32 - 2 21/32	1/2 - 1/2	15 1/4
1 3/8 - 1 7/16	V04446B	2 13/16 - 2 29/32	17/32 - 17/32	16 7/8
1 1/2 - 1 5/8	V04852B	3 1/16 - 3 5/16	9/16 - 19/32	18 29/32
	Kit Bag			C200

ASME/ANSI B107.100

*Set includes storage tray



DSM810K

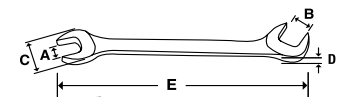
Ignition, 15/60° Offsets, mm

Set Contains:

DSM610K

A	B	Stock No.	C	D	E
3.2	5.5	DSM3.25.5	8 - 11	3	74
5.5	3.2	DSM5.53.2	11 - 8	3	83
4	5	DSM45	9 - 11	3	77
5	4	DSM54	11 - 9	3	81
6	7	DSM67	12 - 14	3	85
7	6	DSM76	14 - 12	3	89
8	9	DSM89	15 - 17	3	93
9	8	DSM98	17 - 15	3	97
10	11	DSM1011	20 - 22	4	101
11	10	DSM1110	22 - 20	4	105
		Kit Bag			C1003A

ASME/ANSI B107.100



DS809K

Ignition, 15/60° Offsets, inches

Set Contains:

DS809K
DS806AK

A	B	Stock No.	C	D	E
1/8	1/8	DS88A	5/16 - 5/16	1/8	2 29/32
5/32	5/32	DS1010A	3/8 - 3/8	1/8	2 7/8
3/16	3/16	DS1212A	13/32 - 13/32	1/8	3 1/8
15/64	1/4	DS1516A	15/32 - 1/2	1/8	3 1/4
1/4	15/64	DS1615A	1/2 - 15/32	1/8	3 13/32
9/32	5/16	DS1820A	9/16 - 19/32	1/8	3 1/2
5/16	9/32	DS2018A	19/32 - 9/16	1/8	3 21/32
11/32	3/8	DS2224A	21/32 - 23/32	5/32	3 3/4
3/8	11/32	DS2422A	23/32 - 21/32	5/32	3 3/4
		Kit Bag			C0900A C0605

ASME/ANSI B107.100



WARNING

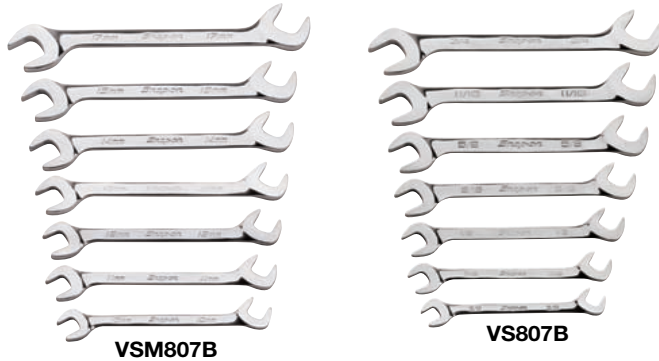


• Read safety precautions on pages 594 to 597

WRENCHES

Open End

- Angle-head wrenches offset at 30° and 60° angles to the handle
- Both ends are same size to permit use of one wrench in four positions

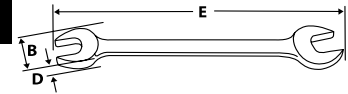


Four-Way Angle Head, mm

mm	Stock No.	B	D	E		
10	VSM5210B	20	6	127	•	•
11	VSM5211B	22	6	137	•	•
12	VSM5212B	24	6	145	•	•
13	VSM5213B	26	6	154	•	•
14	VSM5214B	28	6	164	•	•
15	VSM5215B	30	7	173	•	•
16	VSM5216B	31	7	181	•	•
17	VSM5217B	34	7	191	•	•
18	VSM5218B	36	7	200	•	•
19	VSM5219B	37	7	210	•	•
21	VSM5221B	41	8	228	•	•
22	VSM5222B	44	8	239	•	•
24	VSM5224B	47	8	254	•	•
27	VSM5227B	53	9	283	•	•

ASME/ANSI B107.9M-1994

*Set includes storage tray



Four-Way Angle Head, inches

TI	Stock No.	Industrial Stock No.	B	D	E	Set Contains:		
						VS8028A	VS814A	VS807B*
1/4	VS8B	—	17/32	3/16	3 11/16	•		
5/16	VS10B	—	21/32	3/16	4 1/4	•		
11/32	VS11B	—	23/32	7/32	4 17/32	•		
3/8	VS12B	—	25/32	7/32	4 27/32	•	•	•
7/16	VS14B	—	7/8	7/32	5 13/32	•	•	•
1/2	VS16B	GVS16B	1	1/4	5 31/32	•	•	•
9/16	VS18B	GVS18B	1 1/8	1/4	6 9/16	•	•	•
5/8	VS20B	GVS20B	1 1/4	9/32	7 1/8	•	•	•
11/16	VS22B	GVS22B	1 3/8	9/32	7 11/16	•	•	•
3/4	VS24B	GVS24B	1 15/32	9/32	8 9/32	•	•	•
13/16	VS26B	GVS26B	1 19/32	5/16	8 27/32	•	•	
7/8	VS28B	GVS28B	1 23/32	5/16	9 13/32	•	•	
15/16	VS30B	GVS30B	1 27/32	11/32	10	•	•	
1	VS32B	GVS32B	1 31/32	11/32	10 9/16	•	•	
1 1/16	VS34B	GVS34B	2 3/32	11/32	11 1/8	•	•	
1 1/8	VS36B	—	2 3/16	3/8	11 23/32	•	•	
1 3/16	VS38B	—	2 11/32	3/8	12 9/32	•	•	
1 1/4	VS40B	GVS40B	2 7/16	13/32	12 7/8	•	•	
1 5/16	VS42B	—	2 9/16	13/32	13 7/16	•	•	
1 3/8	VS44B	—	2 11/16	13/32	14	•	•	
1 7/16	VS46B	—	2 27/32	7/16	14 19/32	•	•	
1 1/2	VS48B	—	2 15/16	7/16	15 5/32	•	•	
1 5/8	VS52B	—	3 7/32	15/32	16 5/16	•	•	
1 11/16	VS54B	—	3 11/32	1/2	16 7/8	•	•	
1 3/4	VS56B	—	3 15/32	1/2	17 7/16	•	•	
1 13/16	VS58B	—	3 19/32	1/2	18	•	•	
1 7/8	VS60B	—	3 23/32	17/32	18 19/32	•	•	
2	VS64B	—	3 31/32	9/16	19 3/4	•	•	

*Set includes storage tray

Open End Wrenches—Blue-Point®



BDOEM1415

Open End, mm

mm	Stock No.	Length, mm
10-11	BDOEM1011	145
12-13	BDOEM1213	165
14-15	BDOEM1415	185
16-17	BDOEM1617	185
18-19	BDOEM1819	227

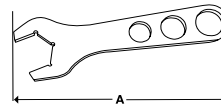


BDOE1820

Open End, inches

TI	Stock No.	Length, inches
5/16-3/8	BDOE1012	5 5/16
7/16-1/2	BDOE1416	6 1/2
9/16-5/8	BDOE1820	7 9/32
11/16-3/4	BDOE2224	8 15/16

ASME/ANSI B107.100



ANWR708

Aluminum (for AN Fittings)

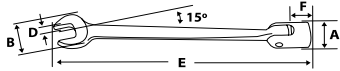
- Securely tighten expensive AN fittings to reduce risk of damage in aircraft, marine and industrial applications as well as race and show cars
- Machined from aluminum billet to exacting tolerances
- Made from quality heat treated hardened aluminum
- Corner reliefs on open end wrenches prevent rounding the corners of the fitting
- Handle length designed to apply appropriate torque without overtightening
- Open end wrenches are color coded and stamped for quick size identification

#	TI	Stock No.	Color	A	
No. 3	1/2	ANWR3	Silver	4 (101.6)	•
No. 4	9/16	ANWR4	Black	4 3/4 (120.7)	•
No. 6	11/16	ANWR6	Light Blue	5 3/4 (146.1)	•
No. 8	7/8	ANWR8	Pink	5 3/4 (146.1)	•
No. 10	1	ANWR10	Gold	7 1/8 (181.0)	•
No. 12	1 1/4	ANWR12	Red	7 1/2 (190.5)	•
No. 16	1 1/2	ANWR16	Brass	8 3/4 (222.3)	•
No. 20	1 13/16	ANWR20	Dark Blue	9 1/4 (237.0)	•

Set includes heavy gauge vinyl pouch

WRENCHES

Flank Drive® Flex Head



FHOM606B



FHO607B

Flex-Combination, mm

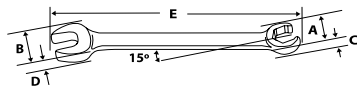
mm	12	A	B	D	E	F	Set Contains:	
							FHOM612B	FHOM606B
8	FHOM8B	12	17	5	146	6	•	
9	FHOM9B	13	18	5	156	6	•	
10	FHOM10B	14	20	5	166	6	•	•
11	FHOM11B	16	23	6	181	7	•	
12	FHOM12B	17	30	6	198	9	•	•
13	FHOM13B	19	27	7	205	9	•	•
14	FHOM14B	20	30	7	213	9	•	•
15	FHOM15B	21	31	7	224	10	•	•
16	FHOM16B	23	33	7	229	10	•	
17	FHOM17B	24	37	8	246	10	•	•
18	FHOM18B	24	38	8	254	11	•	
19	FHOM19B	26	40	8	261	12	•	

Sets include storage tray

Flex-Combination, inches

In	12	A	B	D	E	F	Set Contains:	
							FHO611B	FHO607B
1/4	FHO8B	3/8	17/32	1/8	4 15/16	7/32	•	
5/16	FHO10B	15/32	21/32	3/16	5 31/32	1/4	•	
3/8	FHO12B	9/16	17/32	7/32	6 1/2	1/4	•	•
7/16	FHO14B	5/8	29/32	7/32	7 1/8	9/32	•	•
1/2	FHO16B	23/32	1 1/16	1/4	7 13/16	11/32	•	•
9/16	FHO18B	25/32	1 3/16	9/32	8 3/8	11/32	•	•
5/8	FHO20B	29/32	1 5/16	9/32	9	3/8	•	•
11/16	FHO22B	1	1 7/16	9/32	9 11/16	13/32	•	•
3/4	FHO24B	1 1/32	1 1/2	5/16	10 1/4	15/32	•	•
13/16	FHO26B	1 1/32	1 23/32	5/16	10 5/16	1/2	•	
7/8	FHO28B	1 3/16	1 27/32	5/16	10 15/32	9/16	•	

Sets include storage tray



Flank Drive Flare Nut



RXSM605B



RXS605B

Open End and Flare Nut, mm

mm	6	A	B	C	D	E	Set Contains:	
							RXSM605B	6
8	RXSM8B	17	17	7	7	135		
9	RXSM9B	18	19	7	7	144		
10	RXSM10B	20	21	8	8	152	•	
11	RXSM11B	21	23	9	9	162	•	
12	RXSM12B	22	25	9	9	169	•	
13	RXSM13B	24	27	9	9	178	•	
14	RXSM14B	25	29	10	10	186	•	
15	RXSM15B	26	31	10	10	194		
16	RXSM16B	27	33	11	11	202		
17	RXSM17B	29	35	11	11	211		
18	RXSM18B	30	37	12	12	219		
19	RXSM19B	32	39	12	12	228		
20	RXSM20B	33	41	14	14	235		

Set includes storage tray

Open End and Flare Nut, inches

In	6	A	B	C	D	E	Set Contains:	
							RXS605B	6
	RXS10B	21/32	21/32	9/32	9/32	5 5/16		
3/8	RXS12B	3/4	25/32	5/16	5/16	5 27/32	•	
7/16	RXS14B	27/32	29/32	11/32	11/32	6 3/8	•	
1/2	RXS16B	29/32	1 1/16	3/8	3/8	6 7/8	•	
9/16	RXS18B	1	1 5/32	13/32	13/32	7 13/32	•	
5/8	RXS20B	1 3/32	1 5/16	7/16	7/16	7 15/16	•	
	RXS22B	1 5/32	1 13/32	15/32	15/32	8 15/32		
	RXS24B	1 1/4	1 9/16	1/2	1/2	9		

Set includes storage tray



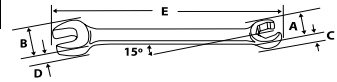
WARNING



• Read safety precautions on pages 594 to 597

WRENCHES

Flank Drive® Flare Nut



RXFMS606B

Double End, mm

Set Contains: **RXFMS606B**

mm	6	A	C	E	6
9 - 11	RXFMS911B	18 - 21	7 - 8	145	•
10 - 12	RXFMS1012B	20 - 22	8 - 9	153	•
13 - 14	RXFMS1314B	24 - 25	9 - 10	173	•
15 - 17	RXFMS1517B	26 - 29	10 - 11	193	•
16 - 18	RXFMS1618B	28 - 30	11 - 12	200	•
19 - 21	RXFMS1921B	32 - 34	12 - 13	223	•

Set includes storage tray



RXFS605B

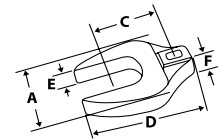
Double End, inches

Set Contains: **RXFS605B**

in	6	A	C	E	6
1/4 - 5/16	RXFS810B	19/32 - 21/32	1/4 - 9/32	4 27/32	•
3/8 - 7/16	RXFS1214B	3/4 - 27/32	5/16 - 11/32	5 13/16	•
1/2 - 9/16	RXFS1618B	29/32 - 1	3/8 - 13/32	6 13/16	•
5/8 - 11/16	RXFS2022B	1 3/32 - 1 5/32	7/16 - 15/32	7 3/4	•
3/4 - 13/16	RXFS2426B	1 1/4 - 1 5/16	1/2 - 17/32	8 25/32	•
3/4 - 1	RXFS2432B	1 1/4 - 1 9/16	1/2 - 5/8	9 1/2	•
7/8 - 1 1/8	RXFS2836B	1 13/32 - 1 3/4	9/16 - 11/16	10 1/2	•

Set includes storage tray

1/4" Drive Crowfoot Wrenches



107TMCOM

Open End, mm (chrome)

Set Contains: **107TMCOM**

mm	Hand	A	C	E	F	D	Hand
7	TMCOM7	13.5	13.2	6.6	6.6	24.4	•
8	TMCOM8	16.8	14.1	6.6	6.6	25.9	•
10	TMCOM10	19.8	14.6	6.6	6.6	27.5	•
11	TMCOM11	22.4	16.0	7.9	7.9	29.4	•
12	TMCOM12	24.4	16.5	7.9	7.9	30.6	•
13	TMCOM13	26.4	16.6	7.9	7.9	31.2	•
14	TMCOM14	29.0	17.7	7.9	7.9	32.9	•

Set includes storage tray



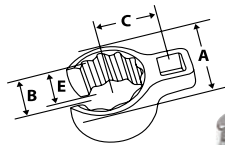
106TMCO

Open End, inches (chrome)

Set Contains: **106TMCO**

in	Hand	A	C	E	F	D	Hand
1/4	TMC08	17/32	17/32	1/4	1/4	31/32	•
5/16	TMC010	21/32	9/16	1/4	1/4	1 1/32	•
3/8	TMC012	25/32	19/32	1/4	1/4	1 3/32	•
7/16	TMC014	7/8	5/8	5/16	5/16	1 5/32	•
1/2	TMC016	1 1/32	21/32	5/16	5/16	1 1/4	•
9/16	TMC018	1 1/8	11/16	5/16	5/16	1 9/32	•

Set includes storage tray



TMRX12

Flank Drive Flare Nut-Shallow, inches, 12-Point

in	12	A	B	C	E	Maximum Recommended Working Torque, in. lb.
1/4	TMRX8	13/32	1/8	31/32	1/4	75
5/16	TMRX10	1/2	3/16	31/32	1/4	75
3/8	TMRX12	19/32	1/4	31/32	1/4	75



AN85088B

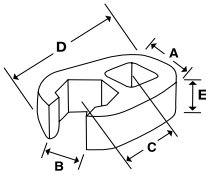
Flank Drive Flare Nut-Deep, inches, 12-Point

in	12	A	C	E	Maximum Recommended Working Torque, in. lb.
3/8	AN85086B	9/32	1/2	1/2	75
7/16	AN85087B	11/32	9/16	9/16	200
1/2	AN85088B	13/32	19/32	9/16	200
9/16	AN85089B	15/32	5/8	9/16	200

• Use only moderate force on crowfoot and flare nut wrenches

WRENCHES

3/8" Drive Crowfoot Wrenches



210FRHMA

Flank Drive® Flare Nut,
mm, 6-Point (chrome)

mm	6	A	B	C	D	E	Maximum Recommended Working Torque, in. lb.	6
9	FRHM9	22.4	6.7	14.2	33.3	9.7	150	
10	FRHM10	22.9	7.4	14.2	35.3	9.7	200	•
11	FRHM11	22.9	8.3	14.2	35.3	9.7	200	•
12	FRHM12	25.4	9.0	14.2	36.6	9.7	250	•
13	FRHM13	25.4	9.4	14.2	36.6	9.7	250	•
14	FRHM14	28.4	10.5	18.8	40.9	11.2	375	•
15	FRHM15	28.4	11.2	18.8	40.9	11.2	375	•
16	FRHM16	28.4	11.7	18.8	40.9	11.2	375	•
17	FRHM17	33.3	12.6	20.6	44.7	12.7	525	•
18	FRHM18	33.3	13.6	20.6	44.7	12.7	525	•
19	FRHM19	33.3	14.7	20.6	44.7	12.7	525	•
20	FRHM20	41.1	15.2	22.1	50.3	14.2	600	
21	FRHM21	41.1	16.3	22.1	50.3	14.2	650	
22	FRHM22	41.1	17.0	22.1	50.3	14.2	650	

Set Contains:

210FRHMA

Set shown includes storage tray



205ANM

Flank Drive Flare Nut-Deep,
mm, 12-Point (chrome)

mm	12	A	B	C	E	
12	ANM12	18.9	8.3	16.3	15.0	•
13	ANM13	21.2	9.7	17.7	15.0	•
14	ANM14	21.2	10.5	17.7	15.0	•
17	ANM17	26.6	13.0	19.7	19.1	•
19	ANM19	29.0	14.6	20.9	19.8	•

Set Contains:

205ANM

Set shown includes storage tray



210FCOMA

Open End, mm (chrome)

mm		A	C	E	F	D	Maximum Recommended Working Torque, in. lb.		
9	FCOM9A	22.4	18.8	5.3	13.2	33.3	75	•	
10	FCOM10A	22.4	17.6	5.3	13.2	33.0	75	•	•
11	FCOM11A	22.4	16.6	5.3	13.2	32.3	75	•	•
12	FCOM12A	26.2	21.0	5.3	13.2	37.3	105	•	•
13	FCOM13A	26.2	19.8	5.3	13.2	36.8	105	•	•
14	FCOM14A	26.2	18.6	5.3	13.2	36.1	105	•	•
15	FCOM15A	31.8	22.7	5.3	13.2	40.9	125	•	•
16	FCOM16A	31.8	21.7	5.3	13.2	40.4	125	•	•
17	FCOM17A	31.8	20.5	5.3	13.2	39.9	125	•	•
18	FCOM18A	38.4	27.2	6.4	13.2	48.5	170	•	•
19	FCOM19A	38.4	26.2	6.4	13.2	48.0	170	•	•
20	FCOM20A	38.4	25.0	6.4	13.2	48.0	170	•	•
21	FCOM21A	43.7	27.4	7.1	15.0	48.8	250	•	•
22	FCOM22A	43.7	26.4	7.1	15.0	50.0	250	•	•
23	FCOM23A	50.5	30.1	8.9	16.8	54.4	390	•	•
24	FCOM24A	50.5	28.8	8.9	16.8	53.8	400	•	•

Set Contains:

216FCOM

210FCOMA



207SFRH

Flank Drive Flare Nut,
inches, 6-Point (chrome)

in	6	A	B	C	D	E	Maximum Recommended Working Torque, in. lb.	6
3/8	FRH120S	13/32	1/4	9/16	1 11/32	3/8	150	•
7/16	FRH140S	29/32	5/16	9/16	1 13/32	3/8	200	•
1/2	FRH160S	1	11/32	9/16	1 7/16	3/8	250	•
9/16	FRH180S	1 1/8	3/8	3/4	1 5/8	7/16	300	•
5/8	FRH200S	1 1/8	7/16	3/4	1 5/8	7/16	375	•
11/16	FRH220S	1 5/16	1/2	13/16	1 25/32	1/2	450	•
3/4	FRH240S	1 5/16	9/16	13/16	1 25/32	1/2	525	•
13/16	FRH260S	1 5/8	5/8	7/8	1 31/32	9/16	600	
7/8	FRH280S	1 5/8	23/32	7/8	1 31/32	9/16	675	
15/16	FRH300S	1 7/8	11/16	15/16	2 3/16	5/8	750	
1	FRH320S	1 7/8	3/4	15/16	2 3/16	5/8	825	

Set Contains:

207SFRH

Set shown includes storage tray



208AN

Flank Drive Flare Nut-Deep,
inches, 12-Point (chrome)

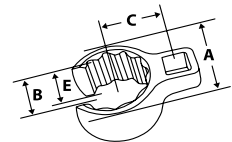
in	12	A	B	C	E	Maximum Recommended Working Torque, in. lb.	12
5/8	AN850810B	15/16	1/2	23/32	23/32	250	•
11/16	AN850811B	1 1/32	17/32	25/32	23/32	310	•
3/4	AN850812B	1 1/8	9/16	13/16	3/4	450	•
13/16	AN850813B	1 7/32	5/8	7/8	3/4	450	•
7/8	AN850814B	1 5/16	25/32	15/16	25/32	625	•
15/16	AN850815B	1 3/8	3/4	31/32	25/32	625	•
1	AN850816B	1 7/16	3/4	1	13/16	625	•
1 1/16	AN850817B	1 17/32	25/32	1 1/32	13/16	625	•

Set Contains:

208AN

ASME/ANSI B107.100

Set shown includes storage tray



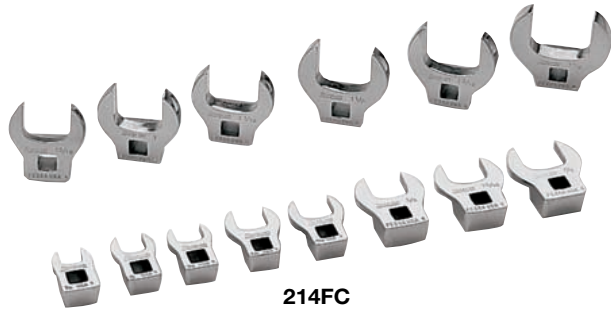
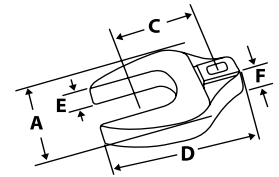
WARNING



- Use only moderate force on crowfoot and flare nut wrenches
- Read safety precautions on pages 594 to 597

WRENCHES

3/8" Drive Crowfoot Wrenches



Open End, inches

Set Contains:

242FC 226FC 214FC 211GFCO 211FCOA

Open End, inches	FC Part	GFC Part	A	C	E	F	D	Maximum Recommended Working Torque, in. lb.	Set Contains:					
									242FC	226FC	214FC	211GFCO	211FCOA	
3/8	FC012A	GFC012A	7/8	23/32	7/32	33/64	1 19/64	75						
7/16	FC014A	GFC014A	7/8	41/64	7/32	33/64	1 17/64	75	•	•	•	•	•	•
1/2	FC016A	GFC016A	1 1/32	51/64	7/32	33/64	1 29/64	105	•	•	•	•	•	•
9/16	FC018A	GFC018A	1 1/4	59/64	7/32	33/64	1 5/8	105	•	•	•	•	•	•
5/8	FC020A	GFC020A	1 1/4	55/64	7/32	33/64	1 19/32	125	•	•	•	•	•	•
11/16	FC022A	GFC022A	1 9/16	1 3/32	7/32	33/64	1 59/64	150	•	•	•	•	•	•
3/4	FC024A	GFC024A	1 9/16	1 1/32	7/32	33/64	1 57/64	190	•	•	•	•	•	•
13/16	FC026A	GFC026A	1 23/32	1 3/32	9/32	19/32	2	245	•	•	•	•	•	•
7/8	FC028A	GFC028A	1 23/32	1 1/32	9/32	19/32	1 31/32	300	•	•	•	•	•	•
15/16	FC030A	GFC030A	2	1 5/32	11/32	21/32	2 1/8	360	•	•	•	•	•	•
1	FC032A	GFC032A	2	1 5/64	11/32	21/32	2 3/32	420	•	•	•	•	•	•
1 1/16	FC34B	—	1 23/32	1 3/64	3/8	39/64		465	•	•	•	•	•	•
1 1/8	FC36A	—	1 29/32	1 5/32	3/8	39/64		510	•	•	•	•	•	•
1 3/16	FC38A	—	1 29/32	1 13/64	3/8	39/64		510	•	•	•	•	•	•
1 1/4	FC40A	—	2 5/32	1 15/64	3/8	41/64		555	•	•	•	•	•	•
1 5/16	FC42A	—	2 5/32	1 17/64	3/8	41/64		600	•	•	•	•	•	•
1 3/8	FC44A	—	2 3/8	1 19/64	3/8	41/64		680	•	•	•	•	•	•
1 7/16	FC46A	—	2 3/8	1 11/32	3/8	41/64		760	•	•	•	•	•	•
1 1/2	FC48A	—	2 17/32	1 3/8	3/8	41/64		795	•	•	•	•	•	•
1 9/16	FC50A	—	2 17/32	1 13/32	3/8	41/64		795	•	•	•	•	•	•
1 5/8	FC52A	—	2 21/32	1 29/64	3/8	41/64		820	•	•	•	•	•	•
1 11/16	FC54A	—	2 21/32	1 31/64	3/8	41/64		860	•	•	•	•	•	•
1 3/4	FC56A	—	2 7/8	1 33/64	3/8	41/64		910	•	•	•	•	•	•
1 13/16	FC58A	—	2 7/8	1 35/64	3/8	41/64		960	•	•	•	•	•	•
1 7/8	FC60A	—	3 5/32	1 19/32	3/8	41/64		1040	•	•	•	•	•	•
1 15/16	FC62A	—	3 5/32	1 5/8	3/8	41/64		1040	•	•	•	•	•	•
2	FC64A	—	3 13/32	1 23/32	1/2	45/64		1115	•	•	•	•	•	•
2 1/16	FC66A	—	3 13/32	1 3/4	1/2	45/64		1190	•	•	•	•	•	•
2 1/8	FC68A	—	3 19/32	1 25/32	1/2	45/64		1190	•	•	•	•	•	•
2 3/16	FC70A	—	3 19/32	1 53/64	1/2	45/64		1275	•	•	•	•	•	•
2 1/4	FC72A	—	3 27/32	1 15/16	1/2	45/64		1370	•	•	•	•	•	•
2 5/16	FC74A	—	3 27/32	1 15/16	1/2	45/64		1370	•	•	•	•	•	•
2 3/8	FC76A	—	4 3/32	2 1/16	1/2	45/64		1450	•	•	•	•	•	•
2 7/16	FC78A	—	4 3/32	2 1/8	1/2	45/64		1555	•	•	•	•	•	•
2 1/2	FC80A	—	4 9/32	2 11/64	1/2	45/64		1555	•	•	•	•	•	•
2 9/16	FC82A	—	4 9/32	2 11/64	1/2	45/64		1660	•	•	•	•	•	•
2 5/8	FC84A	—	4 17/32	2 21/64	1/2	45/64		1760	•	•	•	•	•	•
2 11/16	FC86A	—	4 17/32	2 3/8	1/2	45/64		1760	•	•	•	•	•	•
2 3/4	FC88A	—	4 23/32	2 7/16	1/2	45/64		1900	•	•	•	•	•	•
2 13/16	FC90A	—	4 23/32	2 17/32	1/2	45/64		2075	•	•	•	•	•	•
2 7/8	FC92A	—	5 3/32	2 41/64	1/2	45/64		2075	•	•	•	•	•	•
2 15/16	FC94A	—	5 3/32	2 43/64	1/2	45/64		2200	•	•	•	•	•	•
3	FC96A	—	5 3/32	2 23/32	1/2	45/64		2200	•	•	•	•	•	•

ASME/ANSI B107.100

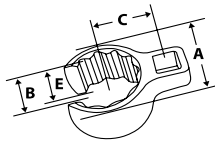
WRENCHES

3/8" - 1/2" Drive Crowfoot Wrenches



315AN

1/2" Flank Drive® Flare Nut-Deep, inches, 12-Point

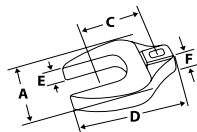


Set Contains: 315AN

12	12	A	B	C	E	Maximum Recommended Working Torque, in. lb.	12
1 1/8	AN850818B	1 5/8	27/32	1 5/32	7/8	825	•
1 3/16	AN850819B	1 11/16	29/32	1 3/16	7/8	825	•
1 1/4	AN850820B	1 25/32	15/16	1 7/32	7/8	825	•
1 5/16	AN850821B	1 27/32	31/32	1 1/4	7/8	900	•
1 3/8	AN850822B	1 15/16	1 1/16	1 5/16	15/16	900	•
1 7/16	AN850823B	2	1 1/16	1 11/32	15/16	900	•
1 1/2	AN850824B	2 3/32	1 1/8	1 3/8	15/16	900	•
1 9/16	AN850825B	2 5/32	1 9/32	1 13/32	15/16	900	•
1 5/8	AN850826B	2 7/32	1 7/32	1 7/16	15/16	1,100	•
1 11/16	AN850827B	2 5/16	1 5/16	1 1/2	1 1/32	1,100	•
1 3/4	AN850828B	2 3/8	1 5/16	1 9/16	1 1/32	1,150	•
1 13/16	AN850829B	2 15/32	1 11/32	1 19/32	1 1/32	1,200	•
1 7/8	AN850830B	2 9/16	1 3/8	1 21/32	1 1/16	1,200	•
1 15/16	AN850831B	2 5/8	1 7/16	1 11/16	1 1/16	1,200	•
2	AN850832B	2 23/32	1 9/16	1 23/32	1 1/16	1,400	•
2 1/8	AN850834B	2 7/8	1 9/16	1 13/16	1 1/8	1,450	•
2 3/16	AN850835B	2 15/16	1 21/32	1 27/32	1 1/8	1,500	•
2 1/4	AN850836B	3 1/32	1 11/16	1 7/8	1 1/8	1,500	•
2 3/8	AN850838B	3 3/16	1 13/16	1 31/32	1 3/16	1,600	•
2 7/16	AN850839B	3 1/4	1 13/16	2	1 3/16	1,650	•
2 9/16	AN850841B	3 7/16	1 29/32	2 3/32	1 9/32	1,750	•
2 5/8	AN850842B	3 1/2	2 1/16	2 1/8	1 9/32	1,800	•
2 11/16	AN850843B	3 19/32	2 1/16	2 5/32	1 9/32	1,800	•
2 3/4	AN850844B	3 21/32	2 1/16	2 7/32	1 9/32	1,850	•
3 1/8	AN850850B	4 1/8	2 5/16	2 7/16	1 5/16	2,000	•

ASME/ANSI B107.100

Set shown includes storage tray



314SCO

1/2" Open End, inches

Set Contains: 314SCO

12	12	A	C	E	F	Maximum Recommended Working Torque, in. lb.	12
1 1/16	SC034	2 3/32	1 3/4	3/8	5/8	2,000	•
1 1/8	SC036	2 7/32	1 3/4	3/8	5/8	2,100	•
1 3/16	SC038	2 11/32	1 3/4	13/32	5/8	2,200	•
1 1/4	SC040	2 15/32	2	13/32	5/8	2,300	•
1 5/16	SC042	2 19/32	2	7/16	5/8	2,400	•
1 3/8	SC044	2 23/32	2	7/16	5/8	2,500	•
1 7/16	SC046	2 27/32	2	7/16	5/8	2,600	•
1 1/2	SC048	2 31/32	2	15/32	5/8	2,900	•
1 5/8	SC052	3 7/32	1 31/32	1/2	5/8	3,400	•
1 11/16	SC054	3 11/32	2 3/16	1/2	5/8	3,700	•
1 3/4	SC056	3 15/32	2 3/16	17/32	5/8	3,900	•
1 13/16	SC058	3 19/32	2 3/16	17/32	5/8	4,100	•
1 7/8	SC060	3 23/32	2 3/16	9/16	5/8	4,300	•
2	SC064	3 31/32	2 7/32	9/16	5/8	5,000	•

Set shown includes storage tray



WARNING



- Use only moderate force on crowfoot and flare nut wrenches
- Read safety precautions on pages 594 to 597



BFCRM712A

3/8" Ratcheting, mm

Set Contains: BFCRM712A+

mm	mm	A	C	E	
8	BFCRM8A	17.8	6.5	49.3	•
9	BFCRM9A	19.5	7.4	50.8	•
10	BFCRM10A	21.5	8.0	53.8	•
11	BFCRM11A	22.0	8.5	53.8	•
12	BFCRM12A	23.5	9.0	57.2	•
13	BFCRM13A	25.0	10.0	57.2	•
14	BFCRM14A	27.0	10.0	60.3	•
15	BFCRM15A	28.5	11.0	63.5	•
16	BFCRM16A	30.5	11.0	66.7	•
17	BFCRM17A	34.5	12.0	68.3	•
18	BFCRM18A	36.5	12.0	71.4	•
19	BFCRM19A	36.5	12.9	73.0	•

*Set includes FXLBP10 -10" locking extension

Set shown includes storage tray



BFCR708A

3/8" Ratcheting, inches

Set Contains: BFCR708A+

12	12	A	C	E	
5/16	BFCR10A	11/16	1/4	2	•
3/8	BFCR12A	27/32	5/16	2 1/8	•
7/16	BFCR14A	7/8	11/32	2 1/8	•
1/2	BFCR16A	31/32	13/32	2 1/4	•
9/16	BFCR18A	1 1/16	13/32	2 3/8	•
5/8	BFCR20A	1 3/16	7/16	2 5/8	•
11/16	BFCR22A	1 1/4	15/32	2 5/8	•
3/4	BFCR24A	1 7/16	1/2	2 7/8	•

*Set includes FXLBP10 -10" locking extension

Set shown includes storage tray



A277

Crowfoot Wrench Holder A277 3/8" Crowfoot Holder.

- Organize and store your crowfoot wrenches
- 2 piece design snaps apart for access to desired size
- 8 3/4" long



ADCF8

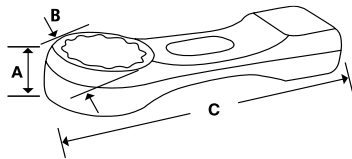
ADCF8 Adjustable Crowfoot Wrench.

- Metric and fractional scales
- Opening range from 0 to 1.14" (0 to 29mm)
- Lateral side nut designed to work on difficult access fasteners and minimize dirt accumulation

Stock No.	Drive Size	Maximum Recommended Working Torque, in. lb.
ADCF8	3/8	2,849

WRENCHES

Heavy Duty Striking Wrenches



Flank Drive® Straight Handle Sledge Hammer, inches, 12-Point

Hex	12-Point	A	B	C
1 3/16	DX138A	7/8	2 3/32	7 35/64
1 1/4	DX140A	7/8	2 3/32	7 35/64
1 5/16	DX142A	7/8	2 3/32	7 35/64
1 3/8	DX144A	61/64	2 17/64	7 41/64
1 7/16	DX146A	61/64	2 17/64	7 41/64
1 1/2	DX148A	61/64	1 17/64	7 41/64
1 5/8	DX152A	1 9/64	2 5/8	7 53/64
1 11/16	DX154A	1 9/64	2 5/8	7 53/64
1 3/4	DX156A	1 7/32	2 13/16	7 29/32
1 13/16	DX158A	1 7/32	2 13/16	7 29/32
1 7/8	DX160A	1 7/32	2 13/16	7 29/32
2	DX164A	1 13/32	3 11/64	11 19/32
2 1/16	DX166A	1 13/32	3 11/64	11 19/32
2 3/16	DX170A	1 17/32	3 29/64	11 47/64
2 1/4	DX172A	1 17/32	3 29/64	11 47/64
2 3/8	DX176A	1 21/32	3 23/32	11 55/64
2 7/16	DX178A	1 21/32	3 23/32	11 55/64
2 1/2	DX180A	1 21/32	3 23/32	11 55/64
2 9/16	DX182A	1 51/64	3 63/64	13
2 5/8	DX184A	1 51/64	3 63/64	13
2 3/4	DX188A	1 59/64	4 17/64	14 17/64
2 13/16	DX190A	1 59/64	4 17/64	14 17/64
2 15/16	DX194A	2 3/64	4 17/32	14 13/32
3	DX196A	2 3/64	4 17/32	14 13/32
3 1/8	DX1100A	2 17/64	4 29/32	17 37/64
3 3/8	DX1108A	2 17/64	4 29/32	17 37/64
3 1/2	DX1112A	2 29/64	5 19/64	17 51/64
3 3/4	DX1120A	2 21/32	5 17/32	17 51/64
3 7/8	DX1124A	2 21/32	5 17/32	17 57/64
4 1/8	DX1132A	2 59/64	6 1/32	18 9/64
4 1/4	DX1136A	2 59/64	6 1/32	18 9/64
4 1/2	DX1144A	3 5/32	6 25/32	20 1/64
4 5/8	DX1148A	3 5/32	6 25/32	20 1/64

Combination T and L-Shape Wrenches



Hex, mm

AWSGM800

Set Contains: **AWSGM800**

Hex Handle	Blue Handle	T-Length, mm	Length, mm	
2	AWSGM2	95	152	•
2.5	AWSGM2.5	95	152	•
3	AWSGM3	98	152	•
4	AWSGM4	98	187	•
5	AWSGM5	117	187	•
6	AWSGM6	117	246	•
8	AWSGM8	117	246	•
10	AWSGM10	124	248	•

Set shown includes storage tray



Hex, inches

AWSG800

Set Contains: **AWSG800**

Hex Handle	Red Handle	T-Length, inches	Length, inches	
3/32	AWSG06	3 7/8	6	•
7/64	AWSG07	3 7/8	6	•
1/8	AWSG08	3 7/8	6	•
9/64	AWSG09	3 7/8	6	•
5/32	AWSG10	3 7/8	7 3/8	•
3/16	AWSG12	4 3/4	7 3/4	•
7/32	AWSG14	4 3/4	7 3/4	•
1/4	AWSG16	4 3/4	9 5/8	•
5/16	AWSG20	4 3/4	9 5/8	•
3/8	AWSG24	4 3/4	9 5/8	•

Sets shown include storage tray

- Ergonomic, soft grip handle provides comfort during repetitive tasks
- Delivers superior turning power
- Allows maximum pressure to be applied when loosening difficult fasteners with both "T" and "L" applications
- Blades constructed from high-strength steel and hardened for durability

- Blade tips are black oxide coated to prevent chipping and to help maintain a secure fastener engagement
- Short blade provides maximum torque for tight quarters
- Long blade promotes quick fastener turning in difficult access situations
- Hole in handle for hanging tool or tether
- Color coded handles identify tool configuration at a glance

WRENCHES

Combination T and L-Shape Wrenches



AWBSGM800



Ball Hex, mm

Set Contains:

mm	Blue Handle	T-Length, mm	Length, mm	
2	AWBSGM2	95	152	•
2.5	AWBSGM2.5	95	152	•
3	AWBSGM3	98	152	•
4	AWBSGM4	98	187	•
5	AWBSGM5	117	187	•
6	AWBSGM6	117	246	•
8	AWBSGM8	117	246	•
10	AWBSGM10	124	248	•

Set shown includes storage tray



AWBSG800



Ball Hex, inches

Set Contains:

TI	Red Handle	T-Length, inches	Length, inches	
3/32	AWBSG06	3 7/8	6	•
7/64	AWBSG07	3 7/8	6	•
1/8	AWBSG08	3 7/8	6	•
9/64	AWBSG09	3 7/8	6	•
5/32	AWBSG10	3 7/8	7 3/8	•
3/16	AWBSG12	4 3/4	7 3/4	•
7/32	AWBSG14	4 3/4	7 3/4	•
1/4	AWBSG16	4 3/4	9 5/8	•
5/16	AWBSG20	4 3/4	9 5/8	
3/8	AWBSG24	4 3/4	9 5/8	

Set shown includes storage tray



Torx®

Set Contains:

#	Green Handle	T-Length, inches	Length, inches	
T6	AWSGT6	3 7/8	6	
T7	AWSGT7	3 7/8	6	
T8	AWSGT8	3 7/8	6	
T9	AWSGT9	3 7/8	6	
T10	AWSGT10	3 7/8	6	•
T15	AWSGT15	3 7/8	7 3/8	•
T20	AWSGT20	3 7/8	7 3/8	•
T25	AWSGT25	4 3/4	7 5/8	•
T27	AWSGT27	4 3/4	7 5/8	•
T30	AWSGT30	4 3/4	9 5/8	•
T40	AWSGT40	4 3/4	9 5/8	•
T45	AWSGT45	4 3/4	9 3/4	•
T50	AWSGT50	4 3/4	9 3/4	

Set shown includes storage tray



AWSGT800



Torx Special Application

AWSGTRP20

- Extra long T20 Tamper Proof Torx
- Access Mercedes mirrors
- Short end also T20 Tamper resistant Torx for tight quarters

#	Green Handle	T-Length, inches	Length, inches
T20	AWSGTRP20	3 7/8	10 1/2

T-Shape



AWBMCG1600



Ball Hex, mm

Set Contains:

mm	Stock No.	Handle	Length, inches	
2	AWBMCG1602	Blue	9	•
2.5	AWBMCG16025	Blue	9	•
3	AWBMCG1603	Blue	9	•
4	AWBMCG1604	Blue	9	•
5	AWBMCG1605	Blue	9	•
6	AWBMCG1606	Blue	9	•
8	AWBMCG1608	Blue	9	•
10	AWBMCG1610	Blue	9	•

Set shown includes storage tray



AWBCG1600



Ball Hex, inches

Set Contains:

TI	Stock No.	Handle	Length, inches	
3/32	AWBCG1606	Red	9	•
7/64	AWBCG1607	Red	9	•
1/8	AWBCG1608	Red	9	•
9/64	AWBCG1609	Red	9	•
5/32	AWBCG1610	Red	9	•
3/16	AWBCG1612	Red	9	•
7/32	AWBCG1614	Red	9	•
1/4	AWBCG1616	Red	9	•
5/16	AWBCG1620	Red	9	
3/8	AWBCG1624	Red	9	

Set shown includes storage tray



WARNING



• Read safety precautions on pages 594 to 597

WRENCHES

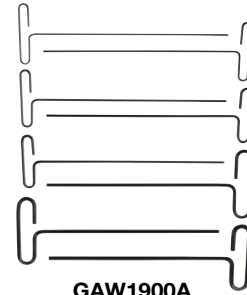
T-Shape



AWMCG1600B



AWCG1600B



GAW1900A

Hex, mm

Set Contains:

AWMCG1600B

mm	Stock No.	Handle	Length, mm	
2	AWMCG1602B	Blue	152.4	•
2.5	AWMCG16025B	Blue	152.4	•
3	AWMCG1603B	Blue	152.4	•
4	AWMCG1604B	Blue	152.4	•
5	AWMCG1605B	Blue	152.4	•
6	AWMCG1606B	Blue	152.4	•
8	AWMCG1608B	Blue	152.4	•
10	AWMCG1610B	Blue	152.4	•

Set shown includes storage tray

Hex, inches

Set Contains:

GAW1900A

AWCG1600B

	Standard Handle 9" Length	Red Handle 6" Length		
3/32	GAW1906	AWCG1606B	•	•
7/64	GAW1907	AWCG1607B	•	•
1/8	GAW1908	AWCG1608B	•	•
9/64	GAW1909	AWCG1609B	•	•
5/32	GAW1910	AWCG1610B	•	•
3/16	GAW1912	AWCG1612B	•	•
7/32	GAW1914	AWCG1614B	•	•
1/4	GAW1916	AWCG1616B	•	•
5/16	GAW1920	AWCG1620B		
3/8	GAW1924	AWCG1624B		

Sets shown include storage tray



AWMCGR1608

Tamper Resistant, mm

AWMCGR1608 Metric T-Shape Hex Wrench.

- Yamaha Rhino doors and aftermarket license plate holders with 8mm tamper proof hex security fasteners
- Permits maximum pressure application when loosening difficult fasteners

Torx®

AWCGT500

Set Contains:

AWCGT500

#	Green Handle 6" Length	
7	AWCGT7	
T8	AWCGT8	•
T10	AWCGT10	•
T15	AWCGT15	•
T20	AWCGT20	•
T25	AWCGT25	•
T30	AWCGT30	
T40	AWCGT40	
T45	AWCGT45	

Sets shown include storage tray



AWSTAND
Tools not included
with AWSTAND

Wrench Stands

AWSTAND Wrench Stand.

- Mounting holes on top and bottom of stand provide many mounting locations
- Another AWSTAND can be added for increased storage options
- Stands can mount to a Slots-N-Dots Plus™ personal work center or lie flat on top of tool box
- Stand holds the following wrench styles:
 - L or T-shaped fractional hex 1/16" to 3/8"
 - L or T-shaped metric hex 2 to 10mm
 - L or T-shaped Torx® T6 to T50
 - Metric or Torx on one stand
 - Fractional and metric on one stand
 - Metric and fractional ball wrenches

WRENCHES

Folding Sets/L-Shape



AWMEF8K



AWMEF6K

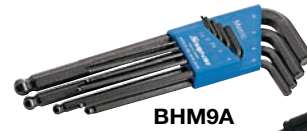
Hex, mm

mm	AWMEF7K	AWMEF8K	AWMEF6K
1.5	45.7	—	—
2	50.8	50.8	—
2.5	55.9	55.9	—
3	61.0	61.0	83.8
4	66.0	66.0	88.9
5	78.7	78.7	96.5
6	83.8	96.5	101.6
7	—	106.7	—
8	—	121.9	121.9
10	—	—	129.5

Unique Screw Holding Tip*

Holds fastener to tool for delicate installations

* AWBPH13, AWMBPH9, AWTPH8 only



BHM9A



AWMBPH9



BHS13A



AWBPH13



BHS7A



AWEF6K



AWEF9K

Hex, inches

Hex	AWEF6K
5/32	2.7
3/16	3.3
7/32	3.5
1/4	3.7
5/16	4.8
3/8	5.1

Hex	AWEF9K
.050	1.8
1/16	1.9
5/64	2.0
3/32	2.1
7/64	2.3
1/8	2.4
9/64	2.6
5/32	2.7
3/16	2.9

AWCPEF16K

Combination Set.

Set includes AWEF9K hex set and AWMEF7K metric hex set.



AWEFBH9K



AWTEF8K

Ball Hex inches

Hex	AWEFBH6K
5/64	2.0
3/32	2.1
7/64	2.3
1/8	2.4
9/64	2.6
5/32	2.7
3/16	2.9
7/32	3.5
1/4	3.7

Torx®

#	AWTEF8K
T8	2.4
T10	2.7
T15	3.0
T20	3.2
T25	3.4
T27	3.5
T30	3.7
T40	3.9

Ball Hex Sets

Industrial Finish L-Shaped Ball Hex Wrench Sets:

Ball hex allows up to 25° angle entry. Made from high torque steel.

Metric Sets:

BHM9A Metric Ball Hex Set. Set includes 1.5, 2, 2.5, 3, 4, 5, 6, 8 and 10mm sizes (9 pcs) (1.5 to 10mm) in plastic index.

AWMBPH9 Metric Ball Hex Set. Screw holding tip holds fastener to tool for delicate installations. Set includes 1.5, 2, 2.5, 3, 4, 5, 6, 8 and 10mm sizes (9 pcs) (1.5 to 10mm) in plastic index.

AWMBS9 Metric Stubby Ball Hex Set. Stubby length for access in tight quarters. Set includes 1.5, 2, 2.5, 3, 4, 5, 6, 8 and 10mm sizes (9 pcs) (1.5 to 10mm) in plastic index.

Standard Sets:

BHS7A Ball Hex Set. Set includes 5/64", 3/32", 7/64", 1/8", 9/64", 5/32" and 3/16" sizes (7 pcs) (5/64" to 3/16") in plastic index.

BHS13A Ball Hex Set. Set includes 0.05", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16" and 3/8" sizes (13 pcs) (.050" to 3/8") in plastic index.

AWBPH13 Ball Hex Set. Screw holding tip holds fastener to tool for delicate installations. Set includes 0.05", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16" and 3/8" sizes (13 pcs) (.050" to 3/8") in plastic index.

AWBS13 Stubby Ball Hex Set. Stubby length for access to tight quarters. Set includes 0.05", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16" and 3/8" sizes (13 pcs) (.050" to 3/8") in plastic index.



AWHD8K

Combination

AWHD8K Hex/Torx Set.

Includes two Torx sizes (T27, T40) and six hex sizes (5/32", 3/16", 7/32", 1/4", 5/16" and 3/8"). Fits a wide range of Harley-Davidson® motorcycles.



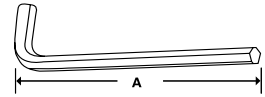
WARNING



• Read safety precautions on pages 594 to 597

WRENCHES

L-Shaped



AWM140DK



AWM110DHK



AW1020DK



AW1015DK



AW1013DK



AW1015DHK



Hex, mm

Set Contains:

AWM140DK
AWM110DK
AWM100DK

	Stock No.	Hex, mm	A				
Standard Length	AWM2D	2	47.7	•	•	•	
	AWM2-1/2D	2.5	52.0	•	•	•	
	AWM3D	3	58.6	•	•	•	
	AWM4D	4	65.6	•	•	•	
	AWM5D	5	75.6	•	•	•	
	AWM6D	6	82.2	•	•	•	
	AWM7D	7	92.4	•	•	•	
	AWM8D	8	99.2	•	•	•	
	AWM9D	9	105.1	•	•	•	
	AWM10D	10	111.4	•	•	•	
	AWM12D	12	139.3	•	•	•	
	AWM14D	14	138.8	•			
	AWM17D	17	167.2	•			
AWM19D	19	193.6	•				
Long	AWML1.5D	1.5	77.7				
	AWML2D	2	83.0				
	AWML2.5D	2.5	89.9				
	AWML3D	3	100.0				
	AWML4D	4	107.0				
	AWML5D	5	118.5				
	AWML6D	6	141.0				
	AWML8D	8	161.5				
	AWML10D	10	172.0				
	AWML12D	12	193.6				
	Kit Bag				C1209	C15B	
	Metal Index						BHK11



Hex, Standard Length, inches

Set Contains:

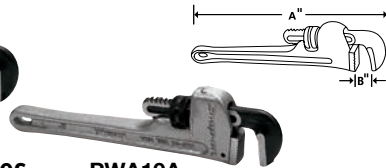
AW1020DK
AW1015DK
AW1013DK
AW1015DHK

Stock No.	Hex, Standard Length, inches	A				
AW028D	0.028	1 1/4	•	•		•
AW035D	0.035	1 5/16	•	•		•
AW050D	0.050	1 3/4	•	•	•	•
AW2D	1/16	1 3/4	•	•	•	•
AW2-1/2D	5/64	1 7/8	•	•	•	•
AW3D	3/32	2	•	•	•	•
AW3-1/2D	7/64	2 1/8	•	•	•	•
AW4D	1/8	2 1/4	•	•	•	•
AW4-1/2D	9/64	2 3/8	•	•	•	•
AW5D	5/32	2 1/2	•	•	•	•
AW6D	3/16	2 3/4	•	•	•	•
AW7D	7/32	3	•	•	•	•
AW8D	1/4	3 1/4	•	•	•	•
AW10D	5/16	3 3/4	•	•	•	•
AW12D	3/8	4 1/4	•	•	•	•
AW14D	7/16	4 3/4	•			
AW18D	9/16	5 3/4	•			
AW20D	5/8	6 1/4	•			
AW24D	3/4	7 1/4	•			
Kit Bag				C1209	C154	C1102
Metal Index						BHK15

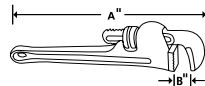
Pipe Wrenches



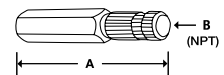
PW10C



PWA10A



PWN16B



External Pipe Wrenches

Stock No.	Aluminum Handle	A	B
PW6C	—	6	3/4
PW8C	—	8	1
PW10C	PWA10A	10	1 1/2
PW12C	—	12	2
PW14C	PWA14A	14	2
PW18C	PWA18A	18	2 1/2
PW24C	PWA24A	24	3
PW36C	PWA36A	36	5
—	PWA48A	48	6

Internal Pipe Wrenches

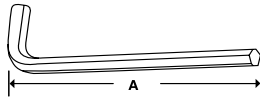
Set Contains:

PWN904B

Stock No.	A	B	
PWN12B	3 3/4	3/8	•
PWN16B	3 3/4	1/2	•
PWN24B	3 3/4	3/4	•
PWN32B	3 3/4	1	•

WRENCHES

L-Shaped



AWL1010DHK

Hex, Long, inches

Stock No.	$\frac{11}{16}$	A	Set Contains:	
AWL3D	$\frac{3}{32}$	3 $\frac{1}{8}$	•	•
AWL3-1/2D	$\frac{7}{64}$	3 $\frac{1}{2}$	•	•
AWL4D	$\frac{1}{8}$	3 $\frac{3}{4}$	•	•
AWL4-1/2D	$\frac{9}{64}$	4	•	•
AWL5D	$\frac{5}{32}$	4 $\frac{1}{8}$	•	•
AWL6D	$\frac{3}{16}$	4 $\frac{1}{2}$	•	•
AWL7D	$\frac{7}{32}$	4 $\frac{7}{8}$	•	•
AWL8D	$\frac{1}{4}$	5 $\frac{1}{4}$	•	•
AWL10D	$\frac{5}{16}$	6	•	•
AWL12D	$\frac{3}{8}$	6 $\frac{3}{4}$	•	•
AWL14D	$\frac{7}{16}$	7 $\frac{1}{2}$		
AWL16D	$\frac{1}{2}$	8 $\frac{1}{4}$		
AWL18D	$\frac{9}{16}$	9		
AWL20D	$\frac{5}{8}$	9 $\frac{3}{4}$		
Kit Bag			C15B	
Metal Index				BHK10



AWMG9

Hex/Gold Finish, mm

Stock No.	mm	Set Contains:	
AWMG9-1	1.5	•	
AWMG9-2	2	•	
AWMG9-3	2.5	•	
AWMG9-4	3	•	
AWMG9-5	4	•	
AWMG9-6	5	•	
AWMG9-7	6	•	
AWMG9-8	8	•	
AWMG9-9	10	•	



AWS13

Hex/Natural Finish, inches

Stock No.	$\frac{11}{16}$	Set Contains:	
AWS13-1	$\frac{1}{20}$	•	
AWS13-2	$\frac{1}{16}$	•	
AWS13-3	$\frac{5}{64}$	•	
AWS13-4	$\frac{3}{32}$	•	
AWS13-5	$\frac{7}{64}$	•	
AWS13-6	$\frac{1}{8}$	•	
AWS13-7	$\frac{9}{64}$	•	
AWS13-8	$\frac{5}{32}$	•	
AWS13-9	$\frac{3}{16}$	•	
AWS13-10	$\frac{7}{32}$	•	
AWS13-11	$\frac{1}{4}$	•	
AWS13-12	$\frac{5}{16}$	•	
AWS13-13	$\frac{3}{8}$	•	



AWT100KA



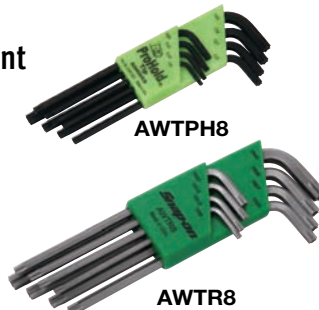
Stock No.	#	A	B	Set Contains:	
AWT8A	T8	.137	1 $\frac{7}{8}$		
AWT9A	T9	.148	1 $\frac{7}{8}$		
AWT10A	T10	.162	2	•	
AWT15A	T15	.194	2 $\frac{1}{8}$	•	
AWT20A	T20	.228	2 $\frac{1}{4}$	•	
AWT25A	T25	.262	2 $\frac{3}{8}$	•	
AWT27A	T27	.295	2 $\frac{1}{2}$	•	
AWT30A	T30	.218	2 $\frac{3}{4}$	•	
AWT40A	T40	.262	3	•	
AWT45A	T45	.430	3 $\frac{5}{8}$	•	
AWT50A	T50	.348	3 $\frac{3}{4}$	•	
AWT55A	T55	.442	4 $\frac{1}{4}$	•	

Set shown includes storage tray

AWTPH8 Torx Set. Ball hex allows up to 25° angle entry. Screw holding tip holds fastener to tool for delicate installations. Set includes T9, T10, T15, T20, T25, T27, T30 and T40 sizes (8 pcs) (T9 to T40) in plastic index. Made from high torque steel.

Torx/Tamper Resistant

Stock No.	#	Set Contains:	
AWTR8-1	T9		
AWTR8-2	T10		
AWTR8-3	T15		
AWTR8-4	T20		
AWTR8-5	T25		
AWTR8-6	T27		
AWTR8-7	T30		
AWTR8-8	T40		



AWTPH8

AWTR8



MS1015KA

Multi-Spline

Stock No.	#	A	B	Set Contains:	
MS2A	4		.033		•
MS3A	4		.048		•
MS4A	6		.060		•
MS5A	4		.069		•
MS6A	4		.076		•
MS7A	6		.072		•
MS8A	6		.096		•
MS10A	6		.110		•
MS16A	6		.144		•
MS20A	6		.183		•
MS24A	6		.216		•
MS28A	6		.251		•
MS32A	6		.291		•
MS40A	6		.372		•
MS48A	6		.454		•

Set includes C16 Kit Bag



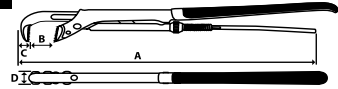
WARNING



• Read safety precautions on pages 594 to 597

WRENCHES

Adjustable/Special Application



PWZ1

Pliers Wrench

- Inwardly angled teeth (fine teeth at back of jaw, larger teeth at front of jaw) for a stronger grip
- Quick adjustment of grip width
- Built-in guard against unthreading
- Soft, warm to the touch, high friction handle surfaces with a strong, stable core

Pliers Wrench

Stock No.	A	B	C	D	Weight, lbs.
PWZ0	8 3/16	1 1/2	5/16	9/16	1
PWZ1	12 5/8	1 3/4	1/2	3/4	1 5/8
PWZ2	17	2 1/2	5/8	13/16	2 1/2
PWZ3	21 1/2	3 1/2	3/4	1	6 3/8

Adjustable



Adjustable wrenches with serrated jaws feature our Flank Drive Plus wrenching system for more turning power from an adjustable wrench. Precision-made wrenches feature fractional and metric scales for size reference. Elastomer handle surface is soft, yet provides a non-slip gripping surface even for greasy and oily hands. Cushion handle insulates against cold temperatures.



FADH704A



ADHW8

Snap-on Wide Mouth Adjustable/Cushion Handle

- Opens larger than standard adjustable wrench
- Longer jaws and slimline design for greater reach
- Metric and fractional scales for quick observation
- Adjustable moving jaw will not fall out, even when at max opening
- Elastomer handle is soft, insulates against cold and provides a non-slip surface
- ADHW6 opens as wide as an 8" adjustable wrench: ADHW8 opens as wide as a 10" adjustable wrench

Stock No.	A inches (mm)	B inches (mm)
ADHW6	6 (152)	1 1/4 (32)
ADHW8	8 (203)	1 1/2 (38)

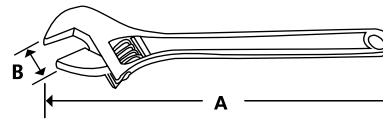
Sets shown include storage tray

Snap-on® Flank Drive® Plus Adjustable/Cushion Handles

Set Contains: FADH704A

Stock No.	A inches (mm)	B inches (mm)	
FADH6A	6 (152)	3/4 (19)	•
FADH8A	8 (203)	15/16 (24)	•
FADH10A	10 (254)	1 1/8 (29)	•
FADH12A	12 (304)	1 5/16 (33)	•

Set shown includes storage tray



Snap-on Adjustable Wrenches

- Opposing fractional and metric quick sizing scales are provided for convenience
- High strength steel alloy machined to exacting specs and precision heat treated for strength and durability
- Nickel-chromium plating and improved finish help protect against corrosion and speed clean up



AD704A

Set Contains: AD704A

Stock No.	A inches (mm)	B inches (mm)	
AD6A	6 (155)	25/32 (20)	•
AD8A	8 (205)	1 1/16 (27)	•
AD10A	10 (255)	1 3/16 (30)	•
AD12A	12 (305)	1 11/32 (34)	•

Sets shown include storage tray

WRENCHES

Adjustable—Blue Point®

Adjustable Wrenches

Stock No.	A inches (mm)	B inches (mm)	Set Contains:	
			BLPADJ703	BLPADJ404
GAJ4A	4 (108)	1/2 (13)		
GAJ6A	6 (160)	1 (25.4)		•
GAJ8A	8 (210)	1 1/8 (29)		•
GAJ10A	10 (260)	1 9/32 (33)		•
GAJ12A	12 (310)	1 1/2 (38)		•
GAJ15A	15 (385)	1 19/32 (43)	•	
GAJ18A	18 (450)	2 1/16 (52)	•	
GAJ24A	24 (610)	2 7/16 (62)	•	
GAJS30A*	30 (778)	3 11/32 (85)		

B107.8M-1996 Sets shown include storage tray
 *SAE and Metric Scales on fixed jaw indicate wrench opening. Fixed jaw and handle forged in one piece to ensure maximum strength. Wrench is balanced to minimize wrist stress. Hole at handle end for tether or hanging.



BLPADJ703



BLPADJ404



GAJS30A

Composite Handle Adjustable Wrench Sets

Stock No.	A inches	B inches	Set Contains:	
			BADJC703	
BADJC6	6 7/16	1		•
BADJC8	8 9/16	1 3/16		•
BADJC10	10 1/2	1 3/8		•

Set shown includes storage tray



BADJC703

Adjustable Wrenches/Soft Grip

Stock No.	A inches (mm)	B inches (mm)	Set Contains:	
			BLPADJ404SG	
GAJ6SG	6 (160)	1 (25.4)		•
GAJ8SG	8 (210)	1 1/8 (29)		•
GAJ10SG	10 (260)	1 9/32 (32.8)		•
GAJ12SG	12 (310)	1 1/2 (38)		•

Set shown includes storage tray



BLPADJ404SG

Aluminum (for AN Fittings)

Stock No.	Color	A inches (mm)	B inches (mm)
ANADJ8	Red	8 (203)	AN #10 (1")

- Securely tighten expensive AN fittings to reduce risk of damage in aircraft, marine and industrial applications as well as for race and show cars
- Machined from aluminum billet to exacting tolerances and made from quality heat treated aluminum



ANADJ8



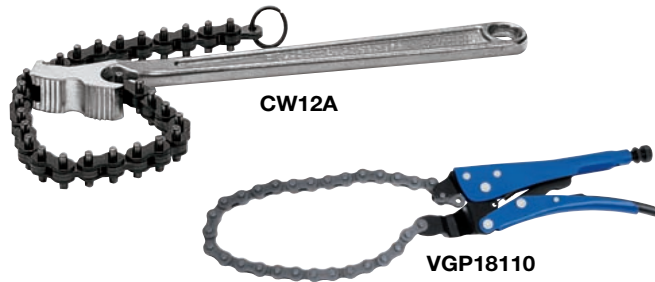
WARNING



• Read safety precautions on pages 594 to 597

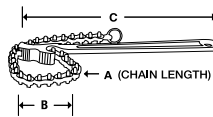
WRENCHES

Special Application



Chain Wrenches

Stock No.	A	B	C
CW12A	16	4	12
CW15A	19	5	15
CW24A	23	6	24



VGP18110 Locking Chain Wrench.

- Wraps around and holds irregular-shaped objects like oil filters and mufflers
- Chain capacity: up to 6 9/32" (160mm)
- Handle length: 9 27/32" (250mm)

VGP181101 Replacement Chain.

- Replacement chain for VGP18110



Strap Wrenches

BLPSTWR4 Strap Wrench.

- Adjusts to fit any circumference or irregular shape
- Won't scratch or damage surfaces
- Cushioned grip for maximum comfort
- Heavy duty construction for longer life
- 4" max diameter

BLPSTWR6 Strap Wrench.

- Same as BLPSTWR4 except features a 6" max diameter

BLPSTWRKT Strap Wrench Set.

- BLPSTWR4 and BLPSTWR6 (2 pcs)

YA826A Strap Wrench.

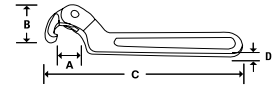
- For irregularly shaped objects 1" to 5" in diameter
- 22" long: 1" wide
- Urethane coated nylon strap has a tensile strength of 1,300 lbs
- 2" handle



Valve Persuader (Special order only.)

N6893B Valve Persuader Wrench.

- Persuader end provides extra leverage on valve wheels
- Hooks around valve stems and protrudes through spokes
- 15" long.



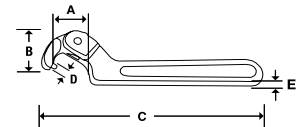
Adjustable Hook Spanners

- Services collars, rings, and bearings
- Single jaw and roll pin construction with industrial finish
- When using, make sure jaw hook is properly positioned

Set Contains:
304AHSK

Stock No.	A	B	C	D	
AHS300B	3/4-2	1/8	6 3/8	11/32	•
AHS301B	1 1/4-3	5/32	8 1/8	13/32	•
AHS304B	2-4 3/4	3/16	11 3/8	15/32	•
AHS307B	4 1/2-6 1/2	1/4	12 1/8	15/32	•

Set shown includes Kit bag



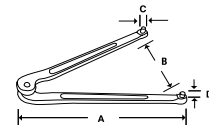
Adjustable Pin Spanners

- Removes rings, collars, and lock nuts
- When using, make sure jaw hook is properly aligned

Set Contains:
304APSK

Stock No.	A	B	C	D	E	
APS351B	3/4-2	1/8	6 3/8	1/8	11/32	•
APS357B	1 1/4-3	3/16	8 1/8	3/16	11/32	•
APS363B	2-4 3/4	1/4	11 3/8	1/4	15/32	•
APS366B	4 1/2-6 1/4	1/4	12 1/8	3/8	15/32	•

Set shown includes Kit bag



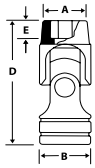
Adjustable Face Pin Spanners

For servicing seal and packing nuts on hydraulic cylinders.

Stock No.	A	B	C	D
AFS482B	6 3/8	2	3/16	5/32
AFS483B	8 1/4	3	1/4	3/16
AFS484B	10 3/8	4	5/16	1/4

HIGH PERFORMANCE/SPLINE

High Performance 1/4" Drive Flank Drive® Sockets





Snap-on® spline wrenching tools have been developed to service high tensile strength spline nuts and bolts widely used on both military and commercial aircraft.

Precise, radial spline teeth engage the fastener teeth over a wider area to minimize stress, and allow application of high torque to reduce risk of damage to the fastener or to the tool.

Chrome tools comply with Military Spec. MS-33787 and MIL-W-8983. (Industrial finish tools comply with performance specifications and differ only in finish.) The unique spline wrenching configuration can also be used on ordinary 6 and 12-point fasteners with an advantage similar to the Snap-on Flank Drive wrenching system.

Universal, inches

		A	B	D	E
1/4	TDHU81A	3/8	1/2	1 15/64	1/4
5/16	TDHU101A	29/64	1/2	1 23/64	9/32
3/8	TDHU121A	17/32	1/2	1 15/32	11/32





TDHU101A

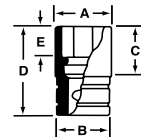
1/4" Drive Spline Sockets

Shallow, inches





TES10

		Stock No.	A	B	C	D	E
#7	7/32	TES7	11/32	27/64	29/64	59/64	7/32
#8	1/4	TES8	3/8	27/64	29/64	59/64	17/64
#9	9/32	TES9	7/16	3/16	37/64	59/64	19/64
#10	5/16	TES10	29/64	29/64	19/32	59/64	21/64
#12	3/8	TES12	35/64	35/64	19/32	59/64	23/64
#14	7/16	TES14	5/8	39/64	23/32	1 3/64	7/16



TESU10



Shallow Universal, inches

		Stock No.	A	B	D	E
#8	1/4	TESU8	3/8	1/2	1 15/64	17/64
#10	5/16	TESU10	29/64	1/2	1 23/64	21/64



Deep, inches



TEL10

		Stock No.	A	B	C	D	E
#7	7/32	TEL7	11/32	27/64	1 43/64	2	7/32
#8	1/4	TEL8	3/8	7/16	1 43/64	2	17/64
#10	5/16	TEL10	29/64	29/64	1 43/64	2	21/64

Deep, mm



		Stock No.	A	B	C	D	E
#7	7	TELM7A	10.4	10.9	36.3	50.8	7.3
#8	8	TELM8A	11.7	11.7	36.3	50.8	8.8

3/8" Drive Spline Sockets

Shallow, inches





FES200

		Stock No.	A	B	C	D	E
#12	3/8	FES120	35/64	21/32	19/32	1 3/64	23/64
#14	7/16	FES140	5/8	11/16	5/8	1 7/64	7/16
#16	1/2	FES160	23/32	3/4	39/64	1 7/64	29/64
#18	9/16	FES180	53/64	53/64	39/64	1 7/64	15/32
#20	5/8	FES200	57/64	57/64	45/64	1 15/64	35/64





FELM10A

Deep, mm

		Stock No.	A	B	C	D	E
#10	10	FELM10A	14.5	16.8	40.4	54.0	10.0

Deep, inches

		Stock No.	A	B	C	D	E
#12	3/8	FEL120	35/64	5/8	1 41/64	2 1/8	23/64
#14	7/16	FEL140	41/64	43/64	1 3/4	2 1/8	7/16
#16	1/2	FEL160	23/32	23/32	1 55/64	2 1/4	15/32
#18	9/16	FEL180	53/64	53/64	1 55/64	2 3/8	15/32
#20	5/8	FEL200	57/64	57/64	1 27/32	2 3/8	35/64



FEL200



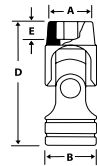
WARNING



• Do not use chrome or industrial finish sockets with impact drivers
• Read safety precautions on pages 594 to 597

HIGH PERFORMANCE/SPLINE

1/4" Drive Flank Drive® Sockets



Shallow Universal, inches

FESU160

			Stock No.	A	B	D	E
#12	3/8		FESU120	35/64	3/4	1 31/32	23/64
#14	7/16		FESU140	5/8	3/4	2 3/64	7/16
#16	1/2		FESU160	23/32	3/4	2 5/64	29/64
#18	9/16		FESU180	53/64	3/4	2 1/8	15/32

SAE Spec. MA1547A

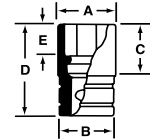


IMFES14

Impact, inches

			Stock No.	A	B	C	D	E
#14	7/16		IMFES14	3/4	3/4	5/8	1 7/64	7/16

1/2" Drive Spline Sockets



Shallow, inches

Set Contains: 308SES

			Stock No.	A	B	C	D	E	
#16	1/2		SES161	23/32	55/64	5/8	1 19/64	29/64	•
#18	9/16		SES181	53/64	55/64	5/8	1 19/64	15/32	•
#20	5/8		SES201	57/64	57/64	55/64	1 35/64	35/64	•
#22	11/16		SES221	31/32	31/32	27/32	1 35/64	37/64	•
#24	3/4		SES241	1 3/64	31/32	53/64	1 35/64	37/64	•
#26	13/16		SES261	1 1/8	1 1/8	13/16	—	37/64	•
#28	7/8		SES281	1 3/16	1 1/8	51/64	1 35/64	37/64	•
#30	15/16		SES301	1 17/64	1 17/64	49/64	1 35/64	37/64	•



SES181

3/4" and 1" Drive Spline Sockets



LES302

3/4" Drive Shallow, inches

			Stock No.	A	B	C	D	E
#24	3/4		LES242	1 3/64	1 3/8	1	1 51/64	41/64
#30	15/16		LES302	1 3/8	1 3/8	1 7/64	1 59/64	51/64
#34	1 1/16		LES342	1 35/64	1 35/64	1 35/64	1 35/64	1 35/64
#36	1 1/8		LES362	1 5/8	1 1/2	1 3/16	2 3/16	15/16



LES323

1" Drive Shallow, inches

			Stock No.	A	B	C	D	E
#32	1		LES323	1 29/64	1 55/64	1 35/64	2 7/16	53/64
#34	1 1/16		LES343	1 35/64	1 55/64	1 37/64	2 35/64	57/64
#38	1 3/16		LES383	1 23/64	1 63/64	1 25/32	2 51/64	1 1/64

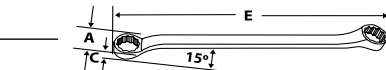
High Performance Flank Drive Wrenches



XDHM606



XDH605



GXDH1618A

Box, 15° Offset Heads, mm

Set Contains: XDHM606

mm	12	A	C	E	12
8-9	XDHM89	11.6-13.0	5.8-6.2	219.2	•
8-10	XDHM810	11.6-14.4	6.2-7.6	225.6	•
10-11	XDHM1011	14.4-15.6	7.6-8.5	246.3	•
10-12	XDHM1012	14.4-17.1	7.6-9.0	264.0	•
12-13	XDHM1213	17.1-18.7	9.0-9.0	277.6	•
12-14	XDHM1214	17.1-20.1	9.0-10.2	289.6	•
14-15	XDHM1415	20.1-21.5	9.8-10.9	313.1	•
14-17	XDHM1417	20.1-23.7	9.8-11.3	334.7	•
15-16	XDHM1516	21.5-22.6	10.9-0.9	334.8	•
17-19	XDHM1719	23.7-26.3	11.3-2.1	360.1	•
18-20	XDHM1820	24.9-27.3	12.1-3.6	384.0	•

Box, 15° Offset Heads, inches

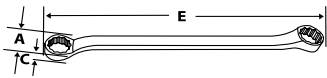
Set Contains: XDH605

	12	12	A	C	E	12
7/32 - 1/4	XDH78A	GXDH78A	11/32 - 3/8	13/64 - 15/64	7 15/64	•
1/4 - 5/16	XDH810B	GXDH810B	3/8 - 29/64	1/4 - 1/4	8 3/64	•
5/16 - 3/8	XDH1012B	GXDH1012B	29/64 - 35/64	1/4 - 19/64	8 7/8	•
3/8 - 7/16	XDH1214A	GXDH1214A	35/64 - 5/8	19/64 - 11/32	9 11/16	•
7/16 - 1/2	XDH1416A	GXDH1416A	11/32 - 3/4	11/32 - 23/64	10 7/16	•
1/2 - 9/16	XDH1618A	GXDH1618A	23/32 - 13/16	23/64 - 13/32	11 7/16	•
5/8 - 3/4	XDH2024A	—	57/64 - 1 3/64	7/16 - 31/64	13 9/32	•
11/16 - 13/16	XDH2226A	—	63/64 - 1 9/64	31/64 - 17/32	15 5/32	•
25/32 - 7/8	XDH2528	—	1 5/64 - 1 13/64	35/64 - 37/64	16 5/64	•

Aerospace Spec. AS954E

HIGH PERFORMANCE/SPLINE

Flank Drive® Wrenches



XDHFM606

Box, 0° Offset Heads, mm

Set Contains: XDHFM606

mm	12	A	C	E	12
6-7	XDHFM67	9.1-10.4	5.3-5.8	211.5	
8-9	XDHFM89	11.6-13.0	5.8-6.2	226.1	
8-10	XDHFM810	11.6-14.4	6.2-7.6	232.7	
10-11	XDHFM1011	14.4-15.6	7.6-8.5	253.7	•
10-12	XDHFM1012	14.4-17.1	8.5-9.0	272.2	
12-13	XDHFM1213	17.1-18.7	9.0-9.0	286.2	•
12-14	XDHFM1214	17.1-20.1	9.0-10.2	298.4	
13-14	XDHFM1314	18.7-20.1	9.0-9.7	299.2	
14-15	XDHFM1415	20.1-21.5	9.8-10.9	323.5	•
14-17	XDHFM1417	20.1-23.7	9.8-11.3	345.0	
15-16	XDHFM1516	21.5-22.6	10.9-0.9	347.5	•
17-19	XDHFM1719	23.8-26.3	11.3-2.1	372.1	•
18-20	XDHFM1820	25.0-27.3	12.1-3.6	395.7	•
21-22	XDHFM2122	28.8-30.6	13.7-4.6	421.2	
22-24	XDHFM2224	30.6-33.1	14.0-4.9	445.2	



XDHF605

Box, 0° Offset Heads, inches

Set Contains: XDHF605

mm	12	A	C	E	
1/4 - 5/16	XDHF810	13/32 - 15/32	7/32 - 1/4	8 5/16	•
3/8 - 7/16	XDHF1214	17/32 - 5/8	5/16 - 11/32	10 1/16	•
1/2 - 9/16	XDHF1618	23/32 - 13/16	11/32 - 13/32	11 3/4	•
5/8 - 3/4	XDHF2024	7/8 - 1 1/32	7/16 - 15/32	13 5/8	•
11/16 - 13/16	XDHF2226	31/32 - 1 5/32	15/32 - 17/32	15 5/8	•



XDHSFM1214

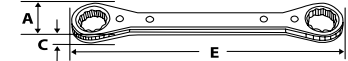
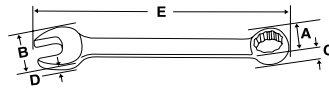
Box/Short Handle, 0° Offset Heads, mm

mm	12	A	C	E
8-10	XDHSFM810	12.1-14.9	6.2-7.6	162.9
10-12	XDHSFM1012	14.4-17.1	7.6-9.0	190.5
12-14	XDHSFM1214	17.1-20.1	8.5-10.2	208.8
17-19	XDHSFM1719	23.8-26.3	11.3-12.1	260.3

Spline Wrenches



OES18B



Combination/Short Handle, inches

Stock No.	A	B	C	D	E
8	13/32	17/32	1/8	5/32	4 1/2
#10	15/32	21/32	11/64	15/64	4 55/64
#12	17/32	25/32	13/64	17/64	5 7/32
#14	5/8	29/32	15/64	5/16	5 27/64
#16	23/32	1 1/16	1/4	5/16	5 47/64
#18	13/16	1 3/16	17/64	21/64	6 1/32
#20	7/8	1 5/16	9/32	11/32	6 5/16
#22	31/32	1 7/16	19/64	23/64	6 39/64
#24	1 1/16	1 9/16	5/16	3/8	6 29/32



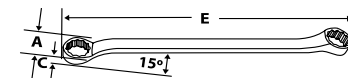
RES2630C

Ratcheting Box, inches

Stock No.	A	C	E	
8-#10	9/16-5/8	11/32	4 11/16	16-18
#12-#14	3/4-7/8	11/32	6 5/32	20-22
#18-#20	1 1/8-1 1/4	13/32	7 27/32	20-22
#26-#30	1 1/2-1 9/16	7/16	9 25/32	22-22



XDES1618A



15° Offset Heads, inches

Stock No.	A	C	E
7-#9	11/32-7/16	11/64-13/64	7 1/4
#8-#10	3/8-15/32	3/16-7/32	8 1/16
#12-#14	35/64-41/64	5/16-11/32	9 3/4
#16-#18	3/4-13/16	3/8-3/8	11 7/16
#18-#20	13/16-57/64	25/64-13/32	12 3/8
#22-#24	31/32-1 5/64	7/16-5/64	14 1/4
#26-#30	1 5/32-1 5/16	1/2-9/16	16 3/16
#28-#32	1 1/4-1 7/16	17/32-37/64	17



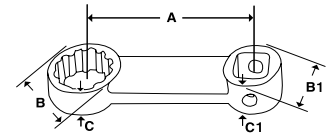
WARNING



- Do not use chrome or industrial finish hand sockets with impact drivers
- Read safety precautions on pages 594 to 597

HIGH PERFORMANCE/SPLINE

Spline Torque Adaptors



FRES10

3/8" Drive Spline, inches

#		Stock No.	A	B-B1	C-C1
7	7/32	FRES7	2	.375-.750	1/4 - 7/16
8	1/4	FRES8	2	.400-.750	1/4 - 7/16
9	9/32	FRES9	2	.445-.750	1/4 - 7/16
10	5/16	FRES10	2	.490-.750	1/4 - 7/16
12	3/8	FRES12	2	.590-.750	5/16 - 7/16
14	7/16	FRES14	2	.680-.750	5/16 - 7/16
16	1/2	FRES16	2	.745-.750	5/16 - 7/16
18	9/16	FRES18	2	.825-.750	3/8 - 7/16
20	5/8	FRES20	2	.895-.750	3/8 - 7/16
22	11/16	FRES22	2	.997-.750	1/2 - 7/16
24	3/4	FRES24	2	1.08-.750	9/16 - 7/16



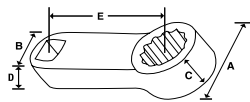
SRES30A

1/2" Drive Spline, inches

#		Stock No.	A	B-B1	C-C1	Set Contains:
#18	9/16	SRES18	3	.818-1.04	13/32 - 1/2	•
#20	5/8	SRES20	3	.900-1.04	1/2 - 1/2	•
#22	11/16	SRES22	3	.989-1.04	1/2 - 1/2	•
#24	3/4	SRES24	3	1.08-1.04	1/2 - 1/2	•
#26	13/16	SRES26	3	1.16-1.04	1/2 - 1/2	•
#28	7/8	SRES28	3	1.26-1.04	1/2 - 1/2	•
#30	15/16	SRES30A	3	1.26-1.04	37/64 - 37/64	

Set Contains: SRES306

3/8" Drive Torque Adaptors, Non-Spline



FRDHM18



205FRDH

Flank Drive® Torque Adaptors, mm

mm		A	B	C	D	E
10	FRDHM10	17.1	18.8	7.8	11.1	50.8
13	FRDHM13	21.0	18.8	7.8	11.1	50.8
15	FRDHM15	25.1	18.8	7.8	11.1	50.8
18	FRDHM18	22.4	18.8	13.3	11.1	50.8

Flank Drive Torque Adaptors, inches

		A	B	C	D	E	
5/16	FRDH101	.475	.750	1/4	7/16	2	•
3/8	FRDH121	.570	.750	5/16	7/16	2	•
7/16	FRDH141	.655	.750	11/32	7/16	2	•
1/2	FRDH161	.740	.750	11/32	7/16	2	•
9/16	FRDH181	.825	.750	3/8	7/16	2	•

Set Contains: 205FRDH

*Conventional hex

Set shown includes storage tray

SCREWDRIVERS

Power. Speed. Finesse.

Snap-on® Instinct® screwdrivers offer a unique combination of power, comfort and versatility in the most basic of hand tools.

- Multi-faceted design—Precision section cuts that give you the power, speed or finesse you want intuitively.
- Inner core—Maximizes torque between the handle and the blade.
- Middle layer—Tough, brightly-colored material provides impact and solvent resistance.
- Outer layer—Textured material gives you grip, comfort and torque—even in the greasiest shop environments.
- Hard or soft grip handle design—Choose from an ultra-comfortable soft grip or a grease-resistant hard grip.
- Five tip types—Snap-on screwdrivers are available in five different tips so you can handle all fastener types.

It's All About The Details.

Snap-on screwdrivers are built with exclusive features that give you superior durability and performance.

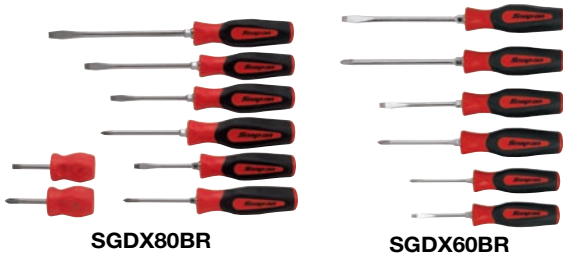
- Trans-Drive™—This unique ratcheting mechanism uses an advanced pawl design based on transmission ring gear principles to deliver outstanding power and torque.
- Shanks—Round shanks are made from a special alloy steel with fewer impurities to prevent chipping.



SCREWDRIVERS



Soft Grip Handle Combination Sets



SGDX80BR

SGDX60BR



SGDX80BO

SGDX60BO



SGDX80BG

SGDX60BG



SGDXL80BR



SGDXL80BO



SGDXL80BG



SGDXXL20BR

Standard Flat Tip/Phillips® Combination Screwdriver Sets

	Stock No.	Handle	Set Contains:					
			SGDX80BR	SGDX80BO	SGDX80BG	SGDX60BR	SGDX60BO	SGDX60BG
Flat Tip Standard	SND1*	Hard	•	•	•			
	SGD2B	Soft	•	•	•	•	•	•
	SGD4B	Soft	•	•	•	•	•	•
	SGD6B	Soft	•	•	•	•	•	•
Phillips Standard	SHDP22IR*	Hard	•	•	•			
	SGDP31IRB	Soft	•	•	•	•	•	•
	SGDP42IRB	Soft	•	•	•	•	•	•
	SGDP63IRB	Soft				•	•	•

*Does not include hex bolster.

Soft Grip Handle Colors



SGDX40BR



SGDX40BO



SGDX40BG

Cabinet, Mini-Tip, Extra Long Flat Tip/Phillips Screwdriver Sets

	Stock No.	Set Contains:							
		SGDXL80BR	SGDXL80BO	SGDXL80BG	SGDX40BR	SGDX40BO	SGDX40BG	SGDXXL20BR	
Flat Tip Cabinet	SGD146B	•	•	•					
	SGD480B	•	•	•					
	SGD4120B	•	•	•					
	SGD4160B	•	•	•					
Phillips Cabinet	SGDP61B	•	•	•					
	SGDP82B	•	•	•					
	SGDP122B	•	•	•					
Flat Tip Mini-Tip	SGD304B				•	•	•		
	SGD306B				•	•	•		
Phillips Mini-Tip	SGDP300B				•	•	•		
	SGDP301B				•	•	•		
Flat Tip Extra Long	SGD424B							•	
	SGDP242B							•	

Soft Grip Handle Colors



SCREWDRIVERS



Standard Length Flat Tip/Phillips® Combination Screwdriver Sets

	Stock No.	Set Contains:					
		SHDX80R	SHDX80O	SHDX80G	SHDX60R	SHDX60O	SHDX60G
		Red	Orange	Green	Red	Orange	Green
Flat Tip Standard	SHD1*	•	•	•			
	SHD2	•	•	•	•	•	•
	SHD4	•	•	•	•	•	•
	SHD6	•	•	•	•	•	•
	SHD8	•	•	•			
SHD10R							
Phillips Standard	SHD22IR*	•	•	•			
	SHD31IR	•	•	•	•	•	•
	SHD42IR	•	•	•	•	•	•
	SHD62IR						
	SHD63IR				•	•	•
SHD64IR							

*Does not include hex bolster.

Hard Grip Handle Colors



SHDX40R



SHDX40O



SHDX40G



SHDX80R



SHDX60R



SHDX80O



SHDX60O



SHDX80G



SHDX60G

Industrial Finish Shank, Cabinet and Mini-Tip Flat Tip/Phillips Screwdriver Sets

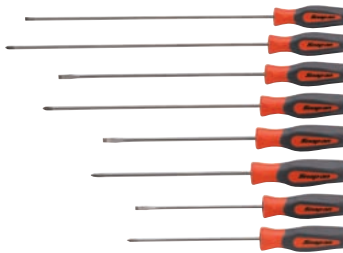
	Stock No.	Set Contains:				
		GSHDX80R	SHDXL80O	SHDX40R	SHDX40O	SHDX40G
		Red	Orange	Red	Orange	Green
Flat Tip Industrial Finish Shank	GSHD1*	•				
	GSHD2	•				
	GSHD4	•				
	GSHD6	•				
	GSHD8R	•				
Phillips Tip Industrial Finish Shank	GSHDP22IR*	•				
	GSHDP31	•				
	GSHDP42	•				
Flat Tip Cabinet	SHD146		•			
	SHD480		•			
	SHD4120		•			
	SHD4160		•			
Phillips Tip Cabinet	SHDP61		•			
	SHDP82		•			
	SHDP122		•			
	SHDP162		•			
Flat Tip Mini-Tip	SHD304			•	•	•
	SHD306			•	•	•
Phillips Tip Mini-Tip	SHDP300			•	•	•
	SHDP301			•	•	•

*Does not include hex bolster.

Hard Grip Handle Colors



GSHDX80R



SHDXL80O

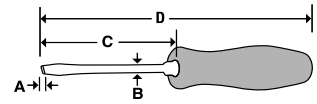


WARNING



- Do not use screwdrivers as prybars, chisels or punches
- Read safety precautions on pages 594 to 597

SCREWDRIVERS



Soft Handle Flat Tip INSTINCT™



SGD2BR



SGD480BR

Standard

Red	Orange	Green	A	B	C	D
SGD2BR	SGD2BO	SGD2BG	.035	7/32	2 13/16	6 15/16
SGD4BR	SGD4BO	SGD4BG	.040	1/4	3 15/16	8 27/32
SGD6BR	SGD6BO	SGD6BG	.050	5/16	5 15/16	10 27/32
SGD8BR	SGD8BO	SGD8BG	.055	3/8	7 29/32	13 13/32
SGD10BR	SGD10BO	SGD10BG	.055	3/8	10	15 7/16

Cabinet

Red	A	B	C	D
SGD146BR	.030	3/16	5 13/16	10 1/8
SGD153BR	.050	3/8	2 3/4	8 1/4
SGD480BR	.032	1/4	7 15/16	12 3/4
SGD4120BR	.032	1/4	11 15/16	16 3/4
SGD4160BR	.032	1/4	15 15/16	20 3/4



SGD306BR



SGD424BR

Mini Tip

Red	Orange	Green	A	B	C	D
SGD304BR	SGD304BO	SGD304BG	.020	1/8	3	5 7/8
SGD306BR	SGD306BO	SGD306BG	.030	3/16	3	5 7/8

Extra Long

Red	A	B	C	D
SGD424BR	.046	5/16	24	28 3/4

Hard Handle Flat Tip INSTINCT™



SHD6R



GSHD4R

Standard

Red	Orange	Green	A	B	C	D
SHD1R*	SHD10*	SHD1G*	.040	1/4	1 7/8	3 3/4
SHD2R	SHD20	SHD2G	.035	7/32	2 13/16	6 15/16
SHD4R	SHD40	SHD4G	.040	1/4	3 15/16	8 27/32
SHD6R	SHD60	SHD6G	.050	5/16	5 15/16	10 27/32
SHD8R	SHD80	SHD8G	.055	3/8	7 29/32	13 13/32
SHD10R	SHD100	SHD10G	.055	3/8	10	15 7/16

*Does not include hex bolster.

Industrial Finish Shank

Industrial/Red	A	B	C	D
GSHD1R*	.037	1/4	1 1/2	3 3/4
GSHD2R	.032	7/32	2 7/8	7
GSHD4R	.037	1/4	4	8 7/8
GSHD6R	.046	5/16	6	10 27/32
GSHD8R	.050	3/8	8	13 13/32

*Does not include hex bolster.



SHD304R



SHD4160O

Mini Tip

Red	Orange	A	B	C	D
SHD304R	SHD304O	.018	1/8	3	5 7/8
SHD306R	SHD306O	.030	3/16	3	5 7/8

Cabinet

Orange	A	B	C	D
SHD146O	.030	3/16	6	10 1/8
SHD480O	.032	1/4	8	12 3/4
SHD4120O	.032	1/4	12	16 3/4
SHD4160O	.032	1/4	16	20 3/4

Flat Tip/Pocket and Spark Test



SDD224O



SDD204O

Pocket

Stock No.	Type	Description	A	D
SDD204O	Pocket	Screwdriver w/ Pocket Clip	.025	4 3/4
SDD224O*	Pocket	Distributor Screwdriver	.025	4 3/4

*Magnet on handle.



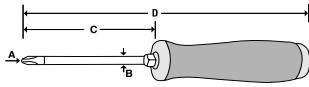
SDD214

Spark Test

Stock No.	Type	Description	A	D
SDD214	Spark Test	Screwdriver with Pocket Clip	1/40 x 1/8	5 1/8

SCREWDRIVERS

Soft Handle Phillips® **INSTINCT™**



Standard

Red	Orange	Green	A	B	C	D
SGDP31IRBR	SGDP31IRBO	SGDP31IRBG	#1	3/16	2 31/32	7 1/8
SGDP42IRBR	SGDP42IRBO	SGDP42IRBG	#2	1/4	3 31/32	8 7/8
SGDP63IRBR	SGDP63IRBO	SGDP63IRBG	#3	5/16	5 29/32	10 13/16
SGDP64IRBR	SGDP64IRBO	SGDP64IRBG	#4	3/8	6	11 1/2



SGDP42IRBR

Cabinet Type

Red	A	B	C	D
SGDP61BR	#1	3/16	6	10
SGDP82BR	#2	1/4	8	13
SGDP122BR	#2	1/4	12	17
SGDP162BR	#2	1/4	16	21



SGDP82BR

Mini Tip

Red	Orange	Green	A	B	C	D
SGDP300BR	SGDP300BO	SGDP300BG	#0	1/8	3	6
SGDP301BR	SGDP301BO	SGDP301BG	#1	3/16	3	6



SGDP300BR

Extra Long

Red	A	B	C	D
SGDP242BR	#2	5/16	24	28 3/4



SGDP242BR

Hard Handle Phillips® **INSTINCT™**

Hard Handle Phillips

Red	Orange	Green	A	B	C	D
SHDP22IRR*	SHDP22IRO*	SHDP22IRG*	#2	1/4	1 5/8	3 1/2
SHDP31IRR	SHDP31IRO	SHDP31IRG	#1	3/16	2 31/32	7 1/8
SHDP42IRR	SHDP42IRO	SHDP42IRG	#2	1/4	3 31/32	8 7/8
SHDP62IRR	SHDP62IRO	—	#2	1/4	6	10 13/32
SHDP63IRR	SHDP63IRO	SHDP63IRG	#3	5/16	5 29/32	10 13/16
SHDP64IRR	SHDP64IRO	SHDP64IRG	#4	3/8	6	11 1/2

*Does not include hex bolster.



SHDP63IRR

Standard/Industrial Finish Shank

Industrial/Red	A	B	C	D
GSHDP22IRR*	#2	1/4	1 1/2	3 3/4
GSHDP31R	#1	3/16	3	7 1/4
GSHDP42R	#2	1/4	4	8 7/8

*Does not include hex bolster.



GSHDP31R

Cabinet Type

Chrome/Orange	A	B	C	D
SHDP610	#1	3/16	6	10 1/4
SHDP820	#2	1/4	8	12 7/8
SHDP1220	#2	1/4	12	16 3/4
SHDP1620	#2	1/4	16	20 3/4



SHDP820



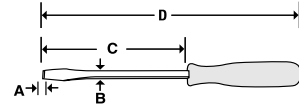
WARNING



• Do not use screwdrivers as prybars, chisels or punches
• Read safety precautions on pages 594 to 597

SCREWDRIVERS

Phillips®/Instinct® Hard Handle/Electronic Service



Mini Tip

SHDP300R

- See flat tip mini drivers and 4 piece combination Phillips/flat tip sets

Orange	Red	A	B	C	D
SHDP3000	SHDP300R	#0	1/8	3	5 13/16
SHDP3010	SHDP301R	#1	3/16	3	5 13/16



SHDP2040

Pocket

Orange	A	D
SHDP2040	#1	4 7/8

Soft Grip-Blue-Point®



BSGD7



BSGDP52



BSGD70

Flat Tip

Stock No.	Tip Size	Blade Length, inches	Length, inches
BSGD3	1/8	3	6 1/2
BSGD4	7/32	5	9
BSGD5	1/4	6	10 1/4
BSGD6	5/16	7	11 1/4
BSGD7	3/8	8	12 3/8

Standard Phillips

Stock No.	Tip Size	Blade Length, inches	Length, inches
BSGDP41	#1	4	8
BSGDP52	#2	5	9 1/4

Soft Grip Combination Sets

Set Contains: BSGD70

	Stock No.	
Flat Tip	BSGD3	•
	BSGD4	•
	BSGD5	•
	BSGD6	•
Phillips	BSGD7	•
	BSGDP41	•
	BSGDP52	•

Electronic Service



SSDEP61C

Electronic Thin Blade

- Recessed ends for fingertip pressure

Stock No.	A	B	C	D
SSDE42C	.018 x 1/8	1/8	2	5 5/16
SSDE43C	.018 x 1/8	1/8	3	6 5/16
SSDE44C	.018 x 1/8	1/8	4	7 5/16
SSDE46C	.018 x 1/8	1/8	6	9 5/16
SSDE48C	.018 x 1/8	1/8	8	11 5/16
SSDE63C	.030 x 3/16	3/16	3	9 9/16
SSDE64C	.028 x 3/16	3/16	4	7 9/16
SSDE66C	.030 x 3/16	3/16	6	6 9/16
SSDE68C	.028 x 3/16	3/16	8	11 9/16
SSDE610C	.030 x 3/16	3/16	10	13 9/16
SSDEP30C	#0	1/8	3	6 3/8
SSDEP31C	#1	3/16	3	6 5/8
SSDEP60C	#0	1/8	6	9 3/8
SSDEP61C	#1	3/16	6	9 5/8
SSDEP101C	#1	3/16	10	13 5/8



SSDE33C

Potentiometer Adjuster

Stock No.	A	B	C	D
SSDE33C	.015 x 3/32	3/32	3	5 9/16



SGDE70

Electronic Miniature

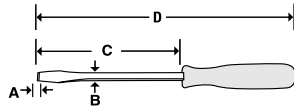
- Features a rotating handle mechanism that makes them ideal for precise, detailed electronics work

Set Contains: SGDE70

Stock No.	A	B	C	D	
SGDE215	1.5	3/32	2	5 3/4	•
SGDE220	2.0	3/32	2	5 3/4	•
SGDE225	2.5	3/32	2	5 3/4	•
SGDE230	3.0	1/8	2	5 3/4	•
SGDEP200	#00	1/8	2	5 3/4	•
SGDEP20	#0	1/8	2	5 3/4	•
SGDEP21	#1	3/16	3	6 1/2	•

SCREWDRIVERS

Electronic Service



Torx® Electronic Miniature

- Rotating handle mechanism ideal for precise, detailed electronics work
- Blades manufactured to exacting tolerances from special heat treated alloy steel
- Blade tip finish is industrial black



SGDET70



SGDEH70

Set Contains:

Stock No.	A	B	C	D	
SGDET26	T6	1/8	2	5 1/2	•
SGDET27	T7	1/8	2	5 1/2	•
SGDET28	T8	1/8	2	5 1/2	•
SGDET29	T9	1/8	2	5 1/2	•
SGDET210	T10	1/8	2	5 1/2	•
SGDET215	T15	3/16	3	6 1/2	•
SGDET220	T20	3/16	3	6 1/2	•

Hex/Miniature

Set Contains:

Stock No.	A	B	C	D	
SGDEH304	1/16	3/32	2	5 1/2	•
SGDEH306	3/32	1/8	3	6 1/2	•
SGDEH307	7/64	3/16	3	6 1/2	•
SGDEH315	1.5 mm	3/32	2	5 1/2	•
SGDEH320	2.0 mm (5/64)	3/32	2	5 1/2	•
SGDEH325	2.5 mm	3/32	3	6 1/2	•
SGDEH330	3.0 mm	3/16	3	6 1/2	•

Hex Tip/Pozidriv® Instinct® Hard Handle

Pozidriv/Hard Instinct Handle

- Walls on tips are less tapered than Phillips® tips
- Tips have wedges for a tight fit on Pozidriv fasteners
- Phillips tip drivers should not be used on Pozidriv fasteners (and vice versa), as they will ride out of the recess and round tool and screw recess corners

Set Contains:

Stock No.	A	B	C	D	
SHDZ22R	#2	1/4	1 1/2	3 3/4	
SHDZ31R	#1	3/16	3	7 1/4	•
SHDZ42R	#2	1/4	4	8 7/8	•
SHDZ63R	#3	5/16	6	10 7/8	•
SHDZ84R	#4	3/8	8	13 7/16	•



SHDZ40R

Torx Tip/Instinct Soft Handle

Standard

- Designed for internal type Torx fasteners used in automotive and appliance industries

Set Contains:

Stock No.	A	B	C	D		
SGDTX38BR	T8	3/16	3	7 1/4	•	
SGDTX310BR	T10	3/16	3	7 1/4	•	
SGDTX315BR	T15	3/16	3	7 1/4	•	•
SGDTX320BR	T20	3/16	3	7 1/4	•	•
SGDTX425BR	T25	1/4	4	8 7/8	•	•
SGDTX427BR	T27	1/4	4	8 7/8	•	•
SGDTX430BR	T30	1/4	4	8 7/8	•	•
SGDTX640BR	T40	5/16	6	10 7/8	•	
SGDTX645BR	T45	5/16	6	10 7/8	•	



SGDTX90BR



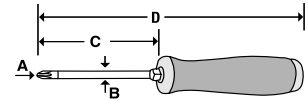
WARNING



- Do not use screwdrivers as prybars, chisels or punches
- Read safety precautions on pages 594 to 597

SCREWDRIVERS

Torx® Tip/Instinct® Soft Handle



SGTX40BR



SGTX40BG



SGTX40BO



SGDTRX50BR

Torx Mini Tip

- Designed for internal type Torx fasteners used in automotive and appliance industries

Set Contains:

Stock No.	Color	A	B	C	D			
SGDT308BR	Red	T8	3/16	3	5 7/8	•		
SGDT308BG	Green	T8	3/16	3	5 7/8			•
SGDT308BO	Orange	T8	3/16	3	5 7/8		•	
SGDT310BR	Red	T10	3/16	3	5 7/8	•		
SGDT310BG	Green	T10	3/16	3	5 7/8			•
SGDT310BO	Orange	T10	3/16	3	5 7/8		•	
SGDT315BR	Red	T15	3/16	3	5 7/8	•		
SGDT315BG	Green	T15	3/16	3	5 7/8			•
SGDT315BO	Orange	T15	3/16	3	5 7/8		•	
SGDT320BR	Red	T20	3/16	3	5 7/8	•		
SGDT320BG	Green	T20	3/16	3	5 7/8			•
SGDT320BO	Orange	T20	3/16	3	5 7/8		•	



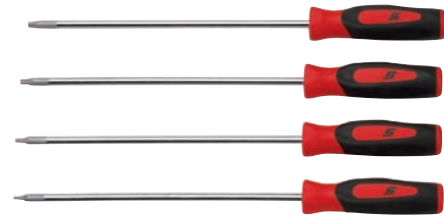
SGDTRXL70BR

Tamper Resistant

- Hole in the end of each bit tip fits over center peg in Torx tamper-resistant fasteners

Set Contains:

Red	A	B	C	D	
SGDTRX315BR	T15	3/16	3	7 1/4	•
SGDTRX320BR	T20	3/16	3	7 1/4	•
SGDTRX425BR	T25	3/16	4	8 7/8	•
SGDTRX427BR	T27	7/32	4	8 7/8	•
SGDTRX430BR	T30	1/4	4	8 7/8	•



SGTRXL40BR

Tamper Resistant/Long

- Hole in the end of each bit tip fits over center peg in Torx tamper-resistant fasteners

Applications:

- VW/Audi door and interior trim panels plus headlight assemblies
- GM engine sensors/components and steering column multi switches

Set Contains:

Red	A	B	C	D	
SGDTRX608BR	T8	3/16	6	10	•
SGDTRX610BR	T10	3/16	6	10	•
SGDTRX615BR	T15	3/16	6	10	•
SGDTRX620BR	T20	3/16	6	10	•
SGDTRX825BR	T25	1/4	8	12 3/4	•
SGDTRX827BR	T27	1/4	8	12 3/4	•
SGDTRX830BR	T30	1/4	8	12 3/4	•

Tamper Resistant/Mini Tip

- Hole in the end of each bit tip fits over center peg in Torx tamper-resistant fasteners

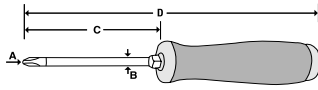
Applications:

- VW/Audi door and interior trim panels plus headlight assemblies

Set Contains:

Red	A	B	C	D	
SGDTR608B	T8	3/16	6	8 7/8	•
SGDTR610B	T10	3/16	6	8 7/8	•
SGDTR615B	T15	3/16	6	8 7/8	•
SGDTR620B	T20	3/16	6	8 7/8	•

SCREWDRIVERS



Torx® Tip/Instinct® Hard Handle

Torx Standard

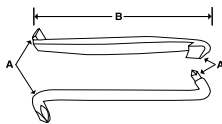
Stock No.	A	B	C	D	
SHDTX380	T8	3/16	3	7 1/4	•
SHDTX3100	T10	3/16	3	7 1/4	•
SHDTX3150	T15	3/16	3	7 1/4	•
SHDTX3200	T20	3/16	3	7 1/4	•
SHDTX4250	T25	1/4	4	8 7/8	•
SHDTX4270	T27	1/4	4	8 7/8	•
SHDTX4300	T30	1/4	4	8 7/8	•
SHDTX6400	T40	5/16	6	10 7/8	•
SHDTX6450	T45	5/16	6	10 7/8	•

SHDTX900
Set Contains:



SHDTX900

Special Application



ST50A

90° Offset Screwdrivers

Stock No.	Tip	A	B	
120SSDP	Phillips®	#1 and #2	4 3/4	•
340SSDP	Phillips	#3 and #4	6	•
10SSD	Flat Tip	.040 x 1/4	4	•
20SSD	Flat Tip	.050 x 5/16	4 11/16	•
30SSD	Flat Tip	.060 x 3/8	5 1/2	•

ST50A
Set Contains:



S6180

Dzus® Fastener

S6180.

- For Dzus type fasteners used in aircraft and auto racing applications
- Blade is 2" long
- Overall length is 6 13/32"



SDDD101



SDDD41



CM6551

Reversible Blade Screwdriver and Sets

SDDD101 Reversible Blade

Screwdriver Set. Includes 4 reversible bits for 8 different tip sizes:

- 1/4" and 3/16" flat tip
- #1 and #2 Phillips tip
- T15, T20, T25 and T30 Torx tip
- Individual 1/4" and 5/16" nut drivers
- Meets all ASME B107 torque specifications
- Durable, classic hard handle is textured for a sure grip

SDDD41 Reversible Blade

Screwdriver Set. Includes 2 reversible bits for 4 different tip sizes:

- 9/32" and 13/64" flat tip
- #1 and #2 Phillips tip
- Meets all ASME B107 torque specifications
- Durable, classic hard handle is textured for a sure grip

Miniature Screwdriver/Awl Set

CM6551 Miniature Screwdriver Set.

Includes 4 blades in the following flat tip sizes:

- .055", .070", .080", .100"
- Includes awl and plastic pouch



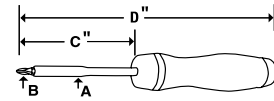
WARNING



- Do not use screwdrivers as prybars, chisels or punches
- Read safety precautions on pages 594 to 597

SCREWDRIVERS

Ratcheting/Soft Grip



Red, orange or green - pick your preference with a complete screwdriver from the Soft Grip Ratcheting Screwdriver System. Perfectly matched combinations of magnetic bit holding shanks and handles means a perfect match to the technician's particular requirements.



SGDMRCE44



SGDMRCE44O



SGDMRCE44G



SGDMRC44B



SGDMRC44BO



SGDMRC44BG



SGDMRC11A



SGDMRC11O



SGDMRC11G



SGDMRC1A



SGDMRC4AO



SGDMRCE4G

All Handles

- Soft, solvent-resistant cover material to provide a positive gripping surface
- "Thumbs up" forward/reverse lever for quick directional changes
- High quality stainless steel shanks with knurling
- Contoured thumb stop at base of handle helps user apply maximum pressure to the fastener
- Smooth ratcheting mechanism
- Use with any SGDMRC series interchangeable blades and shanks
- 1/4 turn twist cap for quick access to bit storage in handle
- Ergonomic handle shape provides comfort and control (design patent 421,888)
- Comfort crown of handle cap provides low friction surface for palm while turning

Standard Handle

- Cap functions as a bit holder when working in tight quarters
- Handle stores up to 10 bits

5 Position Soft Grip

- Features 0°, 30° and 60° locking positions at the push of a button (U.S. patent 7,213,491 - Ratcheting Tool; U.S. Patent 7,481,135 - Hand Tool with Adjustable Head)
- Designed for right or left hand operation
- Ergonomic handle shape provides comfort and control (design patent 421,888)
- Cap functions as a bit holder for storage of up to 7 bits
- TransDrive™ ratchet mechanism provides twice the strength of previous mechanism (U.S. Patent 7213491)



Ratcheting Soft Grip

	Stock No.	Handle	Shank	Flat Tip Bit	Phillips® Bit	C	D
5-Position	SGDMRCE44	SGDMRCE4	SGDMRC1-10	SDM213B	SDM222IRB	2 5/8	8 1/2
Standard	SGDMRC44B	SGDMRC4	SGDMRC4-40	SDM213B	SDM222IRB	3 7/8	9 3/4
	SGDR44C*	—	—	SDM213B	SDM222IRB	3 3/4	9 19/32
Stubby	SGDMRC11A	SGDMRCA1	SGDMRC1-10	—	—	2	4 1/2

Soft grip ratcheting screwdriver features a non-magnetic, fixed steel shank plus bit ring retainer, making the SGDR44C ideal for FOD, avionic and electronic applications. Includes one flat tip and one Phillips® Bit.



Handles

Stock No.	Handle	Color	A
SGDMRC1A	Stubby	Red	2 5/8
SGDMRC1AO	Stubby	Orange	2 5/8
SGDMRC1AG	Stubby	Green	2 5/8
SGDMRC4A	Standard	Red	6
SGDMRC4AO	Standard	Orange	6
SGDMRC4AG	Standard	Green	6
SGDMRCE4	5 Position	Red	5 7/8
SGDMRCE4O	5 Position	Orange	5 7/8
SGDMRCE4G	5 Position	Green	5 7/8

SCREWDRIVERS

Ratcheting/Hard Handle

Standard Handle

Stock No.	Handle	Color	C	D
SSDMR4B	Standard	Black	3 25/32	8 3/4
SSDMR4BO	Standard	Orange	3 25/32	8 3/4

Stock No.	Handle	Color	C	D
SDDMS1*	Stubby	Black	7/8	2 5/8
SSDMR1A	Stubby	Black	1 15/16	4 5/16
SSDMR1AO	Stubby	Orange	1 15/16	4 5/16

* SDDMS1 is non-ratcheting
Includes SDM211B (3/16") and SDM213B (9/32") flat tip bits, SDM221IRB (#1) and SDM222IRB (#2) Phillips® ACR® bits plus SDMT15D (T15) Torx® bit

RKRSSDMR4AC Service Kit. Order for servicing all the above drivers except SDDMS1.

Stock No.	Handle	Color	C	D
SSDMR8A	Long	Black	7 7/16	12 15/16
SSDMR8AO	Long	Orange	7 7/16	12 15/16

T-Handle

Stock No.	Handle	Color	A	B
SSDMRT4R	Standard	Red	3 7/8	5 27/32
SSDMRT4O	Standard	Orange	3 7/8	5 27/32

Stock No.	Handle	Color	A	B
SSDMRT1R	Stubby	Red	2	3 15/16
SSDMRT1O	Stubby	Orange	2	3 15/16

Stock No.	Handle	Color	A	B
SSDMRT8A	Long	Black	8	10

Includes the following bit: SDM222IRB #2 Phillips ACR

RKRSSDMR4AC Service Kit. Order for servicing all the above drivers.

BSGDMR6 Ratcheting Screwdriver – Blue-Point®

- 45 tooth ratcheting mechanism ensures precise positioning and movement
- Bits are stored in a bit magazine inside the handle
- Includes 6 1/4" hex bits: flat tip (4.5 and 5.5), Phillips (#1 and #2) plus Torx (T15 and T20)
- Bits are consumable and carry no warranty

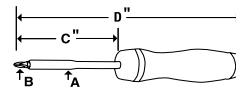
Interchangeable Shanks

- Use with handles in the soft grip ratcheting screwdriver system
- Neodymium magnet in shank holds bit securely (U.S. Patent RE36,797)
- 1/4" square drive shanks in standard and flexible styles allow attachment of a wide range of 1/4" drive sockets and accessories

Stock No.	Description	C	D
SGDMRC1-10	Magnetic Bit Holder	3 1/4	2
SGDMRC4-40	Magnetic Bit Holder	5	3 3/4
SGDMRC4-80	Magnetic Bit Holder	9	7 3/4
SGDMRC4-TM4	1/4" Sq. Dr. Shank	5	3 3/4
SGDMRC4-TMF4	Flexible 1/4" Sq. Dr. Shank	6 1/4	5
SGDMRC4-C6	Composite (Non-Conductive) Magnetic Bit Holder	7 1/4	6
SGDMRC-SP	1/4" Speeder Shank	13	—

SGDMRC-SP Speeder Shank.

- Ideal for aviation technicians and other applications where accessibility is limited



SSDMR4B



SDDMS1



SSDMR8A



SSDMR4BO



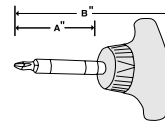
SSDMR1AO



SSDMR1A



SSDMR8AO



SSDMRT4R



SSDMRT4O



SSDMRT1R



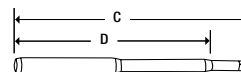
SSDMRT1O



SSDMRT8A



BSGDMR6



SGDMRC4-80



SGDMRC4-40



SGDMRC4-TM4



SGDMRC1-10



SGDMRC4-TMF4



SGDMRC4-C6



SGDMRC-SP



WARNING



- Do not use screwdrivers as prybars, chisels or punches
- Read safety precautions on pages 594 to 597

SCREWDRIVERS

Ratcheting/Soft Handle



SGDMRC60



SGDMRCT60

Interchangeable Blades

- Non magnetic blade is ideal for electronics applications

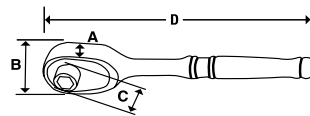
Stock No.	Description	Size	D	Set Contains:
SGDMRC4-F7	Flat Tip	7/32	5 1/8	•
SGDMRC4-F8	Flat Tip	1/4	5 1/8	•
SGDMRC4-F10	Flat Tip	5/16	5 1/8	•
SGDMRC4-P1	Phillips® Tip	#1	5 1/8	•
SGDMRC4-P2	Phillips Tip	#2	5 1/8	•
SGDMRC4-P3	Phillips Tip	#3	5 1/8	•

SGDMRC60

Interchangeable Torx® Blades

Stock No.	Size	D	Set Contains:
SGDMRC-T10	T10	5 1/8	•
SGDMRC-T15	T15	5 1/8	•
SGDMRC-T20	T20	5 1/8	•
SGDMRC-T25	T25	5 1/8	•
SGDMRC-T27	T27	5 1/8	•
SGDMRC-T30	T30	5 1/8	•

SGDMRCT60



TM936SET



SHORTORX

Magnetic Ratchet and Bit Set

TM936SET Magnetic Bit and Ratchet Set.

- Ideal for accessing fasteners in tight areas
- Ratchet in set features magnetic retention for 1/4" hex bits

Includes:

- SDM211B (3/16")
- SDM213B (9/32") flat tip bits
- SDM221IRB (#1) and SDM222IRB (#2) Phillips® ACR® bits
- SDMT15D (T15) Torx bit

Stock No.			A	B	C	D
TM936SET	30	12°	7/16	27/32	1 3/4	4 1/2

RKRTM936 Ratchet Repair Kit.

Repair kit for TM936SET ratchet and bit set.

Torx Bit Set

DHW1 Reversible Ratcheting Bit Wrench.

- Overall length: 10.75" (273mm)
- Low head clearance for access to tight spots
- Internal ring in square drive provides more secure bit retention than magnetic models

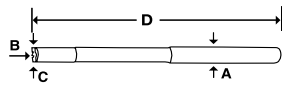
Stock No.	Description	Size
SDMTAS15	T15 Torx Bit	5/16" Hex Size
SDMTAS20	T20 Torx Bit	5/16" Hex Size
SDMTAS25	T25 Torx Bit	5/16" Hex Size
SDMTAS27	T27 Torx Bit	5/16" Hex Size
SDMTAS30	T30 Torx Bit	5/16" Hex Size
SDMTAS40	T40 Torx Bit	5/16" Hex Size
SDMTAS45	T45 Torx Bit	5/16" Hex Size

Torx Bit Set.

- BMW: under dash and sensors in engine compartment
- Cadillac: water pumps
- Cadillac CTS, 3.2L, 2003-2004/Cadillac Catera 3.0L, 1997-2001: oil drain plug
- Ford Escort, early model: door hinge bolts
- GM: fender applications
- Jeep Cherokee, 1997-1998: door hinge bolts
- VW, prior to 1999: exterior and interior door hinge bolts

SCREWDRIVERS

Ratcheting Sets



Aluminum Starters

- Spring loaded steel bits grip screw slot wall to withstand an 8 lb. pull
- Bits release automatically when applied torque reaches a certain level

Stock No.	A	B	C	D
SS5A	5/16	Flat Tip	.032 x 9/32	5
SSM3*	5/16	Flat Tip	.032 x 9/32	2 1/2
SSM5A*	5/16	Flat Tip	.032 x 9/32	5 1/4
SSM6A*	9/32	Phillips	#3	5 1/2
GA260A	9/32	Phillips	#2	2 5/8
GA261B	9/32	Phillips	#3	5 5/8
GA199A	9/32	Combination	.032 x 9/32, #2	5 7/8

*Aluminum handle with magnet.



Soft Grip Ratcheting Screwdriver Sets

- SGDMRC starter sets include standard handle, medium and long magnetic bit holding shanks plus 2 flat tip bits, 2 Phillips bits and one Torx bit to meet most basic job requirements

SGDMRC103A Red Ratcheting Screwdriver Set

Stock No.	Description
SGDMRC4	Ratcheting Handle
SGDMRC4-40	Magnetic Shank/Bit Holder
SGDMRC4-80	Magnetic Shank/Bit Holder
SDM211B	3/16" Flat Tip Bit
SDM213B	9/32" Flat Tip Bit
SDM221IRB	#1 Phillips ARC bit
SDM222IRB	#2 Phillips ARC bit
SDMT15D	T15 Torx bit
PB146A	Storage Case

SGDMRC103AO Orange Ratcheting Screwdriver Set.

- Same as SGDMRC103A set except has SGDMRC40 orange ratcheting handle

SGDMRC103AG Green Ratcheting Screwdriver Set.

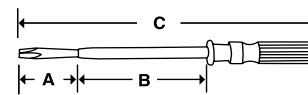
- Same as SGDMRC103A set except has SGDMRC4AG green ratcheting handle



WARNING



- Do not use screwdrivers as prybars, chisels or punches
- Read safety precautions on pages 594 to 597



Handle Style Starters

Start or set slotted screws in tight spaces.

Stock No.	A	B	C
YA355	1/4	6	8 5/8
YA356	9/16	6	9 3/4



SSR7

SSR7 Recessed Screw and Nut Starter.

- Round aluminum body with knurled gripping area in center
- Designed to accommodate the most popular sizes of recessed screws: Torx®, Socket Head, Phillips®, etc.
- Opposite end handles #3, #4, #6, #8 and #10 nuts
- Overall length is 6 3/4"



SGDMRC108AO

SGDMRC108AO Orange Master Ratcheting Screwdriver Set

Stock No.	Description
SGDMRC1	Ratcheting Handle
SGDMRC4	Ratcheting Handle
SGDMRC1-10	Magnetic Shank/Bit Holder
SGDMRC4-40	Magnetic Shank/Bit Holder
SGDMRC4-80	Magnetic Shank/Bit Holder
SGDMRC4-TM4	1/4" Drive Shank
SDM400A	Master Bit Kit
PB146A	Storage Case

SGDMRC108A Red Ratcheting Screwdriver Set.

- Same as SGDMRC108AO set except has SGDMRC1A and SGDMRC4A ratcheting handles

SGDMRC108AG Green Ratcheting Screwdriver Set.

- Same as SGDMRC108A set except has SGDMRC1AG and SGDMRC4AG green ratcheting handles

SCREWDRIVERS

Ratcheting Offset–Blue-Point®



YA480B

YA480B Right Angle Ratcheting Screwdriver. Includes one each:

- Flat Tip, #2 Phillips®, #2 Pozidriv® bits

BTWSMPK Miniature Ratcheting Handle Set. Includes:

- BTWSM, BTWOS and BTWROS mini ratcheting handles
- SDM213B (9/32") flat tip bit
- SDM213B (9/32") flat tip bit
- SDM221IRB (#1)
- SDM222IRB (#2) Phillips ACR® bits
- SDMT150D (T15) Torx® bit



BTWSMPK

BTWOSK Miniature Ratcheting Handle Set. Includes:

- BTWOS mini ratcheting handle
- SDM213B (9/32") flat tip bit
- SDM221IRB (#1)
- SDM222IRB (#2) Phillips ACR bits
- SDMT150D (T15) Torx bit

BTWS Miniature Ratcheting Handle. Straight.

BTWOS Miniature Ratcheting Handle. 25° Offset.



BTWOSK

BTWROS Miniature Ratcheting Handle. 25° Reverse Offset.

Miniature Ratcheting Handle Features:

- 72 tooth ratchet engagement with only 5° movement to engage the next tooth
- 25° offset handles help avoid knuckle injuries
- Magnetic holder keeps bits in place

Nut Drivers



NDD1070A

Set Contains:

Hard Handle, inches

Socket Length	Stock No.	Color	A*	B	
1/4	NDD108AR	Red	19/64	6 21/32	•
9/32	NDD109AO	Orange	23/64	6 21/32	•
5/16	NDD110AY	Yellow	23/64	6 21/32	•
11/32	NDD111AG	Green	25/64	6 21/32	•
3/8	NDD112AB	Blue	25/64	7 13/32	•
7/16	NDD114ABR	Brown	33/64	7 13/32	•
1/2	NDD116AR	Red	33/64	7 15/16	•

*Socket Length



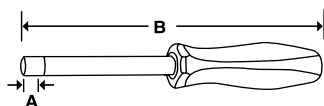
NDDM1070

Set Contains:

Hard Handle, mm

Socket Length	Stock No.	A*	B	
6	NDDM60	7.5	169.1	•
7	NDDM70	9.1	169.1	•
8	NDDM80	9.9	169.1	•
9	NDDM90	9.9	188.0	•
10	NDDM100	13.1	188.0	•
11	NDDM110	13.1	188.0	•
12	NDDM120	13.1	202	•

*Socket Length



102NDL10

Locking Nut Drivers–Blue-Point

- Tools lock onto hex screws
- Great for hose clamp and other hard-to-reach applications

Set Contains:

Stock No.	Size	Length		
NDL1410	1/4	10	•	
NDL51610	5/16	10	•	
NDLM610	6mm	10		•
NDLM710	7mm	10		•



Master Bit Set (1/4" Hex) SDM400A Master Bit Kit.

SDM400A

- 37 pc. set includes:
 - 1/4" hex shank bits
 - SDM11 magnetic insert bit holder for quick hex bit changes when using cordless drill or screw gun
 - TMBS8A 1/4" hex magnetic socket for use with 1/4" drive handles
 - GMB3042 1/4" power hex to square adaptor
- Includes all bits below:

	Stock No.	#
Hex Bit	SDM2704D	1/16
	SDM2705D	5/64
	SDM2706D	3/32
	SDM2707D	7/64
	SDM2708D	1/8
	SDM2709D	9/64
	SDM2710D	5/32
	SDM2712D	3/16
	SDM2714D	7/32
	SDM2716D	1/4
Phillips® ACR® Bit	SDM221IRB	#1
	SDM222IRB	#2
	SDM223IRB	#3
Phillips Bit	SDM222CZ	#2
Torx® Bit	SDMT8D	T8
	SDMT9D	T9
	SDMT10D	T10
	SDMT15D	T15
	SDMT20D	T20
	SDMT25D	T25
	SDMT27D	T27
	SDMT30D	T30
	SDMT40D	T40
	Pozidriv® ACR Bit	SDM251IRC
SDM252IRB		#2
SDM253IRC		#3
Scrulox® Bit	BTS0	#0
	BTS1	#1
	BTS2	#2
	BTS3	#3



SDM32KT

Ball Hex Bit Sets (1/4" Hex)

SDM32KT Ball Hex Set-Blue-Point®.

- 1/4" shank bits for use in difficult access applications where fastener cannot be approached straight on
- 32 pc. set

	Stock No.	#
Metric	SDMBMH2702	2mm
	SDMBMH2702.5	2.5mm
	SDMBMH2703	3mm
	SDMBMH2704	4mm
	SDMBMH2705	5mm
	SDMBMH2706	6mm
	SDMBMH2707	7mm
	SDMBMH2708	8mm
	SDMBMH2709	9mm
	SDMBMH2710	10mm
	Fractional	SDMBH2706
SDMBH2707		7/64
SDMBH2708		1/8
SDMBH2709		9/64
SDMBH2710		5/32
SDMBH2712		3/16
SDMBH2714		7/32
SDMBH2716		1/4
SDMBH2720		5/16
SDMBH2724		3/8
Torx	SDMBT10	T10
	SDMBT15	T15
	SDMBT20	T20
	SDMBT25	T25
	SDMBT27	T27
	SDMBT30	T30
	SDMBT40	T40
	SDMBT45	T45
	SDMBT50	T50
	SDMBT55	T55
Bit Holder	SDM13	—
1/4" Fem Hex to 1/4" Fem Sq Dr. Adaptor	TBMS108	—

SDM11KT Torx Ball Hex Set-Blue-Point.

- 1/4" shank bits for use in difficult access applications where fastener cannot be approached straight on
- 11 pc. set
- All components store in case with belt clip

	Stock No.	#
Torx	SDMBT10	T10
	SDMBT15	T15
	SDMBT20	T20
	SDMBT25	T25
	SDMBT27	T27
	SDMBT30	T30
	SDMBT40	T40
	SDMBT45	T45
	SDMBT50	T50
Bit Holder	SDM13	—
1/4" Fem Hex to 1/4" Fem Sq Dr Adaptor	TBMS108	—



SDM11KT



WARNING



- Do not use screwdrivers as prybars, chisels or punches
- Read safety precautions on pages 594 to 597

SCREWDRIVERS

Bit Sets/Screwdriver Bit and Accessories



SDML19KT

SDML19KT Long Power Bit Set.

- Includes an assortment of popular sized bits to cover a wide range of applications
- Helps avoid costly damage to work surface by eliminating chuck contact

Includes:

- 4 flat tip bits (two 3" long, two 6" long)
- 6 Phillips® bits (three 2 3/4" long, three 6" long)
- 8 Torx® bits (four 2 3/4" long, four 6" long)
- TMC109A quick change coupler



SDMEXT19K

SDMEXT19K Adaptor and Bit Set.

- Complete set includes the most popular sizes and lengths of extensions, adaptors and bits
- 1/4" hex to 1/4" or 3/8" square drives hex-to-square adaptors for use with sockets (2" and 6" long)
- Magnetic bit holder for use with insert bits and quick change coupler for use with 1/4" hex power bits

Includes:

- 3 flat tip • 3 Phillips insert bits
- 3 Phillips • 3 Torx power bits



YA52PBSQC

YA52PBSQC Power Bit Set-Blue-Point®.

- Ideal for use with cordless drills and screwdrivers
- Includes:

- 49 1/4" hex shank bits in short and long lengths
- 2 hex adaptors
- Quick change chuck and convenient storage case

- Flat tip bits (Short): 5-6, 6-8, 8-10 (2 each), 10-12
- Flat tip bits (Long): 6-8, 8-10, 10-12
- Hex bits (Short): 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 9/32"
- Hex bits (Long): 5/32", 3/16", 7/32"
- Phillips tip bits (Short): #1, #2 (2 each), #3
- Phillips tip bits (Long): #1, #2, #3
- Tamper resistant Torx bits (Short and Long): T10, T15, T20, T25, T27, T30, T40
- Square bits (Short and Long): #1, #2, #3
- Clutch bits (Short and Long): 5/32", 3/16",
- Double end Bits: 6-8 x #2 Phillips, 8-10 x #3 Phillips
- Adaptors: 1/4" hex female to 1/4" hex female, 1/4" hex male to 1/4" square male, 1/4" hex Quick Change Chuck.

All bit quantities shown are (1) each unless otherwise indicated:

Screwdriver Bits and Accessories

Screwdriver Bit Holders

TMC109A Quick Change Coupler.

- Use with any 1/4" drive handle
- Spring release shell retracts to accept 1/4" hex power type bits
- Ideal for production situations where positive bit retention is required
- Industrial finish



SSDM10A



SSDM28



SDM11



CFSSB8



FBS8



TMBS8A



TMUBS8

Screwdriver Bit Sockets

- For use with standard 1/4" hex SDM series screwdriver bits

Stock No.	Description
FBS8	3/8" Drive, Socket for 1/4" Hex Shanks.
FBS9	3/8" Drive, Socket for 5/16" Hex Shanks.
CFSSB8	Insulating universal bit socket. 1/4" hex opening, 3/8" drive.

Magnetic Insert Bit Holders

SDM11.

- For quick hex bit changes when used with electric drill or screw gun
- Magnetic and lock ring bit retention
- 2 7/8" long

SDM12.

- Similar to SDM11 but features lock ring retention only
- 1 1/8" long

SSDM10A.

- Pocket sized storage system for SDM series bits
- Includes quick change bit holder

SSDM28.

- Holds (8) 5/16" and (18) 1/4" hex bits
- 5 clips slide on rail to easily access bit
- Magnets on base of holder for attachment to any ferrous metal surface
- Plastic material helps protect finished surface from scratches

















Magnetic Screwdriver Bit Sockets

- For use with standard 1/4" hex SDM series screwdriver bits

Stock No.	Description
TMBS8A	1/4" hex opening, 1/4" drive.
GTMB8A	1/4" hex opening, 1/4" drive. Black industrial finish.
TMUBS8	1/4" hex opening, 1/4" drive.
FBSM8A	1/4" hex opening, 3/8" drive.

SCREWDRIVERS

1/4" Hex Shank Bits

	Stock No.	#	
 Flat Tip 	SDM211B	.031" x .187"	
	SDM212B	.035" x .219"	
	SDM213B	.038" x .250"	
	SDM214C	.046" x .312"	
	SDM215C	.055" x .375"	
 Phillips® 	SDM221C	#1	
	SDM222ZB	#2	
	SDM222CZ*	#2	
	SDM223C	#3	
 Reed & Prince 	SDM231A	#2	
 Clutch A 	SDM242	3/32"	
	SDM243	1/8"	
	SDM244	5/32"	
	SDM245	3/16"	
	SDM246	1/4"	
	SDM247	5/16"	
	SDM242G	3/32"	
 Clutch G 	SDM243G	1/8"	
	SDM244G	5/32"	
	SDM245G	3/16"	
	SDM246G	1/4"	
	SDM2704D**	1/16"	
	SDM2705D**	5/64"	
 Hex, inches 	SDM2706D**	3/32"	
	SDM2707D**	7/64"	
	SDM2708D**	1/8"	
	SDM2709D**	9/64"	
	SDM2710D**	5/32"	
	SDM2712D**	3/16"	
	SDM2714D**	7/32"	
	SDM2716D**	1/4"	
	SDM2720D	5/16"	
	SDM2724D	3/8"	
	 Hex, mm 	SDMM2702B	2mm
		SDMM2702.5B	2.5mm
		SDMM2703B	3mm
		SDMM2704C	4mm
SDMM2705C		5mm	
SDMM2706C		6mm	
SDMM2708B		8mm	
SDMM2710B	10mm		
 Pozidriv® 	SDM251C**	#1	
	SDM252C**	#2	
	SDM253C**	#3	

* small profile/narrow tip ** included as part of SDM400A Master Bit Set



Wobble Bits

• Give up to an 18° angle of "wobble"

Stock No.	#
SDMTW8A	T8
SDMTW9A	T9
SDMTW10A	T10
SDMTW15A	T15
SDMTW20A	T20
SDMTW25A	T25
SDMTW27A	T27
SDMTW30A	T30
SDMTW40A	T40
SDMW221A	#1
SDMW222A	#2
SDMW223A	#3



Phillips ACR® Installer/Remover

- Anti-camout ribs bite into fasteners and help prevent camout









Stock No.	#
SDM221IRB**	#1
SDM222IRB**	#2
SDM223IRB**	#3

** Part of SDM400A Master Bit Set.

Tamper Resistant Torx®

Stock No.	#
SDMTR8	T8
SDMTR10	T10
SDMTR15	T15
SDMTR20	T20
SDMTR25	T25
SDMTR27	T27
SDMTR30	T30
SDMTR40	T40
SDMTR45	T45
SDMTR50	T50

- Bits SDMTR8 through SDMTR40 are all 1/4", bits SDMTR45 and SDMTR50 are 5/16"

	Stock No.	#
 Torx 	SDMT6A	T6
	SDMT7A	T7
	SDMT8D**	T8
	SDMT9D**	T9
	SDMT10D**	T10
	SDMT15D**	T15
	SDMT20D**	T20
	SDMT25D**	T25
	SDMT27D**	T27
	SDMT30D**	T30
	SDMT40D**	T40
 Scrulox® 	BTS0**	#0
	BTS1**	#1
	BTS2**	#2
	BTS3**	#3
BTS and BTSS Series bits can be used on recessed double square fasteners used on Haulmark trailers. Bit size varies by application.		
 Tri-Wing® 	BTW0A	#0
	BTW1A	#1
	BTW2A	#2
	BTW3A	#3
	BTW4A	#4
	BTW5A	#5
	BTW6A	#6
**Part of SDM400A Master Bit Set.		
 Double Square 	BTSS2	#2

** Part of SDM400A Master Bit Set



Pozidriv ACR Installer/Remover

- Anti-camout ribs bite into fasteners and help prevent camout

Stock No.	#
SDM251IRC**	#1
SDM252IRB**	#2
SDM253IRC**	#3

**Part of SDM400A Master Bit Set.



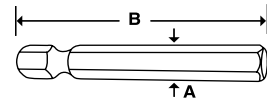
WARNING







- Do not use bits with impact driver
- Read safety precautions on pages 594 to 597



SCREWDRIVERS



Power Bits





	Stock No.			A	B
	SDM220A	#0	1/4	—	1
	SDM320A	#0	1/4	.125	1 15/16
	SDM321B	#1	1/4	.187	1 15/16
	SDM322B	#2	1/4	.234	1 15/16
	SDM323A	#3	1/4	.234	1 15/16
	SDM421B	#1	1/4	.187	2 3/4
	SDM422B	#2	1/4	.234	2 3/4
	SDM423B	#3	1/4	.234	2 3/4
	SDM521A	#1	1/4	.187	3 1/2
	SDM522A	#2	1/4	.234	3 1/2
	SDM523A	#3	1/4	.234	3 1/2
	SDM621A	#1	1/4	.187	6
	SDM622A	#2	1/4	.234	6
	SDM623A	#3	1/4	.234	6
	SDMA421	#1	5/16	.250	3
	SDMA422A	#2	5/16	.250	3
	SDMA423A	#3	5/16	.296	3
	SDMB422A	#2	7/16	.312	3
	SDMB423A	#3	7/16	.312	3
	SDMB424A	#4	7/16	.375	3
	SDMB522A	#2	7/16	.312	4 1/2
	SDMB523A	#3	7/16	.312	4 1/2
	SDMB524A	#4	7/16	.375	4 1/2
	SDMB622	#2	7/16	.312	6
SDMB623A	#3	7/16	.312	6	
SDMB624A	#4	7/16	.312	6	

	Stock No.			A	B
	SDM311B	.026" x .122"	1/4	.187	1 15/16
	SDM312B	.028" x .134"	1/4	.187	1 15/16
	SDM313B	.032" x .154"	1/4	.187	1 15/16
	SDM314B	.034" x .187"	1/4	.187	1 15/16
	SDM315A	.036" x .215"	1/4	.234	1 15/16
	SDM316A	.038" x .250"	1/4	.234	1 15/16
	SDM317A	.042" x .275"	1/4	.234	1 15/16
	SDM318A	.046" x .312"	1/4	.234	1 15/16
	SDM319A	.050" x .360"	1/4	.234	1 15/16
	SDM411B	.026" x .122"	1/4	.234	3
	SDM412B	.028" x .134"	1/4	.187	3
	SDM413B	.032" x .154"	1/4	.187	3
	SDM414A	.034" x .187"	1/4	.187	3
	SDM415A	.036" x .215"	1/4	.250	3
	SDM416A	.038" x .250"	1/4	.234	3
	SDM417A	.042" x .275"	1/4	.234	3
	SDM418A	.046" x .312"	1/4	.234	3
	SDM419A	.050" x .360"	1/4	.234	3
	SDM511A	.026" x .122"	1/4	.187	3 1/2
	SDM512A	.028" x .134"	1/4	.187	3 1/2
	SDM513A	.032" x .154"	1/4	.187	3 1/2
	SDM514A	.034" x .187"	1/4	.187	3 1/2
	SDM515A	.036" x .215"	1/4	.234	3 1/2
	SDM516A	.038" x .250"	1/4	.234	3 1/2
	SDM517A	.042" x .275"	1/4	.234	3 1/2
	SDM518A	.046" x .312"	1/4	.234	3 1/2
	SDM519A	.050" x .360"	1/4	.234	3 1/2
	SDM614	.034" x .187"	1/4	.187	6
	SDM616	.038" x .250"	1/4	.234	6

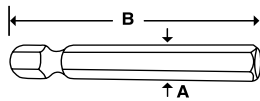
	Stock No.			A	B
	SDM361IA	#1	1/4	.187	1 15/16
	SDM362IA	#2	1/4	.234	1 15/16
	SDM363IA	#3	1/4	.234	1 15/16

	Stock No.			A	B
	SDM361RA	#1	1/4	.187	1 15/16
	SDM362RA	#2	1/4	.234	1 15/16
	SDM363RA	#3	1/4	.234	1 15/16

	Stock No.			A	B
	SDMT307A	T7	1/4	.140	1 15/16
	SDMT308A	T8	1/4	.140	1 15/16
	SDMT309A	T9	1/4	.140	1 15/16
	SDMT310A	T10	1/4	.140	1 15/16
	SDMT315A	T15	1/4	.140	1 15/16
	SDMT320A	T20	1/4	.203	1 15/16
	SDMT325B	T25	1/4	.203	1 15/16
	SDMT327A	T27	1/4	.203	1 15/16
	SDMT330A	T30	1/4	.250	1 15/16
	SDMT340A	T40	1/4	.250	1 15/16
	SDMT407	T7	1/4	.140	2 3/4
	SDMT408	T8	1/4	.140	2 3/4
	SDMT409	T9	1/4	.140	2 3/4
	SDMT410	T10	1/4	.140	2 3/4
	SDMT415	T15	1/4	.140	2 3/4
	SDMT420	T20	1/4	.203	2 3/4
	SDMT425	T25	1/4	.203	2 3/4
	SDMT427	T27	1/4	.203	2 3/4
	SDMT430	T30	1/4	.250	2 3/4
	SDMT440	T40	1/4	.250	2 3/4
	SDMT507	T7	1/4	.140	3 1/2
	SDMT508	T8	1/4	.140	3 1/2
	SDMT509	T9	1/4	.140	3 1/2
	SDMT510	T10	1/4	.140	3 1/2
	SDMT515	T15	1/4	.140	3 1/2
	SDMT520	T20	1/4	.203	3 1/2
	SDMT525	T25	1/4	.203	3 1/2
	SDMT527	T27	1/4	.203	3 1/2
	SDMT530	T30	1/4	.250	3 1/2
	SDMT540	T40	1/4	.250	3 1/2
	SDMT607	T7	1/4	.140	6
	SDMT608	T8	1/4	.140	6
	SDMT609	T9	1/4	.140	6
	SDMT610	T10	1/4	.156	6
	SDMT615	T15	1/4	.156	6
	SDMT620	T20	1/4	.187	6
	SDMT625	T25	1/4	.234	6
	SDMT627	T27	1/4	.250	6
	SDMT630	T30	1/4	.250	6
	SDMT640	T40	1/4	.250	6
	SDMTA40	T40	5/16	.312	1 1/4
	SDMTA45	T45	5/16	.312	1 1/4
	SDMTA50	T50	5/16	.312	1 1/4
	SDMTA55	T55	5/16	.312	1 1/4

SCREWDRIVERS

Power Bits



SDMM3702

Hex, mm

Stock No.	mm	A	B
SDMM3702	2	.09	1 15/16
SDMM37025	2.5	.11	1 15/16
SDMM3703	3	.13	1 15/16
SDMM3704	4	.18	1 15/16
SDMM3705	5	.22	1 15/16
SDMM3706	6	.27	1 15/16
SDMM3707	7	.31	1 15/16
SDMM3708	8	.36	1 15/16
SDMM3710	10	.45	1 15/16



SDM351B

✚ Pozidriv®, inches

Stock No.			A	B
SDM351B	#1	1/4	.187	1 15/16
SDM352B	#2	1/4	.234	1 15/16
SDM353B	#3	1/4	.234	1 15/16
SDM451A	#1	1/4	.187	2 3/4
SDM452A	#2	1/4	.234	2 3/4
SDM453A	#3	1/4	.234	2 3/4
SDM551A	#1	1/4	.187	3 1/2
SDM552A	#2	1/4	.234	3 1/2
SDM553A	#3	1/4	.234	3 1/2
SDM651A	#1	1/4	.187	6
SDM652A	#2	1/4	.234	6
SDM653A	#3	1/4	.234	6



SDM3704

Hex, inches

Stock No.			A	B
SDM3704	1/16	1/4	.115	1 15/16
SDM3705	5/64	1/4	.234	1 15/16
SDM3706	3/32	1/4	.234	1 15/16
SDM3707	7/64	1/4	.234	1 15/16
SDM3708	1/8	1/4	.234	1 15/16
SDM3709	9/64	1/4	.234	1 15/16
SDM3710	5/32	1/4	.234	1 15/16
SDM3712	3/16	1/4	.234	1 15/16
SDM3714	7/32	1/4	.250	1 15/16
SDM3716	1/4	1/4	.250	1 15/16
SDMA4708	1/8	5/16	.234	3
SDMA4710	5/32	5/16	.234	3
SDMA4712	3/16	5/16	.234	3
SDMA4714	7/32	5/16	.281	3
SDMA4716	1/4	5/16	.281	3
SDMA4720	5/16	5/16	.312	3
SDMA4724	3/8	5/16	.312	3

Awls, Hooks and Picks INSTINCT™

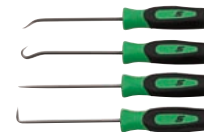


SGASA104BR



SGASA204A

SGASA204AO



SGASA204AG

Awls and Hooks/Soft Grip

- Use for scribing, alignment, O-ring removal, piercing holes in leather or fabric and cleaning nooks and crannies

Stock No.	Description	Handle Color	Blade Length, inches	Overall Length, inches	Set Contains:	
					Awl and Hook Set	
SG4ASABR	Awl	Red	3 3/4	8	•	
SG4ASHBR	Hook Tool	Red	3 3/4	8	•	
SG5ASABR	Awl	Red	4 3/4	9 5/8	•	
SG7ASABR	Awl	Red	5 3/4	10 5/8	•	

Set includes storage tray.

Miniature Awls, Hooks and Picks/Soft Grip

- Use for scribing, alignment, O-ring removal, piercing holes in leather or fabric and cleaning nooks and crannies
- 3 1/8" blade length, 6" long

Description	Set Contains:					
	Red Handle Stock No.	Orange Handle Stock No.	Green Handle Stock No.			
Mini Awl	SG3ASABR	SG3ASABO	SG3ASABG	•	•	•
Mini Hook	SG3ASHBR	SG3ASHBO	SG3ASHBG	•	•	•
Mini Pick, 45°	SG3ASH45BR	SG3ASH45BO	SG3ASH45BG	•	•	•
Mini Pick, 90°	SG3ASH90BR	SG3ASH90BO	SG3ASH90BG	•	•	•

Set includes storage tray.



WARNING



- Do not use bits with impact driver
- Read safety precautions on pages 594 to 597

SCREWDRIVERS

Awls, Hooks and Picks



Long Small Size Awls, Hooks and Picks/Soft Grip

- Use for scribing, alignment, O-ring removal, piercing holes in leather or fabric and cleaning nooks and crannies
- Blade length 8", 9 23/32" overall length

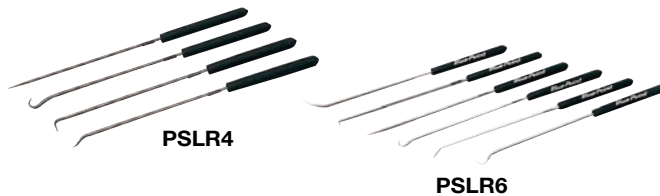
Description	Set Contains:					
	Red	Orange	Green Handle	Set	Set	Set
Long Mini Awl	SGL3ASA	SGL3ASA0	SGL3ASAG	•	•	•
Long Mini Hook	SGL3ASH	SGL3ASH0	SGL3ASHG	•	•	•
Long Mini Pick, 45° tip	SGL3ASH45	SGL3ASH450	SGL3ASH45G	•	•	•
Long Mini Pick, 90° tip	SGL3ASH90	SGL3ASH900	SGL3ASH90G	•	•	•

* Set includes storage tray.



Awl/Hard Grip

Stock No.	Blade Length, inches	Overall Length, inches
SH6ASA	4 3/4	6 5/8



Picks and Scribes/Extra Long-Blue-Point

- Use to separate wires, remove small fuses and O-rings, retrieve washers and loose parts too small to pick up with fingers or to mark metal or plastic surfaces
- Heavy duty shank diameter is 0.02" thicker than standard picks for added durability and extended tool life
- Each pick is 9 3/4" (247.7mm) long

Description	Stock No.	Set Contains:	
		PSLR4	PSLR6
Hook Pick	PSLR4-1	•	•
90° Hook Pick	PSLR4-2	•	•
Straight Pick	PSLR4-3	•	•
Complex Pick	PSLR4-4	•	•
Combo Pick	PSLR4-5		•
Double Angle Pick	PSLR4-6		•

PSLR4 Extra Long Pick Set. Includes PSLR4-1 thru PSLR4-4 (4 pcs) in vinyl storage pouch.

PSLR6 Extra Long Pick Set. Includes PSLR4-1 thru PSLR4-6 (6 pcs) in vinyl storage pouch.

Seal Removal Tools/Soft Grip

- Rounded tip with blended radius edge allows easy removal of seals or O-rings while reducing chance of damage to seal or finished surface
- 2 tip configurations and 2 blade lengths handle most seal removal situations
- Industrial black finish blades

Applications:

- Transmissions
- Oil pump drive shaft seals
- Inner tie rod rack boot and CV boot removal
- Fork seals and caliper dust boot assemblies on Harley-Davidson® and other motorcycles
- Steering racks and pumps
- Heater and vacuum hoses
- Injectors and fuel rail O-rings

Stock No.	Tip Style	Blade Length, inches	Overall Length, inches	Seal Remover Set
SGSR1	Spoon	5 1/4	8	•
SGSR2	Spoon	2 1/2	5 11/32	•
SGSR3	Contoured	2 1/2	5 11/32	•
SGSR4	Contoured	5 1/4	8	•

* Set includes storage tray.

Picks and Scribes-Blue-Point®

YA145 Pick Set.

- Includes knurled handle and 4 screw-in picks with different hook configurations
- Clear plastic pouch

Stock No.	Overall length, inches (assembled to handle)
YA145-1 Straight Tip Pick	7.26
YA145-2 O-Ring, 90° Tip Pick	7.20
YA145-3 Hook Tip Pick	7.30
YA145-4 Angle Tip Pick	7.34

YA149 Pick and Probe Set.

- Includes (5) 5 1/2" single ended and (2) 7" double ended probes made of tempered stainless steel

Description	Stock No.	Set Contains:	
		YA145	YA149
Straight Pick	YA145-1	•	
90° Pick	YA145-2	•	
Hook Pick	YA145-3	•	
Angle Pick	YA145-4	•	
Straight Pick	YA149-1		•
90° Curved Pick	YA149-2		•
45° Flat Pick	YA149-3		•
90° Pointed Pick	YA149-4		•
Double End Short Pick	YA149-5		•
Double End Long Pick	YA149-6		•
Half Circle Pick	YA149-7		•

YA338 Scribe.

- One straight end, one end hooked for picking O-rings and small parts

YA339 Scribe.

- One end is straight, the other has a 90° angle for detail work around small objects

Heavy Duty/Striking Crown Handle

- Exclusive crown handle offers protection from off-center hammer strikes (needed as prybars get longer and heavier)
- Handle is 10-3/8" long for a comfortable, secure grip (long handle ensures that two hands can fit for high leverage applications)
- Cylindrical design with taper allows user to find a comfortable grip regardless of hand size
- 3/4" square bar manufactured from special alloy steel, precision forged and heat treated for optimum strength and durability
- High leverage flared tip (1-1/8") with precision ground edge (easier access into small gaps)



SPBH48R

Stock No	Handle Color	Sq. Shank, inches	Tip Width, inches	Length, inches
SPBH48R	Red	3/4	1 1/8	48
SPBH48O	Orange	3/4	1 1/8	48
SPBH54R	Red	3/4	1 1/8	54
SPBH54O	Orange	3/4	1 1/8	54

Standard Duty/Striking Handle

- Ergonomic shape and contour handle matched to blade length for optimum leverage
- Blade extends through handle and makes contact with end cap to provide solid striking force
- Metal end cap allows hammer striking while reducing chance of damage to handle
- High leverage design with smooth radius head provides maximum leverage when lifting and pulling back
- Blade manufactured from special alloy steel - precision forged and heat treated for strength and durability
- Industrial finish to protect against corrosion



SPBS704R



Stock No.	Color	Sq. Shank, inches	Tip Width, inches	Length, inches	Set Contains:			
					SPBS704	SPBS704R	SPBS704O	SPBS704G
SPBS8	Black	1/4	7/16	8	•			
SPBS8R	Red	1/4	7/16	8		•		
SPBS8O	Orange	1/4	7/16	8			•	
SPBS8G	Green	1/4	7/16	8				•
SPBS12	Black	3/8	5/8	12	•			
SPBS12R	Red	3/8	5/8	12		•		
SPBS12O	Orange	3/8	5/8	12			•	
SPBS12G	Green	3/8	5/8	12				•
SPBS18	Black	7/16	23/32	18	•			
SPBS18R	Red	7/16	23/32	18		•		
SPBS18O	Orange	7/16	23/32	18			•	
SPBS18G	Green	7/16	23/32	18				•
SPBS24	Black	7/16	13/16	24	•			
SPBS24R	Red	7/16	13/16	24		•		
SPBS24O	Orange	7/16	13/16	24			•	
SPBS24G	Green	7/16	13/16	24				•
SPBS36	Black	5/8	1 1/8	36 5/8				
SPBS36R	Red	5/8	1 1/8	36 5/8				
SPBS36O	Orange	5/8	1 1/8	36 5/8				
SPBS36G	Green	5/8	1 1/8	36 5/8				
SPBS42R	Red	5/8	1 1/8	42 1/4				
SPBS42O	Orange	5/8	1 1/8	42 1/4				

Standard Pry Bar Handle Colors



Black Red Orange Green

No Suffix R O G

ADD SUFFIX TO STOCK NUMBER FOR SPECIAL COLORS



WARNING



• Read safety precautions on pages 594 to 597

PRYBARS

Prybars



MPBS11400

Striking/40° Offset Blade

Stock No.	Handle Length, Inches	Exposed Bar Length, Inches	Sq. Shank Inches	Tip Width, Inches	Tip Type
MPBS11400	5 1/2	5 1/2	3/8	3/8	Straight

MPBS11400 Prybar/Brake Tool.

- Strong 3/8" square alloy steel bar with straight tip
- 11" total length with 40 degree offset ensures access into tight wheel wells
- Large, comfortable, high-visibility orange handle with striker cap allows good grip versus small, hard to hold brake adjustment tools
- Ideal for general prybar applications



MPBS703

Striking/Straight Blade

Stock No	Sq. Shank, inches	Tip Width, inches	Length, inches	Set Contains:
MPBS12	3/8	5/8	12	•
MPBS24	7/16	13/16	24	•
MPBS36	5/8	1 1/8	36 5/8	•

MPBS703
Set Contains:



PBN500



PBN1



PBMP36A



PBMP703A

Multi Position

- Each prybar features 17 incremental angles of 15° to provide great flexibility
- High leverage design with smooth radius head provides maximum leverage when lifting
- Manufactured from special alloy steel - precision forged and heat treated for strength and durability
- Industrial finish helps protect against corrosion

PBMP703A
Set Contains:

Stock No.	Tip Width, Inches	Length, Inches	Set Contains:
PBMP8A	1/2	8	•
PBMP12A	5/8	12	•
PBMP16A	5/8	16	•
PBMP24A	1	24	•
PBMP36A	1	36	•

Non-Marring Prybars

- Made from tough, reinforced nylon
- Ideal for removing clips, fasteners, molding or gaskets from interior/exterior applications
- Will not damage delicate surfaces unlike metal removal tools
- Lightweight and resistant to most automotive fluids
- Block end allows use with hammer

PBN500
Set Contains:

Stock No.	Length	Tip Width	Tip Profile	Set Contains:
PBN1	6 3/4	5/8	Narrow Wedge	•
PBN2	6 3/4	15/16	Wide Wedge	•
PBN3	6 3/4	7/8	Narrow Fork	•
PBN5	6 3/4	1 3/16	Wide Fork	•
PBN7	6 3/4	1 3/8	Flat Fork	•

Prybars



NPB124B

Wrecking Bar-Blue-Point®

- Slotted claw on “gooseneck” end and a chisel configuration on opposite end

Stock No.	Sq. Stock, inches	Length, inches
NPB124B	3/4	24



3260B

Slate Bar-Blue-Point

Stock No.	Sq. Stock, inches	Edge, inches	Length, inches
3260B	1	1/2	60



2430C

BLPPB704

Pinch Bars-Blue-Point

- Pinch bar has a tapered point on one end and a chisel type edge on the other

Stock No.	Sq. Stock, inches	Edge, inches	Length, inches
1412A	1/2	5/8	14
1658C	1/2	5/8	16
2420A	3/4	15/16	20
2430C	3/4	5/8	30
2438C	3/4	7/8	38
2842C	7/8	1	42

BLPPB704 Prybar Set. Includes 1412A (14") and 2420A (20") Pinch Bars, 7031A Close Quarter Bar (16") plus BPPC1878 Flat Chisel (18") (page 170).



UB222PK

Utility Bars-Blue-Point

UB222PK Miniature Utility Bar.

- 5 3/8" length. Pack of 10

Prybar Rack

KR294APV Hang-On Prybar Rack.

- Hang up to 4 prybars or long tools with handles
- Notched angle plate keeps tools from shifting
- Suspend from roll cab or tool chest with 1/4" or more lip



KR294APV



PBS704



650

Prybars

- “Rolling head” acts as fulcrum and provides leverage
- Pointed end is useful in many aligning applications

Set Contains:
PBS704

Stock No.	Sq. Stock, inches	Length, inches	
650	5/16	6	•
1250	7/16	12	•
1650	9/16	16	•
2050	11/16	20	•



7030A

Close Quarter Bars-Blue-Point

- Powerful leverage where space is at a premium
- Ideal for aligning molds

Stock No.	Sq. Stock, inches	Tip Width, inches	Length, inches
7030A	3/8	7/16	9
7031A	1/2	9/16	16
7032	5/8	3/4	18



7035

Die Setter Bars-Blue-Point

- Designed for separating, scraping, or prying

Stock No.	Sq. Stock, inches	Tip Width, inches	Length, inches
7035	5/8	7/16	18
7037	3/4	9/16	30



PBHC48

PBHG48

Heavy Duty

- Bars feature a rubber grip that eliminates contact with rust and damaged surfaces, provides a secure gripping surface under a wide range of conditions and protects the bar from damage during transit
- Grip offers a non-slip surface that provides a secure gripping surface/leverage, when hands are wet, sweaty or oil covered

Stock No	Tip Style	Weight, lbs.	Radius Curves, inches	Length, inches	Diameter, inches
PBHG48	1 1/2" Offset Chisel, 2 1/4" Offset Claw	9.5	5 1/8	48	1 Hex
PBHC48	1 1/8" Straight Chisel, 2" Offset Chisel	11.25	-	48	1 Hex
PBHC60	1 1/8" Straight Chisel, 2" Offset Chisel	14.25	-	60	1 Hex

PBHC1 - 48" Replaceable rubber grip.



WARNING



• Read safety precautions on pages 594 to 597

PLIERS

Control, Comfort, Power And Durability Are Built In.

All of our pliers and cutters undergo a precision manufacturing process to give you the quality you expect from Snap-on® tools.

- Alloy steel—Snap-on uses its own special alloy-steel in every set of pliers and cutters.
- Cold-forged process—Increased strength from top to bottom.
- Joints—Positioned close to the cutting edge, making it much easier to cut heavy wire with less user fatigue.

Exclusive Features.

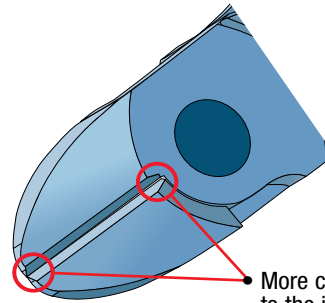
In the later stages of manufacturing, we build in Snap-on exclusive features that result in power and productivity.

- PowerEdge™—Increases the life of the product, with less edge deformation after thousands of cuts.
- Tapered blade—Gives you more power around the joint and more control at the tip for a completely intuitive tool.
- Contoured handle—Provides a comfortable grip with the leverage you need for tough cutting jobs.
- Talon Grip™—Special joint location and diamond serrated jaws provide increased pulling power.

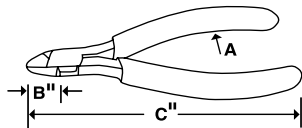


PowerEdge™ Geometry

- Tapered blades increase power at the joint to cut thicker wire and provide finesse at the tip for thinner wire
- Slight gap close to joint allows tips to meet perfectly and keeps tips from wearing prematurely during power cuts
- After thousands of cuts through hardened music wire, cutting edges remain aligned and still provide clean and easy cuts



More cutting surface close to the joint for power cuts. The slight gap close to the joint keeps the tips from wearing prematurely during power cuts.



A=Handle Style
B=Jaw Length, inches
C=Length, inches

Standard Diagonal

- Quality forged steel ensures tools that will provide years of service
- Differential heat treatment produces the strength and toughness in desired areas to withstand repeated tough cutting jobs
- Handles are designed for comfort and to deliver leverage needed to tackle demanding jobs

Diagonal Cutters

- Ergonomic contour cushion grip handle provides up to 22% increased cutting leverage for superior comfort and control
- Induction hardened, precision sharpened, offset cutting edges produce a shearing cut (not a pinching cut) to stay sharp longer and cut with less effort
- Differential heat treatment produces strength and toughness

	Stock No.	Description	Handle Style (A)	Jaw Length, inches (B)	Length, inches (C)
Standard Diagonal	184CCP	Cutter	Bowed	13/32	4 3/4
	85BCP	Cutter	Bowed	9/16	5
	86EP*	Pistol Grip Cutter	Pistol	3/4	6 5/16
	86CF*	Standard Diagonal	Bowed	3/4	6 5/16
	87CF*	Standard Diagonal	Bowed	13/16	7 3/8
High Leverage Diagonal	388CF*	High Leverage Cutter	Bowed	1 1/16	8 5/16
Diagonal Cutters	312CP*	Heavy Duty	Long Handle	1 1/8	11
	808ACP*	Mini	Bowed	9/16	6 15/16

* Features PowerEdge™ Cutting Design

312CP Heavy Duty Diagonal Cutter.

- 11" length provides maximum reach and access
- Offset jaws easily make flush cuts
- Offset cutting edge produces a shearing cut (not a pinching cut) to stay sharp longer and cut with less effort
- Bowed nonslip handle design for increased leverage and comfort

Special Application Plastic / Cable Cutter

- Manufactured from 1% carbon /chrome ball bearing steel to provide strength without brittleness
- Adjustable screw joint minimizes friction and maximizes cutting edge alignment
- Precision hardened cutting edge provides superior durability



184CCP



85BCP



86EP



86CF



388CF



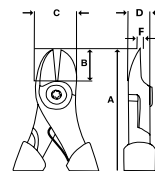
87CF



808ACP



312CP



EPC160

Stock No.	Description	Length, inches (mm) (A)	Cutting Edge Length, inches (mm) (B)	Jaw Width, inches (mm) (C)	Jaw Thickness, inches (mm) (D)	Tip Width, inches (mm) (F)
EPC160	Plastic and Cable cutter	6.3 (160)	0.7 (18)	0.85 (21.5)	0.39 (10)	0.059 (1.5)

The unique jaw design of the EPC160 makes it ideal for cutting plastic, rubber and vinyl. Do not cut plastic, rubber or vinyl with cutters designed to cut metal as the blades are not intended to cut softer materials and can be irreparably damaged.



WARNING



- Plastic coated handle does not protect against electric shock
- Read safety precautions on pages 594 to 597

PLIERS

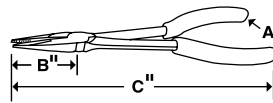
Needle Nose



196CF



96CF



915CP



415CP



911BCP



912AEP



490BCP



408ACP



411BCP



95BCP



97CCP



609ACP



908ACP



497CCP



597CCP



61ACP



612AEP

Talon Grip™

- Diamond serrated jaws provide a better grip and increased pulling power
- Ramped tips provide stronger jaws and increased accessibility
- Longer contoured handle with new joint location provides higher leverage and increased comfort
- Rounded jaw edges minimize nicks to wire when making loops or bends

Stock No.	Description	Jaw Length, inches (B)	Length, inches (C)
196CF*	Long Needle Nose	2 1/4	8
96CF	Long Needle Nose	2 1/4	8

*Rated to cut .049" diameter music wire.

Long Reach Pliers

- Long, slim jaws and flush riveted joints for increased reach into recessed areas
- Rounded jaw edges minimize nicks to wire when making loops or bends
- Jaw tips are perfectly aligned and feature machined teeth for precise gripping strength with positive control
- Ideal for electric and electronic work, holding pins or small components

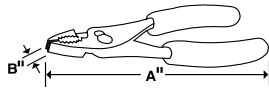
	Stock No.	Description	Jaw Length, inches (B)	Length, inches (C)
Long Reach Needle Nose	915CP	Long Handle	3 1/2	14 1/2
	415CP	Long Handle / 35° Bent Nose	2 7/8	14 5/16
	911BCP	Long Handle	3 3/16	11
	490BCP*	90° Bent	1 7/8	9 3/4
	408ACP	35° Mini Bent	1 1/2	7 7/8
	411BCP	35° Bent	2 7/8	10 7/8
	908ACP	Mini	1 5/8	8 1/8
	612AEP	Pistol Grip	1 3/8	9 3/4
	912AEP	Pistol Grip	2 1/8	10 5/8
Special Purpose	95BCP	Needle Nose Pliers	1 11/16	6
	97CCP	Needle Nose Pliers	3 3/16	8
	497CCP	90° Angle Jaws	2 5/8	6 5/8
	597CCP**	Pin Gripping	3 3/16	7 15/16
	61ACP***	Duck Bill (Industrial Finish)	1 5/16	7 3/4
609ACP*	Duck Bill	1 3/8	9 1/4	

*Jaw width is 3/8".

**Jaws feature matched parallel and cross grooves.

***Jaw width is 15/32".

PLIERS



Combination

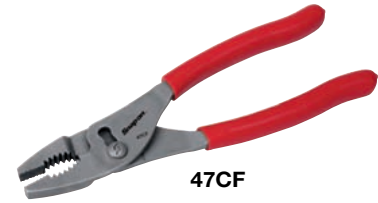


46ACP

Combination

Features position slip joints.

Stock No.	Description	Length, inches (A)	Jaw Width, inches (B)
44ACP	Combination Slip Joint	4 1/2	15/64
46ACP	Combination Slip Joint	6 7/16	23/64
49ACP	Combination Slip Joint	9 1/4	1/2



47CF

Talon Grip Slip Joint

47CF Slip-Joint Pliers.

- Talon Grip™ for more pulling power
- Longer contoured handle for more comfort and better leverage
- Diamond tip serrations for more pulling power
- Added third position to give more options and a wider jaw spread for those tough to get a hold of jobs (like rusty hose clamps)



HL138ACP



5ACP

Special Purpose

HL138ACP High Leverage Combination Pliers (7 7/8").

- Requires 1/4 the effort normally needed for cutting/gripping
- 1 1/16" jaw opening

5ACP Midget Pliers (4 3/4").

- Ideal for extremely small work
- Serrated jaws



137CF

Heavy Duty Combination

137CF Heavy Duty Combination Pliers (7 1/2").

- Talon Grip - for more pulling power
- Diamond Serrated Jaws - provide a better grip
- Three-position Adjustable Joint - gives a wider jaw spread for tough to get a hold of jobs
- Long Contour Handle - provides comfort and better leverage
- Cold forged for superior performance and durability

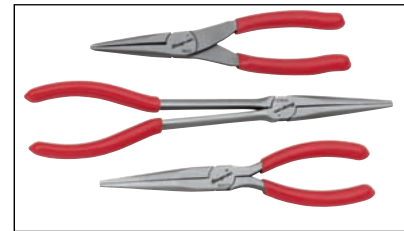
Sets



PL300CF



PL400B



PL6711A



PLR300



PL403A



PL803A

Pliers and Cutters Sets

Stock No.	Description	Set Contains:						
		PL300CF	PLR300	PL400B	PL6711A	PL803A	PL403A	102LNCP
96CF	Needle Nose Pliers (TALON GRIP)	•		•	•			
97CCP	Needle Nose Pliers		•		•			
915CP	Needle Nose Pliers (Long Reach)							•
415CP	Needle Nose Pliers, 35° Bent Nose (Long Reach)							•
911BCP	Needle Nose Pliers (Long Reach)				•			
47CF	Comb. Slip-Joint Pliers (TALON GRIP)	•		•				
44ACP	Comb. Slip-Joint Pliers						•	
46ACP	Comb. Slip-Joint Pliers						•	
91ACP	Adjustable Joint Pliers			•			•	
57AHL	Lineman's Pliers		•					
86CF	Diagonal Cutters (PowerEdge)		•				•	
87CF	Diagonal Cutters (PowerEdge)	•		•			•	
184CCP	Diagonal Cutters						•	



102LHCP



WARNING



- Plastic coated handle does not protect against electric shock
- Read safety precautions on pages 594 to 597

PLIERS

Wire Tools



PWC34

PWC34 Crimping Tool–Blue-Point®.

- Double compound action with ratchet control for almost effortless operation
- Use with insulated connectors on 10 to 22 gauge wire
- Easy, efficient, single squeeze crimping of modular connectors
- Both primary and secondary crimps are made simultaneously to factory specifications



PWC39

PWC39 Cable Slitter–Blue-Point.

- Slits and removes insulation on single or multiple conductor cables up to 1.25" OD
- Adjustable blade allows for varying insulation thickness up to .187"
- Lightweight, fiberglass reinforced nylon body
- Extra blade in handle. 5 1/4" long

PWC39-1 Replacement Blade. Replacement blade for PWC39.



PWC80A

PWC80A Cable Cutter–Blue-Point. For cutting battery cables and other soft metal cables. Vinyl covered handles. 7 1/2" long.



PWC52A

PWC52A Connector Pliers–Blue-Point. For gripping round and irregularly shaped objects such as cannon plugs or plated pipe. Replaceable, non-marring vinyl jaw inserts (PWC52A-1, set of 2). Replaceable hinge bolt (PWC52A-2). Range is 3/4" to 2 1/2". 9 3/4" long.

PWC52A1 Vinyl Jaw Inserts. For PWC52A (set of two).

PWC52A2 Replaceable Hinge Bolt. For PWC52A.



29CP



PWC30

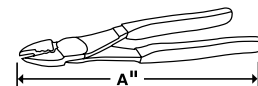


PWC47

Crimpers

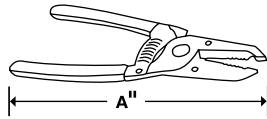
Stock No.	Description	Length, inches (A)	Crimps
29CP	Terminal Crimping Pliers with Cutter	9 3/8	10, 12, 14, 16, 18, 20, 22 AWG Insulated and Non-Insulated.
PWC30	Terminal Crimping Pliers with Cutter	10 1/4	10, 12, 14, 16, 18, 20, 22 AWG Insulated and Non-Insulated.
PWC47*	Computer/Sensor Terminal Crimping Tool	8	Open barrel and weather-pack terminals 14 to 24 AWG

*Blue-Point



PLIERS

Wire Tools



Strippers/Cutters/Crimpers

Stock No.	Description	Length, inches (A)	Strips AWG Sizes	Strips Metric Sizes, mm	Application	Replacement Blades	
PWC57	Wire Stripper/Cutter/Crimper	6 3/4	12, 14, 16, 18, 20	—	—	—	
PWC59	Wire Stripper/Cutter/Crimper/Bolt Cutter	8 3/4	AWG20 to 10 (stranded wire), AWG16 to 8 (solid wire)	—	—	—	
PWC8	Wire Stripper/Cutter	5 7/8	14 to 10 AWG	—	—	—	•
PWC6	Wire Stripper/Cutter/Pliers	6	10, 12, 14, 16, 18, 20	2.6, 2.0, 1.6, 1.3, 1.0, .80	Strips PVC, THHN, and THWN	—	•
PWC16A	Wire Cutter/Stripper	5	10-18	Adjustable	Strips PVC, THHN, and THWN	—	•
PWC22A	Automatic Wire Stripper with Cutter	7 1/4	12, 14, 16, 18, 20	—	Strips PVC, THHN, and THWN	—	•
PWC24	Automatic Wire Stripper	6 1/4	16, 18, 20, 22, 24, 26	—	Strips Teflon® Type E Wire	PWC24-1	•
PWC27	Automatic Wire Stripper	6 1/4	10, 12, 14, 16, 18, 20, 22	—	Strips PVC, THHN, and THWN	PWC27-7	•
PWC42	Automatic Wire Stripper	5 1/2	16, 18, 20, 22	1.5, 1.0, .5, .42	Cotton Coated PVC Wire, and Silicone Coated Wire	PWC42-17	•
PWC19	Micro Shear Wire Cutters	5 1/8	Up to 20	Up to .80	—	—	•
PWC12A	Wire Stripper/Cutter/Crimper	9 1/2	10, 12, 14, 16, 18	10-18 Insulated and Non-Insulated 7-8mm Ignition Terminals	—	—	•
PWC14	Wire Stripper/Cutter/Crimper/Bolt Cutter	8 3/4	10, 12, 14, 16, 18, 20, 22	10-22 Insulated and Non-Insulated 7-8mm Ignition Terminals	—	—	•
PWC28A	Wire Stripper/Cutter/Crimper/Bolt Cutter	8 1/4	10, 12, 14, 16, 18, 20, 22 Stranded, 8, 10, 12, 14, 16, 18 Solid	10-22 Non-Insulated Terminals and Crimp Sleeves	—	—	•
PWC5	Mini Wire Cutter/Stripper	5 1/16	26-14	—	Copper Wire	—	•

PWC57 Wire Stripper/Cutter/Crimper. Unique smaller wire stripper / crimper that strips 12, 14, 16, 18, and 20 gauge insulated wire. It also crimps insulated and bare wire connectors and has a wire cutter in the jaw and handle. Ideally suited for work in confined area such as under dash or within electrical service enclosures.

PWC59 Wire Stripper/Cutter/Crimper/Bolt Cutter. Cold forged from special alloy steel and induction heat treated for superior performance and durability. Bi-molded, soft grip handle provides comfort and helps reduce fatigue. Pliers tip for grabbing or pulling wire. Cuts #6 and #8 soft bolts. Crimps both insulated and non-insulated terminals. Includes shears in throat area for general cutting applications.

PWC8 Wire Stripper/Cutter. Self-adjusting stripper quickly and easily strips 14 to 10AWG wire. Catch, hold and strip copper wire in one quick motion with self adjusting stripper. No stripping holes to locate—stripping end self adjusts from 14 to 10AWG wire sizes. Head design is true flush tapered and low profile. Jaws are stainless steel and induction hardened. Overall Length: 5 7/8" (149.2mm). Cutting Edge Length: 9/16" (14.2mm). Tip Width: 1/8" (3.2mm).



WARNING



- Plastic coated handle does not protect against electric shock
- Read safety precautions on pages 594 to 597

PLIERS

Retaining Ring—Blue-Point®



PR36



PRH503



PRH57A



PR8

PR7



PR50A



PRH502A



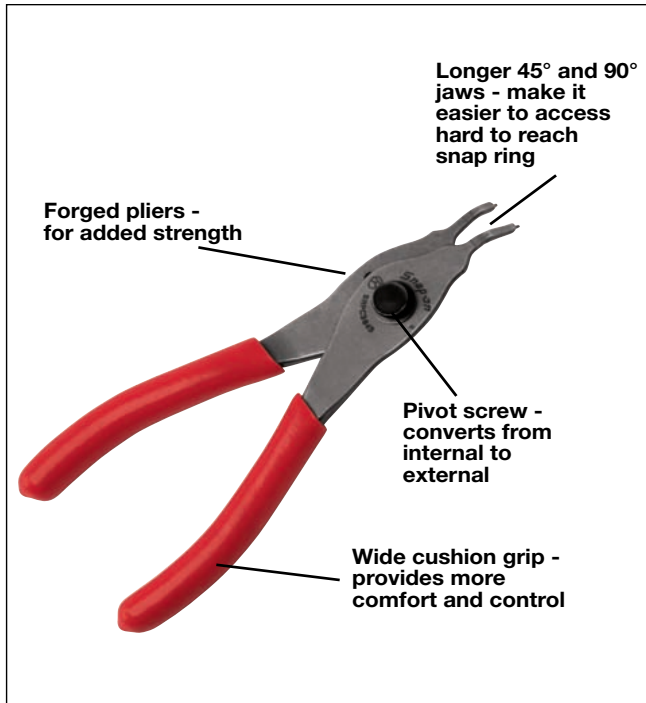
PR54

Interchangeable Tip/Convertible

Internal	External	Length, inches	Ring Size Range, inches	Tip Kit Included	Tip Sizes Included inches/Degree	Optional Kits	Optional Tip Sizes	Set Contains:			
								PR36	PRH502A	PRH503	PR50A
PR37	—	6 1/4	3/8 - 2	PR5 (For PR36 only)	2 pair each in PR36 set: .047" 0°, .070" 0°, .047" 45°, .039" 90°	PR5	.047" 0°, .070" 0°, .047" 45°, .039" 90°	•			
—	PR38	6 1/4	1/4 - 2	—	—	PR5	.047" 0°, .070" 0°, .047" 45°, .039" 90°	•			
PRH56A (Convertible)	—	6 3/8	Internal 1/4 - 1 External 1/8 - 1	PRH56A-1	1 pair each: .023" 0°, .036" 0°, .047" 0°, .036" 90°, .047" 90°	—	—		•	•	
PRH57A (Convertible)	—	8	Internal 3/8 - 2 External 1/4 - 2	PRH57A-1	1 pair each: .036" 0°, .047" 0°, .070" 0°, .036" 90°, .047" 90°	—	—		•	•	
PRC65A (Convertible)	—	10	Internal 1 13/64 - 4 External 1 1/3 - 4	PRC65A-1	1 pair each: .090", .108", .120" (15° and 90°)	—	—			•	
PR51	—	9 1/2	2 7/16 - 4	PR502	.108", 15°	PR501	.108", 0°				•
—	—	—	—	PR503	.108", 45°	PR504	.108", 90°				
—	PR52	9 1/2	1 1/2 - 3 11/32	PR507	.120", 45°	PR505	.120", 0°				•
—	—	—	—	PR508	.120", 90°	PR506	.120", 15°				
PR7	—	15 11/16	3 1/16 - 6 1/4	PR7-1	.120", 0°	PR7-2	.120", 45°				
—	—	—	—	—	—	PR7-3	.120", 90°				
—	PR8	15 11/16	3 1/16 - 6 1/4	PR7-1	.120", 0°	PR7-2	.120", 45°				
—	—	—	—	—	—	PR7-3	.120", 90°				
PR54	—	29	6 1/2 - 10	PR54-1	.150", 0°	PR54-2	.150", 45°				
—	—	—	—	—	—	PR54-3	.150", 90°				
—	PR53	19	6 1/2 - 10	PR53-1	.170", 0°	PR53-2	.170", 45°				
—	—	—	—	—	—	PR53-3	.170", 90°				

PR36 Set includes PR5 tip kit. Individual PR37 and PR38 units do not include tips and require PR5 tip kit.
 PR51 and PR52 work with tip kits PR501 through PR508
 PRH503-1 Replacement Case for PRH503

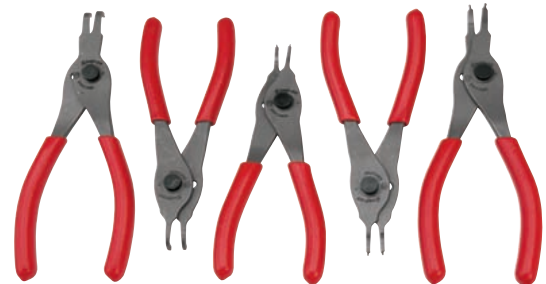
Retaining Ring



SRPC4700

SRPC3845

SRPC3890



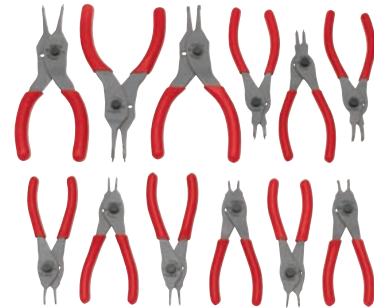
SRPC105

Fixed Tip/Convertible, Forged

Stock No.	Length, inches	Ring Size Range, inches	Jaw Angle	Tip Diameter, inches	Set Contains:		
					SRPC112	SRPC107	SRPC105
SRPC3800	6 7/16	1/8 - 1	0°	.038	•	•	•
SRPC4700	6 7/16	3/16 - 1 3/8	0°	.047	•	•	•
SRPC7000	7 7/16	7/16 - 2	0°	.070	•	•	•
SRPC9000A	8 3/4	1 1/2 - 3 1/2	0°	.090	•		
SRPC3845	6 7/16	1/8 - 1	45°	.038	•		
SRPC4745	6 7/16	3/16 - 1 3/8	45°	.047	•		
SRPC7045	7 7/16	7/16 - 2	45°	.070	•	•	
SRPC9045A	8 3/4	1 1/2 - 3 1/2	45°	.090	•	•	
SRPC3890	6 7/16	1/8 - 1	90°	.038	•		•
SRPC4790	6 1/2	3/16 - 1 3/8	90°	.047	•		•
SRPC7090	7 1/2	7/16 - 2	90°	.070	•	•	•
SRPC9090A	8 3/4	1 1/2 - 3 1/2	90°	.090	•	•	•

ASME/ANSI B107.19-1993

Sets shown include storage tray



SRPC112



SRPC107

Fixed Tip/Convertible

Unique dial feature on all "PRH" series snap ring pliers eliminates the need to take apart pliers when changing from internal to external.

Stock No.	Length, inches	Ring Size Range, inches	Jaw Angle	Tip Diameter, inches	Set Contains:
					PRH406
PRH12	5 3/4	1/8 - 1	18°	.038	•
PRH32	6	5/16 - 1 3/8	18°	.047	•
PRH34	7 1/2	7/16 - 2	18°	.070	•
PRH129	5 3/4	1/8 - 1	90°	.038	•
PRH329	5 7/8	5/16 - 1 3/8	90°	.047	•
PRH349	7 1/2	7/16 - 2	90°	.070	•

ASME/ANSI B107.19-1993

Sets shown include storage tray



PRH34

PRH406



WARNING



- Plastic coated handle does not protect against electric shock
- Read safety precautions on pages 594 to 597

PLIERS

Electronic Service



E700BCG



E703BCG



E704BCG



E708BCG



E712BCG



E713BCG



E715BCG



E718BCG



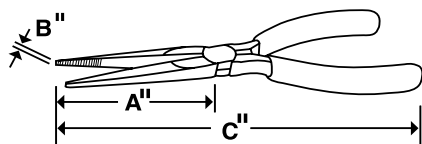
E721BCG



E770BCG



E790BCG



All models on pages 158-159 feature jaw opening springs. Cutter models have a small hole at the base of the blades to relieve pressure on the cutting edges. Innovative cushion grip handles result in a very comfortable, yet durable handle grip.

Snap-on® manufactured pliers with plastisol or cushion grip handles meet the electrostatic discharge (ESD) specifications in MIL-B-81705B, IS-5, and NFPA-56A.

Pliers (E Series)

Stock No.	Description	Jaw Length, inches (A)	Tip Width, inches (B)	Length, inches (C)
E700BCG	Round Wire Looper Jaws Taper from 3/16" to 1/32"	1	1/16	6 1/8
E703BCG	Long Serrated Jaws	2 3/16	1/16	6 9/16
E704BCG	Angled (45°) Serrated Jaws	2 1/4	1/16	6 5/8
E708BCG	Short Non-Serrated Jaws	1 3/16	1/16	5 15/16
E712BCG	Serrated Jaws	1 11/16	1/16	6 1/8
E713BCG	Short Serrated Jaws	7/8	1/16	4 5/8
E715BCG	Extra Slim Serrated Jaws	1 3/16	1/16	5 1/8
E718BCG	Curved (70°) Serrated Jaws	1 1/8	1/16	5 9/16
E721BCG	Extra Slim Non Serrated Jaws	1 23/32	1/16	6 7/8
E770BCG	Needle Thin Serrated Jaws	1 1/8	1/32	5
E790BCG	Flat Nose Non Serrated Jaws	1	1/16	6 1/8

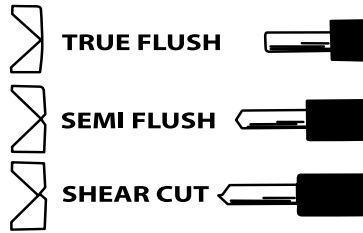
Pliers in this chart use the E74X1 Coil Replacement Spring.

Electronic Service Cutters

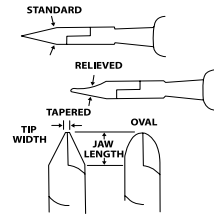
True Flush ground blades cut wire ends flat and allow protruding wire ends to be trimmed flush.

Semi Flush ground blades cut slightly pointed wire ends and can be used where an exact flush cut is not required.

Shear Cut ground blades (on standard cutters) are designed for general cutting with less hand pressure and extended blade life.



Head Shapes Always select a cutter with the largest head that will meet your requirement. The oval head design has more material behind the cutting edges and gives the longest tool life.



E706BCG



E707BCG



E709BCG



E710BCG



E711BCG



E719BCG



E740BCG



E742BCG

Cutters (E Series)

Stock No.	Cut	Head Style	Cutting Capacity	Tip Width, inches	Cutting Edge Length, inches	Length, inches
E706BCG	True Flush	End Cut	AWG #19	1/16	15/32	5 7/8
E707BCG	True Flush	Tapered	AWG #17	1/16	7/16	4 3/8
E709BCG	True Flush	Tapered	AWG #17	1/16	7/16	4 7/16
E710BCG*	True Flush	Tapered	AWG #12	3/32	11/16	5 3/16
E711BCG	Semi Flush	Tapered	AWG #16	3/16	7/16	5 3/4
E719BCG	True Flush	Tapered	AWG #17	1/16	7/16	6 3/8
E740BCG	True Flush	Oval	AWG #16	1/16	7/16	5 3/4
E742BCG	True Flush	Oval	AWG #16	1/16	7/16	5 3/4

These cutters use the E74X1 Replacement Spring

*E710BCG Uses E71XL1 Replacement Spring



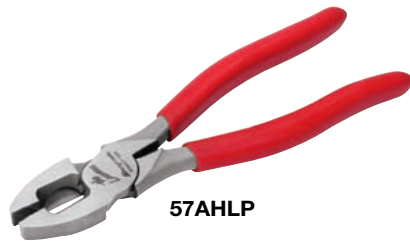
WARNING



- Plastic coated handle does not protect against electric shock
- Read safety precautions on pages 594 to 597

PLIERS

Lineman's



57AHLP

Standard

57AHLP Lineman's Pliers (7 3/8")

- Machined cutter heads for perfectly matched blades
- Induction hardened head for extra strength and durability
- Gripper teeth behind the head can be a useful crushing area
- Cushion grips provide comfort, control and power

59AHLP Lineman's Pliers (9 1/4"). Longer version of 57AHLP.

Adjustable Joint



AWP404



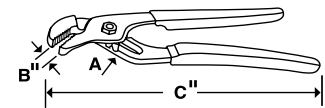
91ACP



CHN480



AP10



Tongue and Groove

- Special tongue and groove design that assures non-slip jaw action
- Unique fastener system inhibits side to side jaw wobble for added strength and smoother operation

Set Contains: AWP404

Stock No.	Jaw Type	Max. Jaw Positions (A)	Parallel Opening, inches (B)	Length, inches (C)	
AWP45	Straight Serrated	3	1/2	4 3/4	•
AWP65	Straight Serrated	5	7/8	7	•
AWP120	Straight Serrated	7	2 3/16	12 3/4	•
AWP160	Straight Serrated	8	3 13/16	16 3/4	•
CHN410*	Parrot	5	1 1/2	10 1/8	

*Blue-Point®

Sets shown include storage tray



CHN410

Standard

- Specially hardened jaw teeth provide long life and a solid grip on work objects
- Vinyl covered handles for a secure, comfortable grip

Stock No.	Finish	Max. Jaw Positions (A)	Parallel Opening, inches (B)	Length, inches (C)
91ACP	Industrial	5	1 3/8	9 1/4
CHN480*	Nickel/Chrome	11	5 1/2	20

*Blue-Point

Adjustable Joint

- Unique thumb grip allows user to change jaw setting without releasing grip on tool
- Self locking jaw grips tightly at three points to securely hold pipes, hex and square objects
- Handles feature large gripping surface for user to apply sustained, maximum force

Stock No.	Description	Max. Jaw Positions (A)	Parallel Opening, inches (B)	Length, inches (C)
AP7	Adjustable Joint	9	1 1/2	7
AP10*	Adjustable Joint	11	1 3/4	10
AP12	Adjustable Joint	13	2 1/16	12

*Blue-Point

LP Series

- Spring loaded release lever allows quick “no-pinch” release
- Locking nut secures jaw opening for repeat jobs
- Larger jaw capacity to hold larger objects
- Jaws feature greater surface area and broader teeth for more secure gripping



LP404

Set Contains:
LP404

Stock No.	Description	Jaw Capacity, inches, (mm) (A)	Length, inches, (mm) (B)		
LP5SLIM	Thin Curved Jaw	1 5/32 (30)	5 (135)		
LP7SLIM	Thin Curved Jaw	1 5/8 (41)	7 (190)		
LP5WR	Curved Jaw w/cutter	1 5/32 (30)	5 (135)	•	
LP6LN	Long Nose	2 1/8 (55)	6 (165)		•
LP7WR	Curved Jaw w/cutter	1 5/8 (42)	7 (190)		•
LP10WR	Curved Jaw w/cutter	2 7/16 (63)	10 (235)		•
LP7R	Straight Jaw	1 5/8 (42)	7 (190)		
LP10R	Long Nose	2 7/16 (63)	10 (235)		
LP10LN	Long Nose	2 3/4 (70)	10 (235)		
LP10GRV	10" Grooved Joint Locking Pliers	1 5/8 (43)	10 (235)		



LP10WR



LP6LN



LP7SLIM



LP5SLIM



LP10GRV



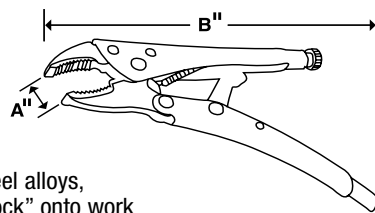
A “V” groove houses round objects, preventing lateral movement.

LP5SLIM, LP7SLIM Locking Pliers.

- Use for removal of socket style sway bar links
- Thinner jaws fit between stabilizer bar and stabilizer link to allow a socket to be used for nut removal
- LP7SLIM Applications: 2002-2004 Dodge Caravans, Chrysler Town and Country and any other vehicle with non-greaseable sway bar links

LP10GRV Grooved Jaw Locking Pliers.

- Longitudinal V-groove section provides 3 points of contact preventing lateral movement while working
- Specially tapered groove means the larger the work piece, the larger the groove section that holds it
- Convex tooth section of mobile jaw pushes flat work pieces against the large, flat fixed jaw for tighter clamping
- Recessed area of mobile jaw allows angled objects to be held and clears small obstacles
- Serrated milled teeth provide a positive grip on different shaped objects



Locking Pliers–Blue-Point®

- Made from high grade, heat treated steel alloys, the hardened precision ground jaws “lock” onto work pieces that are tough to hold
- Adjusting screws ensure fine adjustments for precise gripping
- Soft grip series improves comfort while resisting damage from oil and grease

Set Contains:
BSGLP404
BLP404

Stock No.	Description	Grip Style	Jaw Capacity, inches, (mm) (A)	Length, inches, (mm) (B)		
BLP5	Curved Jaw	Standard	1.125 (28)	5 (127)		•
BLP7	Curved Jaw	Standard	1.625 (41)	7 (178)		•
BLP10	Curved Jaw	Standard	1.875 (48)	10 (254)		•
BLP6LN	Long Nose	Standard	2.25 (57)	6 (152)		•
BSGLP5	Curved Jaw	Soft	1.125 (28)	5 (127)		•
BSGLP7	Curved Jaw	Soft	1.625 (41)	7 (178)		•
BSGLP10	Curved Jaw	Soft	1.875 (48)	10 (254)		•
BSGLP6LN	Long Nose	Soft	2.25 (57)	6 (152)		•



BLP404



BSGLP404



BLP7



BSGLP6LN



WARNING



- Plastic coated handle does not protect against electric shock
- Read safety precautions on pages 594 to 597

PLIERS

Pliers and Cutters—Blue-Point®



BDGAWP100



BDG48CP



BDG98CP



BDG9845CP



BDG57CP



BDGEC7



BDG86CP



BDG88CP



B48CP



B58HLP

Dipped Grips

Set Contains:

BDGPL800

Stock No.	Description	Jaw Length, inches	Length, inches	
BDGAWP100	Adjustable Joint Pliers	1 3/4"	10"	•
BDG48CP	Slip Joint Pliers	1 27/32"	8"	•
BDG98CP	Long Needle Nose Pliers	3"	8"	•
BDG9845CP	45° Bent Needle Nose Pliers	2 13/16"	7 3/4"	•
BDG57CP	Lineman's	1 1/4"	7 1/2"	•
BDGEC7	End Cutter	7/16"	7"	•
BDG86CP	Diagonal Cutter	2 1/32"	6 1/2"	•
BDG88CP	Diagonal Cutter	15/16"	8 1/8"	•



BAWP100



B87CP



B96CP

Standard

Set Contains:

BLP501

Stock No.	Description	Jaw Length, inches	Length, inches	
B48CP	Slip Joint Pliers	2 3/32"	8 13/32"	•
B58HLP	Lineman's Pliers	1 1/2"	8 31/32"	•
B96CP	Needle Nose Pliers	2 1/32"	6 5/16"	•
BAWP100	Adjustable Joint Pliers	1 3/8"	10 5/32"	•
B87CP	Diagonal Cutters	31/32"	6 19/32"	•



B45CMP



B65CMP



B75CMP



B85CMP



B85CTMP



B945CMP



B95CMP



B95CLMP



B960CMP



BMPEC5

Miniature

Set Contains:

BMPL1000

Stock No.	Description	Jaw Length, inches	Length, inches	
B45CMP	Combination Pliers	1	4 11/16"	•
B65CMP	Duck Bill Pliers	1 5/32"	4 7/8"	•
B75CMP	Round Nose Pliers	1 5/32"	5"	•
B85CMP	Diagonal Cutter	2 1/32"	4 11/32"	•
B85CTMP	Thin Diagonal Cutter	23/32"	4 5/8"	•
B945CMP	45° Bent Nose Pliers	1	4 11/16"	•
B95CMP	Long Nose Pliers	1 1/8"	4 7/8"	•
B95CLMP	Long Needle Nose Pliers	2 1/16"	5 25/32"	•
B960CMP	60° Bent Nose Pliers	15/16"	4 11/16"	•
BMPEC5	End Cutter	5/16"	4 1/32"	•

Sets shown include storage tray

Pliers and Cutters—Blue-Point®

Long Reach Miniature

BDGPL400LMP
Set Contains:

Stock No.	Description	Jaw Length, Inches	Length, Inches	
BDG96LMP	Long Nose Pliers	1 5/16	6	•
BDG97LMP	Needle Nose Pliers	2 13/32	7	•
BDG9645LMP	45° Bent Nose Pliers	1 7/32	6	•
BDG86LMP	Diagonal Cutting Pliers	3/4	5 1/2	•



BDGPL400LMP

Long Reach Compound Joint

303DJCP
Set Contains:

Stock No.	Description	Jaw Length, Inches	Length, Inches	
913DJBCP	45° Bent Nose	2 5/8	12 3/4	•
913DJCP	Needle Nose	2 3/4	13	•
613DJCP	Duck Bill	1 1/2	12 5/8	•



303DJCP

Sets shown include storage tray

Extended Reach Hose Grip

BDGPL300HG
Set Contains:

Stock No.	Description	Jaw Length, Inches	Length, Inches	
BDGPL410HG	Small Hose Grip Pliers	2 1/4	11	•
BDGPL411HG	Medium Hose Grip Pliers	2 1/4	11	•
BDGPL412HG	Large Hose Grip Pliers	2	11	•



BDGPL300HG

Long Reach

BDGPL300LR
Set Contains:

Stock No.	Description	Jaw Length, Inches	Length, Inches	
BDG311CP	Diagonal Cutter	1 9/16	11	•
BDG91145CP	45° Bent Needle Nose	3 3/16	11	•
BDG911CP	Needle Nose	3 9/16	11	•



BDGPL300LR

Extra Long Reach

BDGPL200XLR
Set Contains:

Stock No.	Description	Jaw Length, Inches	Length, Inches	
BDG91645CP	45° Bent Needle Nose	3 3/16	16	•
BDG916CP	Needle Nose	3 9/16	16	•



BDGPL200XLR

Heavy Duty Bolt Cutters

Drop forged, alloy steel jaws are precision ground to provide a long lasting cutting edge. Lightweight, tubular steel handles deliver extra leverage for tough jobs. Comfortable, heavy duty grips resist slippage.

Stock No.	Capacity (Soft Material), Inches (mm)	Capacity (Hard Material), Inches (mm)	Length, Inches	Weight, lbs. (kg)	Replacement Jaw Assembly
BLPBC18	3/8 (10)	1/4 (6)	18	3.4 (1.55)	BLPBC18-1
BLPBC24	7/16 (11)	5/16 (8)	24	5.6 (2.55)	BLPBC24-1
BLPBC30	1/2 (13)	3/8 (10)	30	8.6 (3.9)	BLPBC30-1
BLPBC36	9/16 (14)	7/16 (11)	36	14.2 (6.45)	BLPBC36-1



BLPBC18



BLPBC30



WARNING



- Plastic coated handle does not protect against electric shock
- Read safety precautions on pages 594 to 597

NON-CONDUCTIVE COMPOSITE TOOLS

**HYBRID
INNOVATION**



CNSGDx60

Screwdrivers (Soft Grip Handle)

Slim tip design accesses fasteners in tight areas faster and easier. No conductive path to user. No insulation to puncture, tear or wear through. Exceeds all ANSI, ISO and ASME strength and performance requirements for standard steel tools. Every tool is individually tested to ensure protection up to 1,000VAC and 1,500VDC. Only Snap-on® non-conductive tools are UL Classified, assuring the customer compliance to IEC60900. This means UL inspects and audits to ensure complete compliance with IEC60900. Lifetime warranty for material and workmanship. (U.S. Patent 6,655,240 B1)

	Stock No.	Tip Size	Shank Length, inches (mm)	Length, inches (mm)	Set Contains:
Flat Tip	CNSGDF66	3/16	6 (152)	11 1/2 (292)	●
	CNSGDF68	1/4	6 (152)	11 1/2 (292)	●
	CNSGDF69	9/32	6 (152)	11 1/2 (292)	●
Phillips® Tip	CNSGDP61	#1	6 (152)	11 1/2 (292)	●
	CNSGDP62	#2	6 (152)	11 1/2 (292)	●
	CNSGDP63	#3	6 (152)	11 1/2 (292)	●



IHTS6

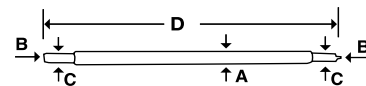


IHTP62

Screwdrivers (Screwdriver Handle)

No conductive path to user. No insulation to puncture, tear or wear through. Every tool is individually tested to ensure protection up to 1,000VAC and 1,500VDC. Only Snap-on non-conductive tools are UL Classified, assuring the customer compliance to IEC60900. This means UL inspects and audits to ensure complete compliance with IEC60900. Lifetime warranty for material and workmanship. (U.S. Patent 5,259,277)

	Stock No.	Tip Size	Shank Length, inches	Length, inches	Replacement Bit	Set Contains:
Flat Tip	IHTS3	3/16	3 1/4	8 3/16	IHTS65	●
	IHTS37	7/32	3 1/4	8 3/16	IHTS375	
	IHTS38	1/4	3 1/4	8 3/16	IHTS685	
	IHTS6	1/4	6	11	IHTS685	●
	IHTS610	5/16	6	11	IHTS6105	
	IHTS9	5/16	9	14	IHTS6105	●
Phillips Tip	IHTP31	#1	3 1/4	8 3/16	IHTP315	●
	IHTP62	#2	6	11	IHTP625	●
	IHTP63	#3	6	11	IHTP635	●



CSSC9



SGDMRC4-C6

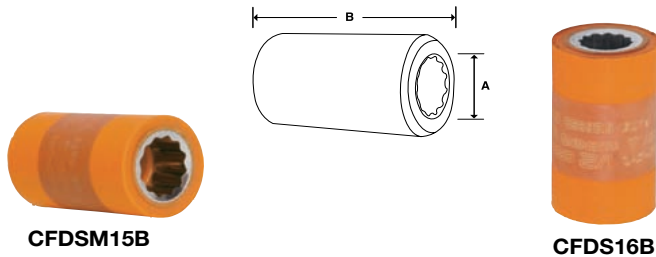
Screwstarters and Screwdriver Shanks

No conductive path to user. No insulation to puncture, tear or wear through. Every tool is individually tested to ensure protection up to 1000VAC and 1500VDC. Only Snap-on non-conductive tools are UL Classified, assuring the customer compliance to IEC60900. This means UL inspects and audits to ensure complete compliance with IEC60900. Lifetime warranty for material and workmanship.

Stock No.	Handle Type	Handle Diameter, inches (A)	Tip Style (B)	Tip Style (C)	Length, inches (D)
CSSC9	Composite*	9/32	Flat Tip/Phillips	.032" x 9/32", #2	9
SGDMRC4-C6	Composite Magnetic Bit Holder	3/8	—	—	7 1/4

*Rated shock resistant up to 1000V.

NON-CONDUCTIVE COMPOSITE TOOLS



Non-Conductive Composite Sockets

No conductive path to user. No insulation to puncture, tear or wear through. Strong as steel. Every tool is individually tested to ensure protection up to 1,000VAC and 1,500VDC. Only Snap-on® non-conductive tools are UL Classified, assuring compliance to IEC60900. This means UL inspects and audits to ensure complete compliance with IEC60900. Lifetime warranty for material and workmanship.

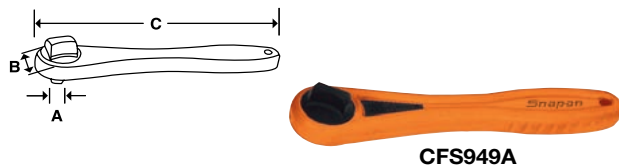
3/8" Drive Sockets, mm, 12-Point

mm	12	Outside Diameter, mm (A)	Length, mm (B)
10	CFDSM10B	25.1	44.9
12	CFDSM12B	29.6	51.2
13	CFDSM13B	29.6	51.2
14	CFDSM14B	29.6	51.2
15	CFDSM15B	29.6	51.2
16	CFDSM16B	33.5	57.4
17	CFDSM17B	33.5	57.4
18	CFDSM18B	33.5	57.4
19	CFDSM19B	33.5	57.4

3/8" Drive Sockets, inches, 12-Point

Set Contains:	12	Outside Diameter, inches (A)	Length, inches (B)		
207CFDSY	1/4	CFDS8B	15/16	1 3/4	
	5/16	CFDS10B	15/16	1 3/4	
	3/8	CFDS12B	1	1 3/4	•
	7/16	CFDS14B	1	1 3/4	•
	1/2	CFDS16B	1 3/16	2	•
	9/16	CFDS18B	1 3/16	2	•
	5/8	CFDS20B	1 3/16	2	•
	11/16	CFDS22B	1 3/8	2 1/4	•
	3/4	CFDS24B	1 3/8	2 1/4	•

IHT208K Non-Conductive Composite Ratchet and Socket Set. CFDS12B thru CFDS24B sockets (3/8" to 3/4") (8 pcs) plus CFS949A ratchet in C0800 kit bag.



Ratchets

No conductive path to user. No insulation to puncture, tear or wear through. Every tool is individually tested to ensure protection up to 1,000VAC and 1,500VDC. Only Snap-on non-conductive tools are UL Classified, assuring compliance to IEC60900. This means UL inspects and audits to ensure complete compliance with IEC60900. Lifetime warranty for material and workmanship.

Stock No.	Square Drive, inches (A)	Head Width, inches (B)	Length, inches (C)	Repair Kit
CFS949A	3/8	1 19/32	8 3/4	RKRCFS949A
CSS949A	1/2	1 19/32	8 3/4	



Extensions

Stock No.	Square Drive, inches (A)	Outside Diameter, inches (B)	Length, inches (C)
CFX3	3/8	1	3
CFX6	3/8	2	6
CFX12	3/8	2	12
CSX5	1/2	1 5/16	5 21/32
CSX10	1/2	1 5/16	10 21/32



Breaker Bar

Features the comfort and control of a Snap-on screwdriver style handle. UL Classified. Each tool is individually tested to ensure protection up to 1,000VAC and 1,500VDC. Meets IEC 60900 and ASTM 1505 standards for insulating hand tools. Exceeds ASME/ANSI B107.10M strength requirements for standard steel tools.

Stock No.	Head Width, inches	Length, inches	Head Diameter, inches
CSN24B	1 1/8	24 1/2	1



Adaptors

No conductive path to user. No insulation to puncture, tear or wear through. Strong as steel. Every tool is individually tested to ensure protection up to 1,000VAC and 1,500VDC. Only Snap-on non-conductive tools are UL Classified, assuring compliance to IEC60900. This means UL inspects and audits to ensure complete compliance with IEC60900. Lifetime warranty for material and workmanship.

Stock No.	Description	External Square Drive, inches (A)	Internal Square Drive, inches (B)	Outside Diameter, inches (C)	Length, inches (D)
CA1MF	1/2" Square Drive Adaptor	3/8	1/2	1 5/16	3 25/32
CA2A	3/8" Square Drive Adaptor	1/2	3/8	1	3 7/8

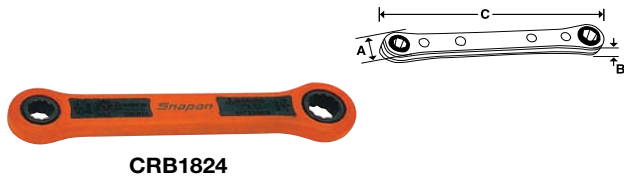
CFSSB8 Non-Conductive Composite Universal Bit Socket. Composite (insulating) universal bit socket for holding 1/4" bits. 3/8" square drive, 1" O.D., 1 3/4" long.



WARNING

- Do not use damaged tool
- Do not use with impact drivers
- Read safety precautions on pages 594 to 597

NON CONDUCTIVE COMPOSITE TOOLS



CRB1824



COE18



COEH

Ratcheting Box Wrenches

UL Classified. Individually tested to ensure protection up to 1,000VAC and 1,500VDC. Meets IEC 60900 and ASTM 1505 standards for insulating hand tools. Exceeds ASME/ANSI B107.10M strength requirements for standard steel tools.

Stock No.		Finish	Head Diameter, inches (A)	Head Depth, inches (B)	Length, inches (C)
CRB1824	$9/16-3/4$	Composite	$1\ 9/16 - 1\ 13/16$	$5/8-5/8$	$9\ 1/16$

Open End Wrenches

Individually tested to ensure protection up to 1,000VAC and 1,500VDC. Meets IEC 60900 and ASTM 1505 standards for insulating hand tools. Exceeds ASME/ANSI B107.10M strength requirements for standard steel tools. UL Classified.

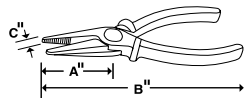
Stock No.		Head Diameter, inches	Head Depth, inches
COE12	$3/8$	$25/32$	$5/32$
COE14	$7/16$	$29/32$	$5/32$
COE18	$9/16$	$1\ 1/16$	$5/32$
COE20	$5/8$	$1\ 5/16$	$5/32$
COE22	$11/16$	$1\ 7/16$	$5/32$
COE24	$3/4$	$1\ 19/32$	$5/32$
COE26	$13/16$	$1\ 23/32$	$3/8$
COE28	$7/8$	$1\ 23/32$	$3/8$



C59AHL



C97CP

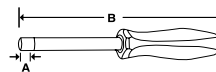


Pliers

Non-conductive needle nose pliers feature all composite jaw and handle. Spring loaded joint returns pliers to comfortable working position. Durable jaw teeth aid in gripping and twisting. Integral thumb guard for user protection. Each tool is individually tested to ensure protection up to 1,000VAC and 1,500VDC. Only Snap-on non-conductive tools are UL Classified, assuring compliance to IEC60900. This means UL inspects and audits to ensure complete compliance with IEC60900. Lifetime warranty for material and workmanship.

Same quality as standard lineman pliers for performance and durability. Non-conductive handles are soft grip for comfort and control. Handles feature thumb guards, two position grip and tether hole. Each tool is individually tested to ensure protection up to 1,000VAC and 1,500VDC. Meets IEC60900 standards. Overall length of 10".

Stock No.	Description	Jaw Length, inches (A)	Length, inches (B)	Tip Width, inches (C)
C97CP	Needle Nose Pliers	2	$8\ 1/2$	$5/32$
C59AHL	Lineman's Pliers	$1\ 13/32$	10	—



107CNDD

Nut Drivers

Snap-on non-conductive composite nut drivers have the 6-point Flank Drive® wrenching system for greater turning power with less fastener damage. Nut drivers feature narrow, non-conductive composite shanks for greater access and a full 5" bolt clearance depth. Screwdriver style handles provide maximum comfort and control. Handles are color coded for easy size reference. Sizes are stamped on the handle crown for better visibility when wearing a tool pouch. (U.S. Patent 6,427,563)

Stock No.		Bolt Clearance Diameter, inches (A)	Length, inches (B)	Set Contains:
CNDD106	$3/16$	$5/32$	$7\ 5/8$	•
CNDD107	$7/32$	$5/32$	$7\ 5/8$	•
CNDD108	$1/4$	$5/32$	$7\ 5/8$	•
CNDD110	$5/16$	$5/32$	$7\ 5/8$	•
CNDD112	$3/8$	$11/32$	$8\ 3/8$	•
CNDD114	$7/16$	$11/32$	$8\ 17/32$	•
CNDD116	$1/2$	$11/32$	$9\ 1/16$	•

Soldering / Electrical Soldering Kits



R450B



R460B



R490



R60B

R450B Soldering Gun Kit.

- Three different tip and element configurations give this tool great flexibility - from delicate soldering to larger, heavy-duty applications, such as automotive maintenance
- Slim, single post design ideal for confined work areas
- Fast heat-up
- Built-in spotlight to illuminate the work area
- Integral tool stand keeps heated part of the tool out of harm's way
- Polarized plug and professional quality
- Packed in a plastic storage case
- UL listed

Irons

R40B Industrial Soldering Kit.

- 40 Watt solder iron is ideal for large solder jobs like battery terminal cables or radiator repair. Threaded tips offer improved heat exchange compared to set screw types
- Features a heat deflection shield, 4 3/4" long handle, 8 1/2" overall length and 8' power cord
- Includes pointed, chisel and fine tips plus 1/2 oz. of lead free rosin core solder and holder
- UL Listed in U.S. and Canada. 120V, 60 Hz

R25A Industrial Soldering Kit.

- Lightweight 25 Watt pencil style kit for fine soldering applications
- Threaded tips offer improved heat exchange
- Features a heat deflection shield, 4 3/4" long handle, 8 1/2" overall length and 8' power cord
- Includes pointed, chisel and fine tips plus 1/2 oz. of lead free rosin core solder and holder
- UL listed in U.S. and Canada
- 120V, 60 Hz

Optional Tips

Item	Description
R60A7	Screwdriver 1/16 Tip 700°
R60A8A	Screwdriver 1/16 Tip 800°
R60B7	Screwdriver 3/32 Tip 700°
R60B8	Screwdriver 3/32 Tip 800°
R60D7	Screwdriver 3/16 Tip 700°
R60D8	Screwdriver 3/16 Tip 800°
R6007	Long Conical 1/32 Tip 700°
R60R7	Narrow Screwdriver 1/16 Tip 700°
R60R8	Narrow Screwdriver 1/16 Tip 800°
R60S7	Long Conical 1/64 Tip 800°

R460B Heavy Duty Soldering Gun Kit-Blue-Point®.

- Heavy-duty soldering gun for those big jobs, quick and efficient
- Built-in spotlight illuminates the work area
- Balanced tool design is more comfortable and easier to use
- Tip heats up in less than 10 seconds
- Quick change type tips can be easily changed within 30 seconds
- Integral tool stand keeps heated part of the tool from damaging surrounding areas
- Packed in a plastic storage case
- UL listed

R490 Industrial Soldering Gun-Blue-Point.

- Dual wattage elements: high wattage heats tip in seconds, lower wattage maintains rated tip temperature
- Effective tip temperature of 1,000°F or more for heavy duty, sustaining soldering
- Trigger activated control is convenient, easy to use and provides instant response
- Built-in worklight illuminates the work area
- Plug-in tip and element (TE) assemblies are plug-in units that can be changed within a minute
- Integral tool stand prevents heated part of tool from damaging surrounding areas
- Plastic storage case
- UL listed

R60B (60W) Soldering Station.

- Includes low voltage, temperature controlled soldering pencil that features a heat shield, a non-burnable silicone rubber cord and a plug-in tip design
- Transformer powered
- 700°F. 1/16" screwdriver tip included
- 120V, 60 Hz.
- Optional 700°F tips for R60B or RH60B



R40B



R25A



YA477



YA476

Solder Suckers

YA477 Solder Sucker.

- Low static unit designed for desoldering electrostatic discharge sensitive components
- Set plunger and release creates a vacuum that draws up solder

YA477-1 Replacement Tip. Replacement tip for YA477.

YA476 Small Solder Sucker.

- Smaller version of YA477 above
- Includes self cleaning feature

YA476-1 Replacement Tip. Replacement tip for YA476.



WARNING



- Do not use damaged tool
- Read safety precautions on pages 594 to 597

ELECTRICAL / ELECTRONIC SERVICE

Butane



YAKS32A

Butane Soldering Iron Kit

YAKS32A Butane Soldering Auto-Ignition Multi Kit 25-130 Watt. Durable unit featuring an ultrasonically welded gas tank for better strength, safety and reliability. Made with butane compatible plastics - prevents gas leaking.

- 12 month replacement warranty
- Pushbutton electronic ignitor
- Torch and soldering iron all-in-one
- Run time 90 minutes + continuous use
- Adjustable temperature control 25-130 Watts (equivalent)
- Cordless butane powered - no cords or wires
- Kit includes 8 tips for hot air, heat shrink, hot knife and 5 soldering tips
- ESD safe antistatic

YAS32A 2 IN 1 Gas Soldering Auto-Ignition Tool

25-130 Watt. Durable all around favorite featuring an ultrasonically welded gas tank for better strength, safety and reliability. Made with butane compatible plastics - prevents gas leaking.

- 12 month replacement warranty
- Pushbutton electronic ignitor
- Torch and soldering iron all-in-one
- Run time 90 mins + continuous use
- Adjustable temperature control 25-130 Watts (equivalent)
- Converts to a heat shrink tool and hot knife with the addition of interchangeable tips
- Cordless butane powered - no cords or wires



YAKS22A

Butane Soldering Iron Kit

YAKS22A Butane Soldering Auto-Ignition Multi Kit 15-75 Watt. Versatile and compact professional soldering iron, featuring an ultrasonically welded gas tank for better strength, safety and reliability. Made with butane compatible plastics - prevents gas leaking.

- 12 month warranty
- Pushbutton electronic ignitor
- Short distance from tip to grip - gets you closer to your work
- Run time up to 1 hour
- Adjustable temperature control 15 - 75 Watts equivalent
- Cordless butane powered - no cords or wires
- ESD safe antistatic
- Kit includes 8 tips: Hot air, heat shrink, torch, hot knife and 4 soldering tips

YAS22A Gas Soldering with Auto-Ignition 15-75 Watt.

Versatile and compact professional soldering iron, featuring an ultrasonically welded gas tank for better strength, safety and reliability. Made with butane compatible plastics - prevents gas leaking.

- 12 month warranty
- Pushbutton electronic ignitor
- Short distance from tip to grip - gets you closer to your work
- Run time up to 1 hour
- Adjustable temperature control 15 - 75 Watts equivalent
- Converts to a torch, heat shrink tool and hot knife with the addition of interchangeable tips
- ESD safe antistatic
- Cordless butane powered - no cords or wires



YAKS300

Butane Soldering Iron Kit

YAKS300 Cordless Soldering Tool Kit. A robust economy model featuring an ultrasonically welded gas tank for better strength. Made with butane compatible plastics - prevents gas leaking.

- 12 month replacement warranty
- Easy to light with added flint ignitor in the cap
- Set at 50 Watts equivalent with a 30 minute continuous use run time
- Safety cutoff switch when cap is replaced
- Cordless butane powered - no cords or wires
- Kit includes 4 tiplets, stand and cleaning sponge

YAS300 Cordless Soldering Tool Fitted with 3/16

Chisel Tippet. A robust economy model featuring an ultrasonically welded gas tank for better strength. Butane compatible plastics - prevents gas leaking.

- 12 month replacement warranty.
- Easy to light with added flint ignitor in the cap
- 50 Watts equivalent with a 30 minute continuous use run time
- Safety cutoff switch when cap is replaced
- Cordless butane powered - no cords or wires
- Spare tips available

Product	Push Button ignitor	Max. power (watts equivalent)	Adjustable Temperature Control	Run time, mins	Tips included	ESD Safe
YAKS32A	Yes	130	Yes	90	8	Yes
YAKS22A	Yes	75	Yes	60	8	Yes
YAKS300	No	50	Yes	30	4	Yes

Kit Comparison YAKS300, YAKS22A & YAKS32A

Products	YAKS300	YAKS32A	YAKS22A
Fine Tip	•		
1.0 DF Tip		•	•
2.4 DF Tip	•	•	•
3.2 DF Tip		•	•
4.8 mm Tip		•	•
Hot Knife Tip	•	•	•
Hot Blow & Deflector		•	•
Torch		•	•
Cleaning Sponge & Tray	•	•	•
Kit Box	•	•	•
Flint Ignitor cap	•		
Cap		•	•



TORCH2



TORCH3



TORCH4



TORCH5



TORCH6

Miniature Butane Soldering Torches

TORCH2 Micro-Jet Torch. Piezo electronic ignition system. Instant 1,300°C/2,400°F microflame. Powered by disposable cigarette lighter or refillable butane cell (included). 20 minutes of fuel life at continuous use. Pocket size. Overall dimensions: 4.5" x 1" x 2.8" (144.3 x 25.4 x 71.1mm). Weight: 2.2 oz. (0.06 kg.)

TORCH3 Torch. Ideal for workshop, garage or laboratory. Use for welding, soldering, car repair, plumbing and electronic repair applications. Piezo ignition delivers 1,300°C/2,400°F flame. 220 min. refillable butane gas tank. Adjustable air and gas flow valves. Brass body covered with a protective grip. Kill switch. Removable base. Overall dimensions (with out base): 5.38" x 1.5" x 4.5" (136.5 x 38.1 x 101.6mm). Base dimensions: 2.75" x 2.75" (69.8 x 69.8mm). Weight: 0.64 lb. (0.29 kg.)

TORCH4 Butane Blow Torch. Ultrasonically welded gas tank for better strength and safety. Butane compatible plastics prevents gas leaks. 18 month replacement warranty.

- Powerful wind resistant flame with 751 BTU/h
- Temperature up to 2,462°F (1,350°C)
- All-in-one easy to use On/Off ignition switch
- Adjustable flame length up to 3 1/2 inches
- Run time is a continuous 40 minutes +
- 220 Watts equivalent

Miniature Tool/Pliers–Blue-Point®

Mini-Pliers. Stainless steel, 3-notch ratcheting locking mechanisms lock onto small objects with varying degrees of pressure. 1/16" tips; 1 3/8" long jaws.

MPC7 Mini-Pliers. Curved, serrated jaws with green handles. 7" long.

MPC10 Mini-Pliers. Curved, serrated jaws with green handles. 10" long.

MPS7 Mini-Pliers. Straight, serrated jaws with orange handles. 7" long.

MPS10 Mini-Pliers. Straight, serrated jaws with orange handles. 10" long.

MPK4 Mini-Pliers Set. MPC7 and MPC10 plus MPS7 and MPS10 (4 pcs) in black zipper pouch.

Tweezers–Blue-Point

TZK5 Tweezers Kit. Includes 5 tweezers in a vinyl zipper pouch.

- All stainless steel construction
- Pointed tweezers w/plain ends, 4 3/8" long
- Self-closing tweezers w/plain ends, 4 1/2" long
- Self-closing, weighted solder tweezers w/serrated blunt end, 7" long
- Sharp point utility tweezers w/bent plain ends, 7" long
- Sharp point utility tweezers w/plain ends, 7" long

TZK7 Tweezers Kit. Includes 7 tweezers in a black vinyl zipper pouch.

- All stainless steel construction
- Pointed tweezers, 4 3/8" long
- Curved head utility tweezers, 6 3/4" long
- Self-closing, heat resistant tweezers, 6" long
- Sharp pointed utility tweezers, 7" long
- Side locking tweezers, 6" long
- Spade point tweezers, 4 3/8" long
- Weighted solder tweezers, 6" long

TORCH5 Butane Blow Torch. Miniature butane soldering torch with Piezo ignition is designed for continuous, heavy duty soldering. Electronic ignition On/Off switch and heat/flame adjustment dial are positioned for one-hand operation. Removable soldering tip. Built-in stand for ease of use. Soft grip handle provides comfort and a sure gripping surface. Butane cells are easily filled with BUTANE15CSA butane fuel can (not included). Cells (two included) are shipped empty.

Specifications:

- Soldering temperature: 480° - 1,000°F (248.9° - 537.8°C)
- Flame temperature: 2,400°F (1,316°C)
- Brazing up to 2,400°

TORCH6 Butane Torch. Features an ultrasonically welded gas tank for better strength, safety and reliability. Made with butane compatible plastics - prevents gas leaking. 18 month replacement warranty.

- Robust burner specifically designed to protect the ceramic greatly extends the life of the torch
- Twin spark ignition - lights first time every time
- Massive 2.797 BTU/h flame power
- Adjustable flame length up to 4 1/2 inches
- Temperature up to 2,462°F (1,350°C)
- Almost 4 times more powerful than any other butane micro torch

BUTANE15CSA Butane Fuel Cans (Case). Triple filtered butane fuel for use with Snap-on® TORCH2, TORCH3, TORCH4, TORCH5 and TORCH6 mini torches, YAKS300/YAKS32A/YAKS22A soldering irons and GLUEGUN3/GLUEGUN4KT glue guns. Universal filling tip can be used with most refillable butane products as well. Case of (24) 1.5 oz. cans.



MPK4



MPC7



MPS7



TZK5



TZK7



WARNING



- Do not store butane at temperature over 120°F
- Transport and dispose of butane in accordance with all regulations
- Read safety precautions on pages 594 to 597

PUNCHES AND CHISELS

Punches and Chisels

The anvil end on heads of Snap-on® punches and chisels are machined to a modified parabolic curve. This design directs the striking force to the center of the tool head to allow slow metal displacement. The parabolic curve controls mushrooming to reduce chipping and splitting. Heads should be re-dressed to their original shape with hand files as necessary. The tough steel alloy is machined and differentially heat treated for optimum performance. The hardness of the striking head is reduced to help toughness and add qualities that result in a slower mushrooming of the striking surface.



PPC250BK

PPC250BK Punch and Chisel Set.
Includes 24 pcs. in KB2179 kit bag:
PPC1A PPC106A PPC205A PPC820B
PPC3A PPC108A PPC206A PPC824B
PPC4A PPC110A PPC208A PPC12B
PPC103A PPC112 PPC210A PPC14B
PPC104A PPC203A PPC812B PPC15B
PPC105A PPC204A PPC816B PPC19B



PPC100AK

PPC100AK Punch and Chisel Set.
Includes 10 pcs. in KB2175 kit bag:
PPC812B PPC828B PPC15B
PPC816B PPC12B PPC19B
PPC820B PPC13B
PPC824B PPC14B



PPC210BK

PPC210BK Punch and Chisel Set.
Includes 22 pcs. in KB2178 kit bag:
PPC1A PPC105A PPC204A PPC816B
PPC5A PPC106A PPC205A PPC820B
PPC3A PPC108A PPC206A PPC824B
PPC4A PPC110A PPC208A PPC828B
PPC103A PPC112 PPC210A
PPC104A PPC203A PPC812B



PPCD70BK

PPCD70BK Punch and Chisel Set.
Includes 7 pcs. in KB2183 kit bag:
PPC103A PPC106A PPC110A
PPC104A PPC107A
PPC105A PPC108A



PPC715BK

PPC715BK Punch and Chisel Set.
Includes 16 pcs. in KB2182 kit bag:
PPC1A PPC104A PPC203A PPC208A
PPC3A PPC105A PPC204A PPC812B
PPC4A PPC106A PPC205A PPC816B
PPC103A PPC108A PPC206A PPC820B



PPCS60BK

PPCS60BK Punch and Chisel Set.
Includes 6 pcs. in KB2185 kit bag:
PPC203A PPC205A PPC208A
PPC204A PPC206A PPC210A



PPC710BK

PPC710BK Punch and Chisel Set.
Includes 11 pcs. in KB2181 kit bag:
PPC1A PPC105A PPC205A PPC816B
PPC4A PPC106A PPC206A PPC820B
PPC103A PPC203A PPC812B



PPC50AK

PPC50AK Punch and Chisel Set.
Includes 5 pcs. in KB2173 kit bag:
PPC812B PPC820B PPC828B
PPC816B PPC824B



PPSD120BK

PPSD120BK Punch and Chisel Set.
Includes 12 pcs. in KB2187 kit bag:
PPC103A PPC106A PPC203A PPC206A
PPC104A PPC108A PPC204A PPC208A
PPC105A PPC110A PPC205A PPC210A



PPCM60BK

PPCM60BK Punch and Chisel Set.
Includes 6 pcs. in KB2189 kit bag:
PPCM103B PPCM104B PPCM105B
PPCM106B PPCM107B PPCM108B

	Stock No.	Hex Size, in.	Point / Edge, in. (mm)	Length, in. (mm)
Punch and Chisel Accessories 	PPC1A Chisel Gauge	—	—	2 5/8
	PPC5A Punch/Chisel Holder	—	—	6 15/16
Center Punches 	PPC3A	5/16	1/8	5
	PPC4A	7/16	3/16	6
	PPC6B	5/8	5/16	7
	PPC714B	9/16	5/32	14
Pin Punches 	PPC103A	9/32	3/32	4 7/32
	PPC104A	5/16	1/8	4 3/4
	PPC105A	3/8	5/32	5
	PPC106A	3/8	3/16	5 1/4
	PPC107A	3/8	7/32	5 1/4
	PPC108A	7/16	1/4	5 3/4
	PPC110A	1/2	5/16	5 1/4
Metric Pin Punches 	PPCM103B	5/16	(3)	(154.2)
	PPCM104B	5/16	(4)	(154.2)
	PPCM105B	3/8	(5)	(154.2)
	PPCM106B	3/8	(6)	(154.2)
	PPCM107B	3/8	(7)	(154.2)
Starter Punches 	PPC203A	5/16	3/32	5 1/2
	PPC204A	3/8	1/8	5 3/4
	PPC205A	3/8	5/32	6
	PPC206A	7/16	3/16	6 1/4
	PPC208A	1/2	1/4	6 3/4
	PPC210A	9/16	5/16	7 1/4

	Stock No.	Hex Size, in.	Point/Edge, in.	Length, in.
Flat Chisels 	PPC808A	1/4	1/4	5
	PPC812B	5/16	3/8	5 1/2
	PPC816B	7/16	1/2	6
	PPC820B	1/2	5/8	6 1/2
	PPC824B	5/8	3/4	7 1/4
	PPC828B	11/16	7/8	8
	PPC832B	7/8	1	9
	BPPC1878*	7/8	1	18
Long Flat Chisels 	PPC820LB	1/2	5/8	16
Half Round Nose Cape Chisels 	PPC12B	3/8	5/16	6
Cape Chisels 	PPC13B	5/16	1/4	5 5/8
	PPC14B	3/8	5/16	6
Diamond Point Chisels 	PPC15B	7/16	7/32	6
	PPC19B	3/8	1/8	5 3/4

*Blue-Point®

PUNCHES AND CHISELS

PPRG80 Roll Pin Punch Guide Set.

- Companion tool for the PPR708K roll pin punch set
- Provides faster, safer pin installation
- Pin guide is a vinyl sleeve uniting pin and punch to achieve perfect alignment during installation
- Ideal for pin installation in tight quarters where two hands can't reach
- Eliminates the need to start pin with hammer before applying punch
- Helps avoid hitting fingers with hammer
- Use with Snap-on® roll pin punches PPR2 thru PPR8 (1/16" to 1/4")
- Can also be used with Snap-on pin punches PPC103A thru PPC108A (3/32" to 1/4") and long pin punches PPC104LA thru PPC108LA (1/8" to 1/4").



PPRG80

PPR708BK Roll Pin Punch Set.

Includes 8 pcs. in KB2186 kit bag:

PPR2 PPR4 PPR7
PPR2-1/2 PPR5 PPR8
PPR3 PPR6



PPR708BK

PPCL60BK Long Pin Punch Set.

Includes 6 pcs. in KB2184 kit bag:

PPC104LA PPC106LA PPC108LA
PPC105LA PPC107LB PPC110LA



PPCL60BK

	Stock No.	Hex Size, in.	Point/Edge, in.	Length, in.	
Roll Pin Punches	PPR2	—	1/16	3 5/32	
	PPR2-1/2	—	5/64	3 1/2	
	PPR3	—	3/32	3 29/32	
	PPR4	—	1/8	4 1/4	
	PPR5	—	5/32	4 5/8	
	PPR6	—	3/16	5	
	PPR7	—	7/32	5 3/8	
	PPR8	—	1/4	5 3/4	
	PPR10	—	5/16	6 1/8	
	PPR12	—	3/8	6 1/8	
	PPR14	—	7/16	6 1/8	
	PPR16	—	1/2	6 1/8	
	Long Pin Punches	PPC104LA	5/16	1/8	5 5/16
		PPC105LA	3/8	5/32	6 1/2
PPC106LA		3/8	3/16	7 1/16	
PPC107LB		3/8	7/32	7 5/8	
PPC108LA		7/16	1/4	8 3/16	
PPC110LA		1/2	5/16	8 3/4	
Midget Punches and Chisels	PPC402A Pin Punch	9/32	1/16	3	
	PPC403A Pin Punch	9/32	1/8	3 1/4	
	PPC404A Center Punch	9/32	3/32	3 5/8	
	PPC405A Starter Punch	9/32	1/16	3 3/4	
	PPC408B Flat Chisel	—	5/16	4 1/8	
	PPC406B Cape Chisel	9/32	3/16	3 7/8	
	PPC407B Cape Chisel	9/32	5/32	4	

PPVP70BK Midget Punch and Chisel Set.

Includes 7 pcs. in KB2188 kit bag:

PPC402A PPC404A
PPC408B PPC407B
PPC403A PPC405A
PPC406B



PPVP70BK

PPLT40AK Drift Pin Punch Set.

Includes 4 pcs. in KB2174 kit bag:

PPC905B PPC908B
PPC910B PPC912B

LP30A Drift Pin Punch Set.

Includes 3 pcs. in KB2177 kit bag:

1210B 1512B 1816B



LP30A

PPB30AK Bronze Punch Set.

Includes 3 pcs. in KB2171 kit bag:

PPB408A PPB612A PPB816A



PPBL30AK Bronze Punch Set.

Includes 3 pcs. in KB2172 kit bag:

PPB1012A PPB1226A PPB826A

PPB20AK Bronze Tapered Punch Set.

Includes 2 pcs. in KB2170 kit bag:

PPB1012A PPB1414A

PPBL30AK

	Stock No.	Hex Size, in.	Point/Edge, in.	Length, in.
Drift Pin Punches	PPC905B	3/8	5/32	8
	PPC908B	7/16	1/4	8 1/2
	PPC910B	1/2	5/16	9
	PPC912B	9/16	3/8	9 1/2
	1210B	5/8	5/16	12
	1512B	3/4	3/8	15
1816B	7/8	1/2	18	
Bronze Pin Punches	PPB408A	—	1/4	4
	PPB612A	—	3/8	6
Bronze Drift Punches	PPB816A	—	1/2	8
	PPB826A	—	13/16	8
	PPB1226A	—	13/16	12
Bronze Tapered Punches	PPB1001A	5/8	3/8	8
	PPB1012A	—	3/8	10
	PPB1414A	—	7/16	14
Bronze Round Punch	PPB1002A	—	3/4	10



WARNING



- Use the proper punch or chisel for the job
- Do not use punches or chisels having chipped or mushroomed end; dress to original shape with a hand file
- Hammer head diameter should be approximately 3/8" larger than head of punch or chisel
- Read safety precautions on pages 594 to 597

PUNCHES AND CHISELS

Soft Grip

- Ergonomic soft grip handle provides a powerful grip, improves the thermal sensation in cold work environments and reduces strike vibration
- Semi-spherical striking area controls mushrooming to help reduce chipping and splitting
- Cutting edges on chisels are hand ground to consistently produce a quality edge
- Black oxide coated
- Manufactured from special alloy steel that is differentially heat treated to increase durability

Stock No.	Description	Point/Edge, in.	Length, in.	Set Contains:
PCSG812	Flat Chisel	3/8	6 1/8	•
PCSG816	Flat Chisel	1/2	6 1/8	•
PCSG820	Flat Chisel	5/8	6 1/8	•
PPSG4	Center Punch	3/16	6 1/8	•
PPSG103	Pin Punch	3/32	6 1/8	•
PPSG105	Pin Punch	5/32	6 1/2	•
PPSG106	Pin Punch	3/16	6 1/2	•
PPSG203	Starter Punch	3/32	6 1/8	•
PPSG205	Starter Punch	5/32	6 1/8	•
PPSG206	Starter Punch	3/16	6 1/8	•

PPCSG710



PPCSG710



PPC14LB

Oval Bearing Race Punches

- High-alloy steel makes these tools ideal for stubborn bearing races
- PPC6LB** 7/16" hex stock, 7/16" x 15/64" oval point, 6" long.
- PPC10LB** 1/2" hex stock, 1/2" x 17/64" oval point, 10" long.
- PPC14LB** 9/16" hex stock, 9/16" x 19/64" oval point, 14" long.
- PPC20LB** 9/16" hex stock, 5/8" x 5/16" oval point, 20" long.
- PPC704BK Punch Set.** Includes PPC6LB thru PPC20LB (4 pcs).



GA1

Bushing Cutter

- GA1 Bushing Cutter (7 1/4" long).**
- Made of 1/2" octagonal stock with a 7/16" x 1/8" bit
- Curved bit pushes material away from work



YA900



YA879

Automatic Centering Punches—Blue-Point®

- YA900 Automatic Center Punch (4 3/4" long).**
- Strikes blow when pressure is applied—no hammer needed
- Cap adjusts force of blow
- 7/16" diameter

YA879 Heavy Duty Automatic Center Punch (5" long).

- Single-hand operation
- Design eliminates need for striking with hammer
- Adjustable spring tension cap
- Hardened steel point is replaceable
- 1/2" diameter



YA8290A

Revolving Punch

YA8290A Revolving Punch—Blue-Point

- Punch round holes in leather, rubber, plastic, canvas, gaskets, and other similar materials
- Six punch sizes included in tool: 5/64", 3/32", 7/64", 1/8", 9/64" and 5/32"



PGH8A

Gasket Punch Set

- PGH8A Gasket Punch Set.**
- Cuts holes in gaskets and other soft materials. Includes 5 3/8" long mandrel and ten punches: 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 3/4", 7/8", and 1" in a storage case.



DPFT528A

Transfer Punch Set

DPFT528A Transfer Punch Set—Blue-Point.

- For transferring hole patterns.
- Set includes punches from 3/32" to 1/2" in 1/64" increments plus 17/32"
- Each punch is marked with its size and manufactured from tempered steel to promote long tool life
- A metal index provides convenient storage
- Punches are 4 7/8" in length



GA237

Steel Stamping Sets—Blue-Point

- Heat-treated square stamp bodies.
- Stored in two-piece wooden containers.

Set Stock No.	Characters	Number Stamps	Figure size, inches	Square body, inches	Length, inches
GA237	0-9*	9	3/16	5/16	2 7/16
YA817	0-9*	9	1/8	1/4	2 3/8
GA238	A-Z**	27	3/16	5/16	2 7/16
YA818	A-Z**	27	1/8	1/4	2 3/8

*One stamp serves as both 6 and 9.

**Also includes stamp for period.

HAMMERS

Dead Blow

HBFE Series Dead Blow Hammers

- Free flowing shot design to improve dead blow action while reducing rebound
- Compact head has larger surface striking area and heavier caps to improve delivered force by as much as 40 percent



HBFE32

Applications: Brake rotors, brake drum removal, ball joints (tie rod removal), tires, seal installation, loosen oil pans and covers, OE rims, axle insertion, piston installation and crank shaft end play

Standard

- Soft grip handle with ribbed, textured elastomer grip prevents hand slippage
- Composite handle shank improves balance while defusing shock and dampening vibration
- Improved thermoplastic urethane material is non-sparking and resistant to most shop chemicals

Stock No.	Weight, oz.	Head Length, inches	Face Dia., inches	Length, inches	Set Contains:
HBFE16	16	3 1/4	1 9/16	12	
HBFE24	24	3 3/4	1 3/4	12 3/4	•
HBFE32	32	4 1/4	2	13 1/2	•
HBFE48	48	4 3/4	2 1/4	15	•
HBFE56	56	5 7/16	2 3/4	15 3/4	

HBBD Series Ball Peen Hammers

- Free-flowing steel canister shot design to improve dead blow action while reducing rebound
- Soft grip handle with ribbed, textured elastomer grip prevents hand slippage
- Composite handle shank improves balance while defusing shock and dampening vibration



HBBD24

Applications: Rear drums, ball joints, tie rods, U-joints rounded end, track bar rounded end, rounded end - Rivets and punch and chisel applications

Stock No.	Weight, oz.	Head Length, inches	Face Dia., inches	Length, inches
HBBD8	8	4	1	11 5/8
HBBD16	16	4 3/8	1 1/4	12 1/4
HBBD24	24	4 3/4	1 3/8	12 3/4
HBBD32	32	5 3/4	1 3/4	13 5/8
HBBD40	40	5 3/4	1 3/4	15 1/8



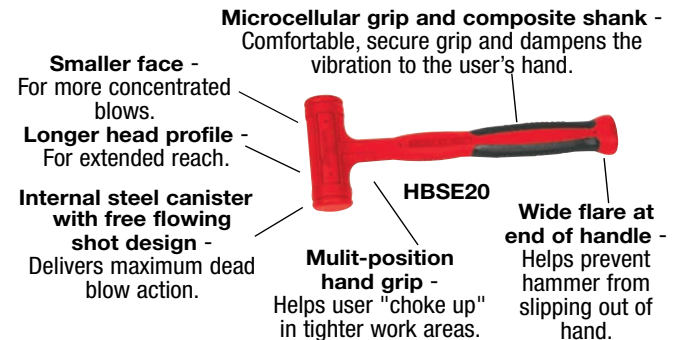
BC110B

Sledge

Stock No.	Weight, lb.	Head Length, inches	Face Dia., inches	Length, inches
BC7B	5	7	2 3/4	20
BC110B	8	7	2 3/4	30
BC114B	11 lb. 8 oz.	8	3 1/4	36

HBSE Series Slimline Dead Blow Hammers

Incorporates our new microcellular soft grip handle, a softer, more comfortable energy absorbing material.



Applications: Main bearing caps, dust caps, smaller objects, custom bikes, tighter applications that standard dead blow hammers will not fit

Stock No.	Weight, oz.	Head Length, inches	Face Dia., inches	Length, inches
HBSE10	10	3 1/2	1 1/4	10 5/8
HBSE20	20	4 1/8	1 3/8	11 1/8
HBSE30	30	5 1/8	1 1/2	12 3/8



HLE24

Piston

- One-piece urethane construction
- Full length canister increases head strength
- Made of material that won't damage the piston
- Shot-filled head drastically reduces rebound

Stock No.	Weight, oz.	Head Length, inches	Face Dia., inches	Length, inches
HLE24	24	7 3/4	5 1/2	12 3/4



HSSD32

Dual Face Drilling

- Sustained impact and maximum striking force with almost no rebound
- Composite handle shank improves the hammer balance while defusing shock
- Free flowing steel head canister design improves dead blow action and reduces rebound
- Non-sparking, chemical resistant molded urethane covering
- Ribbed thumb rest allows user to choke up in tighter work areas

Stock No.	Weight, oz.	Head Length, inches	Face Dia., inches	Length, inches
HSSD32	32	5 3/8	1 3/4-1 3/8	11 1/2



WARNING



- Do not use urethane hammers near liquid oxygen
- Do not strike another hammer or other hardened object

- Do not use chipped, mushroomed or cracked hammers
- Strike squarely, avoid glancing blows
- Read safety precautions on pages 594 to 597

HAMMERS

Soft Face

HBBT Series

- Bronze tipped non-marring hammer ideally suited for work on bushings, gears and transmissions.

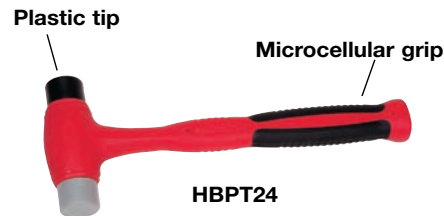


Applications: Bearings & race install, pinion & half shafts, distributor rebuilds, alternator & starter rebuilds, seal installation, body moldings and no spark applications

Stock No.	Weight, oz.	Head Length, inches	Head Dia., inches	Length, inches
HBBT16	16	3 3/4	1 3/8	12
HBBT24	24	4 1/4	1 3/8	12
HBBT32	32	4 1/2	1 1/2	12 3/4

HBPT Series

- Plastic tipped hammers used where metal to metal scratching or marring needs to be eliminated



Applications: Transmission work, rear end work, metal body moldings and light tapping

Stock No.	Head Length, inches	Weight, oz.	Length, inches	Soft Tip Stock No.	Hard Tip Stock No.
HBPT16	3 3/4	16	12	HPTS16	HPHT16
HBPT24	4 3/4	24	12 3/4	HPTS24A	HPHT24A

Soft Blow-Blue-Point®

- Designed to reduce marring and denting
- Use in assembly applications and on surfaces including metal, glass, plastic and wood
- Special polymer head resists dynamic fatigue, creep and compression set, even at extreme temperatures



Stock No.	Face Dimensions, inches	Head Color	Length, inches
BF623	1 7/8 x 2 1/8	Blue	12 1/2



BF620C Rubber Head Mallet-Blue-Point.

- Solid rubber head is 3 3/4" long and 2 1/4" in diameter
- 11" hardwood handle
- Ideal for replacing hubcaps, bodywork, etc.



Interchangeable Head-Blue-Point

- Shot loaded, dead blow hammer adds more striking force by eliminating rebound and dampening vibration shock
- 1 1/2" striking face diameter on each hammer head
- Six interchangeable heads meet a number of various applications, including non-marring and non-sparking applications with selected head surfaces
- Comfortable, non-slip handle grip
- Set includes 10" fiberglass handle and storage case
- 1" head extender is optional

Stock No.	Description	Color	Weight, oz.	
HSPI6KT1	Hammer Handle	—	22	•
HSPI6KT2	Soft Face	Brown	1.5	•
HSPI6KT3	Medium Face	Red	1.4	•
HSPI6KT4	Medium Hard Face	Cream	1.3	•
HSPI6KT5	Hard Face	Black	1.3	•
HSPI6KT6	Steel Face	Steel	2.2	•
HSPI6KT7	Brass Face	Brass	2.2	•
HSPI6KT8	Plastic Storage Case	Black	—	•
HSPI6KT9	1" Head Extender	—	—	

Set Contains:



Combination

- Combination steel and soft face dead blow
- One-piece urethane construction
- Replaceable tips

Stock No.	Head Length, inches	Weight, oz.	Tip Dia., inches	Length, inches	Soft Tip Stock No.	Hard Tip Stock No.	
HSPD16	4 3/8	16	1 1/4	12 1/8	HPTS16	—	
BH232A	—	32	1 5/8	13	BH232-2	BH232-3	•
BH232-4	Optional nylon tip (also available)						



Brass (Fiberglass Handle)-Blue-Point

- Non-sparking/non-marring surface for many applications
- Brass head absorbs blow and reduces rebound
- Flat surface for even distribution of blow
- Comfortable, non-slip handle grip

Stock No.	Weight, lbs.	Length, inches
HBR15	1 1/2	12
HBR25	2 1/2	12

HAMMERS

Ball Peen



BP16B

Hickory Handle–Blue-Point®

Set Contains:

BP1004S

Stock No.	Weight, oz.	Handle Length, inches	Replacement Handle
BP2B	2	9 1/2	BPH2C
BP4B	4	10 1/2	BPH4C
BP8B	8	12 1/2	BPH8C
BP12B	12	13 1/2	BPH12C
BP16B	16	14 1/2	BPH16C
BP20B	20	15	BPH20C
BP24B	24	16	BPH20C
BP32B	32	16	BPH40C
BP40B	40	16 1/4	BPH40C
BP48B	48	16 1/4	BPH40C

ASME/ANSI B173.2



BPN16B

Fiberglass Handle–Blue-Point

Stock No.	Weight, oz.	Handle Length, inches	Replacement Handle	Previous Model Handle
BPN8B	8	11	BPNH8B	BPN8-1
BPN12B	12	12	BPNH12B	BPN12-1
BPN16B	16	13	BPNH12B	BPN16-1
BPN24B	24	14	BPNH24B	BPN24-1
BPN32B	32	16	BPNH24B	BPN24-1

ASME/ANSI B173.2

Heavy-Duty

BC/BD/HD Series Heavy Duty Fiberglass

- Dampens vibration and provides strength and safety
- Handle is resistant to dry rot, warp and splintering



HD4SG



BC4SG



BD4SG

Fiberglass Handle–Blue-Point

- Fiberglass handle dampens vibration and provides extra strength and safety
- Handle is epoxy-welded to hammer head and will withstand 8,000 lbs. of separation force
- Handle is resistant to dry rot, warp and splintering
- Comfortable, non-slip handle grip
- Materials will resist most shop chemicals

Stock No.	Description	Weight, lbs.	Striking Face Dia., inches	Handle Length, inches	Overall Length, inches	Replacement Handle
BC4SG	Cross Peen	4	1 1/2	12	14	BD4SG-1
BD4SG	Engineer	4	1 1/2	12	14	BD4SG-1
HD4SG	Hand Drilling	4	1 1/2	8 3/4	10 3/4	HD4SG-1



HCL16

Claw Hammer, 16 oz.

- Drop forged carbon steel head
- Oversized striking surface
- Polyurethane leather improves grip and offers abrasion resistance and low-temperature flexibility for unparalleled comfort
- Anti-shock™ core reduces vibration and hand fatigue
- One piece construction delivers increased strength



WARNING



- Do not use urethane hammers near liquid oxygen
- Do not strike another hammer or other hardened object
- Do not use chipped, mushroomed or cracked hammers

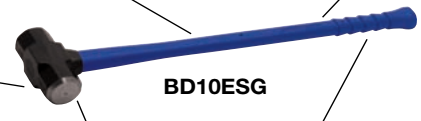
- Strike squarely, avoid glancing blows
- Read safety precautions on pages 594 to 597

BD Series Sledge Hammers

Durable handles - Will not dry rot, warp or splinter from exposure to the elements & resist most shop chemicals.

Handles - Tensile strength of 200,000 pounds per square inch.

Drop forged carbon steel heads - Heat treated for durability & safety.



BD10ESG

Fiberglass handles - Welded into the sledge eyehole to withstand 8,000 pounds of separation force.

Ergonomic grip - Provides a superior gripping surface, helping to dampen & absorb vibration.

Sledge Fiberglass Handle–Blue-Point

Stock No.	Weight, lbs. (kg)	Face Dia., in. (mm)	Handle Length, in. (mm)	Overall Length, in. (mm)	Replacement Handle
BD6ESG	6 (2.7)	1 5/8 (41.1)	16 (406.4)	18 (457.2)	BD6ESG-1
BD10ESG	10 (4.5)	2 (50.8)	29 (736)	32 (812.8)	BD8ESG-1



BH122D

BH141A

BH133B

Hickory Handle–Blue-Point

Stock No.	Description	Weight, oz.	Head Length, inches	Overall Length, inches	Replacement Handle
BH122D	Engineer	40	4 1/2	15	BPH40C
BH123D	Engineer	48	4 3/4	15	BPH40C
BH141A	Cross Peen	32	4 1/2	15	BPH20C
BH142A	Cross Peen	40	5	15	BPH40C
BH143A	Cross Peen	48	5 1/2	15	BPH40C
BH133B	Hand Drilling	48	4 1/2	10	BPH133

CUTTING

Hacksaws



HSG325

HSG325 Professional Hacksaw.

- Ergonomic front grip for increased comfort and control
- Thermoplastic comfort grip handle provides a safe ergonomic grip that reduces muscle tension
- Quick blade loading – spring loaded tensioning mechanism allows quick and easy blade changes
- Dual blade positioning – alternative 55° blade mounting for flush cutting
- High blade tension for straighter, more accurate and faster cuts



HSG319

HSG319 Bi-Mold Handle Hacksaw.

- Solid steel frame overmolded with soft grip for comfortable use
- Designed for 12" (300mm) blades
- Blade tensioner discreetly blends with handle
- Positions for normal flush cutting or 55° angle



HS5A

HS5A Mini Hacksaw.

- Designed for 10" (250mm) blades
- 8 1/4" frame fits in limited access areas
- Includes HSBM1024B 10" blade



HS151

HS151 Junior Frame Hacksaw.

- Designed for 6" blades
- 9 1/2" long
- Blade included

HSM632 6" Replacement Blade (32 TPI).

- 1/4" wide, 32 teeth per inch, 6" length
- Package of 5



HS50

Quick Cutter Hand Saws

- Features contoured screwdriver type handle for a secure grip
- Saw holder keeps a tight hold on any of the three included blades
- Turn the knurled knob and easily switch blades
- All components neatly packaged in C0417 kit bag

Hacksaw Blades

- Shatter resistant bi-metal for a long life and fast, efficient cutting
- Available in packages of 10 only

Stock No.	Length, inches	Teeth per Inch
HSBM1018B	10	18
HSBM1024B	10	24
HSBM1032B	10	32
HSBM1214B	12	14
HSBM1218B	12	18
HSBM1224B	12	24
HSBM1232B	12	32



HSKIT

HSKIT Handsaw Kit.

- Ergonomic handle design reduces pressure points and stops hand from sliding
- Handle angle and position of handle to blade teeth reduces sawing forces and increases efficiency
- High quality aluminum body ensures rigidity and retaining/protecting locking mechanism
- Locking system helps reduce play between handle and blade when assembled
- Easy access to lever thru handle opening
- Long lever for easy lock and release: security spring locks lever

Includes:

HSEXRL Handle.

HSEX16 General Purpose Blade.

HSEX22 Coarse Wood Blade.



HSEXRL

Scissors / Multi-Tools



YA114

Scissors

YA114 Stainless Scissors–Blue-Point®.

- High quality stainless steel
- Compact: 3" long

KER1120 Taskmaster Shears.

- High carbon stainless steel blades designed to hold their edge longer and sharpen quickly
- Blades are permanently bonded to comfortable, non-slip handles
- Overall length is 9"



KER1120



BLPMT12

Multi-Tool

BLPMT12 Multi-Tool with Flashlight–Blue-Point.

- Bright LED Flashlight
- Comfortable ergonomic design
- Stainless steel construction
- Nylon carry pouch
- 12 tool functions

Functions include:

- Spring loaded pliers
- Wire cutter
- 1 3/4" blade knife
- Coarse and fine file
- Fine blade screwdriver
- Medium blade screwdriver
- Wide blade screwdriver with opener
- Phillips® screwdriver
- Can opener
- 2 5/8" saw
- Spring loaded scissors
- Awl/Reamer blade



GAT10005



GAT10004



GAT10003



GAT8T001



GAT80005



GAT60204



KER2535



GAT60016



GAT40001

Sharpening Kits

GAT10005 Professional Knife Sharpening System.

- Knife clamp/angle guide for six precise sharpening angles and secure knife clamping to ensure efficient blade-to-stone contact
- Includes extra coarse, medium and fine honing stones, specialty serrated blade sharpening stone, honing oil and custom case

GAT10004 Diamond Hone Knife Sharpening System.

- Fusing diamonds to metal substrate of the hones yields a sharpening instrument to outperform others
- Includes extra coarse, medium and fine monocrystalline honing stones, honing oil and custom case
- Knife clamp/angle guide for six precise sharpening angles and secure knife clamping to ensure efficient blade-to-stone contact

GAT10003 Standard Knife Sharpening System.

- Knife clamp/angle guide for six precise sharpening angles and secure knife clamping to ensure efficient blade-to-stone contact
- Includes extra coarse, medium and fine honing stones, honing oil and custom case

GAT8T001 Tri Hone Knife Sharpening System.

- Coarse silicon carbide stone for setting the bevel on dull or badly damaged blades
- 100% natural Arkansas stones: medium stone for sharpening and fine stone for polishing
- Honing oil included
- All stones mounted on natural wood triangle to provide elevated work surface

GAT80005 Stone Knife Sharpening Kit.

- Includes block mounted natural Arkansas stone: 5" for sharpening, 3" for final honing
- Includes honing oil and convenient storage case

GAT60204 Pocket Knife Sharpener.

- Compact, lightweight sharpener with side-by-side rod for knives, fish hooks, darts and serrated edges
- Edge holds two rods and an angle guide to allow proper angle for serrated blades
- High density alumina rods are removable for cleaning and repositioning
- Measures 2.40" x 2.12" x .45"

KER2535 Blade Sharpener.

- Impregnated with 600 grit diamond coating bonded with nickel plating to a lightweight tube
- Length is 8.5" (20.3cm): sheath is 5.5" (12.7cm)

GAT60016 TRI-SEPS® Knife Sharpener.

- Triangular-shaped, portable sharpener features built-in angle guide
- Restore edges to serrations, plain edges, entrenching tools, scissors, darts, fish hooks, ice picks and more
- Includes bead chain and clasp
- Premium grade 96% alumina ceramic
- Overall length: 4.5" (115 mm)

GAT40001 Carbide Knife Sharpener.

- Space age tungsten carbide blade
- Lightweight 6061 T6 aluminum body features a flat bottom and knurled handle with thumb and finger insets
- Not recommended for serrated edges

GAT12001 Clamp Mount.

- Holds knife clamp/angle guide from GAT10004 and GAT10003 systems to maximize ease of sharpening
- Useful when sharpening large or numerous knives in succession
- Can be permanently mounted to any work surface or c-clamped for portability



WARNING



- Keep away from children
- Read safety precautions on pages 594 to 597

CUTTING

Knives



CRKBP1



CRKBP11



CRKBP6



KER1004RDSO



KER1060ART



KER1440



KER1475



KER1660CKTSO



KER1660VIB



KER1660CB



KER1670RDSO

Stock No.	Description	Blade Type (Straight/Serrated)	Blade Length, inches	Closed Length, inches	Opening Mechanism
CRKBP1*	M1 Lightfoot Design	Straight Edge	3 1/8	4 1/2	Manual / Flipper
CRKBP11*	M16 Carson Design	Partially Serrated	3	4	Manual / Carson Flipper
CRKBP6*	Cruiser Double Flipper	Partially Serrated	3 1/4	4 5/8	Manual / Carson Flipper
CRKBP16*	M16 Carson Design	Partially Serrated	3 1/4	3 3/4	Manual / Flipper
CRKBP21*	Badger	Straight Edge	2 6/7	3 1/2	Assisted (Outburst™ Fire Safe™)
CRKBP22	Notorious	Straight Edge	3 1/4	4 5/8	Assisted (Outburst)
KER1004RDSO	Caribiner Tool	Partially Serrated	3 1/4	4 1/8	Manual
KER1060ART	Black Horse II	Straight Edge	3 3/4	4 7/8	Manual
KER1440	Chubby	Straight Edge	2 1/2		Manual
KER1475	Storm II	Straight Edge	3 1/2	4 3/4	Manual
KER1475ST	Storm II	Partially Serrated	3 1/2	4 3/4	Manual
KER1550	Blackout	Straight Edge	3 1/4	4 1/2	Assisted (SpeedSafe®)
KER1550ST	Blackout	Partially Serrated	3 1/4	4 1/2	Assisted (SpeedSafe)
KER1595	Speed Bump	Straight Edge	3 5/8	4 15/16	Assisted (SpeedSafe)
KER1600	Chive	Straight Edge	1 15/16	2 7/8	Assisted (SpeedSafe)
KER1620RDSO	Scallion	Straight Edge	2 1/4	3 1/2	Assisted (SpeedSafe)
KER1620BLSO	Scallion	Straight Edge	2 1/4	3 1/2	Assisted (SpeedSafe)
KER1620GNSO	Scallion	Straight Edge	2 1/4	3 1/2	Assisted (SpeedSafe)
KER1620ST	Scallion	Partially Serrated	2 1/4	3 1/2	Assisted (SpeedSafe)
KER1660CKTSO	Leek	Straight Edge	3	4	Assisted (SpeedSafe)
KER1660BRSO	Leek	Straight Edge	3	4	Assisted (SpeedSafe)
KER1660VIB	Rainbow Leek	Straight Edge	3	4	Assisted (SpeedSafe)
KER1660CB	Leek Composite	Straight Edge	3	4	Assisted (SpeedSafe)
KER1670BLK	Blur	Straight Edge	3 3/8	4 1/2	Assisted (SpeedSafe)
KER1670BLKST	Blur	Partially Serrated	3 3/8	4 1/2	Assisted (SpeedSafe)
KER1670RDSO	Blur	Straight Edge	3 3/8	4 1/2	Assisted (SpeedSafe)
KER1670RDST	Blur	Partially Serrated	3 3/8	4 1/2	Assisted (SpeedSafe)
KER1670TBLKT	Blur	Partially Serrated	3 3/8	4 1/2	Assisted (SpeedSafe)
KER1720	Junkyard Dog	Straight Edge	3	4	Manual
KER1720ST	Junkyard Dog	Partially Serrated	3	4	Manual
KER1725	Junkyard Dog II	Straight Edge	3 3/4	4 7/8	Manual
KER1725ST	Junkyard Dog II	Partially Serrated	3 3/4	4 7/8	Manual
KER1730	Groove	Straight Edge	3 1/2	4 1/2	Manual
KER1820	Needs Work	Straight Edge	3	4 1/8	Assisted (SpeedSafe)

Abbreviations: S/S - Stainless Steel AA - Anodized Aluminum *Blue-Point®

CUTTING

Knives



CRKBP16



CRKBP21



CRKBP22



KER1550



KER1595



KER1600



KER1620RDSO



KER1670TBLKT



KER1720



KER1730



KER1820

Blade Material	Handle Material	Lock Type	Weight (oz.)	Features	Stock No.
8Cr14MoV S/S	G10	LAWKS™ (Liner)	5.2	Pocket Clip	CRKBP1*
8Cr14MoV S/S	G10	AutoLawks™ (Liner)	2.4	Pocket Clip, Tanto Blade	CRKBP11*
8Cr14MoV S/S	G10	LAWKS™ (Liner)	2.4	Pocket Clip	CRKBP6*
8Cr14MoV S/S	G10	AutoLawks™ (Liner)	3.7	Pocket Clip	CRKBP16*
8Cr14MoV S/S	G10	Liner Lock	2.7	Pocket Clip	CRKBP21*
8Cr14MoV S/S	S/S with G10 scales	Liner Lock	5.0	Pocket Clip	CRKBP22*
AUS6A S/S	Teflon® Coated Aluminum	Liner Lock	2.7	Includes flat-head, Phillips®, bottle opener, and carabiner clip	KER1004RDSO
440A S/S	Co-polymer with RealTree Hardwoods HD®	Back Lock	4.6	Includes Sheath	KER1060ART
S/S	ZYTEL® with KRATON® inserts	Liner Lock	4.3	Thumb Stud, Wrench Pocket Clip	KER1440
Sandvik 13C26 S/S	410 S/S with Trac-Tec® inserts	Frame Lock	5.8	Thumb Stud, Pocket Clip	KER1475
Sandvik 13C26 S/S	410 S/S with Trac-Tec® inserts	Frame Lock	5.8	Thumb Stud, Pocket Clip	KER1475ST
Sandvik 13C26 S/S	Polyimide	Liner Lock	3.5	Thumb Stud, Pocket Clip, Tungsten DLC Blade Coating	KER1550
Sandvik 13C26 S/S	Polyimide	Liner Lock	3.5	Thumb Stud, Pocket Clip, Tungsten DLC Blade Coating	KER1550ST
Sandvik 13C26 S/S	Akulon® with Santoprene over-mold	Stud Lock	5.0	Pocket Clip	KER1595
420HC S/S	410 S/S	Frame Lock	1.9	Thumb Stud, Pocket Clip, Tip Lock	KER1600
420HC S/S	6061-T6 AA	Liner Lock	2.3	Thumb Stud, Pocket Clip, Red Finish, Snap-on Logo	KER1620RDSO
420HC S/S	6061-T6 AA	Liner Lock	2.3	Thumb Stud, Pocket Clip, Blue Finish, Snap-on Logo	KER1620BLSO
420HC S/S	6061-T6 AA	Liner Lock	3.3	Thumb Stud, Pocket Clip, Green Finish, Snap-on Logo	KER1620GNSO
420HC S/S	Polyimide	Liner Lock	2.3	Thumb Stud, Pocket Clip	KER1620ST
Sandvik 13C26 S/S	6061-T6 AA	Liner Lock	3.0	Thumb Stud, Pocket Clip, Black Finish, Tungsten DLC Coating, Snap-on Logo	KER1660CKTSO
Sandvik 13C26 S/S	6061-T6 AA	Liner Lock	3.0	Thumb Stud, Pocket Clip, Black/Red Smoked Finish	KER1660BRSO
Sandvik 13C26 S/S	410 S/S	Frame Lock	3.0	Thumb Stud, Pocket Clip, Titanium-Oxide Coating	KER1660VIB
Sandvik 13C26/CPM-D2	410 S/S	Frame Lock	3.0	Thumb Stud, Pocket Clip, Composite Blade	KER1660CB
Sandvik 13C26 S/S	6061-T6 AA with Trac-Tec® inserts	Liner Lock	4.2	Thumb Stud, Pocket Clip, Black Finish, Blade Coating	KER1670BLK
Sandvik 13C26 S/S	6061-T6 AA with Trac-Tec® inserts	Liner Lock	4.2	Thumb Stud, Pocket Clip, Black Finish, Blade Coating	KER1670BLKST
Sandvik 13C26 S/S	6061-T6 AA with Trac-Tec® inserts	Liner Lock	4.2	Thumb Stud, Pocket Clip, Red Finish, Snap-on Logo	KER1670RDSO
Sandvik 13C26 S/S	6061-T6 AA with Trac-Tec® inserts	Liner Lock	4.2	Thumb Stud, Pocket Clip, Red Finish	KER1670RDST
Sandvik 13C26 S/S	6061-T6 AA with Trac-Tec® inserts	Liner Lock	4.2	Thumb Stud, Pocket Clip, Black Finish, Tanto Blade, Snap-on Logo (Same as KER1670TBLKSTSO)	KER1670TBLKT
Sandvik 13C26 S/S	410 S/S	Frame Lock	4.0	Pocket Clip, US Air Force Markings	KER1720
Sandvik 13C26 S/S	410 S/S	Frame Lock	4.0	Pocket Clip, US Air Force Markings	KER1720ST
Sandvik 13C26 S/S	G-10 Composite	Liner Lock	5.2	Pocket Clip	KER1725
Sandvik 13C26 S/S	G-10 Composite	Liner Lock	5.2	Pocket Clip	KER1725ST
Sandvik 13C26 S/S	410 S/S with G-10 overlays	Frame Lock	5.2	Pocket Clip, Grooved Blade	KER1730
Sandvik 13C26 S/S	Polyimide	Liner Lock	3.5	Pocket Clip	KER1820

Abbreviations: S/S - Stainless Steel

AA - Anodized Aluminum

*Blue-Point®



WARNING



- Keep away from children
- Read safety precautions on pages 594 to 597

CUTTING

Utility Knives



Utility Knives

YA403A Miniature Utility Knife–Blue-Point®.

- One spare blade stores in handle
- 3 1/8" long

YA403A-1 Replacement Blade.

- Use with YA403A

UTK100 Utility Knife.

- Retractable blade
- Quick release, spring loaded handle provides fast, sure blade changes
- Integrated hinge handle means no handle parts to lose and no tools required to change blades
- Rubber grip for comfort and control
- Three blade positions: open, half closed and closed

UTK100SB Utility Knife.

- Auto-retracting
- Quick release, spring loaded handle provides fast, sure blade changes
- Rubber grip for comfort and control

UKBU10 Utility Knife Blades.

- Two notch double pointed blades (10 pack)
- Use with UTK100, UTK100SB, UTK150, LBUK1, LBUK2 and LBUK3 utility knives

UKBU50PK Utility Knife Blades.

- Two notch double pointed blades (50 pack)
- Dispenser ejects blades one at a time
- Blade guard in the ejector
- Use with UTK100, UTK100SB, UTK150, LBUK1, LBUK2 and LBUK3 utility knives

YA1850A Utility Knife Blades–Blue-Point.

- 100 three notch, double pointed utility blades in bulk packaging

YA1800A Single Edge Razor Blades–Blue-Point.

- 100 blades in a plastic dispenser
- Blades have aluminum backs that can be shaped for special applications

LBUK1 Lock Back Utility Knife–Blue-Point.

- Convenience and good looks of a folding lock back knife with easily replaceable two notch razor blades
- Folding lock back blade, hardwood handle with belt clip and thumb stud for one-hand opening
- Includes utility knife and leather pouch (both with Blue-Point® logo) plus 10 replacement blades
- Uses UKBU10 (10 pack) or UKBU50PK (50 pack) replacement blades

LBUK2 Lock Back Utility Knife–Blue-Point.

- Thumb pad allows controlled application of pressure
- Blades are easily replaced with a flip of the switch
- Blade storage under spring loaded door
- Includes leather pouch with belt loop plus 5 replacement blades
- Uses UKBU10 (10 pack) or UKBU50PK (50 pack) replacement blades

UTK150 Auto-Loading Utility Knife.

- Exposed blade is easily removed or reversed with the push of a button
- New blade is auto loaded from 5-blade magazine
- Cushioned handle provides comfort and control
- Three blade positions: 1" and 1/4" exposures and closed
- Uses standard two notch replacement blades

LBUK3 Lock Back Utility Knife–Blue-Point.

- Solidly constructed lock back utility knife sports polished, stainless steel handle with TPR grips for durability and control
- Two notch blades are easily changed with quick change switch
- Includes belt pouch and 10 titanium replacement blades
- Uses UKBU10 (10 pack) or UKBU50PK (50 pack) replacement blades



YA580A

Multi-Purpose Cutters–Blue-Point

YA580A Multi-Purpose Cutter.

- Auto locking, fully retractable blade
- Metal body is black with blue cap and pocket clip
- Includes one (1) premium steel 13 pt. snap blade
- Overall length of 5 3/8"
- Uses YA580A-1 replacement blades

YA580A-1 Replacement Blades.

- Individual break off replacement blades for the YA580A and YA584A multi-purpose cutters
- Pack of 5

YA581A Multi-Purpose Cutter.

- Three blades with eight snap off points
- Minimum blade wobble
- Fully retractable

YA581A-1 Blades.

- Replacement blades for YA581A
- 10-pack



YA581A

Hobby Knife–Blue-Point

YA405A Hobby Knife.

- 5 1/2" long aluminum handle with bottom knurl and knurled brass nose cap
- Includes the following blades: YA405-1, YA405-2, YA405-3, YA405-4

YA405-1 23° Angle Blade.

- 23° angle

YA405-2 50° Angle Blade.

- 50° angle

YA405-3 Curved Edge Blade.

- Curved edge

YA405-4 Straight Chisel Edge Blade.

- Straight chisel edge



YA405A

SCRAPERS/PUTTY KNIVES

Scrapers and Putty Knives

Non-Marring Scrapers

- Tips are matched for most popular applications including badge/emblem/decal removal, gasket and molding removal, adhesive removal and dirt and debris removal or cleaning
- Glass-reinforced nylon provides strength
- Lightweight and resistant to most automotive fluids
- Useable with hammers (block end/tap into position)
- Avoids scratching or gouging of soft materials

Stock No.	Blade Style	Blade Width, inches	Set Contains:
PKN1	Straight	7/8	•
PKN2	Straight	1 1/4	•
PKN3	Curved	1 1/8	•
PKN4	Angle	3/4	•
PKN5	Curved	5/8	•

C0100 Kit Bag. Kit bag for PKN500 Set.



PKN500



PKNC300

Striking Scrapers

- Striking cap is designed for hammering
- Heavy duty blade extends through the handle and meets the cap to equally distribute the striking force
- Thick, polished, high carbon steel for durability
- Ergonomic soft grip handle for secure grip when striking
- Can be used as a chisel or scraper

Stock No.	Description	Blade Width, inches	Set Contains:
PKNC125C2	Dual Bevel	1 1/4	•
PKNC150	Single Bevel	1 1/2	•
PKNC200	Single Bevel	2	•

PKNC125C2 Striking Scraper (1-1/4"). Dual bevel design for two distinct blade lengths.



PKNC301

Heavy Duty Striking Scrapers

- Striking cap designed for hammering
- Heavy duty narrow blade extends through the handle and meets the cap to equally distribute the striking force
- Thick, polished, high carbon steel for durability
- Ergonomic soft grip handle for secure grip when striking
- Can be used as a chisel or scraper

Stock No.	Blade Style	Blade Width, inches
PKNC050	Single Bevel	1/2
PKNC075C2	Dual Bevel	3/4
PKNC075	Single Bevel	3/4



CSA8CO

CSA300AR

Rigid Carbon Scrapers

- 1/4" square shanks are flared to form scraping edge
- Screwdriver-type handle

Stock No.	Handle Color	Length, inches	Blade Width, inches	Blade Style	Set Contains:	CSA300A	CSA300AD	CSA300AR
CSA8C	Black	7 5/8	7/8	Straight	•			
CSA8CO	Orange	7 5/8	7/8	Straight		•		
CSA8CR	Red	7 5/8	7/8	Straight				•
CSA12C	Black	12 7/8	1	Straight	•			
CSA12CO	Orange	12 7/8	1	Straight			•	
CSA12CR	Red	12 7/8	1	Straight				•
CSA14C	Black	14	1 1/2	Straight	•			
CSA14CO	Orange	14	1 1/2	Straight			•	
CSA14CR	Red	14	1 1/2	Straight				•



PKB500A

Brass Putty Knives/Scrapers—Blue-Point®

- Spring tempered, solid brass blades are non-marring, non-sparking, non-magnetic and non-corrosive
- Soft molded rubber handles maximize hand grip, are easy to clean and are resistant to most solvents
- Broad hilt design helps protect against hand slipping when scraping
- Stiff blade style

Stock No.	Handle Length, inches	Blade Length, inches	Blade Width, inches	Blade Style	Edge	Set Contains:
PKB50A	4 7/8	3 1/2	2	Stiff	Straight	•
PKB52A	4 7/8	3 19/32	1 1/4	Stiff	Straight	•
PKB53A	4 7/8	3 19/32	1 1/4	Stiff	Single Bevel	•



WARNING



- Keep away from children
- Read safety precautions on pages 594 to 597

SCRAPERS/PUTTY KNIVES

Scrapers and Putty Knives



PKWHD53A

Walnut Handled Scrapers—Blue-Point®

- Quality crafted for hard scraping applications
- Walnut wood handle for comfort
- Full length heavy duty blades for strength
- Large steel cap for striking capability
- Remove gaskets, sealants and body weld breakaway

Set Contains: PKWHD53A

Stock No.	Blade Length, inches	Blade Width, inches	Blade Style	Edge	Length, inches	
PKWBS53A	3	1 1/4	30° Bent	Chisel	7 1/2	•
PKWLR53A	5 1/2	1 1/4	Straight	Chisel	9 1/2	•
PKWSS53A	2 3/4	1 1/4	Straight	Chisel	6 3/4	•



PK500A

Putty Knives/Scrapers—Blue-Point

- Full length steel blades for strength and durability
- Soft molded rubber handles maximize hand grip, are easy to clean and resistant to most solvents
- Broad hilt design helps protect against hand slipping when scraping

Set Contains: PK500A

Stock No.	Handle Color	Blade Length, inches	Blade Width, inches	Blade Style	Edge	
PK50A	Red	3 1/2	2	Flexible	Straight	•
PK52A	Red	3 19/32	1 1/4	Flexible	Straight	•
PK53A	Red	3 19/32	1 1/4	Stiff Chisel	Single Bevel	•



USS103

Knife Blade Scrapers—Blue-Point

- Remove gaskets, sealers and other caked on materials
- Blade edge designed to work effectively in both push and pull directions
- Stainless steel blades for durability
- Polished blades clean up easily
- Comfortable composite handles feature a contour thumb stop for maximum control and a wide hilt for control

Set Contains: USS103

Stock No.	Blade Style	Blade Length, inches	Length, inches	
US710	Spoon	3 3/8	8	•
US711	Chisel Tip	2 1/2	7 1/8	•
US712	Oyster	2 1/8	6 3/4	•



CS1



PK70



PKRS1



MS3000

Scrapers

CS1 Flexible Wire Carbon Scraper.

- Ten blades made of oil-tempered spring steel
- Sliding ferrule is used to adjust to the required flexibility

PK70 Multi-Purpose Scraper—Blue-Point.

- Use for gasket removal, deburring, car body work and rust removal
- Tungsten carbide blades are harder and more durable than hardened steel
- Ergonomic handle reduces fatigue
- Thumbgrip allows precision scraping

PK70TRI Replacement Blade. For PK70.

PK70ROUND Replacement Blade. For PK70.

PK70DROP Replacement Blade. For PK70.

PK70PEAR Replacement Blade. For PK70.

MS400 Compact Scraper (4").

- Removes stickers, molding paint and decals
- Use with standard, single edge steel or plastic razor blades
- Quick and easy blade changes
- Angled head provides maximum leverage
- 4" (101.6mm) long.

MS800 Standard Scraper (8"). Same as MS400 except 8" (203.2mm) long.

MS1300 Long Scraper (13"). Same as MS400 except 13" (330.2mm) long.

MS3000 Scraper Set—Blue-Point. Includes MS400, MS800, MS1300 and MSRPACK5 in storage case.

PKRS1 Ergo Grip Razor Scraper—Blue-Point.

- Three blade positions: closed, open and loading

- Rubberized contour grip provides comfort and a sure gripping surface

- Uses YA1800 Replacement Blades



PK23A

Wooden Handle Putty Knife—Blue-Point

- Mirror finished hardened steel blade extends through hardwood handle, solidly riveted for durability
- Redwood handle has metal bolster where handle meets blade

Stock No.	Handle Material	Handle Length, inches	Blade Width, inches	Blade Style	Edge
PK23A	Maple	3 7/8	1 1/4	Heavy Chisel	Single Bevel



Experience the same comfort and control as our famous screwdriver handles on file sets.

Bastard Cut Sets/Soft Grip Handle

Additional mill file sizes are also available.

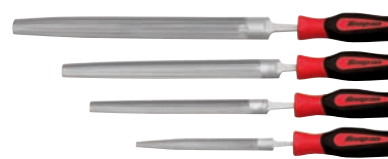
	Stock No.	Diameter, inches	Cut Length, inches	Length, inches	Set Contains:			
					SGHBF200A	SGHBF300A	SGHBF400A	SGHBF500A
Round Files	6R	7/32	—	6	•			
	8R	9/32	—	8	•			•
	10R	3/8	—	10	•			
	12R	1/2	—	12	•			
Mill Files	4MA	—	3 3/4	4				
	6MA	—	5 1/2	6		•		
	8MA	—	7 1/2	8		•		•
	10MA	—	9 1/2	10		•		•
	12MA	—	11 1/2	12		•		
	14MA	—	13 1/2	14				
Half Round Files	6HR	—	—	6				•
	8HR	—	—	8				•
	10HR	—	—	10				•
	12HR	—	—	12				•
Three Square File	6T	—	5 1/2	6				•
Handles	SGHF614BR	—	—	—	2	1	2	2
	SGHF615BR	—	—	—	1	1	1	1
	SGHF616BR	—	—	—	1	1	1	1
	SGHF617BR	—	—	—	—	2	—	—
Kit Bag					C0413A	C0414A	C0415A	C0416B



SGHBF200A



SGHBF300A



SGHBF400A



SGHBF500A



HBF100

Miniature Files/Plastic Handle

- Miniature files for general use in small scale and delicate applications
- Molded plastic handles provide maximum grip and comfort

Stock No.	Description
HBF4MA	Hand File
HBF4W	Warding File
HBF4HR	Half Round File
HBF4SQ	Square File
HBF4R	Round File
HBF4T	Slim Taper Triangular File

HBF100 Mixed File Set.

- Includes HBF4MA, HBF4W, HBF4SQ, HBF4HR, HBF4R and HBF4T (6 pcs) in a plastic pouch

Swiss Needle

HBFN120A Set.

- Twelve needle files with round, knurled handles
- Each is 5 1/2" long and "0" cut for coarse filing
- Packaged in a plastic pouch

Stock No.	Description
5NRA	Round
5NHRA	Half Round
5NFA	Flat
5NCA	Crossing
5NKA	Knife
5NSQA	Square
5NTSB	3 Square
5NEA	Equaling
5NBA	Barrette
5NJA	Joint
5NSA	Slitting
5NMA	Marking

HF611A File Handle.

- Plastic screwdriver collet-style handle for holding individual files in HBFN120 set



HBFN120A



6T

Three Square Files

- 6T. 6" long, 5 1/2" cut length.
- 10T. 10" long, 9 1/2" cut length.



6CR

Chain Saw Files

- Single cut
- 6CR. 6" long, 5/32" diameter
- 8CR. 8" long, 7/32" diameter.



10FMK

Multi-Cut Flat File

- 10FMK. 10" long.



SGHF616BR

Soft Grip Handles

- For all bastard cut files listed on this page
- Feature twist-on threads for securely holding files

Stock No.	For Files
SGHF614BR	4MA, 6R, 6T, 6MA, 6HR, 8CR, 8R
SGHF615BR	8T, 8MA, 8HR, 10R
SGHF616BR	10T, 10MA, 10HR, 12R
SGHF617BR	12MA, 12HR



GA613

Wooden Twist-on Handles

- Wooden twist-on handles with case hardened threaded steel inserts
- Use on all bastard cut files on this page

Stock No.	For Files
GA613	4MA, 6CR, 8CR, 6R
GA614	6T, 6MA, 6HR, 8R
GA615	8T, 8MA, 8HR, 10R
GA616	10T, 10MA, 10HR, 12R
GA617	12MA, 12HR
GA618	14MA, 16MA



GA98A

GA98A Wooden Adjustable Jaw Handles.

- Provides a large, comfortable grip for all bastard cut files
- Adjustable jaws grip the file so it can't turn
- Use on files 4" to 16" long
- 4 1/2" long, 1" in diameter, 3/8" maximum opening



YA337A

YA337A File Cleaner.

- Bristle area of 3 1/2" x 1 1/2" with .013" (33 ga.) wire
- Steel back, face and frame with a handy pick for removing stubborn material between file teeth
- Pick stores in handle when not in use
- 7 5/8" long



WARNING



• Read safety precautions on pages 594 to 597

TUBING

Flaring/Cutters



TF528D



TF5A



TF275A



TFM428



TC15A



TC123C



TC28C



TC25



TC123CR

Flaring Tool Sets—Blue-Point®

TF528D Tube Cutting and Double Flaring Set.

- Contains TC28C tubing cutter and a double flaring set with a flaring bar, rod handle, yoke and 5 adaptors: 3/16", 1/4", 5/16", 3/8", and 1/2"
- Storage case included

TF5A Double Flaring Tool Set.

- Makes double or single flares on soft steel, brass, or aluminum tubing from 3/16" to 1/2" OD
- Makes a smooth fitting, crack free 45 degree flare
- Set includes five adaptors, yoke assembly, bar assembly and handle
- Storage case included

TFM5A Metric Double Flaring Tool Set.

- Same design as TF5A except it is for tubing with an OD from 4.75 to 10mm
- Set includes yoke, bar assembly, handle, and five adaptors: 4.75, 5, 6, 8, and 10mm

TF275A Flaring and Swaging Set.

- 45° flare or swage soft copper, brass, or aluminum tubing
- Die blocks handle 1/8", 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 5/8", and 3/4" OD tubing
- Swags 3/16", 1/4", 5/16", 3/8", 1/2", 5/8", and 3/4" OD tubing
- TF275PB storage case included

TFM428 Metric Bubble Flaring Set.

- For automotive brake systems
- Designed for crack free bubble flares on soft wall tubing up to a wall thickness of .028"
- Adaptors included for 4.75, 6, 8, and 10mm flares
- TFM428PB storage case included

Cutters

TC15A Ratcheting Cutter.

- Ratchet action allows cutting all the way around the tubing by simply pumping the handle
- Handles 1/8" to 3/8" OD copper, plastic, and PVC tubing—ideal for fuel, vacuum and air conditioning applications
- 3 3/4" long

TC15-7C Cutting Wheel.

- Standard replacement cutting wheel for TC15A tube cutter

TC15-HSS Ratcheting Cutter. Small Cutting Wheel.

- High speed steel cutting wheel

TC28C Tubing Cutter—Blue-Point.

- Cuts soft metal tubing ranging from 1/8" to 1" in diameter
- OD capacity is 1/8" to 1 1/8"
- Micrometer type adjustment
- Retractable locking reamer blade
- Cutter wheel is easily replaceable

TC28A1 Cutting Wheel.

- Extra cutter wheel for TC28C

TC123C Tubing Cutter—Blue-Point.

- Handles tubing from 1/8" to 5/8" OD
- Can be used where clearance around tubing is less than 1 3/8"
- 1 1/2" long when closed and 2" long when open; feed knob is 7/8" in diameter

TC123CR Ratcheting Tube Cutter—Blue-Point.

- TC123C cutter and TC123CRH handle combined into one unit

TC123CRH Ratcheting Tube Cutter Handle.

- Handle for TC123C tube cutter

TC123C1 Cutting Wheel.

- Extra cutter wheel for TC123C

TC25 Ratcheting Cutter—Blue-Point.

- Larger version of the TC15A and handles 5/16" to 1 1/8" OD tubing, including stainless steel
- Use in such applications as van, marine, plumbing, refrigeration and industrial tubing
- 7" long

Bending/Expanders/Cutters/Specialty Tools

Bending Tools

TBS100 Tubing Bender.

- Bends tubing up to 1/4" OD
- Bends copper, brass, Bundy weld, non-coated brake lines and more
- Comfort grip handle
- Length is 7"

TBS200A Multi-purpose Tubing Bender-Blue-Point®.

- Makes left, right, or offset bends up to a 90° angle
- Degrees shown for accurate bending angle
- Handles 3/16", 1/4", 5/16", and 3/8" (4, 6 and 8mm) OD aluminum, copper and stainless steel tubing
- Aluminum unit is 8 1/4" long when opened

TBS300 Tubing Bender-Blue-Point.

- Easily bend 1/4", 5/16" and 3/8" OD soft copper or aluminum tubing up to 180°
- Degrees, in 15° increments, noted on tool for accurate bends
- Pull lever to easily disengage tool after bending
- Cushioned handles provide comfort and control, even with greasy hands
- Offset handles provide hand clearance when making 180° bends
- Lightweight, die cast aluminum construction
- Overall length is 10 1/2" (266.7mm)

GA244 Tubing Bender.

- Allows smooth bend without denting tubing
- Makes bends to 180° and 13/16"
- Handles 3/16", 1/4" and 5/16" OD steel and copper tubing
- Reversible forming pad
- Polypropylene posts minimize friction



TBS100



TBS200A



TBS300



GA244

Expanders

PH300 Tailpipe/Exhaust Stretcher.

- Stretches all types of exhaust pipe, including stainless steel, from 1 5/8" to 2 7/16"
- Use with an impact wrench

CG5560HY Hydraulic Tailpipe/Exhaust Stretcher Conversion Kit.

- Converts PH300 tailpipe/exhaust stretcher to the convenience and power of hydraulic operation
- Includes the CG122 10 ton hydraulic ram and pump set and hydraulic cone adaptor

CG5560 Tailpipe/Exhaust Stretcher Conversion Kit.

- Add to CG122 10 ton hydraulic ram and pump set to add hydraulic power to the PH300
- Includes exhaust pipe and instructions



PH300



CG5560HY



VGP18210



TC90A

Cutters-Blue-Point

VGP18210 Chain Pipe Cutter

- Quickly and easily cuts exhaust pipes with 13 alloy cutting wheels in chain
- Can also cut stainless steel, copper and PVC piping from 15mm up to 75mm (19/32" to 2 15/16") in diameter, up to 2.6mm (3/32") wall thickness
- Locking mechanism helps avoid lateral movement and mis-aligned cutting
- Large butterfly screw allows application of greater force to cutting wheels with each series of cuts

VGP18210-1 Replacement Chain.

- For VGP18210

TC90A Tail Pipe Cutter.

- Handles on the car cutting from 3/4" to 3 1/2" diameter
- Sixteen link cutter chain is 12" long
- Threaded shaft with cross piece provides elasticity to help prevent chain wheels from breaking
- Ideal for cutting the strut assembly to enable servicing of the strut cartridge

TC90A1 Chain Assembly.

- Includes one wheel and one roll pin



YA1300



YA3202

Exhaust Tools-Blue-Point

YA1300 Manifold Jack (set of 2).

- Use to expand manifold to its original shape and bolt hole alignment
- Use with a 3/4" open end wrench

YA3202 Exhaust Hanger Removal Pliers.

- Remove hanger brackets from rubber mounting straps by placing jaw behind rubber grommet ring and forcing pin of pliers on the end of steel hanger
- When handles are squeezed, the forcing pin pushes the ring off the hanger
- Applications: most domestic and import cars and light trucks
- 14" long



WARNING



• Read safety precautions on pages 594 to 597

SPARK PLUG TOOLS

Service Tools



Boot Pliers

YA824C Spark Plug Boot Pliers.

- 45° offset jaws
- Vinyl coated jaws and handles assure gripping ability
- Use only on automotive type ignition systems
- 9 1/2" long

YA824ASTR Boot Pliers.

- Straight jaw version of YA824C
- 9 3/4" long

SBP5 Boot Pliers.

- 5 positions for easy access to restricted spark plugs
- Internal spring keeps pliers in the open position
- Vinyl coated jaws and handles
- Black industrial finish
- 10" long

SBP3 Boot Pliers.

- Vinyl coated offset jaw tips will pull most domestic and import spark plug boots, including the back plugs on late model Porsche and Mercedes Benz
- Vinyl covered handles are cushioned for comfort

YA8230 Valve Stem Seal Pliers.

- Removes valve stem seals from overhead camshaft engines including 4 valve per cylinder engines that have restricted access
- Gripping serrations in the pliers tip easily grab both OEM and aftermarket seals with ease
- Easy grip handles

YA9818 Spark Plug Boot Puller.

- Quickly and easily remove and install hard to reach steel spark plug boots on VW and Audi vehicles
- T-handle design delivers greater pulling power
- Constructed from hardened stainless steel for strength and corrosion resistance
- 25/32" diameter with 12" overall length

Spark Plug Extractors

FSPK Spark Plug Extractors.

- Removes broken spark plugs from cylinder head on Ford Triton 5.4L 3-valve engines, 4.6L engines & 6.8L engines without removing head



Spark Plug Extractors

Stock No.	Description	
FSPK1	Barrel	•
FSPK2	Threaded Shaft	•
FSPK3	Nut	•
FSPK4	Thrust Washer	•
FSPK5	Vinyl Cap	•
T910M	Metric Tap	•

Optional Tap Holder TDL8-10

Spark Plug Tools

YA832A Spark Plug Firing Indicator.

- Test spark plugs, coils, and distributors on breaker point and electronic ignition systems
- Blunt nose tip prevents lead puncturing
- High intensity bulb and viewing window for greater flash concentration
- 4 3/4" long

YA840 In-Line Spark Tester.

- Quickly diagnose ignition systems
- Works on all ignition systems including distributorless ignitions
- Status of indicator light shows if problem exists in the ignition system or fuel system

HB5PK Spark Plug File Set.

- Fine, single cut tungsten file for smoothing or cleaning spark plug and other contact points
- Includes (2) HB5 spark plug files



FSPPRK

Porcelain Extractors—Blue-Point®

FSPPRK Porcelain Extractor Set.

- Used in combination with FSPK Ford spark plug extractor kit to remove any porcelain left behind from the process of extracting the plug
- Tool does not push the porcelain through the sleeve, preventing engine damage
- 4 cylinders can be worked on at one time to save time and money
- Set includes Ford porcelain repair kit, pins (10 pack), special Loctite® 680 adhesive (5mil.) to remove broken porcelain, clean out wire and blow molded storage case

Applications (engines covered):

- 4.6L V8 2005-2008 (Ford Mustang, Explorer, Mercury Mountaineer)
- 5.4L V8 2004-2008 (Ford F150, F250 Super Duty, F350 Super Duty, E450 Super Duty, Expedition, Lincoln Navigator, Mark LT)
- 6.8L V10 2005-2008 (Ford F250 Super Duty, F350 Super Duty, F450 Super Duty, F550 Super Duty, E450 Super Duty, E450 Econoline)

FSPPRK1 Ford Porcelain Repair Kit.

- Washer, center screw, guide, hex nut and end nut

FSPPRK2 Pins (10pk).

FSPPRK3 Loctite (680, 5 mil.).

FSPPRK4 Clean Out Wire.

FSPPRKPB Storage Case.

SPARK PLUG

Flank Drive® Spark Plug Sockets

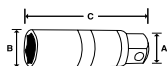


Retention Spark Plug Sockets (3/8" Drive), Torx®

Patented tapered hex design (U.S. Patent 6,626,067)

- Securely retains spark plug in socket without rubber insert or magnet
- Patented "Diamond Wedge" design with six wedges equally align plug in the center to avoid damage to the porcelain
- Spark plug is easily disengaged by applying gentle side pressure
- Spark plug socket configuration is cold formed for extended tool life
- External hex on standard models for restricted access applications
- Knurled surface for finger tightening/removal
- Side through hole for secure extension retention for coil on plug applications
- Sockets are not Flank Drive configuration and conform to ANSI B107.34M-1997
- S9706KRA/S9706KRFU Applications: 4.7L engines used on Jeep Commander and Grand Cherokee, Dodge Ram, Durango and Dakota plus Chrysler Aspen. General applications on autos, light trucks, motorcycles and power equipment
- S9716KR Applications: 2005 Ford Mustang (4.6L, 3-valve engine) and Ford 2004 F150 (5.4L V8, 3-valve engine)
- S9714MKR Applications: 14mm spark plugs used in Nissan 1.8L Versa and 2.0L Sentra, Mercedes and BMW

#	6	A	B	C
5/8	S9706KRFUA	—	27/32	3 3/4
5/8	S9706KRA	11/16	27/32	2 7/8
9/16	S9716KR	5/8	25/32	2 3/8
13/16	S9704KR	7/8	1 1/16	2 27/32
14mm	S9714MKR	16mm	19.6mm	60.3mm



S9706KMAG

Magnetic (3/8" Drive), inches

#	6	B	C
5/8	S9706KMAG	11/16	2 19/32
13/16	S9704KMAG	11/16	2 11/16



S9721A

Double Swivel (3/8" Drive), inches

- Use double swivel universals for rear spark plug removal or installation on transverse V6 engines

#	6	C	Rubber Insert
5/8	S9721A	4 13/16	S9706KARI



FSXK320A

Flexible Extensions (3/8" Drive), Torx

#	6	B	C	Rubber Insert
5/8"	FSXK320A	2 15/32	5 11/32	S9706KARI
5/8"	FSXK2420A	23 15/32	26 11/32	S9706KARI
13/16"	FSXK2426A	23 7/16	26 3/16	S9705A2



S9720KA

Extra Deep (3/8" Drive), inches

#	6	C	Rubber Insert
5/8	S9720KA	5 31/32	S9706KARI
13/16	S9719KA	5 7/8	S9719-2A



S9723 S9724RHS S9704RHS

Special Application

S9723 Offset Spark Plug Socket.

- 5/8" offset spark plug socket for limited access situations
- Remove/install the spark plug on the #3 cylinder without interference from the steering column on GM 4.3L V6 engines used in GMC Jimmys, Chevy Blazers, S10 and S15 pickup trucks (1994 to 2004) plus Oldsmobile Bravadas (1996 to 2001)
- Use with 11" extension
- 12-point, Flank Drive wrenching system
- Industrial black finish
- 1 1/2" length, 1 3/4" height, 3/8" drive

S9724RHS Low Profile Spark Plug Socket.

- Low profile socket easily reaches 5/8" (16mm) spark plugs on muscle cars, ATVs, motorcycles and boats without interference from custom exhausts or chassis
- Applications: Harley-Davidson® motorcycles with large gas tanks (1986 and later Sportster® and 1999 and later twin cam models) plus small block Chevy, Ford, Mopar and other engines with 5/8" (16mm) spark plugs and racing exhaust headers
- Spark plug extends through the socket for access in tight quarters
- Patented tapered hex design retains spark plug securely without rubber insert or magnet
- Spark plug is easily disengaged from socket by applying side pressure
- Use ratcheting box wrench on 5/8" external hex drive
- Length is 1 1/16"

S9704RHS Low Profile Spark Plug Socket.

- Low profile socket easily reaches 13/16" spark plugs on muscle cars, ATVs, motorcycles, RVs and boats without interference from custom exhausts or chassis
- Applications: small or big block Chevy, Ford, Mopar and other engines with 13/16" spark plugs and racing exhaust headers
- Spark plug extends through the socket for access in tight quarters
- Patented tapered hex design retains spark plug securely without rubber insert or magnet
- Spark plug is easily disengaged from socket by applying side pressure
- Use with open end or ratcheting box wrench on 13/16" external hex drive
- Length is 1 1/4"



S9704KFUA

Universal, inches

#	6	A	B	C	Rubber Insert
3/8	S9704KFUA*	3/8	13/16	3 9/16	S9705A2
5/8	S9706KFUA*	3/8	5/8	3 23/32	S9706KARI



S9710KB

Ball Joint Swivel (3/8" Drive), inches

#	6	C	Rubber Insert
13/16	S9709KB	3 25/32	S9705A2
5/8	S9710KB	3 25/32	S9706KARI



BLPSPS3858



BLPSPS381316

Spark Plug Sockets, inches—Blue-Point®

#	6	C
5/8	BLPSPS3858	2 9/16
13/16	BLPSPS381316	2 1/4



WARNING



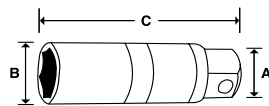
- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages 594 to 597

SPARK PLUGS/NUT SPLITTERS/CABLE CUTTERS

Flank Drive® Spark Plug Sockets



S9706KA



S9716KA



S6106KA





S9711KA






S9714MK

Standard (3/8" Drive), inches

		A	B	C	Rubber Insert
5/8	S9706KA*	3/8	11/16	2 27/32	S9706KARI
9/16	S9716KA*	5/8	23/32	2 1/8	S9714MK-2
3/4	S9718KA*	3/8	31/32	2 13/32	S9705A2
13/16	S9704KA*	3/8	7/8	2 3/4	S9705A2
7/8	S6106KA**	3/8	7/8	3 13/64	S6106-2R

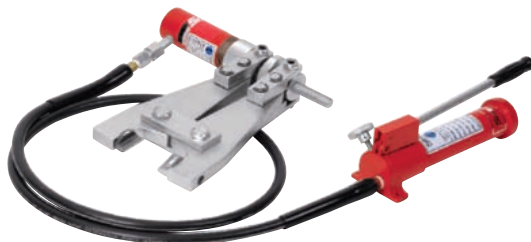
* ASME/ANSI B107.34M-1997.
** Designed for aircraft applications.

Standard (3/8" Drive), mm

			A	B	C	Rubber Insert
18mm	S9711KA	—	3/8	17.5	67.1	S9706KARI
14mm	—	S9714MK	3/8	19.8	54.0	S9714MK-2

ASME/ANSI B107.34M-1997.

Nut Splitters



CG675HY



NC52

Hydraulic Nut Splitter

CG675HY Hydraulic Nut Splitter.

- Six tons of controlled hydraulic power for removal of frozen or corroded nuts up to 2H hardness and 1 3/4" across the flats or 2" hex on soft nuts
- Includes CG652 ram and pump set
- 1 1/2" stroke

CG675 Nut Splitter.

- Nut splitter without the hydraulics

Manual Nut Splitter

NC52 Nut Splitter.

- For splitting nuts up to 3/4" across the flats
- Bar acts as a handle to hold tool securely

NC52-3 Extra Cutter.

NC52-4A Anvil.

Cable Cutters



CG410HY

Hydraulic Cable Cutters

CG410HY Hydraulic Cable Cutter.

- Cut steel cable up to 1 1/2" in diameter easily with up to 29 1/3 tons of force generated by this hydraulic package
- The hardened tool steel cutting blade and die make clean, square cuts and provide long, dependable service
- Both can be resharpened
- Includes CG420-2A pump, CG420-3-1 hose, and CG420-4 coupler set

CG410HY2S Hydraulic Cable Cutter.

- Hydraulic cable cutter with two-stage pump

CG410 Cable Cutter.

- Cable cutter without the hydraulics

CG420-2A One stage 20 ton, 35 ton, and 50 ton pump.

CG420-3-1 Hose.

CG420-4 Coupler.

THREAD RESTORING

Rethreading Taps and Dies



RTD48

RTD48 U.S./Metric Master Rethreading Kit.

- Includes taps and dies
- Also includes TF1124B and TFM7530B thread restorer files
- All components stored in storage case (48 pcs)



TRC3

TRC3 U.S. Rethreading Tap Set (NC).

- Includes 6 NC taps and 12 NC dies (18 pcs)
- Silver finish



TRF3

TRF3 U.S. Rethreading Tap Set (NF).







- Includes 6 NF taps and 12 NF dies (18 pcs)
- Black finish



RTD15M

RTD15M Metric Rethreading Tap & Die Set.

- Includes 7 metric dies and 7 metric taps

	Size, inches (mm)	Stock No.	RTD48	TRC3	TRF3	RTD15M	
NC Rethreading Taps 	1/4-20	TRT2520A	•	•			
	5/16-18	TRT3118A	•	•			
	3/8-16	TRT3716A	•	•			
	7/16-14	TRT4314A	•	•			
	1/2-13	TRT5013A	•	•			
	9/16-12	TRT5612A	•	•			
NF Rethreading Taps 	1/4-28	TRT2528A	•		•		
	5/16-24	TRT3124A	•		•		
	3/8-24	TRT3724A	•		•		
	7/16-20	TRT4320A	•		•		
	1/2-20	TRT5020A	•		•		
	9/16-18	TRT5618A	•		•		
Metric Rethreading Taps 	(M6 x 1)	TRT51	•			•	
	(M8 x 1.25)	TRT53	•			•	
	(M10 x 1.5)	TRT54	•			•	
	(M10 x 1.25)	TRM1025-2	•			•	
	(M12 x 1.75)	TRT55	•			•	
	(M12 x 1.5)	TRT56	•			•	
	(M12 x 1.25)	TRT57	•			•	
	(M10 x 1.00)	TRT101	•				
	(M11 x 1.50)	TRT11150	•				
(M14 x 1.50)	TRT14150	•					
NC Rethreading Dies 	1/4-20	TR2520A	•	•			
	5/16-18	TR3118A	•	•			
	3/8-16	TR3716A	•	•			
	7/16-14	TR4314A	•	•			
	1/2-13	TR5013A	•	•			
	9/16-12	TR5612A	•	•			
	5/8-11	TR6211A	•	•			
	3/4-10	TR7510A		•			
	7/8-9	TR8759A		•			
	1-8	TR10008A		•			
	1 1/8-7	TR11257A		•			
	1 1/4-7	TR12507A		•			
	NF Rethreading Dies 	1/4-28	TR2528B	•		•	
		5/16-24	TR3124B	•		•	
		3/8-24	TR3724B	•		•	
7/16-20		TR4320B	•		•		
1/2-20		TR5020B	•		•		
9/16-18		TR5618B	•		•		
5/8-18		TR6218B	•		•		
3/4-16		TR7516A			•		
7/8-14		TR8714A			•		
1-14		TR10014A			•		
	1 1/8-12	TR11212A			•		
	1 1/4-12	TR12512A			•		
Metric Rethreading Dies 	(M6 x 1)	TDM51B	•			•	
	(M8 x 1.25)	TDM53B	•			•	
	(M10 x 1.5)	TDM54B	•			•	
	(M10 x 1.25)	TRM1025-1	•			•	
	(M12 x 1.75)	TDM55B	•			•	
	(M12 x 1.5)	TDM56B	•			•	
	(M12 x 1.25)	TDM57B	•			•	
	(M10 x 1.00)	TR101	•				
(M11 x 1.50)	TR11150	•					
	(M14 x 1.50)	TR14150	•				

- Do not use chrome or industrial finish hand tools with impact drivers
- Rethreading taps and dies renew existing threads, do not use for cutting new threads or on hardened steel
- Read safety precautions on pages 594 to 597



WARNING



THREAD RESTORING

Thread Restoring Files/Thread Chasers



TF1124B

TF1124B Thread Restorer File.

- For any diameter right- or left-hand threads
- Removable vinyl handles

TF1124B. 11, 12, 13, 14, 16, 18, 20, and 24 threads per inch.

TF1127B. 9, 10, 12, 16, 20, 27, 28, and 32 threads per inch.

TFM7530B. Pitches: .75, 1, 1.25, 1.50, 1.75, 2 and 3mm.



TFTFM932A

TFTFM932A Thread Restorer File Set.

- Includes 3 commonly needed files
- Files feature a black industrial finish and comfortable vinyl handles
- Files service a range of 9 through 32 threads per inch and 0.75 through 3mm pitches
- Includes TFTFM932-1 vinyl kit bag for storage

Thread Chasers



TR20C



TR21A



TR25B

U.S. Thread Chaser Sets

TR20C U.S. External Thread Chaser Set.

- Includes small rethreading tool with 1/2" to 5 3/4" diameter capacity for bolt threads and 1/4" to 4" capacity for pipe threads plus 9 thread chasers

TR21A U.S. External Thread Chaser Set.

- Includes large rethreading tool with 5" to 14" diameter pipe thread capacity plus 9 thread chasers

TR25B U.S. Internal Thread Chaser Set.

- Includes knurled handle internal thread chasing tool plus 9 chasers

Metric Thread Chaser Sets

TR20M Metric External Thread Chaser Set.

- Same rethreading tool as the TR20C U.S. Set, except it includes 6 metric chasers (7 pcs)

TR25M Metric Internal Thread Chaser Set.

- Includes a knurled handle thread chasing tool plus 6 metric chasers (7 pcs)

Thread Chaser Set Components

	Stock No.	Thread Pitch, inches (mm)
U.S. Chaser	TR20-10	4 & 5
	TR20-11	6 & 7
	TR20-12	8 & 9
	TR20-32	8R & 10R
	TR20-13	10 & 11
	TR20-14	11 1/2 & 12
	TR20-15	13 & 14
	TR20-16	16 & 18
	TR20-17	20 & 24
	Metric Chaser	TR20-25
TR20-26		(3.5 & 4)
TR20-27		(2.5 & 3)
TR20-28		(1.75 & 2)
TR20-29		(1.25 & 1.5)
TR20-30		(.75 & 1)

Spindle Rethreading Set

RD8 Spindle Rethreading Set.

- For most imported or domestic front wheel drive vehicles
- Complete with RD8-8 storage case
- RD7-1 Rethreader Die.** M24 x 1.5
- RD7-2 Rethreading Die.** M24 x 2
- RD7-3 Rethreader Metric Die.** M22 x 1
- RD7-4 Rethreading Die.** M22 x 1.5
- RD7-5 Rethreader Metric Die.** M20 x 1.5
- RD7-6 Rethreading Die.** 3/4"-20
- RD7-7 Rethreading Die.** 13/16"-20.
- RD7-9 Rethreading Die.** M20 x 1.25



RD8

Master Spindle Rethreading Set

RD20 Master Spindle Rethreading Set.

- Repair and renew damaged threads on stub axles and spindles for most vehicles
- Dies are manufactured from high tempered steel for strength and durability
- Each die size is embossed in the case directly below each die for easy identification and selection
- Application chart included



RD20

- RD7-1 Rethreader Die.** M24 x 1.5
- RD7-2 Rethreading Die.** M24 x 2
- RD7-3 Rethreader Metric Die.** M22 x 1
- RD7-4 Rethreading Die.** M22 x 1.5
- RD7-5 Rethreader Metric Die.** M20 x 1.5
- RD7-6 Rethreading Die.** 3/4"-20
- RD7-7 Rethreading Die.** 13/16"-20.
- RD7-9 Rethreading Die.** M20 x 1.25
- RD7-10 Spindle Rethreader Die.** 3/4"-16NF
- RD7-11 Spindle Rethreader Die.** 7/8"-14NF
- RD7-12 Spindle Rethreader Die.** 1"-14NF
- RD7-13 Spindle Rethreader Die.** 1 1/16"-24NF
- RD7-14 Metric Spindle Rethreader Die.** M25-1.5
- RD7-15 Metric Spindle Rethreader Die.** M27-2
- RD7-16 Spindle Rethreader Die.** 27/32"-20NF
- RD7-17 Metric Spindle Rethreader Die.** M16-1
- RD7-18 Metric Spindle Rethreader Die.** M16-1.5
- RD7-19 Metric Spindle Rethreader Die.** M18-1.5
- RD7-20 Metric Spindle Rethreader Die.** M19-1.5
- RD7-21 Metric Spindle Rethreader Die.** M20-1
- RD7-22 Storage Case**

NOTE: Rethreading taps and dies renew existing threads; not for hardened threads; not for cutting new threads.

Deep Well Thread Chasers

- Designed to clean and repair threads that are rusted, painted or damaged
- Unique pass-thru design allows you to thread even the longest bolt or wheel stud
- Back end of chaser is left open so that it can be threaded backwards on a stud to use the interior of the thread chaser as a guide to align the first couple threads
- Flip chaser over and clean threads the remaining distance on the fastener or stud
- Use a socket or wrench on the external hex drive end to operate chaser

Stock No.	Type	Thread Size	Set Contains:					
			DTRCS105	DTRFS105	DTRMAS105	DTRCF110	DTRCFM114	
DTRC38	NC	3/8"-16 NC	•				•	•
DTRC716	NC	7/16"-14 NC	•				•	•
DTRC12	NC	1/2"-13 NC	•				•	•
DTRC916	NC	9/16"-12 NC	•				•	•
DTRC58	NC	5/8"-11 NC	•				•	•
DTRF38	NF	3/8"-24 NF		•			•	•
DTRF716	NF	7/16"-20 NF		•			•	•
DTRF12	NF	1/2"-20 NF		•			•	•
DTRF916	NF	9/16"-18 NF		•			•	•
DTRF58	NF	5/8"-18 NF		•			•	•
DTRM12.125	Metric	12mm-1.25			•			•
DTRM12.150	Metric	12mm-1.50			•			•
DTRM14	Metric	14mm-1.50			•			•
DTRM16	Metric	16mm-1.50			•			•

Special Purpose

Light Truck Spindle Rethreading Set

RD8LT Light Truck Spindle Rethreading Set.

- For use on 4 wheel drive (front and rear axle housings) and medium to heavy duty 2 wheel drive trucks (rear axle)
- Restore axle housing and bearing/hub retention threads
- Includes RD8LT-2 storage case



RD8LT

- RD7-23 Rethreading Die.** 2"-16
- RD7-24 Rethreading Die.** M38-1.5
- RD7-25 Rethreading Die.** 1 5/8"-16
- RD7-26 Rethreading Die.** 1 13/16"-16
- RD7-27 Rethreading Die.** Left Hand, 2"-16
- RD7-28 Rethreading Die.** 2 1/8"-16
- RD7-29 Rethreading Die.** 2 1/4"-16
- RD8LT-1 Driver.** 2 5/8

Metric Spark Plug Hole Taps

Stock No.	Size
T10100	M10 x 1.00
T12125	M12 x 1.25
T14125	M14 x 1.25
T18150	M18 x 1.50
T2818	7/8"-18 NF

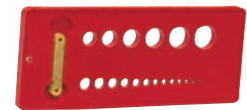


T14125

Thread Gauge

TDM101 Metric Bolt and Thread Gauge.

- Bolt diameter range of 2.3 to 24mm (with inch/decimal equivalents)
- Thread gauge sizes: .35 to 3mm



TDM101



DTRMAS105



DTRC58



DTRFS105



DTRCS105



WARNING



- Rethreading taps and dies renew existing threads, do not use for cutting new threads or on hardened steel
- Read safety precautions on pages 594 to 597

THREADING

Tap and Die Sets



TDTDM500A
U.S./Metric Set



TDTDM117A
Deluxe Combination Set



TD2425
U.S. Set



TDP6
U.S. Pipe Tap Set

TDTDM117A Deluxe Combination Set. Includes all components of the TDTDM500A US/Metric set plus 41-piece high speed steel drill bit set in fractional, metric, wire gauge and letter sizes and 5 spiral screw extractors. Each drill bit matches to corresponding tap size for correct fit. Set offers a complete assortment of high-carbon steel taps and dies in fractional and metric sizes. Tap/drill charts and tool diagrams included. Set packaged in a storage case.

	Thread Size	Tap Stock No.	Die Stock No.	Die Type	Set Contains:			
					TD99028	TD2425	TDP6	TDTDM500A
					U.S. Set	U.S. Set	U.S. Set	U.S./Metric Set
National Fine Threads (Adjustable Dies)	1/4"-28 NF	T105	D015	1" Double Hex Adjustable		•		•
	5/16"-24 NF	T106	D016	1" Double Hex Adjustable		•		•
	3/8"-24 NF	T107	D017	1" Double Hex Adjustable		•		•
	7/16"-20 NF	T108	D018	1" Double Hex Adjustable		•		•
	1/2"-20 NF	T109	D019	1" Double Hex Adjustable		•		•
	1/2"-20 NF	—	DR019	1 1/2" Round Adjustable	•			
	9/16"-18 NF	T125	DR035	1 1/2" Round Adjustable	•			
	5/8"-18 NF	T126	DR036	1 1/2" Round Adjustable	•			
	3/4"-16 NF	T127	DR037	1 1/2" Round Adjustable	•			
	7/8"-14 NF	T128	DR042	2" Round Adjustable	•			
	1"-14"	T129	DR043	2" Round Adjustable	•			
	National Fine Threads (Non-Adjustable Dies)	1/4"-28 NF	T105	GA541-1428	1" Single Hex Non-Adjustable			
5/16"-24 NF		T106	GA541-51624	1" Single Hex Non-Adjustable				
3/8"-24 NF		T107	GA541-3824	1" Single Hex Non-Adjustable				
7/16"-20 NF		T108	GA541-71620	1" Single Hex Non-Adjustable				
1/2"-20 NF		T109	GA541-1220	1" Single Hex Non-Adjustable				
1/4"-20 NC		T100	D010	1" Double Hex Adjustable		•		•
National Coarse Threads (Adjustable Dies)	5/16"-18 NC	T101	D011	1" Double Hex Adjustable		•		•
	3/8"-16 NC	T102	D012	1" Double Hex Adjustable		•		•
	7/16"-14 NC	T103	D013	1" Double Hex Adjustable		•		•
	1/2"-13 NC	T104	D014	1" Double Hex Adjustable		•		•
	1/2"-1 NC	—	DR014	1 1/2" Round Adjustable				
	9/16"-12 NC	T120	DR030	1 1/2" Round Adjustable	•			
	5/8"-11	T121	DR031	1 1/2" Round Adjustable	•			
	3/4"-10 NC	T122	DR032	1 1/2" Round Adjustable	•			
	7/8"-9 NC	T123	DR040	2" Round Adjustable	•			
	1"-8 NC	T124	DR041	2" Round Adjustable	•			
	National Coarse Threads (Non-Adjustable Dies)	1/4"-20 NC	T100	GA541-1420	1" Single Hex Non-Adjustable			
5/16"-18 NC		T101	GA541-51618	1" Single Hex Non-Adjustable				
3/8"-16 NC		T102	GA541-3816	1" Single Hex Non-Adjustable				
7/16"-14 NC		T103	GA541-71614	1" Single Hex Non-Adjustable				
1/2"-13 NC		T104	GA541-1213	1" Single Hex Non-Adjustable				
Machine Screw Threads (Adjustable Dies)	4-40	T111A	D021A	5/8" Double Hex Adjustable		•		•
	6-32	T112	D022	5/8" Double Hex Adjustable		•		•
	8-32	T113	D023	5/8" Double Hex Adjustable		•		•
	10-24	T114	D024	5/8" Double Hex Adjustable		•		•
	10-32	T115	D025	5/8" Double Hex Adjustable		•		•
	12-24	T116	D026	5/8" Double Hex Adjustable		•		•
Machine Screw Threads (Non-Adjustable Dies)	4-40	T111A	GA541-440	5/8" Single Hex Non-Adjustable				
	6-32	T112	GA541-632	5/8" Single Hex Non-Adjustable				
	8-32	T113	GA541-832	5/8" Single Hex Non-Adjustable				
	10-24	T114	GA541-1024	5/8" Single Hex Non-Adjustable				
	10-32	T115	GA541-1032	5/8" Single Hex Non-Adjustable				
	12-24	T116	GA541-1224	5/8" Single Hex Non-Adjustable				
Pipe Threads (Adjustable Dies)	1/8"-27 NPT	T110	—	—		•	•	•
	1/8"-27 NPT	—	D020	1" Double Hex Adjustable		•		•
	1/4"-18 NPT	T130	—	—	•		•	
	1/4"-18 NPT	—	DR033	1 1/2" Round Adjustable	•			
	3/8"-18 NPT	T131	—	—			•	
	1/2"-14 NPT	T132	—	—			•	
	3/4"-14 NPT	T133	—	—			•	
	1"-11 1/2" NPT	T134	—	—			•	
Pipe Threads (Non-Adjustable Dies)	1/8"-27 NPT	T110	GA541-1827	1" Double Hex Non-Adjustable				

THREADING

Tap and Die Sets



GAM541 Metric Set

GAM541 Metric Set-Blue-Point®. 40-pc set features 1" single hex non-adjustable dies from 3 to 12mm, a 1/8"-28 BSP die plus taps in the same sizes. Also includes a die stock, 2 T-handle tap wrenches, a thread pitch gauge, a drill/tap chart and a midget screwdriver, all in a storage case.



GA541 U.S. Set

GA541 U.S. Set-Blue-Point. Taps and dies from #4 to 1/2" in both NF and NC threads, a pipe thread tap and die, plus 2 die stocks and 3 tap wrenches, a screw pitch gauge and a screwdriver (41 pc) in a storage case.

	Thread Size	Tap Stock No.	Die Stock No.	Die Type	Set Contains:					
					TD902B	TD2425	TDM99117	TDM99117B	TDM117B	TDTDM500A
					U.S. Set	U.S. Set	Metric Set	Metric Set	Metric Set	U.S./Metric Set
Metric Threads	M3-.50	T305M	D305M	5/8" Double Hex Adjustable			•		•	•
	M4-.70	T407M	D407MA	5/8" Double Hex Adjustable			•		•	•
	M4-.75	T4075M	D4075M	5/8" Double Hex Adjustable			•		•	•
	M5-.80	T508M	D508MA	5/8" Double Hex Adjustable			•		•	•
	M5-.90	T509M	D509M	5/8" Double Hex Adjustable			•		•	•
	M6-1.00	T610M	D610MA	5/8" Double Hex Adjustable			•		•	•
	M7-1.00	T710M	D710M	1" Double Hex Adjustable			•		•	•
	M8-1.00	T810M	D810M	1" Double Hex Adjustable			•		•	•
	M8-1.25	T812M	D812M	1" Double Hex Adjustable			•		•	•
	M9-1.00	T910M	D910M	1" Double Hex Adjustable			•		•	•
	M9-1.25	T912M	D912M	1" Double Hex Adjustable			•		•	•
	M10-1.25	T1012M	D1012M	1" Double Hex Adjustable			•		•	•
	M10-1.5	T1015M	D1015M	1" Double Hex Adjustable			•		•	•
	M11-1.5	T1115M	D1115M	1" Double Hex Adjustable			•		•	•
	M12-1.5	T1215M	D1215M	1" Double Hex Adjustable			•		•	•
	M12-1.75	T1217M	D1217M	1" Double Hex Adjustable			•		•	•
	M14-1.25	T1412M	DR1412M	1 1/2" Round Adjustable			•	•		
	M14-1.5	T1415M	DR1415M	1 1/2" Round Adjustable			•	•		
	M14-2.0	T1420M	DR1420M	1 1/2" Round Adjustable			•	•		
	M16-1.5	T1615M	DR1615M	1 1/2" Round Adjustable			•	•		
	M16-2.0	T1620M	DR1620M	1 1/2" Round Adjustable			•	•		
	M18-1.5	T1815M	DR1815M	1 1/2" Round Adjustable			•	•		
	M18-2.5	T1825M	DR1825M	1 1/2" Round Adjustable			•	•		
	M20-2.5	T2025M	DR2025M	2" Round Adjustable			•	•		
	M22-1.5	T2215M	DR2215M	2" Round Adjustable			•	•		
	M24-2.0	T2420M	DR2420M	2" Round Adjustable			•	•		
M24-3.0	T2430M	DR2430M	2" Round Adjustable			•	•			
1/8"-28 BSP	T110M	D020M	1" Double Hex Non-Adjustable			•		•	•	
Accessories	GA541-1 Die Stock	—	—	For 5/8" single hex dies					•	•
	TD3A Die Stock	—	—	For 5/8" double hex dies		•	•		•	•
	GA541-2 Die Stock	—	—	Adjustable for 1" single hex dies					•	•
	TD10A Die Stock	—	—	Self-centering for 1" double hex dies		•	•		•	•
	TD35 Die Stock	—	—	Self-centering for 1 1/2" diameter round dies		•		•		
	TD40 Die Stock	—	—	Self-centering for 2" diameter round dies		•		•		
	TD4 Tap Wrench	—	—	Four-jaw, for 0 - 1/4" taps			•		•	•
	TD6 Tap Wrench	—	—	Two-jaw, for 1/16" - 1/4" taps					•	•
	TD7 Tap Wrench	—	—	Two-jaw, for 1/4" - 1/2" taps					•	•
	TD50 Tap Wrench	—	—	Four-jaw, for 1/4" - 1/2" (M7-1.00 to M12-1.75) taps			•	•		•
	TD88A Tap Wrench	—	—	Clamp type, for 0 - 1/2" (M3-0.50 to M12-1.75) taps			•	•		•
	TD98A Tap Wrench	—	—	Clamp type, for 0 - 1" (M7-10 to M24-3.0) taps		•	•	•		•
	TD1040 Thread Pitch Gauge	—	—	U.S.						•
	TDM100 Thread Pitch Gauge	—	—	Metric						•
	TDS1 Screwdriver	—	—	For adjusting dies			•	•		•

Metric Tap Set

TMA34. Precision-ground flutes ensure accurate threading. High carbon steel ensures less breakage. Tap adaptors turn any 3/8" socket drive into a tap driver.

Metric Tap Set Includes:

Stock No.	Thread Size	Stock No.	Thread Size
T305M	M3-0.50	T1015M	M10-1.50
T306M	M3-0.60	T1115M	M11-1.50
T407M	M4-.070	T1215M	M12-1.50
T4075M	M4-0.75	T1217M	M12-1.75
T508M	M5-0.80	T1412M	M14-1.25
T509M	M5-0.90	T1415M	M14-1.50
T610M	M6-1.00	T1420M	M14-2.00
T6310M	M6.3-1.00	T1610M	M16-1.00
T710M	M7-1.00	T1615M	M16-1.50
T810M	M8-1.00	T1620M	M16-2.00
T812M	M8-1.25	T1815M	M18-1.50
T910M	M9-1.00	T1825M	M18-2.50
T912M	M9-1.25	TDM100	Metric Thread, Pitch Gauge
T1010M	M10-1.00	ATSS	Adj. Tap Socket ,3mm-6mm
T1012M	M10-1.25	ATSL	Adj. Tap Socket ,6mm-12mm



TMA34 Metric Set



WARNING



- Rethrading taps and dies renew existing threads, do not use for cutting new threads or on hardened steel
- Read safety precautions on pages 594 to 597

THREADING

Tap Sockets and Die Sets



TDL8

TDL3

Tap Sockets (1/4" - 3/8" Drive)

Stock No.	Square Drive, inches	Fits SAE Size Taps	Fits Metric Size Taps	Shank Dia., inches	Square Size, inches
TDL8-1	1/4	#1, #2, #3, #4, #5, #6	M1.6, M1.8, M2, M2.2, M2.5, M3, M3.15, M3.5	.141	.110
TDL8-2	1/4	#8	M4	.168	.131
TDL8-3	1/4	#10	M4.5, M5	.194	.152
TDL8-4	1/4	1/4"	M6, M6.3	.255	.191
TDL8-5	3/8	5/16", 7/16"	M7, M8	.323	.242
TDL8-6	3/8	3/8"	M10	.381	.286
TDL8-7	3/8	1/2"	M12, M12.5	.367	.275
TDL8-8	3/8	1/8" NPT	—	.437	.328

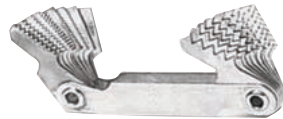
TDL8 Tap Socket Set.

- For use with ratchets and handles
- Rubber O-rings hold taps securely in place
- Black industrial finish
- Includes 8 sockets on TDL8-9 socket rail and clips

Tap Sockets (1/2" Drive)

- Use in restricted areas where a T-handle won't easily fit
- Manufactured to M.C.T.I. Standards
- Black industrial finish

Stock No.	Square Drive, inches	Fits SAE Size Taps, inches	Fits Metric Size Taps	Shank Dia., inches	Square Size, inches	Set Contains:
TDL31	1/2	5/8	16mm	.480	.360	•
TDL32	1/2	11/16	18mm	.542	.406	•
TDL33	1/2	3/4	—	.590	.442	•



TD1040

Thread Pitch Gauge

TD1040 Thread Pitch Gauge.

- Measures U.S. or sharp "V" threads
- Includes 18 plated blades for the following thread sizes: 8, 9, 10, 11, 11 1/2, 12, 13, 14, 16, 18, 20, 24, 27, 28, 32, 36, 40, and 44 threads per inch

Plug Taps and Dies

Tap	Stock No.	Thread Size	Thread Pitch	Die Type
	T111	4-36	Right Hand	—
	T6310M	M6.33-1	Right Hand	—
	T1010M	M10-1	Right Hand	—
	T1112M	M11-1.25	Right Hand	—
	T1212M	M12-1.25	Right Hand	—
	T1412M	M14-1.25	Right Hand	1 1/16" Hex
	T1415M	M14-1.5	Right Hand	1 1/16" Hex
	T1420M	M14-2	Right Hand	1 1/16" Hex
Die	D021	4-36	Right Hand	5/8" Dbl. Hex
	D040	1/4"-18	Right Hand	1" Dbl. Hex
	D147M	M4-.7	Right Hand	1" Dbl. Hex
	D158M	M5-.8	Right Hand	1" Dbl. Hex
	D161M	M6-1	Right Hand	1" Dbl. Hex
	D1010M	M10-1	Right Hand	1" Dbl. Hex
	D1112M	M11-1.25	Right Hand	1" Dbl. Hex
	D1212M	M12-1.25	Right Hand	1" Dbl. Hex
	D1615M	M16-1.5	Right Hand	1 1/4" Hex
	D1615ML	M16-1.5	Left Hand	1 1/4" Hex

Bottoming Taps

TB300C Set.

- Allows blind holes to be tapped within one thread of bottom of hole

TB5/16C Tap.

- 5/16"-18 NC thread size

TB3/8C Tap.

- 3/8"-16 NC thread size

TB7/16C Tap.

- 7/16"-14 NC thread size

TB300F Set.

- Allows blind holes to be tapped within one thread of bottom of hole

TB5/16F Tap.

- 5/16"-24 NF thread size

TB3/8F Tap.

- 3/8"-24 NF thread size

TB7/16F Tap.

- 7/16"-20 NF thread size



TB300C

Ratcheting Tap Wrenches—Blue-Point®

YA577A T-handle Tap Wrench.

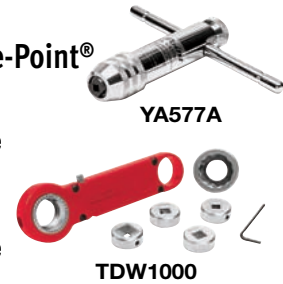
- For taps up to 1/4"
- Ratchet clockwise or counterclockwise
- 3 3/8" long body, 3 15/16" handle

YA578A T-handle Tap Wrench.

- For 1/4" to 1/2" taps
- Ratchet clockwise or counterclockwise
- 4 3/8" long body, 4 3/4" handle

TDW1000 Ratcheting Tap and Die Wrench.

- Cut and renew threads in confined areas
- Bi-directional ratcheting action
- Holds dies with 1" (25mm) diameter
- Includes adaptors for hex and double hex
- Also includes adaptors for most popular tap sizes: .250" (6.35mm), .290" (7.36mm), .335" (8.5mm) and .535" (13.58mm)



YA577A

TDW1000

Adjustable Tap Sockets

- Designed for use with taps, reamers, screw extractors and other tools with a square shank
- Small profile for easier access to tight work spaces
- Adaptor turns any 3/8" square drive ratchet or handle into a tap driver

ATSS Adjustable Tap Socket.

- Fits common taps from #6 to 1/4" (3mm to 6mm)

ATSL Adjustable Tap Socket.

- Fits common taps from 1/4" to 1/2" (6mm to 12mm)

ATSSSET Adjustable Tap Socket Set.

- ATSS and ATSL (2 pcs) in storage tray



ATSS

ATSL

Die	Stock No.	Thread Size	Thread Pitch	Die Type
	D1620M	M16-2	Right Hand	1 1/4" Hex
	D1810M	M18-1	Right Hand	1 7/16" Hex
	D1815M	M18-1.5	Right Hand	1 7/16" Hex
	D1815ML	M18-1.5	Left Hand	1 7/16" Hex
	D1825M	M18-2.5	Right Hand	1 7/16" Hex
	DR2015M	M20-1.5	Right Hand	2" Round
	D2025M	M20-2.5	Right Hand	1 7/16" Hex
	D2215M	M22-1.5	Right Hand	1 5/8" Hex
	D2215ML	M22-1.5	Left Hand	1 5/8" Hex
	D2415M	M24-1.5	Right Hand	1 13/16" Hex
	D3015M	M30-1.5	Right Hand	2" Hex

EXTRACTORS

Extractor Sets

Set Contains:	EXDMS48	EXD35	EXD10	EXDL10	E1025	E1020
Right Hand Drill Bits						
Stock No.						
CSE405B						•
DBCFS5/64				•		
DBCFS7/64				•		
DBCFS5/32				•		
DBCFS1/4				•		
DBCFS19/64				•		
DBF1/8C					•	•
DBF3/16C					•	•
DBF1/4C					•	•
DBF5/16C					•	•
DBF11/32C					•	•
DBF7/16C					•	•
DBF1/2C					•	
Left Hand Drill Bits	•	•				
DBCL5/64A	•	•			•	
DBCL7/64A	•	•			•	
DBCL5/32A	•	•			•	
DBCL3/16	•	•			•	
DBCL1/4A	•	•			•	
DBCL9/32	•	•			•	
DBCL19/64A	•	•			•	
DBCL5/16	•	•			•	
DBCL11/32	•	•			•	
DBCL3/8	•	•			•	
DBCL13/32	•	•			•	
DBCL7/16	•	•			•	
DBCL15/32	•	•			•	
DBCL1/2	•	•			•	
Solid-Type Drill Guides						
E921					•	•
E1021					•	•
E1121					•	•
E1221					•	•
E1321					•	•
E1421					•	•
E1521					•	•
E1621					•	•
E1721					•	•
E1821					•	•
Sleeve-Type Drill Guides						
E33A					•	•
E34					•	•
Sleeve Bushings (in pairs)						
E3033					•	•
Straight Screw Extractors						
E1					•	•
E2					•	•
E3					•	•
E4					•	•
E5					•	•
E6					•	•
E7					•	•
E8					•	•
Pipe Plug Extractors						
E80					•	•
E81					•	•
E82					•	•
E83					•	•
E84					•	•
E85					•	•
Spiral Flute Screw Extractors						
EX1	•	•	•	•		
EX2	•	•	•	•		
EX3	•	•	•	•		
EX4	•	•	•	•		
EX5	•	•	•	•		
EX6	•	•	•	•		
Multi-Spline Screw Extractors						
REX104A	•	•				
REX105A	•	•				
REX106A	•	•				
REX107A	•	•				
REX108A	•	•				
REX109A	•	•				
REX110A	•	•				
REX111A	•	•				
REX112A	•	•				
REX113A	•	•				
REX114A	•	•				
REX115A	•	•				
REX116A	•	•				
Hex Head Fastener Extractors						
BEX081	•					
BEX101	•					
BEX121	•					
BEXM101	•					
BEX141	•					
BEXM121	•					
BEX161	•					
BEXM131	•					
BEX181	•					
BEX201	•					
BEXM171	•					
BEX221	•					
BEX241	•					



EXDMS48

EXDMS48 Master Extractor Set.

- Quickly and easily extracts the toughest screws from 3/32" to 15/16" screw sizes (including metric sizes)
- Includes 16 left-hand mechanic's length cobalt drill bits, 13 multi-spline screw extractors (1/8" to 1/2"), 6 spiral flute screw extractors plus 13 hex head fastener extractors (1/4" to 3/4")
- Hex head extractors feature left hand spiral flutes for maximum gripping power
- External hex and square drive wrenching options for use with wrenches, impact wrenches and ratchet/socket combinations
- 48 pcs in storage case



EXD35

EXD35 Screw Extractor Set.

- Quickly and easily extracts the tough screws from 3/32" to 15/16" screw sizes (including metric sizes)
- Includes 16 left-hand mechanic's length cobalt drill bits, 13 multi-spline screw extractors and 6 spiral flute screw extractors in EXD35-1 storage case



EXD10

EXD10 Right Hand Extractor Set.

- Includes 5 right-hand, mechanic's length cobalt drill bits and 5 spiral flute screw extractors in metal index



E1025

E1025 Extractor Set-Blue-Point®.

- Extract broken screws from 1/4" to 1" diameter and standard pipe sizes 1/8" to 1"
- Storage case



EXDL10

EXDL10 Left Hand Extractor Set.

- Includes 5 left-hand, mechanic's length cobalt drill bits and 5 spiral flute screw extractors in metal index



E1020

E1020 Extractor Set-Blue-Point.

- Extracts broken screws from 1/4" to 1/2" diameter
- Storage case



WARNING



- Retreading taps and dies renew existing threads, do not use for cutting new threads or on hardened steel
- Read safety precautions on pages 594 to 597

EXTRACTORS

Extractor Tools



REX25B



REX10B



REX15B



BEX13A



BEX5

Multi-Spline Extractor Sets

- Shoulder prevents extractor from entering too deeply and expanding screw

REX25B Multi-Spline Extractor Set. REX104A thru REX128A (25 pcs.) in REX25BMT storage case.

REX10B Multi-Spline Extractor Set. REX104A thru REX113A (10 pcs.) in REX10BMT storage case.

REX15B Multi-Spline Extractor Set. REX104A thru REX118A (15 pcs.) in REX15BMT storage case.



REX114A

Multi-Spline Extractors

Stock No.	Drill Size, inches	Bolt Size, inches	Pipe Size, inches	Hex Size, inches	Mark
REX104A	1/8	1/4	—	1/2	A
REX105A	5/32	5/16	—	1/2	B
REX106A	3/16	3/8	—	1/2	C
REX107A	7/32	7/16	—	1/2	D
REX108A	1/4	1/2	1/8	1/2	E
REX109A	9/32	9/16	—	1/2	F
REX110A	5/16	5/8	—	1/2	G
REX111A	11/32	11/16	1/4	1/2	H
REX112A	3/8	3/4	—	1/2	I
REX113A	13/32	13/16	—	1/2	J
REX114A	7/16	7/8	—	5/8	K
REX115A	15/32	15/16	3/8	5/8	L
REX116A	1/2	1	—	5/8	M
REX117A	17/32	1 1/16	—	5/8	N
REX118A	9/16	1 1/8	—	3/4	O
REX119A	19/32	1 3/16	—	3/4	P
REX120A	5/8	1 1/4	1/2	3/4	Q
REX121A	21/32	1 5/16	—	7/8	R
REX122A	11/16	1 3/8	—	7/8	S
REX123A	23/32	1 7/16	—	7/8	T
REX124A	3/4	1 1/2	—	7/8	U
REX125A	25/32	1 9/16	3/4	1	V
REX126A	13/16	1 5/8	—	1	W
REX127A	27/32	1 11/16	—	1	X
REX128A	7/8	1 3/4	—	1	Y

Power Fastener Extractors—Blue-Point®

- Extracts hex head, socket head, round head and other fasteners
- 1/4" universal hex shank is ideal for use with cordless, air or electric drills, impact wrenches, nut runners and hand tools
- Power groove for use with quick change adaptors
- Reverse spiral flutes hold on to the most elusive fastener heads
- High carbon steel ensures longer life and greater durability
- High carbon steel shank is larger than most fastener shanks and resists torsional shear

Set Contains: **BET7**

Stock No.	Size, inches (mm)	
BET76	3/16	•
BET78	1/4 (6)	•
BET710	5/16 (8)	•
BET712	3/8 (10)	•
BEM710	(10)	•
BET714	7/16 (11)	•
BET716	1/2 (12)	•



BET7

Hex Head Fastener Extractors

- Use on most popular hex head fasteners from 1/4" to 1" (8 to 24mm)
- Sockets feature left hand spiral flutes for maximum gripping power
- Manufactured from high carbon steel for maximum strength
- External hex and square drive wrenching options for use with wrenches, impact wrenches and ratchet/socket combinations

Set Contains: **BEX13A** **BEX5**

Stock No.	Square Drive, inches	Size, inches (mm)	External Hex, inches (mm)	Outside Dia., inches (mm)	Length, inches (mm)		
BEX081	3/8	1/4 (6)	5/8 (15.9)	3/8 (9.5)	1 1/16 (27.0)	•	
BEX101	3/8	5/16 (8)	5/8 (15.9)	7/16 (11.1)	1 1/16 (27.0)	•	
BEX121	3/8	3/8 (10)	5/8 (15.9)	9/16 (14.3)	1 1/16 (27.0)	•	
BEXM101	3/8	n/a (10)	3/4 (19.1)	5/8 (15.5)	1 1/16 (27.0)	•	
BEX141	3/8	7/16 (11)	3/4 (19.1)	5/8 (15.9)	1 1/16 (27.0)	•	
BEXM121	3/8	n/a (12)	3/4 (19.1)	23/32 (17.5)	1 1/16 (27.0)	•	
BEX161	3/8	1/2 (12)	3/4 (19.1)	23/32 (17.9)	1 1/16 (27.0)	•	
BEXM131	3/8	n/a (13)	3/4 (19.1)	23/32 (18.5)	1 1/16 (27.0)	•	
BEX181	3/8	9/16 (14)	7/8 (22.2)	25/32 (19.4)	1 1/16 (27.0)	•	
BEX201	3/8	5/8 (16)	7/8 (22.2)	7/8 (21.8)	1 1/16 (27.0)	•	
BEXM171	3/8	n/a (17)	1 (25.4)	29/32 (23.0)	1 1/16 (27.0)	•	
BEX221	3/8	11/16 (n/a)	1 (25.4)	15/16 (24.2)	1 1/16 (27.0)	•	
BEX241	3/8	3/4 (19)	1 1/16 (27)	1 1/32 (26.2)	1 1/16 (27.0)	•	
BEXW241	1/2	3/4 (19)	1 1/4 (31.8)	1 1/8 (28.6)	1 3/4 (44.5)	•	•
BEXW261	1/2	13/16 (21)	1 3/8 (34.9)	1 3/16 (30.2)	1 3/4 (44.5)	•	•
BEXW281	1/2	7/8 (22)	1 7/16 (36.5)	1 1/4 (31.8)	1 3/4 (44.5)	•	•
BEXW301	1/2	15/16 (24)	1 7/16 (36.5)	1 5/16 (33.3)	1 3/4 (44.5)	•	•
BEXW321	1/2	1 (n/a)	1 7/16 (36.5)	1 3/8 (34.9)	1 3/4 (44.5)	•	•



110STSY

External Drive Hex Head Slim Twist Sockets—Blue-Point

Stock No.	Nut/Bolt Size, inches (mm)	Socket Number	External Hex, inches	Socket Thickness, inches (mm)	Finish
110STSY1	3/8 (9)	#1	5/8	0.38 (9.5)	Industrial Black
110STSY2	(10)	#2	5/8	0.38 (9.5)	Industrial Black
110STSY3	7/16 (11)	#3	11/16	0.38 (9.5)	Industrial Black
110STSY4	(12)	#4	3/4	0.38 (9.5)	Industrial Black
110STSY5	(13)	#5	3/4	0.50 (12.7)	Industrial Black
110STSY6	(14)	#6	13/16	0.50 (12.7)	Industrial Black
110STSY7	(15)	#7	7/8	0.50 (12.7)	Industrial Black
110STSY8	5/8 (16)	#8	15/16	0.62 (15.9)	Industrial Black
110STSY9	(17)	#9	1	0.62 (15.9)	Industrial Black
110STSY10	3/4 (19)	#10	1 1/16	0.62 (15.9)	Industrial Black

110STSY External Drive Twist Socket Set.

- Quickly and easily remove damaged or rounded nuts and bolts, socket head cap screws in close quarters and nuts threaded on long studs
- Ideal for use for aircraft and exhaust systems applications
- Includes 10 external hex drive slim twist sockets for the following hex head fasteners:
 - SAE: 3/8", 7/16", 5/8" and 3/4"
 - Metric: 9, 10, 11, 12, 13, 14, 15, 16, 17, and 19mm.
- Sockets are stored on MSR1 magnetic socket holder

EXTRACTORS

Extractor Tools

BEXD Deep Well Extractors

- External hex and 3/8" square drive wrenching options for use with wrenches, impact wrenches and ratchet/socket combinations
- Deep well design fits over exposed studs and reaches recessed fasteners
- Reverse spiral flutes bite into stubborn fasteners, both SAE and metric, with maximum gripping power
- Reduced profile head enables use in confined spaces



BEXD181



BEXD9

Set Contains: BEXD9

Stock No.	Size, inches	Length, inches	
BEXD081	1/4	2 7/16	•
BEXD101	5/16	2 7/16	•
BEXD121	3/8	2 7/16	•
BEXD141	7/16	2 7/16	•
BEXD161	1/2	2 7/16	•
BEXD181	9/16	2 7/16	•
BEXD201	5/8	2 7/16	•
BEXD241	3/4	2 7/16	•
BEXDM131	13mm	2 7/16	•

Right-Hand Fractional Drill Bits

- Use right hand drill bits to make a hole in the broken screw before the extractor is inserted

Stock No.	Size, inches	Flute Length, inches	Overall Length, inches
CSE405B	5/8	3	6
DBF1/2C	1/2	2 1/4	4 3/4
DBF1/4C	1/4	2 1/2	4
DBF1/8C	1/8	1 3/8	3
DBF11/32C	11/32	2 3/4	4 1/2
DBF3/16C	3/16	2	3 1/2
DBF5/16C	5/16	2 5/8	4 1/2
DBF7/16C	7/16	1 7/8	4 1/4

Left-Hand Fractional Drill Bits (Cobalt)

- Left-hand drill bits tend to loosen screws for easier removal

Set Contains: DBCL105A

Stock No.	Size, inches	
DBCL5/64A	5/64	•
DBCL7/64A	7/64	•
DBCL5/32A	5/32	•
DBCL3/16	3/16	•
DBCL1/4A	1/4	•
DBCL9/32	9/32	•
DBCL19/64A	19/64	•
DBCL5/16	5/16	•
DBCL11/32	11/32	•
DBCL3/8	3/8	•
DBCL13/32	13/32	•
DBCL7/16	7/16	•
DBCL15/32	15/32	•
DBCL1/2	1/2	•



DBCL105A

Tapered Bit Extractors

SR40K Tapered Bit Extractor Set.

- Tapered ends have left-hand threads to bite deep into drilled studs
- Square shafts for use with wrench
- Set includes (4 pcs.) in C0407 kit bag

SR4A	1/8"
SR10A	9/64"
SR14	7/32"
SR20	5/16"
C0407	Kit Bag



SR40K

Left-Hand Fractional Drill Bits (High Speed Steel)

- Left-hand drill bits tend to loosen screws for easier removal



DBLS105A

Set Contains: DBLS105A

	Stock No.	Size, inches	Flute Length, inches	Overall Length, inches	
Left-Hand	DBLS1/8A	1/8	1 3/8	3	•
	DBLS3/16A	3/16	2	3 1/2	•
	DBLS1/4A	1/4	2 1/2	4	•
	DBLS5/16A	5/16	2 5/8	4 1/2	•
	DBLS11/32A	11/32	2 3/4	4 1/2	•

Spiral Flute Screw Extractors

- Designed to remove broken studs, bolts, socket screws and fittings
- Aggressive left-hand spiral design for extra gripping power



EX1

Stock No.	Use Drill Size, inches	Removes Bolts and Screws
EX1	5/64	3/32" to 5/32", 2.5 to 4mm, #3 to #6
EX2	7/64	5/32" to 7/32", 4 to 6mm, #6 to #12
EX3	5/32	7/32" to 9/32", 6 to 8mm, #12
EX4	1/4	9/32" to 3/8", 1/8" NPT, 1/8" BSP, 8 to 10mm
EX5	19/64	3/8" to 5/8", 1/4" NPT, 1/4" BSP, 10 to 16mm
EX6	13/32	5/8" to 7/8", 3/8" NPT, 3/8" BSP, 16 to 22mm

Solid-Type Drill Guides

- Used for centering drills at a depth not exceeding 1"

Stock No.	Outside Dia., inches	For Drill Size, inches	Length, inches
E921	9/32	1/8	1 3/16
E1021	5/16	1/8	1 3/16
E1121	11/32	1/8	1 3/16
E1221	3/8	1/8	1 3/16
E1321	13/32	3/16	1 3/16
E1421	5/16	3/16	1 3/16
E1521	15/32	3/16	1 3/16
E1621	1/2	3/16	1 3/16
E1721	17/32	1/4	1 3/16
E1821	9/16	1/4	1 3/16



E921

Sleeve-Type Drill Guides

- Use to center 1/4" diameter, 6" long drill bits (see DBL1/4A above)
- Parts are interchangeable to adapt to different screw or stud holes and depths up to 3 3/4"

- E34 Sleeve-Type 5/8" O.D.
- E33A Sleeve-Type 3/4" diameter
- E33B Sleeve Spacer (set of 4) 5/8" diameter

Sleeve Bushing (in pairs)

Stock No.	Diameter, inches
E2133	21/32
E2933	29/32
E3033	15/16
E3133	31/32



E2133



WARNING



• Read safety precautions on pages 594 to 597

EXTRACTORS

Extractor Tools



E1



E6

Straight Screw Extractors

	Stock No.	For Screw Dia. or Std. Pipe, inches	Drill Size, inches	Length, inches
Straight Screw, Hex Nut Type	E1	1/4	1/8	2 5/16
	E2	5/16	3/16	2 3/4
	E3	3/8	1/4	3 1/16
	E4	7/16	5/16	3 5/16
	E5	1/2	11/32	3 3/4
	E6	1/2	7/16	4 1/8
	E7	3/4	1/2	4 1/2
	E8	1	1/2	4 5/8



E80

Pipe Plug Extractors

Stock No.	For Screw Dia. or Std. Pipe, inches	Drill Size, inches	Length, inches
E80	1/8	16/64	2 1/4
E81	1/4	3/8	2 1/2
E82	3/8	1/2	2 3/4
E83	5/8	5/8	3
E84	3/4	13/16	3 1/4
E85	1	1 1/16	3 1/2

All-In-One Extractor Set-Blue-Point®

YA769 Extractor Set.

- Extract broken screws from 1/4" to 1/2" diameter
- Drill/extract with one tool
- Left hand drill bit
- For use in 3/8" drive reversible drill



YA769

Stock No.	Extractor Size, inches	Drilling Speed, rpm	Extracting Speed, rpm
YA769-1	1/4	700-800	350
YA769-2	5/16	650-750	470
YA769-3	3/8	600-700	350
YA769-4	1/2	475-575	350

YA2020 Screw Extractor Set-Blue-Point.

- Easily extracts #6 to #14 damaged screws from wood, metal or plastic. Remove hex, Torx, Phillips, slotted or square head screws
- Use with 1/4" quick disconnect or 1/4" hex hand or power tool
- Works with a variety of screw materials



YA2020

Cam and Wedge Type Stud Removers

A50A Stud Remover.

- 7/16" to 1/2" capacity
- V-shaped rack grips stud
- Grip releases when pressure is relieved
- Uses 1/2" drive handle



A50A

A50-4B Optional Rack.

- For 5/16" to 3/8" capacity

A36A Stud Remover.

- 1/2" to 3/4" capacity
- Knurled wheel grips stud
- Driving shank extends through both sides of housing for bearing surface on each side of wheel
- Uses 1/2" drive handle



A36A

A80A Stud Remover.

- (1/4" to 1/2" capacity)
- Jaws grip when pressure is applied
- Built-in ratchet action
- Needs only 1 1/4" clearance
- Use with 1/2" drive handle or 1" wrench



A80A

LA55A Stud Remover.

- 9/16" to 1" capacity
- Grip is released by turning tool in reverse direction



LA55A

LA54 Stud Remover.

- 1/4" to 5/8" capacity
- Smaller version of LA55A
- Includes 2 wedge sizes: LA54-2A and LA54-3A
- Requires 1/2" drive handle

YA789 Power Extractor Set-Blue-Point.

- Place extractor end of tool in drill chuck, set for reverse and hole can be drilled
- Next, insert drill side into chuck, exposing extractor end, and finish the job to remove broken screw
- Packaged in YA789-5 storage case



YA789

Stock No.	Bolt Size	Extractor Size	
		Fractional	Metric
YA789-1	—	#5 - #6	M3
YA789-2	—	#8	M4
YA789-3	#10, #12	—	M5
YA789-4	—	1/4"	M6

YA2019 Screw Remover Set-Blue-Point.

- Use to remove damaged Phillips®, Torx®, Pozidriv®, slotted, Internal Hex, Tri-Wing®, Frearson and most tamper resistant screws and fasteners
- Tool bites into the damaged fastener in the reverse direction allowing the user to easily remove damaged screws
- Use with variable speed reversing drill or 1/4" hex bit screwdriver



YA2019

Set Contains:

Stock No.	Extractor Size Bolt Size	
YA2019-1	#6 - #8	•
YA2019-2	#8 - #10	•
YA2019-3	#10 - #12	•

EXTRACTORS

Stud Removers



CG500-17



CG500-2



CG500

Stud Removers Set Components

Stock No.	Collet Size	Housing Stock No.	Set Contains:						
			CG5151	CG5152	CG5153	CG515B	CGM515B	CG500	CG505
CG500-17	#10-24	CG500-2	•						
CG500-18	#10-32	CG500-2	•						
CG500-3	1/4"-20	CG500-2	•	•		•			
CG500-4	1/4"-28	CG500-2	•	•					
CG500-5	5/16"-18	CG500-2	•	•		•			
CG500-6	5/16"-24	CG500-2	•	•		•			
CG500-7	3/8"-16	CG500-2	•	•		•			
CG500-8	3/8"-24	CG500-2	•	•		•		•	
CG500-9	7/16"-14	CG500-2	•	•		•			
CG500-10	7/16"-20	CG500-2	•	•		•		•	
CG500-11	1/2"-13	CG500-2	•	•		•			
CG500-12	1/2"-20	CG500-2	•	•		•		•	
CG500-13	9/16"-12	CG500-2	•	•		•			
CG500-14	9/16"-18	CG500-2	•	•		•			
CG500-15	5/8"-11	CG500-2	•	•		•			
CG500-16	5/8"-18	CG500-2	•	•		•			
CG500H1	3/8" Hex	CG500-2	•						
CG500H2	7/16" Hex	CG500-2	•						
CG500H3	1/2" Hex	CG500-2	•						
CG500H4	9/16" Hex	CG500-2							
CG505-8	1 1/16"-16	CG505-1							
CG505-2	3/4"-10	CG505-1							•
CG505-5	3/4"-16	CG505-1							
CG505-3	7/8"-9	CG505-1							•
CG505-6	7/8"-14	CG505-1							
CG505-4	1"-8	CG505-1							•
CG505-9	1"-12	CG505-1							
CG505-7	1"-14	CG505-1							
CG505H1	5/8" Hex	CG505-1							
CG505H2	1 1/16" Hex	CG505-1							
CG505H3	3/4" Hex	CG505-1							
CG505H4	13/16" Hex	CG505-1							
CG505H5	7/8" Hex	CG505-1							
CG508-1	1 1/8" - 7	CG508							
CG508-9	1 1/8" - 8	CG508							
CG508-2	1 1/8" - 12	CG508							
CG508-3	1 1/4" - 7	CG508							
CG508-10	1 1/4" - 8	CG508							
CG508-4	1 1/4" - 12	CG508							
CG508-5	1 3/8" - 6	CG508							
CG508-11	1 3/8" - 8	CG508							
CG508-6	1 3/8" - 12	CG508							
CG508-7	1 1/2" - 6	CG508							
CG508-12	1 1/2" - 8	CG508							
CG508-8	1 1/2" - 12	CG508							
CG500-30	M6-1.00	CG500-2	•		•		•		
CG500-33	M7-1.00	CG500-2	•		•		•		
CG500-36	M8-1.00	CG500-2	•		•		•		
CG500-37	M8-1.25	CG500-2	•		•		•		
CG500-39	M9-1.00	CG500-2	•		•		•		
CG500-40	M9-1.25	CG500-2	•		•		•		
CG500-42	M10-1.25	CG500-2	•		•		•		
CG500-43	M10-1.50	CG500-2	•		•		•		
CG500-48	M12-1.25	CG500-2	•		•		•		
CG500-49	M12-1.50	CG500-2	•		•		•		
CG500-54	M14-1.50	CG500-2	•		•		•		
CG500-55	M14-2.00	CG500-2	•		•		•		
CG500-60	M16-1.50	CG500-2	•		•		•		
CG500-61	M16-2.00	CG500-2					•		
CG500-2	Housing	CG500-2	•	•	•	•	•	•	
CG505-1	Housing	CG500-2							•
CG508	Housing	CG500-2							
CG10F	Cross Bar	CG500-2	•	•	•				
CG250-8A	Slide Screw, 5/8"-18 x 18-9/16"	CG500-2	•	•	•				
CG250-9	Slide Hammer, 2 lb.	CG500-2	•	•	•				
CG325-6	Nut	CG500-2	•	•	•				
CG515B-1	Plastic Storage Case	CG500-2	•	•	•				
CGM515B-1	Plastic Storage Case	CG500-2				•			



WARNING



• Read safety precautions on pages 594 to 597

EXTRACTORS

Stud Removers/Dowel Pin Pullers

- Tapered collets thread onto stud, even if only a few threads are exposed
- Tightening the housing bolt draws the collet into the housing and clamps collet onto stud
- Tools reduce chance of damage to stud threads
- Avoid bottoming or shouldering studs to avoid shearing or damaging stud or workpiece

CG5151 Master Stud and Dowel Puller Set also includes:

- Dowel pin components: CG503-1 housing, CG503S1 square collet, plus CG503-2 thru CG503-14 collets
- Serrated collet components: CG500-20 thru CG500-24
- Pipe nipple components: CG500P1 thru CG500P3

CG5152 SAE Stud and Dowel Puller Set also includes:

- Dowel pin components: CG503-1 housing, plus CG503-2 thru CG503-8 collets
- Does not include CG503S1 collet

CG5153 Metric Stud and Dowel Puller Set also includes:

- Dowel pin components: CG503-1 housing plus CG503-9 thru CG503-14 collets

Dowel Pin Pullers



Dowel Pin Puller Sets

Stock No.	Collet Size	CG503	CGM503	CG513	CG503S
CG503-2	1/4"	•			
CG503-3	5/16"	•			
CG503-4	3/8"	•			
CG503S1	3/8" Square				
CG503-5	7/16"	•			
CG503-6	1/2"	•			
CG503-7	9/16"	•			
CG503-8	5/8"	•			
CG513-4	3/4"			•	
CG513-5	7/8"			•	
CG513S1	1/2" Square				
CG513S2	5/8" Square				
CG513-6	1"			•	
CG503-9	6mm		•		
CG503-10	8mm		•		
CG503-11	10mm		•		
CG503-12	12mm		•		
CG503-13	14mm		•		
CG503-14	16mm		•		
CG503-1	Housing	•	•		•
CG513-1	Housing				
CG513-2	Slide Screw			•	
CG10F	Cross Bar	•	•		•
CG250-8A	Slide Screw, 5/8"-18 x 18 9/16"	•	•		•
CG250-9	Slide Hammer, 2 lb.	•	•		•
CG4567-0	Slide Hammer, 10 lb.			•	
CG325-6	Nut		•		•
CG513-3	Nut			•	

CG503



CG500P

CG505P



CG508P

Pipe Nipple Remover Set Components

Stock No.	Collet Size	Housing Stock No.	CG500P	CG505P	CG508P
CG500P1	1/8" NPT	CG500-2	•		
CG500P2	1/4" NPT	CG500-2	•		
CG500P3	3/8" NPT	CG500-2	•		
CG505P1	1/2" NPT	CG505-1		•	
CG505P2	3/4" NPT	CG505-1		•	
CG508P1	1" NPT	CG508-2			•
CG508P2	1 1/4" NPT	CG508-2			•
CG500-2	Housing	—	•		
CG505-1	Housing	—		•	
CG508	Housing	—			•

* Avoid bottoming or shouldering studs to avoid shearing or damaging stud or workpiece.

Serrated Collets

- Serrated gripping portions are used to remove unthreaded studs that cannot be removed with standard collets due to lack of gripping surface
- Avoid bottoming or shouldering studs to avoid shearing or damaging stud or workpiece



CG500-23

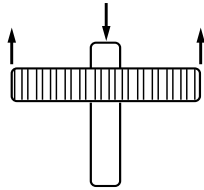
Stock No.	Description
CG500-20	1/4" Collet
CG500-21	5/16" Collet
CG500-22	3/8" Collet
CG500-23	7/16" Collet
CG500-24	1/2" Collet
CG500-2	Housing

Heavy Duty Housing with Collet

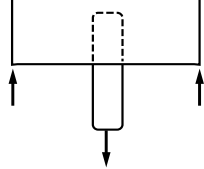
- Collets are threaded to order: specify stud thread size when ordering. Example: CG510 1 3/4"-10 Collet
 - Avoid bottoming or shouldering studs to avoid shearing or damaging stud or workpiece
- CG510 For larger stud sizes 1 5/8" thru 2".
 CG511 For larger stud sizes 2" thru 2 1/2".
 CG512 For larger stud sizes 2 1/2" thru 3".

What Type of Puller Do I Want to Use? Will it Be the Combination that Works the Best?

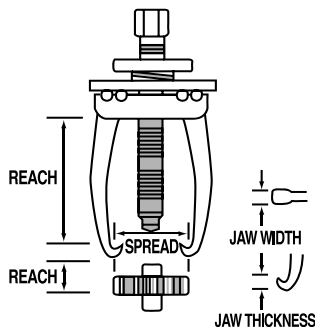
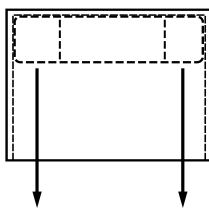
Removing a Gear, Bearing, Pulley, or Other Component from a Shaft



Pulling a Shaft Out of a Housing or Bore



Removing a Bearing or Bushing from a Blind Hole



Tools to Use

Jaw Type Puller. 2 or 3 jaw style, with 3 jaw being the best choice. Manual or hydraulic with outside jaw positions.

Push/Pull Puller. Use male or female adaptors to thread into tapped holes on components.

Slide Hammer Puller. Use on light duty applications. For use with attachments.

Bar Type Puller with Bearing Separator. Bar type with side rods threaded into bearing separator provides “knife edge” to get behind component or when there is not a good gripping edge.

Tools to Use

Push/Pull Puller. Use male or female adaptors.

Bar Type Puller with Bearing Separator. Use when housing lacks sufficient surface for puller side rods to bear against.

Slide Hammer Puller. Use on light duty applications. For use with attachments.

Slide Hammer Puller. Use with male or female adaptors. See this section for a full listing of compatible adaptors.

Tools to Use

Jaw Type Puller. For inside jaw positions (inside pulls), a manual or hydraulic jaw type puller can be used with pressure screw or slide hammer variations.

Expanded Collet Puller. The inside diameter should range between 1/4" and 7". Pulling can be done with bridge, bar type yokes, or slide hammers. See page 210 for full information.

Bearing Adaptors with Slide Hammer Puller. CJ127A, CJ128A, and CJ137 bearing adaptors with CJ97-3A slide hammer should be used in this application.

Bar Type Puller with Bearing Separator. Bar type with side rods threaded into bearing separator provides “knife edge” to get behind components or when there is not a good gripping edge.

Determine the “Reach” and “Spread” Needed

The puller’s reach must equal or exceed the same distance on the part. The puller’s spread is the width of the part.

Estimate the Puller Tonnage

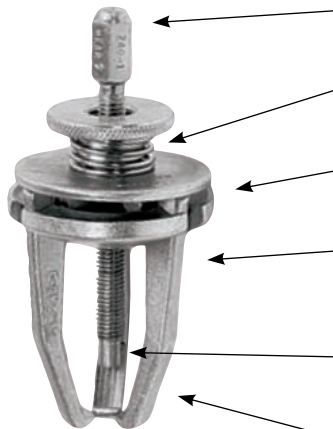
Generally, if you already have the correct “reach and spread,” you will usually have the proper tonnage. If in doubt, use the next larger size.

General Rule to Choose Pullers

Manual Pullers. Pressure screw should be at least half the diameter of the shaft on the pulling/pushing job.

Hydraulic Pullers. Maximum tonnage capacity (tons) should be 8 to 10 times the diameter (in inches) of the shaft to be pulled or pushed.

Snap-on® Puller Features



Anvil Head: Curved at the top and features a hex design. The curved head provides a striking surface to handle those tough pulling jobs while the hex allows the pressure screw to be easily turned with a standard hex wrench or a socket.

Spring Loaded Locking Mechanism: Snap-on pullers feature a unique spring tension locking mechanism which allows the puller jaws to easily lock onto the work surface for both “outside” and “inside” pulling applications.

Two Position Yoke: Allows jaws to be easily reversed to accommodate inside or outside pulling situations. Interchangeable yokes accommodate two jaw and three jaw setups. Yokes are heat treated for additional strength and safety.

One Piece Jaw Construction: Provides a stronger, safer jaw. Most competitive puller jaws have holes drilled through them to allow for a bracket attachment. This hole significantly weakens the competitor’s puller jaws.

Forged Jaws: Resist breakage, prolong tool life and provide additional strength.

Replaceable Points: Center pulling power to prevent cocking. Provide less friction and minimum drag for easier turning of pressure screw during the pulling process. If damage occurs, simply replace the point and not the entire pressure screw.

Curved Jaws: Provide positive grip on the work surface.



WARNING



- Screen the puller application
- Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job
- Read safety precautions on pages 594 to 597

PULLERS

Bar-Type Interchangeable



CJ83C



CJ82B



CJ81D



CJ85A



CJ80A

Interchangeable bar style pullers provide high quality pulling equipment with the versatility needed to handle a wide variety of pulling functions. Standardized pressure screw threading, jaw retention, and design means that new components can be added to an existing puller to change its reach or spread in order to handle new or different applications.

These Snap-on® bar style pullers also feature:

- Replaceable pressure screw points help keep the puller safely centered
- Multi-position yokes help keep the jaws properly aligned with the item being pulled
- Adjustable clamp bolts allow jaws to be snugged up against the job for a safer, more convenient pull
- Spring ball pin retention securely holds jaws while allowing quick jaw changes

CJ83C Pulley and Gear Puller. Ideal for servicing crankshaft pulleys, gears and timing gears on a wide range of gasoline and diesel engines including Cummins accessory drives and water pumps. Includes each 3/8"-16 x 3", 5/16"-18 x 2 1/2", and M10-1.5 x 65mm bolts. Nominal capacity is 3.5 tons.

Includes:

CJ86-1	Yoke	ME5A55	Washer
CJ83-3	Pressure Screw	ME3A45	Studs (2)
CJ66-15-3	Centering Point	ME3A44	Studs (2)
ME5A54	Washer (1 needed)	ME3A75	Studs (2)

CJ82B Pitman Arm Puller. Handles many Pitman arm applications plus a variety of general pulling jobs. Nominal capacity is 6 tons.

CJ86-1	Yoke	CJ86-4A	Clamp Bolt
CJ83-2	Pressure Screw	CJ85-4	Washer (2)
CJ66-15-3	Centering Point	ME4A33	Clamp Nuts (2)
CJ81-2A	Jaws (2)	CJ105-11	Jaw Pins (2)

CJ81D Differential Side Bearing Puller. Narrow jaws slip into housing grooves in back of bearing and let jaws seat and pull along with inner race. Jaws are locked onto bearing by clamp bolt. Four centering plates are included. Nominal capacity is 6 tons.

CJ86-1	Yoke	CJ105-11	Jaw Pins (2)
CJ83-2	Pressure Screw	CJ81B1A	Adaptors (set of 4)
CJ66-15-3	Centering Point	CJ81B2A	Adaptors (set of 4)
CJ81-2A	Jaws (2)	CJ81D1A	Adaptors (set of 4)
CJ86-4A	Clamp Bolt (2)	CJ81D2A	Adaptors (set of 4)
ME4A33	Clamp Nuts (2)		

CJ85A Truck Differential Side Bearing Puller. Similar in appearance to CJ81D but bigger for handling truck applications. Four centering plates included. Nominal capacity is 7.5 tons.

CJ85-1	Yoke	CJ105-11	Jaw Pins (2)
CJ83-2	Pressure Screw	CJ85-5	Adaptors (set of 4)
CJ66-15-3	Centering Point	CJ85-6	Adaptors (set of 4)
CJ85-2	Jaws (2)	CJ85-7	Adaptors (set of 4)
CJ85-3A	Clamp Bolt (2)	CJ85-8	Adaptors (set of 4)
CJ85-4	Washer (2)		
ME4A33	Clamp Nuts (2)		

CJ80A A/C Pulley Puller. Also excellent for removal of alternator, generator, power steering and crankshaft pulleys, harmonic balancers and fiber timing gears. Includes an extra pair of jaws for versatility. Nominal capacity is 7.5 tons.

CJ85-1	Yoke	CJ85-3A	Clamp Bolt
CJ83-3	Pressure Screw	CJ85-4	Washer (2)
CJ66-15-3	Centering Point	ME4A33	Clamp Nuts (2)
CJ81-2A	Jaws (2)	CJ105-11	Jaw Pins (2)
CJ87-1	Jaws (2)		

Specifications

Stock No.	Nominal Capacity, tons	Maximum Reach, inches	Maximum Spread, inches	Pressure Screw Size, inches	Pressure Screws	Jaws	Centering Points
CJ83C	3.5	Variable	5	3/4-16 x 3 1/2	B1, B2	—	C2
CJ81D	6	1 5/8	3 3/8	3/4-16 x 4 1/4	B1, B3	D1, D2, D4, D5	C2
CJ82B	6	2 1/4	3 3/8	3/4-16 x 4 1/4	B1, B3	D1, D2, D4, D5	C2
CJ85A	7.5	1 3/4	5 1/2	3/4-16 x 4 1/4	B1, B3	D1, D2, D3, D5	C2
CJ80A	7.5	D3: 1 5/8, D5: 1 3/8	5	3/4-16 x 3 1/2	B1, B2	D1, D2, D4	C2

Bar-Type Interchangeable

CJ Interchangeable Pullers—Major Components

	CJ83C	CJ82B	CJ81D	CT85A	CJ80A	Component	Key No.	Stock No.	Specific Dimensions	
						Yoke	A1	CJ100-1	Usable Range, inches	Pin Holes per Side
						Yoke	A2	CJ118-1	10 1/2-16	4
				•	•	Yoke	A3	CJ85-1	6 - 10 1/2	3
	•	•	•			Yoke	A4	CJ86-1	3 - 6 1/2	3
						Pressure Screw	B1	CJ105-3	Thread x Length	Hex Size, inches
		•	•	•		Pressure Screw	B2	CJ83-2	1 3/4-4 1/2	2
	•				•	Pressure Screw	B3	CJ83-3	3/4-16 x 10 1/2	7/8
						Point	C1	CJ66-15-3	Head Diameter inches	Point Type
	•	•	•	•	•	Point	C2	CJ84-16	3/4-16 x 6 11/16	7/8
						Jaws (2 needed)	D1	CJ166-1	Maximum Reach, inches	
						Jaws (2 needed)	D2	CJ282-1	8 1/4	—
		•	•		•	Jaws (2 needed)	D3	CJ81-2A	4 3/8	—
				•		Jaws (2 needed)	D4	CJ87-2	1 3/8	—
					•	Jaws (2 needed)	D5	CJ87-1	1 3/4	—
						Clamp Bolts	E1	CJ100A2	Maximum Length, inches	
						Clamp Bolts	E2	CJ118-2A	18	—
		•	•	•	•	Clamp Bolts	E3	CJ85-3A	11 1/2	—
						Clamp Bolts	E4	CJ86-4A	7 1/2	—
						Washer (2 needed)	F1	CJ85-4	Inside Dia., inches	Outside Dia., inches
	•					Washer (1 needed)	F2	ME5A54	15/32	7/8
	•					Washer (1 needed)	F3	ME5A55	11/32	3/4
		•	•	•	•	Clamp Nuts (2 Needed)	G1	ME4A33	Thread Size	
						Jaw Pins (2 needed)	H1	CJ105-11	Diameter, inches	Length, inches
		•	•	•	•				5/16	1 15/32
						Adaptors (Set of 4)	J1	CJ81B1A	Outside Dia., inches	Step Diameter, inches
								CJ81B2A	1 1/2	1 1/8
								CJ81D1A	1 5/8	1 1/4
								CJ81D2A	1 3/4	1 1/8
						Adaptors (Set of 4)	J2	CJ85-5	1 11/32	15/16
								CJ85-6	2	1 1/2
								CJ85-7	2 1/8	1 21/32
								CJ85-8	2 1/2	1 27/32
						Studs (2 needed)	K1	ME3A44	Thread x Length	
	•					Studs (2 needed)	K2	ME3A45	3/4-16 x 3	—
	•					Studs (2 needed)	K3	ME3A75	5/16-18 x 2 1/2	—

Letters in chart refer to Key No. in chart below (A3, B1, C1 etc.)

CJ Series Major Components

Stock No.	A Yoke	B Pressure Screw	C Point	DJ jaws (2)	E Clamp Bolt	F Washers (2)	G Clamp Nuts (2)	H Jaw Pins (2)	J Adaptors	K Studs (2)	Pressure Screws	Jaws	Points
CJ83C	A4	B3	C1	—	—	F2, F3	—	—	—	K1, K2, K3)	B1, B2	—	C2
CJ82B	A4	B2	C1	D3	E4	F1	G1	H1	—	—	B1, B3	D1, D2, D4, D5	C2
CJ81D	A4	B2	C1	D3	E4	F1	G1	H1	J1	—	B1, B3	D1, D2, D4, D5	C2
CJ85A	A3	B2	C1	D4	E3	F1	G1	H1	J2	—	B1, B3	D1, D2, D3, D5	C2
CJ80A	A3	B3	C1	D3, D5	E3	F1	G1	H1	—	—	B1, B2	D1, D2, D4	C2

Other Interchangeable Components



WARNING



- Screen the puller application • Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job • Read safety precautions on pages 594 to 597

PULLERS

Interchangeable Puller Sets



CJ2000SB



CJ2002

Gear Puller Set

CJ2002 Gear Puller Set. Use on Pitman arms, timing gears, carrier side bearings and more. Combine to create 10 different pullers. Capacity from 6 to 10 tons depending on yoke and jaws used. Includes:

CJ105-11	Long Jaw Pin (4)
CJ87-1	3" Jaw (2)
CJ282-1	6" Jaw (2)
ME4A33	Hex Nut (4)
CJ82B	Puller
CJ66-15-3	Centering Point
CJ83-3	Pressure Screw (9/16" Hex)
CJ81-2A	Jaw (2)
CJ84-16	Centering Point
CJ83-2	Pressure Screw
CJ85-1	Yoke (3"-6 1/2")
CJ86-4A	Bolt
CJ85-3A	Bolt
CJ86-1	Yoke (1 3/4"- 4 1/2")
CJ85-4	Washer (4)



CJ2004

Interchangeable Puller Set

CJ2004 Interchangeable Puller Set. Use on bearings, bearing races, gears, bushing retainers, etc. Builds any of 12 different pullers. 2 and 3-jaw capability with three sets of jaws. All jaws reverse for inside and outside pulls. Pulling capacity: (short jaws) 4 1/2-ton, (medium jaws) 6 1/2-ton, (large jaws) 8 ton. Includes:

CJ105A8	3-Way Jaw Control
CJ105-3	Pressure Screw (3/4"-16 x 13")
CJ105A9	2-Way Jaw Control
CJ105-1	Yoke
CJ105-5	Small Jaw (3)
CJ105-10	Short Jaw-to-Control Pin (3)
CJ105-6	Medium Jaw (3)
CJ105-11	Long Jaw Pin (4)
CJ105-7	Large Jaw (3)
CJ105-12	Cross Bar
CJ66-15-3	Centering Point
CJ86-1	Yoke (1 3/4"- 4 1/2")

These puller sets are designed to provide the tools you need as your work grows. Start with one or more sets geared to specific tasks and build toward the ultimate set: the CJ2000A with display board and cabinet. No duplication in set contents or jaws. Yokes are interchangeable for added versatility.

Master Interchangeable Puller Set

CJ2000SB Master Interchangeable Puller Set. Includes all components for the CJ2001, CJ2002, CJ2003A, CJ2004, and CJ2005 puller sets on VE200A tool control board and KRA276D locking wall storage cabinet.

CJ2000S Master Interchangeable Puller Set. Same as CJ2000SB without the wall cabinet.

CJ2000A Master Interchangeable Puller Set. Same as CJ2000SB without the wall cabinet or the tool control board.



CJ2003A

Rear Axle Puller Set

CJ2003A Rear Axle Puller Set. Slide hammer power pulls many flange type rear axles as well as axle bearings. Includes:

CJ105-4B	Slide Screw, 3/4"-16 x 22-1/2"
CJ137	Bearing Adaptor
CJ97-3A	Slide Hammer, 3 3/4 lb.
CJ123-1	Axle Yoke
ME4A8	Lock Nut (3/4")
CJ127A	Bearing Adaptor
CJ66-19	Bearing Hook
CJ128A	Bearing Adaptor

CJ Series Bearing Adaptors

Stock No.	Swivel Head Width, inches	Swivel Head Length, inches	Overall Length, inches
CJ127A	1.2	2.03	3.02
CJ128A	1.2	2.31	3.15
CJ137	1.2	2.9	3.24



CJ2005

Accessory Set

CJ2005 Accessory Set. Boost the versatility of the CJ2000A components with a bearing separator, a variety of centering adaptors, and a 12" yoke and clamp bolt to add spread to your bar type set.

Includes:

CJ81B1A	Adaptor (1 1/8"-1 1/2" Dia.)
CJ85-6	Adaptor (1 21/32"-2 1/8" Dia.)
CJ81B2A	Adaptor (1 1/4"-1 5/8" Dia.)
CJ85-7	Adaptor (1 27/32"-2 1/2" Dia.)
CJ81D1A	Adaptor (1 1/8"-1 5/8" Dia.)
CJ85-8	Adaptor (2 3/8"-3 1/16" Dia.)
CJ81D2A	Adaptor (13/16" - 1 11/32" Dia.)
CJ118-1	Yoke (6"-10 1/2")
CJ118-2A	Bolt
CJ85-2	Jaw (1 3/4" Max. Reach)
CJ950	Bearing Separator
CJ85-5	Adaptor (1 1/2"-2" Dia.)

Pressure Screws

CJ83-9 Pressure Screw. Optional pressure screw for bar style interchangeable pullers. Applications include heavy duty truck transmissions like Eaton transmissions found on Kenworth heavy duty trucks. Can also be used with: CJ2000A, CJ2000S, CJ2000SB, CJ2002 and CJ2004. Thread: 3/4" - 16. Length: 8 3/4".

PULLERS

Special Purpose



CJ2001P

Bolt Grip Puller Set

CJ2001P Bolt Grip Puller Set. Services steering wheels, flywheels, pulleys and gears with tapped holes. Includes a four-position 2 and 3 way yoke, 3 different pressure screw tips and an assortment of fractional and metric bolts. Approximate spread to bolt is 1 1/4" to 3 13/16". Includes PB54B storage case.

CJ2001FBK Bolt and Washer Set. Replaces all fractional bolts and washers in CJ2001P bolt grip puller set.

CJ2001MBK Bolt and Washer Set. Replaces all metric bolts and washers in CJ2001P bolt grip puller set.



CG60GB

Tapped Hole Puller Set

CG60GB Tapped Hole Puller Set. Use on steering wheels with tapped holes. Includes 2 and 3-way yoke, pressure screw, and adaptor plus 4 sets of studs.

- | | |
|-----------|-----------------------------------|
| CG60-17 | Stud (M8-1.25) (2) |
| CG60R1 | Yoke Pressure Screw (5/8"-18) (1) |
| CG60-7-4A | Stud (5/16"-24) (2) |
| CG60-7-6 | Stud (5/16"-18) (3) |
| CG60R2 | Four-Arm Yoke (1) |
| CG60M2 | Stud (3/8"-16) (3) |
| CG60R3 | Pressure Screw Adaptor (1) |



CJ93B

Small Slide Hammer Puller Set

CJ93B Small Slide Hammer Puller Set. Remove bushings, seals, sleeves, bearings, bearing races, bronze and oilite bushings, and pressed in studs. Includes 2 sets of jaws, grease retainer adaptor, bearing hook, body dent puller, stud pulling head and 2 lb. slide hammer. Thread size is 3/8"-16.



A78



SP2031

Small/Pilot Bearing Pullers

A78 Small Bearing Puller. For bearings and bushings typically found in small electric motors. Includes large jaw set for bronze and oilite bushings and small jaw set for smaller bearings and bushings. Up to 3 tons of pulling power.

SP2031 Pilot Bearing Puller-Blue-Point®. Attaches to slide hammer shafts with 3/4"-16 or 5/8"-18 threads. Pressure screw adaptor is made of stress-resistant steel. Industrial finish.

Rear Axle Bearing Puller

CJ9180 Rear Axle Bearing Puller. No slide hammer required. Removes axle bearing on free floating axle designs. Use with impact gun or by hand. Uniquely designed to brace against axle housing for complete removal of bearing assembly. Smooth, steady operation. Kit contains interchangeable feet to allow pulling of bearings with an I.D. from 1" to 2-7/8"



CJ9180

Automotive

Steering Wheel Pullers



CJ134

CJ134 Tilt Steering Pivot Pin Puller. Allows efficient removal of the two pivot pins on all tilt steering columns used on Chrysler, Ford, and GM vehicles.

CG95B Steering Wheel Lock Plate Remover. Designed for airbag equipped Saginaw steering columns found on GM, Chrysler LH Series (LHS, Intrepid, Concorde, and Eagle Vision), some Toyota and Saab. Includes one narrow bridge, one wide bridge, two pressure screws: one has 9/16"-18 threads, the other has M14-1.5 threads. The puller is zinc plated. Overall length is 4 7/8".



CG95B



CG6095A

CG6095A Master Steering Wheel Puller Set. Combines the CG60GB Tapped Hole Puller and CG95B Lock Plate Remover. Lock Plate Remover is designed for servicing airbag equipped Saginaw steering columns found on GM, Chrysler LH Series (LHS, Intrepid, Concorde and Eagle Vision), some Toyota and Saab.

CJ145 GM Steering Wheel Puller. Use on new GM steering wheels with air bags including tilting and telescoping styles. Handle attachment facilitates puller set up and can be removed when working in confined areas. Applications include Buick (1997 and later Park Avenue/Regal), Cadillac (1997 and later Catera), Chevrolet/GMC (1997 and later Corvette/Malibu, 1998 C & K series trucks, 1998 full size vans, 1998 Astro/Safari vans), Oldsmobile (1997 and later Cutlass) and Pontiac (1988 to 1993 LeMans, 1997 and later Grand Prix/Trans Sport van).



CJ131P



CJ145

CJ131P Steering Wheel Puller and Lock Plate Depressor Set. Includes a selection of bolts and a handle in PB72 storage case for servicing GM, Ford, Chrysler, and AMC cars. Adaptors are included for servicing lock plates on all GM and AMC vehicles with tilt wheel. Detachable handle helps hold puller when turning force is applied to pressure screw. Industrial finish.



WARNING



- Screen the puller application • Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job • Read safety precautions on pages 594 to 597

PULLERS

Automotive



YA6490



CJ146

Harmonic Damper Pulley Pullers

YA6490 Harmonic Damper Pulley Puller. Use on many Chrysler, Mitsubishi and GM engines. In most applications this compact tool eliminates the need to remove the radiator prior to removing the pulley. Includes short push rod for use on crankshafts that are not drilled full depth plus two other push rods. Applications: GM: 4.2L Straight 6 cylinder: Chevy Trailblazer, GMC Envoy, Olds Bravada (2003 and later), Buick Rainier (2004 and later), 3.5L Straight 5 cylinder: Chevy Colorado, GMC Canyon (2004 and later), Hummer H3 (2006 and later), 2.8L Straight 4 cylinder: Chevy Colorado, GMC Canyon (2005 and later), 5.7L V8 (Gen III): Camaro, Corvette, Firebird and Trans-Am (1997 and later), Gen III trucks and SUV's with 4.8L V8, 5.3L V8, 6.0L V8 and 8.1L V8 (2000 and later) CHRYSLER: 3.3L V6: (1990 and later vans), 3.3L and 3.5L V6 (1993-1997 automobiles), 3.8L V6 (1994 and later vans), 8.0L V10 (1994 and later pickups), 2.0L 4 Cylinder, 2.4L 4 Cylinder and 2.5L V6 (1995 and later automobiles), 2.7L DOHC V6, 3.2L SOHC V6 and 3.5L SOHC V6 (1998 and later automobiles), 4.7L V8 (1998 and later) CADILLAC: 4.5L V8: (1988-1992), 4.9L V8: (1991-1995), 4.6L V8: (1993 and later), 6.0L V8: Escalade, MITSUBISHI: 2.0L DOHC non-turbo: Eclipse (1995-1999), OLDSMOBILE: 4.0L V8: (1995 and later)

YA6491 Harmonic Damper Pulley Puller Update Kit.

Updates earlier YA9740 Pullers to the same applications as the new YA6490. Kit will also update other pulley pullers that are similar to the YA9740 Series of pullers. Add YA6491 Update Kit to existing YA9740 Series Pullers to add these new applications: GM: 4.2L Straight 6 cylinder: Chevy Trailblazer, GMC Envoy, Olds Bravada (2003 and later), Buick Rainier (2004 and later), 3.5L Straight 5 cylinder: Chevy Colorado, GMC Canyon (2004 and later), Hummer H3 (2006 and later), 2.8L Straight 4 cylinder: Chevy Colorado, GMC Canyon (2005 and later)

CJ146 GM Crankshaft Harmonic Balancer Kit.

Remove the crankshaft harmonic balancer on 1990 and later 3.3L and 3.8 GM engines. Shoulder bolt adaptors provide correct installation depth, preventing damage to the crank sensor and interrupter rings. Includes (3) CJ146-1 Adaptors and (1) CJ146-2 extension plus vinyl storage pouch. Requires Snap-on® CJ98-1 yoke and CJ83-3 pressure screw for use (not included). Which are separate purchases and not included with kit.

Power Steering and Alternator Pullers



CJ122

CJ122 Power Steering Pulley Installer Set. Includes CJ113B installer and CJ113C4 pulley installer shaft. Thread size of 5/8"-18UNF-2A (puller end), 3/8" 16UNC-2A (shaft end).



CJ138

CJ138 Pulley Installer. 8mm pulley installer features a black industrial finish and a thrust bearing for easier installation. Applications include power steering pulley on Ford 4.6L V8 (1991 and later), Ford 2.5L V6 (1995 and later) plus the installation of water pump drive pulleys on GM 4.6L (1992 and later Oldsmobile Aurora).



CJ113B

CJ113B Power Steering/Alternator Pulley Installer. Designed for domestic cars. 1" pulley driver hex, 7/16" pressure screw hex, thread size of 5/8"-18UNF-2A (puller end), 3/8" 16UNC-2A (shaft end). 4 5/8" long.

CJ113B3 Bushing. Included with CJ113B.
CJ113C4 Pulley Installer Shaft. (Optional). Thread size of 5/8"-18UNF-2A (puller end), 3/8" 16UNC-2A (shaft end).



CJ117C



CJ124A



CJ3PSA



CJ147A

CJ117C Power Steering and Alternator Pulley Puller.

Includes short adaptor to remove small flange type pulley; use long adaptor on GM200/Platform vehicles. Can also remove Chrysler alternator pulleys that have double grooves. Replace pulleys with CJ113B Installer. Long adaptor included to handle pulleys on GM minivans. Nickel/chrome finish, industrial finish screw. Designed for most domestic cars (replace pulley with CJ122 sets). Long adaptor included to handle pulleys on GM minivans. Nickel/chrome finish, industrial finish screw.

CJ124A Power Steering/Alternator Pulley Puller. Larger version of CJ117C. Designed for Chrysler, Ford and earlier GM vehicles.

CJ3PSA Power Steering and Alternator Pulley Puller/Installer Set. Set includes CJ113B, CJ117C, and CJ124A pullers.

CJ147A Power Steering Gear Lower Pinion Bearing Puller. Required tool to comply with GM Recall Bulletins #02049 and #03062 regarding power steering gear lower pinion bearing separation. To correct the problem, inspect the condition of the lower pinion bearing and replace the lower pinion bearing. In a few cases, replacement of the rack and pinion steering gear assembly may be necessary. Instructions included.

Applications:

- | | | |
|-------------------------|-----------------------------|-------------------------|
| Buick | Oldsmobile | Pontiac |
| • Regal 1996-1998 | • Cutlass 1997-1998 | • Grand Prix 1996-1998 |
| | • Cutlass Supreme 1996-1998 | • Sunfire 1996-1998 |
| Chevrolet | • Silhouette 1996-1998 | • Trans Sport 1996-1998 |
| • Cavalier 1996-1998 | • Lumina 1997-1998 | |
| • Lumina 1997-1998 | • Intrigue 1998 | |
| • Lumina APV 1996 | | |
| • Monte Carlo 1997-1998 | | |
| • Venture 1997-1998 | | |



CJ132A

CJ132A Master Power Steering Pump/Alternator Puller/Installer Set.

GM Quad 4, GM 3.1L and Ford 4.6L applications. Removes/installs press on, belt driven accessory pulleys. Removal housing for grooved hub diameters of 1 1/8", 1 5/16", and 1 3/8". Includes components for 3/8"-16 threaded shaft. Housing holding bar prevents main housing from spinning during use with an impact wrench. Quad 4 installation nut simplifies usage with 4 cylinder GM vehicles. Includes instructions and carrying case.

Pitman Arm Pullers

CJ119B Pitman Arm Puller. Designed for most domestic cars and light trucks. Pressure screw size: 3/4"-16 x 6 7/8". Industrial finish.

CJ115 Pitman Arm Puller. Similar in design to CJ119B except it is designed for compact and intermediate size cars.

PAS110 Pitman Arm Puller. Pitman Arm Remover for 2-ton and heavier trucks. Quickly and easily remove stuck Pitman arms. The tool wedge opens the Pitman arm slots for removal. Can also be used with impact wrench.



CJ119B



PAS110

PULLERS

General Purpose Interchangeable



Light Duty

Builds These Pullers:

Stock No.	Puller Type	Maximum Reach, inches	Outside Spread, inches	Inside Spread, inches
CG240	2-Jaw	2 1/2	0-3	7/8-3 1/4
CG240H	2-Jaw	2 1/2	0-3	7/8-3 1/4
CG243	3-Jaw	2 1/2	3	7/8-3 1/4
CG243H	3-Jaw	2 1/2	3	7/8-3 1/4

CG2400B Light Duty Puller Set. This versatile set provides 2 or 3-jaw pulling with pressure screw or slide hammer options. Interchange parts to build any of the 5 puller combinations.

- Up to 2 1/2 tons of pulling power
- 3" diameter capacity for outside pulls



Heavy Duty

Builds These Pullers:

CG2510BSHY

Stock No.	Puller Type	Maximum Reach, inches	Outside Spread, inches	Inside Spread, inches
CG654HY	Hydraulic, 2-Jaw	3	0-4 1/2	1 1/2-3 1/2
CG655HY	Hydraulic, 3-Jaw	3	0-4 1/2	1 1/2-3 1/2
CG270	2-Jaw	5 1/2	8 1/2	2 1/2-7
CG270H	2-Jaw	5 1/2	0-8 1/2	2 1/2-7
CG270S	Special Grip, 2-Jaw	5 1/2	0-8 1/2	2 1/2-7
CG273	3-Jaw	5 1/2	0-8 1/2	2 1/2-7
CG273H	3-Jaw	5 1/2	8 1/2	2 1/2-7
CG280	Long Jaw, 2-Jaw	8	0-10	3-8
CG283	Long Jaw, 3-Jaw	8	0-10	3-8
CG274HY	Hydraulic, 2-Jaw	8 3/4	10	3-8
CG275HY	Hydraulic, 3-Jaw	8 3/4	0-10	3-8

The CG2510 and CG2500 Series delivers:

- Up to 12 1/2 tons of pulling power
- 10" diameter capacity for outside pulls
- From 3/4" to 8" diameter capacity for inside pulls

CG2510BSBHY Heavy Duty Manual/Hydraulic Puller Set. Includes 40 interchangeable components, including the CG1224 10 ton hydraulic power kit. All components are displayed on a VE213 tool control board, which is mounted inside a KRA276D wall cabinet.

CG1224 Hydraulic Conversion Kit. 10 ton. Converts CG270, CG273, CG280, and CG283 manual pullers (on Tool Control Panel "A") and CG1700/CG2500B Puller Sets to hydraulic power.

VE213 Tool Control Board. Tool control board for the CG2500BSBHY manual/hydraulic puller set.

Medium Duty Pullers deliver up to 7 1/2 tons of pulling power, 4 1/2" diameter capacity for outside pulls and from 3/4" to 8" diameter capacity for inside pulls. CG6223 hydraulic conversion set converts CG250 and CG253 manual pullers to hydraulic power. The manual components of the indicated medium duty pullers are included in the heavy duty (CG2500 / CG2510 Series) sets.



Medium Duty

Builds These Pullers:

CG250

Stock No.	Puller Type	Maximum Reach, inches	Outside Spread, inches	Inside Spread, inches
CG250	2-Jaw	3	4 1/2	1 1/2-3 1/2
CG250H	2-Jaw	3	0-4 1/2	1 1/2-3 1/2
CG250HL	Long Jaw, 2-Jaw	6	0-8 1/2	3/4-8
CG253	3-Jaw	3	4 1/2	1 1/2-3 1/2
CG253H	3-Jaw	3	4 1/2	1 1/2-3 1/2
CG253L	3-Jaw	6	—	3/4-8



CG2500BSB

The big CG2510BSBHY set builds 45 different pullers with dozens of pulling variations from the included 40 components and 10 ton hydraulic set. Without hydraulics (CG2500BS Manual Set), 32 separate pullers are still possible. Add the Snap-on® CG6223 6 ton hydraulic power kit and add 7 puller combinations to each set.

CG2510BSHY Heavy Duty Manual/Hydraulic Set. Same as CG2510BSBHY set mounted on a VE213 tool control board. Does not include the wall cabinet.

CG2510BHY Heavy Duty Manual/Hydraulic Puller Set. Same as CG2510BSBHY Set except it doesn't include either the tool control board or the wall cabinet.

CG2500BSB Heavy Duty Manual Puller Set. This is the CG2510BSBHY set less the 10 ton hydraulic power kit components. Tool control board for this set is VE113B; wall cabinet is KRA276D.

VE113B Tool Control Board. Panel "A" is designed to hold the components for CG2500BS interchangeable puller set (6, 7 1/2, 10, and 12 1/2 ton capacity). Also used as the tool control board for the CG2500BSB manual puller set.

CG2500BS Heavy Duty Manual Puller Set. Same as CG2500BSB set mounted on a VE113B tool control board. Does not include the KRA276D wall cabinet.

CG2500B Heavy Duty Manual Puller Set. Same as CG2500BSB set, except it doesn't include either the tool control board or the wall cabinet.

CG270SETX Long Puller Jaw Set. Adds extra reach capability to any CG270 or CG280 series puller, the CG1700 set and any CG2500B series set. Includes (3) CG270-12 extra long jaws and (1) CG270-13 pressure screw adaptor.



WARNING



- Screen the puller application • Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job • Read safety precautions on pages 594 to 597

PULLERS

2-Jaw Pressure Screw



CG240



CG250



CG270A



CG280



CG305

2 ton Capacity (1.8 t), 2-Jaw

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm) inside	Maximum Spread, inches (mm) outside	Pressure Screw Size, inches	Jaw Thickness, inches (mm)	Jaw Width, inches (mm)
CG240	2 1/2 (64)	7/8-3 1/4 (22-83)	3 (76)	3/8-16 x 5 1/16	3/16 (5)	3/8 (10)
CG240L	3 1/2 (89)	7/8-3 3/4 (25-95)	4 (102)	3/8-16 x 6 1/16	3/16 (5)	3/8 (10)

6 ton Capacity (5.4 t), 2-Jaw

CG250A*	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-18 x 6 7/8	1/4 (6)	3/4 (19)
CG250	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-18 x 6 7/8	1/4 (6)	3/4 (19)

10 ton Capacity (9.1 t), 2-Jaw

CG270	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 9 13/16	1/4 (6)	15/16 (24)
CG270A*	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 9 13/16	1/4 (6)	15/16 (24)
CG272 2 Jaw Lengths	5 1/2 (140), 8 3/4 (222)	2 1/2-7 1/2 (64-178), 3-8 (76-203)	8 1/2 (216), 10 (254)	3/4-16 x 9 13/16 3/4-16 x 12 1/8	1/4 (6) 1/4 (6)	15/16 (24) 15/16 (24)
CG270S	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 9 13/16	1/4 (6)	15/16 (24)
CG280	8 3/4 (222)	3-8 (76-203)	10 (254)	3/4-16 x 12 1/8	1/4 (6)	15/16 (24)
CG284**	15 (381)	4 3/4-11 1/2 (121-292)	13 3/4 (349)	3/4-16 x 18 15/16	3/8 (10)	1 (25)

*Includes CG1 pulling plate. **Includes pressure screw extension.

20 ton Capacity (18.1 t), 2-Jaw

CG300	9 1/2 (241)	3 1/2-10 (89-254)	12 (305)	1-14 x 15	7/16 (11)	1 1/4 (32)
CG305	14 3/8 (365)	5-13 (127-330)	16 (406)	1-14 x 19	9/16 (14)	1 1/4 (32)

3-Jaw Pressure Screw



CG243



CG253L



CG253

2 1/2 ton Capacity (2.3 t), 3-Jaw

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm) inside	Maximum Spread, inches (mm) outside	Pressure Screw Size, inches	Jaw Thickness, inches (mm)	Jaw Width, inches (mm)
CG243	2 1/2 (64)	7/8-3 1/4 (22-83)	3 (76)	3/8-16 x 5 1/16	3/16 (5)	3/8 (10)
CG243L	3 1/2 (89)	7/8-3 3/4 (22-95)	4 (102)	3/8-16 x 6 1/16	3/16 (5)	3/8 (10)

6 ton Capacity (5.4 t), 3-Jaw

CG253L	6 (152)	3/4-8 (19-203)	5/8-18 x 6 7/8	7/32 (5)	5/16 (8)	3/8 (10)
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7 1/2 ton Capacity (6.8 t) 3-Jaw

CG253	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-18 x 6 7/8	1/4 (6)	3/4 (19)
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12 1/2 ton Capacity (11.3 t), 3-Jaw

CG273	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 9 13/16	1/4 (6)	15/16 (24)
CG273A	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 9 13/16	1/4 (6)	15/16 (24)
CG283	8 (203)	3-8 (76-203)	10 (254)	3/4-16 x 12 1/8	1/4 (6)	15/16 (24)
CG285	15 (381)	4 3/4-11 1/2 (121-292)	13 3/4 (254)	3/4-16 x 18 15/16	3/8 (10)	1 (25)

20 ton Capacity (18.1 t) Combination 2 and 3-Jaw

CG343	9 1/2 (241)	—	13 (330)	1-14 x 15	7/16 (11)	1 1/4 (32)
CG348	14 3/8 (365)	—	16 (406)	1-14 x 19	9/16 (14)	1 1/4 (32)
CG325	19 (482)	—	20 (508)	1 3/8-8 x 21 11/16	1 1/8 (29)	1 1/2 (38)

Pulling Plate

CG1 Pulling Plate.

Ideal where there is no gripping surface for the puller alone. Attach plate to item being pulled – puller clamps behind the plate. Includes 4 each of the following screws: 1/4"-20 x 3/4" and 1/4"-28 x 1". Plate has a 3 5/8" diameter.



CG1

Flat Points

CG250-21 Flat Point. Fits CG250 series pullers.

CG270-21 Flat Point. Fits CG270 and CG280 series pullers.

CG300-21 Flat Point. Fits CG300 and CG305 series pullers.

CG325-21 Flat Point. Fits CG325 series pullers.

CG70 Flat Point Set. Includes CG270-21, CG300-21 and CG325-21 flat points.

PULLERS

2-Jaw Slide Hammer



CG240H



CG250C



CG250HL



CG270C

2 ton Capacity (1.8 t) - 1 1/16 lb. Hammer

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm) inside	Maximum Spread, inches (mm) outside	Slide Screw Size, inches	Jaw Thickness, inches (mm)	Jaw Width, inches (mm)
CG240H	2 1/2 (63)	7/8-3 1/4 (22-82)	3 (76)	3/8-16 x 12 5/8	3/16 (5)	3/8 (10)
CG240HL	3 1/2 (88)	7/8-3 3/4 (25-95)	4 (102)	3/8-16 x 12 5/8	3/16 (5)	3/8 (10)

6 ton Capacity (5.4 t) - 2 1/8 lb. Hammer

CG250C*	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-18 x 18 1/16	1/4 (6)	3/4 (19)
CG250H	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-18 x 18 1/16	1/4 (6)	3/4 (19)
CG250HL	6 (152)	3/4-8 (19-203)	—	5/8-18 x 18 9/16	7/32 (5)	5/16 (8)

*Includes CG250H puller, CG1 pulling plate and pressure screw.

10 ton Capacity (9.1 t) - 3 1/2 lb. Hammer

CG270C**	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 23 3/8	1/4 (6)	15/16 (24)
CG270H	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 23 3/8	1/4 (6)	15/16 (24)

**Includes CG1 pulling plate and pressure screw.

3-Jaw Slide Hammer



CG243H



CG253H



CG273C

2 1/2 ton Capacity (2.3 t) - 1 1/16 lb. Hammer

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm) inside	Maximum Spread, inches (mm) outside	Slide Screw Size, inches	Jaw Thickness, inches (mm)	Jaw Width, inches (mm)
CG243H	2 1/2 (64)	7/8-3 1/4 (22-83)	3 (76)	3/8-16 x 12 5/8	3/16 (5)	3/8 (10)
CG243HL	3 1/2 (89)	7/8-3 3/4 (25-95)	4 (102)	3/8-16 x 12 5/8	3/16 (5)	3/8 (10)

7 1/2 ton Capacity (6.8 t) - 2 1/8 lb. Hammer

CG253H	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-18 x 18 1/16	1/4 (6)	3/4 (19)
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12 1/2 ton Capacity (11.3 t) - 3 1/2 lb. Hammer

CG273C*	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 23 3/8	1/4 (6)	15/16 (24)
CG273H	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 23 3/8	1/4 (6)	15/16 (24)

*Includes CG273H puller, CG1 pulling plate and pressure screw.

CG270-3S Special Grip Jaw.

Engineered for twice the gripping surface area of standard jaws. Can be used with any of the CG270 and CG273 series pressure screw and slide hammer pullers.



CG270-3S



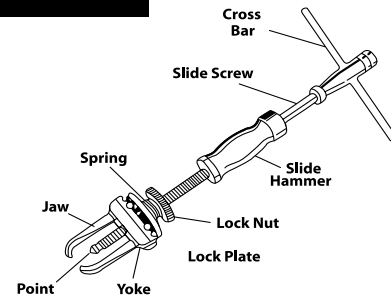
WARNING



- Screen the puller application • Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job • Read safety precautions on pages 594 to 597

PULLERS

Quick Reference Charts



2 ton and 2 1/2 ton Puller Group (CG240 Series): 1 1/16 lb. Hammer (CG240H Series)

Stock No.	2-Jaw Yoke CG240-2	3-Jaw Yoke CG243-2	Std. Pres. Screw CG240-1	Long Pres. Screw CG240-11	Slide Screw CG240-8	Slide Hammer CG240-9	2-Jaw Lock Plate CG240-5	3-Jaw Lock Plate CG243-5	Spring CG240-6	Adj. Nut CG240-7	Std. Jaw CG240-3	Long Jaw CG240-10
CG240	1	—	1	—	—	—	1	—	1	1	2	—
CG240L	1	—	—	1	—	—	1	—	1	1	—	2
CG240H	1	—	—	—	1	1	1	—	1	1	2	—
CG240HL	1	—	—	—	1	1	1	—	1	1	—	2
CG243	—	1	1	—	—	—	1	1	1	1	3	—
CG243L	—	1	—	1	—	—	—	1	1	1	—	3
CG243H	—	1	—	—	1	1	—	1	1	1	3	—
CG243HL	—	1	—	—	1	1	—	1	1	1	—	3

6 ton and 7 1/2 ton Puller Group (CG250 Series): 2 1/8 lb. Hammer (CG250H Series)

Stock No.	2-Jaw Yoke CG250-2	3-Jaw Yoke CG253-2	Pressure* Screw CG250-1A	Slide* Screw CG250-8A	Slide Hammer CG250-9	Cross Bar CG10F	Lock Plate CG250-5	Spring CG250-6	Adj. Nut CG250-7	Std. Jaw CG250-3	Long Jaw CG250-10	Pulling Plate CG1
CG250	1	—	1	—	—	—	1	1	1	2	—	—
CG250A	1	—	1	—	—	—	1	1	1	2	—	1
CG250C	1	—	1	1	1	1	1	1	1	2	—	1
CG250H	1	—	—	1	1	1	1	1	1	2	—	—
CG250HL	1	—	—	1	1	1	1	1	1	—	2	—
CG253	—	1	1	—	—	—	1	1	1	3	—	—
CG253H	—	1	—	1	1	1	1	1	1	3	—	—
CG253L	—	1	1	—	—	—	1	1	1	—	3	—
CG2500B**	1	1	1	1	1	1	2	2	2	3	3	—

*CG250-20 replacement point and CG250-21 flat point for CG250 series.
CG250-8A has 5/8" UNF threads.

**CG2500B continued in next chart

10 ton and 12 1/2 ton Puller Group (CG270, CG280 Series): 3 1/2 lb. Hammer (CG270H Series)

Stock No.	2-Jaw Yoke CG270-2	3-Jaw Yoke CG273-2	Std. Pres.* Screw CG270-1A	Long Pres.* Screw CG270-11A	Man. Adaptor CG270-13	Slide* Screw CG270-8A	Slide Hammer CG66-2	2-Jaw Lock Plate CG270-5	3-Jaw Lock Plate CG273-5	Spring CG270-6	Lock Nut CG270-7	Std. Jaw CG270-3	Long Jaw CG270-10	Special Jaw CG270-3S	Extra Long Jaw CG270-12
CG270	1	—	1	—	—	—	—	1	—	1	1	2	—	—	—
CG270A	1	—	1	—	—	—	—	1	—	1	1	2	—	—	—
CG270C	1	—	1	—	—	1	1	1	—	1	1	2	—	—	—
CG270H	1	—	—	—	—	1	1	1	—	1	1	2	—	—	—
CG270S	1	—	1	—	—	—	—	1	—	1	1	—	—	2	—
CG272	1	—	—	1	—	—	—	1	—	1	1	—	2	—	—
CG273A	—	1	1	—	—	—	—	1	1	1	1	3	—	—	—
CG273C	—	1	1	—	—	1	1	—	1	1	1	3	—	—	—
CG273H	—	1	—	—	—	1	1	—	1	1	1	3	—	—	—
CG280	1	—	—	1	—	—	—	1	—	1	1	—	2	—	—
CG283	—	1	—	1	—	—	—	1	1	1	1	—	3	—	—
CG284	1	—	—	1	1	—	—	1	—	1	1	—	—	—	2
CG285	—	1	—	1	1	—	—	—	—	1	1	—	—	—	3
CG2500B	1	1	1	1	—	1	1	1	1	2	2	3	3	3	—

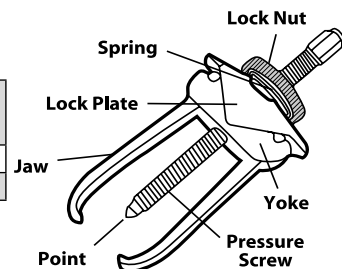
*CG270-20 replacement point for CG270/CG280 series pullers.
CG270-8A has 3/4"-16 UNF threads.

CG270-21 flat point for CG270/CG280 series pullers.

20 ton Pullers (CG300 Series)

Stock No.	2-Jaw Yoke CG300-2	Pressure Screw CG300-1	Pressure Screw CG305-8	Lock Plate CG300-5	Spring CG300-6	Lock Nut CG300-7	Std. Jaw CG300-3	Long Jaw CG305-9
CG300	1	1	—	1	1	1	2	—
CG305	1	—	1	1	1	1	—	2

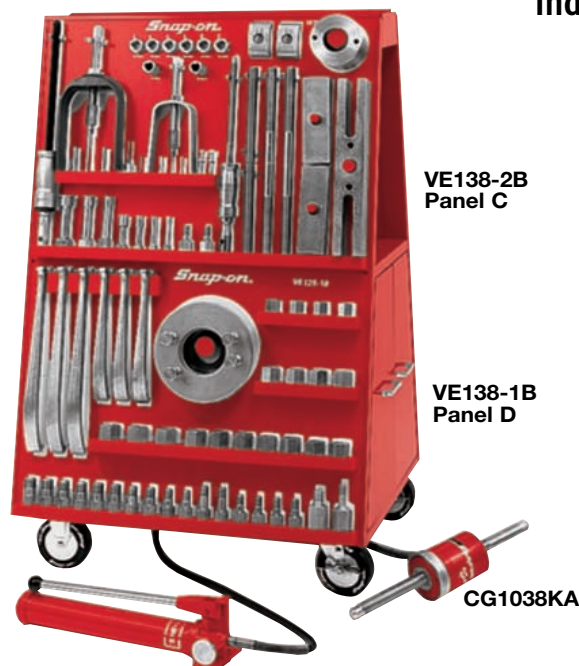
*CG300-20 replacement point and CG300-21 flat point for CG300 and CG305 series pullers.



VE113B
Panel A



VE138-3B
Panel B



VE138-2B
Panel C

VE138-1B
Panel D

CG1038KA

Industrial Puller Sets

CG1038KA Industrial Puller Set. Includes more than 35 basic pullers that will assemble into more than 165 puller combinations. Standard pullers in this set have a range from 2 to 20 tons. The hydraulic power components provide up to 20 tons of easy pulling power. Optional 10 ton and 50 ton hydraulic accessories are available. Components are mounted on four 24" x 32" x 3/4" tool control panels (labeled "A," "B," "C," and "D" below) with white silhouettes. The panels are mounted on KRA213E A-frame.

CG1038K Industrial Puller Set. This is the CG1038KA set but does not include the KRA213E A-frame.

CG1050KA Expanded Industrial Puller Set. Includes CG1038KA set plus the CG1224 power kit for converting 10 ton manual pullers to hydraulic power; CG300-1, CG305-8, and CG350-1 pressure screws; CG343-1 4" plug; CG350-2 manual yoke for converting the 20 ton hydraulic pullers to manual power; and CG555 basic hydraulic set for building a 50 ton hydraulic bar type puller. Also includes CG420-5C pressure gauge, CG420-6 gauge mounting adaptor, 10 CG250-20 small centering adaptors and 10 CG270-20 large centering adaptors.

KRA213E A-Frame. Mobile unit features 23,220 cu. in., 1,260 sq. in. of storage for convenient access and orderly storage. Measures 26 1/2" W, 52 3/8" H, and 32 3/8" D.

Tool Control Boards

VE113B Tool Control Board. Panel "A" is designed to hold the components for CG2500BS interchangeable puller set (6, 7 1/2, 10, and 12 1/2 ton capacity). Also used as the tool control board for the CG2500BSB manual puller set.

CG250	Screw Type Puller	CG270H	Large Slide Hammer
CG250H	Medium Slide Hammer	CG270S	Screw Type, Special Grip
CG250HL	Medium Slide Hammer	CG273	Screw Type Puller
CG253	Screw Type Puller	CG273H	Large Slide Hammer
CG253H	Medium Slide Hammer	CG280	Screw Type Puller
CG270	Screw Type Puller	CG283	Screw Type Puller

VE138-3B Tool Control Board. Panel "B" is designed to hold CG2400 light duty puller set, CJ840C tapped hole puller set, CJ949 bearing separator and CJ9500 bearing separator set components.

CG240	Screw Type Puller	CJ840C	Bar Type Tapped Hole Puller
CG240H	Small Slide Hammer	CJ949	Bearing Separator
CG243	Screw Type Puller	CJ950	Bearing Separator
CG243H	Small Slide Hammer	CJ951	Bearing Separator
CJ93B	Small Slide Hammer	CJ952	Bearing Separator

VE138-2B Tool Control Board. Panel "C" is designed to hold CG450HYA 20 ton hydraulic bar type puller components and the components of CG2545AB blind hole bearing puller set.

CG40C	Blind Hole Bearing Set	CG450	Bar Type Puller
CG45	Blind Hole Bearing Set	CG450HYA	Hydraulic Bar Type Puller

VE138-1B Tool Control Board. Panel "D" is designed to hold components of CG400 20 ton jaw type puller, three CG305-9 long jaws, CG455 and CG455A threaded adaptor sets, plus CG455-18 and CG455-19 pressure screw adaptors. The adaptors are for use with the bar type pullers on tool control panel "C."

CG400	Jaw Type Puller
CG400HYA	Hydraulic Jaw Type Puller
CG405	Jaw Type Puller
CG450HYA	Hydraulic Bar Type Puller



WARNING



- Screen the puller application • Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job • Read safety precautions on pages 594 to 597

PULLERS

Hydraulic Power Units

Features of 2 Stage Hydraulic Pumps

- 2 stage design will advance 20 to 50 ton rams in the low pressure stage in less than 1/3 the strokes required on other models
- CG520 Ram extends in 60 to 70 strokes
- CG420 Ram extends in 17 to 19 strokes
- When high pressure is required, the low pressure stage automatically kicks out to leave the high pressure stage to do the work



CG420-2A

One Stage 20, 35, 50 ton Pump
24 fl. oz. capacity.



CG420-2S

Two Stage 20, 35, 50 ton Pump
24 fl. oz. capacity.



CG4-2A

4 to 10 ton Pump
5 fl. oz. capacity.



CG520 50 ton Ram



CG420-1A 20 ton Ram



CG650 6 ton Ram



CG720 35 ton Ram

Ram (Cylinder) Specifications

Capacity, tons	Stock No.	Stroke, inches	Collapsed Height, inches	Extended Height, inches	Effective Area (piston)	Oil Capacity, cu. in.	Pressure Screw Size, inches
4	CG220	2 1/4	6	8 1/4	.966	2,174	1/2-13 x 14 1/4
6	CG650	1 1/2	4 11/16	6 3/16	1.473	2,210	5/8-11 x 13 1/4
10	CG120	1	4 3/4	5 3/4	2.440	2,440	3/4-10 x 16 1/4
20	CG420-1A	2	6	8	4.418	8,836	1 1/8-8 x 20 1/2
35	CG720	2 1/2	7	9 1/2	7.903	19,758	1 3/8-8 x 25
50	CG520	3	8 1/8	11 1/8	11.066	33,198	1 5/8-5 1/2 x 30

CG222 4 Ton Set

Includes:
CG120-3-1 Hose
CG120-4 Coupler Set
CG220 4 Ton Ram
CG220-13 Pressure Screw
CG4-2A 4 to 10 Ton Hyd. Pump

CG652 6 Ton Set

Includes:
CG120-3-1 Hose
CG120-4 Coupler Set
CG250-20 Replacement Point
CG4-2A 4 to 10 Ton Hyd. Pump
CG650 6-Ton Ram

CG122 10 Ton Set

Includes:
CG120 10 Ton Ram
CG120-13 Pressure Screw
CG120-3-1 Hose
CG120-4 Coupler Set
CG270-20 Replacement Point
CG4-2A 4 to 10 Ton Hyd. Pump

CG420A 20 Ton Set

Includes:
CG420-1-14 Centering Adaptor
CG420-1A 20 Ton Ram
CG420-2A 1 Stage Pump
CG420-3-1 Hose
CG420-4 Coupler Set
CG420A2S 20 Ton Set
 Same as CG420A with the CG420-2S two stage pump.

Hydraulic Accessories

Both conversion kits provide hydraulic power for the pullers, which are included in the CG2500B puller sets.



CG1224

CG6223 6 Ton Power Kit.

Converts CG250 and CG253 manual pullers to hydraulic power.

Includes:

CG652 6 Ton Pump and Ram Set
CG250-15 2-Jaw Yoke
CG250-16 Hand Wheel Adaptor
CG253-15 3-Jaw Yoke

CG1224 10 Ton Power Kit.

Converts CG270, CG273, CG280, and CG283 manual pullers (on tool control panel "A") and CG1700/CG2500B puller sets to hydraulic power. Includes:

CG122 10 Ton Pump and Ram Set
CG270-15 2-Jaw Yoke
CG270-16 Hand Wheel Adaptor
CG273-15 3-Jaw Yoke



CG420-5C

CG420-5C Pressure Gauge.

Can be used with 6 ton, 10 ton, 20 ton, 35 ton, and 50 ton hydraulic equipment. Use CG4-2A, CG420-2A, or CG420A-2S pumps. Indicates hydraulic pressure in tons of pressure as well as psi. Adaptor CG420-6 is required to attach gauge to pumps.



CG420-6

CG420-6 Gauge Mounting Adaptor.

Mounts CG420-5C pressure gauge to 6 ton, 10 ton, 20 ton, 35 ton, and 50 ton hydraulic systems.

PULLERS

2- and 3-Jaw Hydraulic

6 ton Capacity (5.4 t)

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm) inside	Maximum Spread, inches (mm) outside	Pressure Screw Size, inches	Jaw Thickness, inches (mm)	Jaw Width, inches (mm)
CG654HY Hydraulic, 2-Jaw	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-11 x 13 3/4	1/4 (6)	3/4 (19)
CG655HY* Hydraulic, 3-Jaw	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-11 x 13 3/4	1/4 (6)	3/4 (19)

Included with hydraulic ram.

*To convert to manual power, use pressure screw, adjusting nut and yoke from either CG250 or CG253 Pullers.



CG654HY



CG655HY

10 ton Capacity (9.1 t)

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm) inside	Maximum Spread, inches (mm) outside	Pressure Screw Size, inches	Jaw Thickness, inches (mm)	Jaw Width, inches (mm)
CG274HY 2-Jaw Model	8 3/4 (222)	3-8 (76-203)	3-8 (76-203), 10 1/2 (266)	3/4-10 x 16 1/4	1/4 (6)	15/16 (24)
CG275HY 3-Jaw Model	8 3/4 (222)	3-8 (76-203)	10 (254)	3/4-10 x 16 1/4	1/4 (6)	15/16 (24)
CG276HY 2-Jaw Model	15 (381)	4 3/4-11 1/2 (121-292)	13 3/4 (349)	3/4-10 x 23 3/8	3/8 (9)	1 (25)
CG277HY* 3-Jaw Model	15 (381)	4 3/4-11 1/2 (121-292)	13 3/4 (349)	3/4-10 x 23 3/8	3/8 (9)	1 (25)

Included with hydraulic ram.

*To convert to manual power, use pressure screw, adjusting nut and yoke from either CG270 or CG273 Pullers.



CG274HY



CG277HY

20 ton Capacity (18.1 t) - Combination 2- and 3- Jaw

Stock No.	Maximum Reach, inches	Max. Spread, in. (mm) outside	Pressure Screw Size, inches	Jaw Thickness, in. (mm)	Jaw Width, inches (mm)
CG400HYA*	9 1/2 (241)	13 (330)	1 1/8-8 x 20 1/2	7/16 (11)	1 1/4 (32)
CG400HYA2S	CG400HYA with two stage pump.				
CG400	CG400HYA less hydraulic ram and pump.				
CG343	Manual version of CG400HYA. Includes CG343-1 4" Plug and CG300-1 1"-14 Pressure Screw in place of ram and pump.				
CG343-1	4" Plug	—	—	—	—
CG300-1	1"-14 Pressure Screw	—	1 x 14 x 14 5/8	—	—
CG405HYA*	14 (355)	15 (381)	1 1/8-8 x 20 1/2	9/16 (14)	1 1/4 (32)
CG405HYA2S	CG405HYA with two stage pump.				
CG405	CG405HYA less hydraulic ram and pump.				
CG348	Manual version of CG405HYA. Includes CG343-1 4" Plug and CG305-8 1"-14 Pressure Screw in place of ram and pump.				
CG425HYA*	19 (482)	20 (508)	1 1/8-8 x 20 1/2	1 1/8 (29)	1 1/2 (38)
CG425HYA2S	CG425HYA with two stage pump.				
CG425	CG425HYA less hydraulic ram and pump.				
CG325	Manual version of CG425HYA. Includes 1 3/8"-8 x 20 11/16" pressure screw in place of pump, ram, washer adaptor, ram adaptor, and cap screws.				

*Included with hydraulic ram.



CG400HYA



CG343



CG405HYA



CG425HYA



CG560HY

50 ton Capacity (45.36 t) - Combination 2- and 3- Jaw

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm) outside	Pressure Screw Size, inches	Jaw Thickness, inches (mm)	Jaw Width, inches (mm)
CG560HY*	28 (711)	44 (1,118)	1 5/8-5 1/2 x 30	1 7/16 (36)	2 (51)
CG560HY2S	CG560HY w/ 2 stage pump.				

*Included with hydraulic ram.



WARNING



- Screen the puller application • Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job • Read safety precautions on pages 594 to 597

PULLERS

Bar-Type Manual Tapped Hole Sets



6 ton Capacity (5.4 t), Tapped Hole

Stock No.	Max. Reach, in. (mm)	Max. Spread, in. (mm)	Pressure Screw Size, inches	Side Rods	Side Rod Adaptors (2 each), inches
CJ840C	33 (838)	2 5/8-11 5/8 (67-295)	1-14 x 33	5/8-18	1/2-20, 1/2-13, 3/4-16, 3/4-10,
Complete Puller Set	Side rods in set are provided 2 each in 5 (CJ85-5), 10 (CJ854-2), and 20 (CJ84-3) lengths.				3/8-24, 3/8-16, 5/16-24, 5/16-18, 7/16-20, 5/8-18, 5/8-11, 7/16-14
CJ84C	CJ840C less all adaptors and side rods except 5/8-18 x 10.				
Basic Puller Set					1/2-20, 1/2-13, 5/8-18, 5/8-11, 3/4-16, 3/4-10

Bar Type Manual Push/Pull Sets



6 ton Capacity (5.4 t), Push/Pull

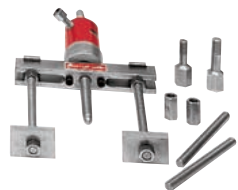
Stock No.	Max. Reach, in. (mm)	Max. Spread, in. (mm)	Pressure Screw Size, inches	Pressure Screw Adaptors	Side Rods, inches	Side Rod Adaptors, inches
CG706 Push/Pull Set	14 1/8 (358)	2 5/8-7 1/2 (67-191)	5/8-18 x 10	—	7/16-14 x 8 (4 each)	7/16-14f x 5/8-18m



10 ton Capacity (9.1 t), Push/Pull

Stock No.	Max. Reach, in. (mm)	Max. Spread, in. (mm)	Pressure Screw Size, inches	Pressure Screw Adaptor	Side Rods, inches
CG710 Push/Pull Set	17 5/8 (448)	3 9/16-9 3/8 (90-238)	3/4-16 x 12	CG710-3 3/4-16f x 5/8-18m	(2) 5/8-18 x 8, (2) 5/8-18 x 12

Bar Type Hydraulic/Manual Sets



6 ton Capacity (5.4 t), Hydraulic

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm)	Pressure Screw Size, inches	Pressure Screw Adaptor	Side Rods, inches	Side Rod Adaptors, inches
CG656HY* Hydraulic Set	14 1/8 (358)	2 5/8-7 1/2 (67-191)	5/8-11 x 13 3/4	5/8-11f x 5/8-18m	7/16-14 x 8	7/16-14f x 5/8-18m
CG656	CG656HY Set less the hydraulic components.					

*Included with hydraulic ram.

CG150HY

10 ton Capacity (9.1 t), Hydraulic

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm)	Pressure Screw Size, inches	Pressure Screw Adaptor	Side Rods, inches	Side Rod Adaptors, inches
CG150HY* Hydraulic Set	17 5/8 (448)	3 9/16-9 3/8 (90-238)	3/4-10 x 16 1/4	3/4-10f x 5/8-18m 3/4-10f x 3/4-16m	5/8-18 x 8, 5/8-18 x 12	—
CG150	CG656HY Set less the hydraulic components.					

*Included with hydraulic ram.

20 ton Capacity (18.1 t), Hydraulic

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm)	Pressure Screw Size, inches	Pressure Screw Adaptor	Side Rods, inches	Side Rod Adaptors, inches
CG450HYA* Hydraulic Set	24 (610)	6-15 (152-381)	1 1/8-8 x 20 1/2	—	7/8-14 x 20, 7/8-14 x 10	7/8-14f x 7/8-14m, 7/8-14f x 5/8-18m
CG450HYA2S*	CG450HY Set with two stage pump.					
CG450	CG450HY Set less the hydraulic components.					
CG350*	manually operated version of the CG450.					

*Included with hydraulic ram.

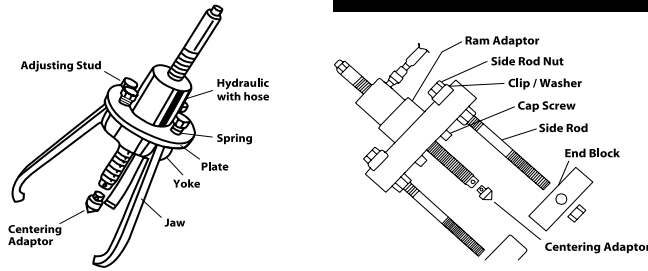


CG450HYA

35 ton Capacity (31.7 t), Hydraulic

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm)	Pressure Screw Size, inches	Pressure Screw Adaptor	Side Rods, inches	Side Rod Adaptors, inches
CG750HY* Hydraulic Set	26 (660)	8 1/2-17 (216-432)	1 3/8-8 x 25	1 3/8-8f x 7/8-14m	1-14 x 20, 1-14 x 10	1-14f x 7/8-14m, 7/8-14f x 3/4-16m
CG750HY2S	CG750HY Set with two stage pump.					
CG750	CG750HY Set less the hydraulic components.					

*Included with hydraulic ram.



Jaw Style Pullers (Hydraulic and Manual)

Stock No.	Hydraulic Unit	Ram Adaptor	Hydraulic Adaptor	Yoke	Pressure Screw	4" Dia. Plug	Plate	Spring	Adj. Stud	Jaws	Side Arms/Side Plate	Arm Bolts Arm Nuts	Washers/Cap Screws
CG654HY	CG652	CG250-16	—	CG250-15	*	—	CG250-5	CG250-6	—	CG250-3 (2)	—	—	—
CG655HY	CG652	CG250-16	—	CG253-15	*	—	CG250-5	CG250-6	—	CG250-3 (3)	—	—	—
CG274HY	CG122	CG270-16	—	CG270-15	*	—	CG270-5	CG270-6	—	CG270-3 (2)	—	—	—
CG275HY	CG122	CG270-16	—	CG273-15	*	—	CG273-5	CG270-6	—	CG270-10 (3) CG270-3 (3)	—	—	—
CG276HY	CG122	CG270-16	CG270-14	CG270-15	*	—	CG270-5	CG270-6 (4)	—	CG270-12 (2)	—	—	—
CG277HY	CG122	CG270-16	CG270-14	CG273-15	*	—	CG273-5	CG270-6 (4)	—	CG270-12 (3)	—	—	—
CG400HYA	CG420A	—	—	CG400-2	*	—	CG400-5	CG400-6 (4)	CG400-7 (4)	CG300-3 (3)	—	—	—
CG343	—	—	—	CG400-2	CG300-1	CG343-1	CG400-5	CG400-6 (4)	CG400-7 (4)	CG300-3 (3)	—	—	—
CG405HYA	CG420A	—	—	CG400-2	*	—	CG400-5	CG400-6 (4)	CG400-7 (4)	CG305-9 (3)	—	—	—
CG348	—	—	—	CG400-2	CG305-8	CG343-1	CG400-5	CG400-6 (4)	CG400-7 (4)	CG305-9 (3)	—	—	—
CG425HYA	CG420A	CG425-9	—	CG325-2	*	—	—	—	—	CG325-3 (3)	CG325-4 (3)	CG325-5 (3)	CG425-8
CG325	—	—	—	CG325-2	CG325-1	—	—	—	—	CG325-3 (3)	CG325-4 (3)	CG325-6 (3)	—
CG560HY	See Hyd. Unit Chart	—	—	CG560-2	*	—	—	—	—	CG560-3 (3)	CG560-4 (6)	CG560-6 (9) CG560-5 (9)	—

Bar Style Pullers (Hydraulic and Manual)

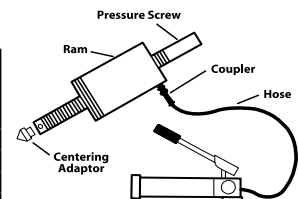
Set Stock No.	Hyd. Unit Ram Adapt.	Yoke	Pressure Screw	Centering Adaptor	Pressure Screw Adaptor	Thrust Nut Thrust Washer	Side Rods (2)	Side Rod Hex Nuts (6)	Clip/Washer	Side Rod Conn. Nuts (2)	End Blocks (2)	Side Rod Adaptors (2)	Cap Screw (2 Each)
CJ84C	—	CJ84-1B	CJ84-4	CJ84-16	—	—	CJ84A2 (10")	—	ME5A16 (2)	—	—	—	—
CG706	—	CG656-2	CG706-1	CG250-20	—	CG325-6 CG706-2	CG656-3 (4) (8")	CG656-7	CG656-8 (4)	CG656-6	CG656-6	CG656-12	—
CG710	—	CG150-2	CG710-1	CG270-20	CG710-3	CG45-2 CG710-2	CG150-3 (12") CG150-4 (8")	—	—	—	CG150-6	—	—
CG656HY	CG652 CG656-9	CG656-2	*	—	CG656-13	—	CG656-3 (8")	CG656-7	CG656-8 (2)	CG656-5	CG656-6	CG656-12	CG656-11 CG656-10
CG656	—	CG656-2	—	—	CG656-13	—	CG656-3 (8")	CG656-7	CG656-8 (2)	CG656-5	CG656-6	CG656-12	CG656-11 CG656-10
CG150HY	CG122	CG150-2	*	*	CG150-12 (5/8") CG150-13 (3/4")	—	CG150-3 (12") CG150-4 (8")	CG150-7	CG150-8	CG150-5	CG150-6	—	CG150-11 CG150-10
CG150	—	CG150-2	—	—	CG150-12 (5/8") CG150-13 (3/4")	—	CG150-3 (12") CG150-4 (8")	CG150-7	CG150-8	CG150-5	CG150-6	—	CG150-11 CG150-10
CG450HYA	CG420A CG425-9	CG450-10	*	*	—	—	CG350-3 (18") CG350-4 (9")	CG350-7	CG350-8 (2)	CG350-5	CG350-6	CG350-9	CG450-11 CG450-12
CG450	—	CG450-10	—	—	—	—	CG350-3 (18") CG350-4 (9")	CG350-7	CG350-8 (2)	CG350-5	CG350-6	CG350-9	CG450-11 CG450-12
CG350	CG420A CG425-9	CG350-2	CG350-1	—	—	—	CG350-3 (18") CG350-4 (9")	CG350-7	CG350-8 (2)	CG350-5	CG350-6	CG350-9	CG450-11 CG450-12
CG750HY	See Hyd. Unit Chart	CG750-2	*	*	CG750-11 (7/8") CG750-13 (7/8")	—	CG750-3 (20") CG750-4 (10")	CG750-7	CG750-8 (2)	CG750-5	CG750-6	CG750-9	CG750-11 CG750-12
CG750	—	CG750-2	—	—	CG750-14 (1 1/8")	—	CG750-3 (20") CG550-3	CG750-7	CG750-8 (2)	CG350-5	CG750-6	CG750-9	CG750-11 CG550-10
	CG720-9	CG550-2	—	—	—	—	CG750-4 (10")	CG550-7	—	—	—	CG750-10	CG750-12

*Included with hydraulic ram (see chart below).

Hydraulic Power Units

Stock No.	Capacity, tons	Ram	Included with Ram Pressure Screw	Included with Ram Centering Adaptor	Hose	Coupler	Pump	Optional Pressure Gauge	Items* Gauge Adaptor
CG222	4	CG220	CG220-13	—	CG120-3-1	CG120-4	CG4-2A	—	—
CG652	6	CG650	CG650-13	CG250-20	CG120-3-1	CG120-4	CG4-2A	CG420-5C	CG420-6
CG122	10	CG120	CG120-13	CG270-20	CG120-3-1	CG120-4	CG4-2A	CG420-5C	CG420-6
CG420A	20	CG420-1A	CG420-1-13A	CG420-1-14	CG420-3-1	CG420-4	CG420-2A	CG420-5C	CG420-6

*Standard with CG559 Bar Style Puller Set.



WARNING



- Screen the puller application • Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job • Read safety precautions on pages 594 to 597

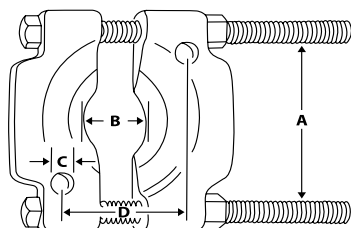
PULLERS

Bearing Separators

Bearing separators. For separating and pulling double bearings and close fitting gears. Use with tapped hole, 2-jaw pullers or floor presses.



CJ952



CJ950

Bearing Separators

Stock No.	A	B	B	C	D
CJ949	1 11/16	1 1/8	1/4	5/16-18	2 5/8
CJ950	2 3/8	2 3/8	3/8	3/8-16	3 3/4
CJ951	4 3/8	4 1/2	5/8	5/8-18	7 1/4
CJ952	5 7/8	6 1/8	1 1/2	5/8-18	9 5/16
CJ953	8 3/8	8 3/4	1 1/4	3/4-16	14 7/16

CJ9500 Bearing Separator Set. Includes CJ950, CJ951, and CJ952 (3 pcs).

Bar Type Puller Adaptors

Male Adaptors

Stock No.	Female Thread	Male Thread
CG656-12	7/16-14	5/8-18
CG656-13	5/8-11	5/8-18
CJ84-6	5/8-18	5/16-24
CJ84-15	5/8-18	5/16-18
CJ84-7	5/8-18	3/8-24
CJ84-10	5/8-18	3/8-16
CJ84-8	5/8-18	7/16-20
CJ84-18	5/8-18	7/16-14
CJ84-9	5/8-18	1/2-20
CJ84-11	5/8-18	1/2-13
CJ84-17	5/8-18	5/8-18
CJ84-12	5/8-18	5/8-11
CJ84-13	5/8-18	3/4-16
CJ84-14	5/8-18	3/4-10
CG710-3	3/4-16	5/8-18
CG150-12	3/4-10	5/8-18
CG150-13	3/4-10	3/4-16
CG46-7*	3/4-10	1-14
CG46-8**	3/4-16	1-14
CG750-9	1-14	3/4-16
CG750-10	1-14	7/8-14
CG455-18	1 1/8-8	5/8-18
CG455-19	1 1/8-8	7/8-14
CG47-420	1 1/8-8	1 1/4-12
CG550-9	1 3/8-6	1 3/4-12
CG455-1	7/8-14	5/8-18
CG455-2	7/8-14	5/8-11
CG455-3	7/8-14	3/4-16
CG455-4	7/8-14	3/4-10
CG455-5	7/8-14	7/8-9
CG455-6	7/8-14	1-14
CG455-7	7/8-14	1-8
CG455-8	7/8-14	1 1/8-12

*For attaching CG46 Series Pullers to CG105HY Hydraulic Bar Style Puller.

**For attaching CG46 Series Pullers to CG710 Push/Pull Set.

***For attaching CG47 Series Pullers to CG450HYA Hydraulic Bar Style Puller.

CG455 Male Adaptor Set. Includes two each of the male adaptors CG455-1 through CG455-8 (16 pcs).



CG455

- Male and female adaptors add versatility to the pulling and pushing capabilities of bar style pullers
- Adaptors change the diameter and/or thread pitch of pressure screws and side rods to accommodate item being pushed or pulled. Unthreaded male ends of bull nose adaptors perform many pushing operations



CG455A

Female Adaptors

Stock No.	Female Thread
CG455-9	7/8-14 and 5/8-18
CG455-10	7/8-14 and 3/4-16
CG455-11	7/8-14 and 1-14
CG455-12	7/8-14 and 1 1/8-8
CG455-13	7/8-14 and 1 1/8-12
CG455-14	7/8-14 and 1 1/4-8
CG455-15	7/8-14 and 1 1/4-12
CG455-17	7/8-14 and 1 1/2-12
CG455-16	7/8-14 and 1 1/2-8

CG455A Female Adaptor Set. Includes two each of the female adaptors (18 pcs).

Blind Hole Bearing

Set Components

Stock No.	Description	Internal Thread Size	External Thread Size
CG40-11	Collet, 43/64"-53/64"	—	—
CG40-12	Collet, 15-18mm	—	—
CG40-4-1	Collet Extension, 4" long	—	—
CG46-8	Manual Adaptor	—	—
CG46-7	Hydraulic Adaptor	—	—
CG47-420	Hydraulic Adaptor	—	—
CG250-8A	Slide Screw, 5/8"-18 x 18 9/16"	—	—
CG250-9	Slide Hammer, 2 lb.	—	—
CG40-1	Pressure Screw, 5/8"-18 x 7 3/4"	—	—
CG40-2	Nut, 1 5/16" Wrench Size	—	—
CG40-3	Yoke, 3 1/4" Spread	—	—
CG41-11	Expanding Rod	5/8"-18	3/8"-24
CG41-14	Collet, 1/4"-5/16"	—	—
CG41-12	Collet, 5/16"-3/8"	—	—
CG41-13	Collet, 3/8"-7/16"	—	—
CG40-4	Expanding Rod	5/8"-18	1/2"-20
CG40-9	Collet, 7/16"-1/2"	—	—
CG40-15	Collet, 1/2"-5/8"	—	—
CG40A6	Collet, 5/8"-3/4"	—	—
CG40-7	Collet, 3/4"-7/8"	—	—
CG40-8	Collet, 7/8"-1"	—	—
CG40A10	Collet, 1"-1 1/8"	—	—
CJ105-4B	Slide Screw, 3/4"-16 x 22 1/2"	—	—
CJ97-3A	Slide Hammer, 3 3/4 lb.	—	—
CG270-1A	Pressure Screw, 3/4"-16 x 9 1/2"	—	—
CG45-2	Nut, 1 1/8" Wrench Size	—	—
CG45-3	Yoke, 5 3/4" Spread	—	—
CG45-4	Expanding Rod for:	3/4"-16	5/8"-18
CG45-15	Collet, 1"-1 1/4"	—	—
CG45-6	Collet, 1 1/4"-1 1/2"	—	—
CG45-7	Collet, 1 1/2"-1 3/4"	—	—
CG46-1	Slide Screw, 1"-14 x 18"	—	—
CG46-2	Slide Hammer, 6 lb.	—	—
CG46-3	Expanding Rod	1"-14	1 1/8"-12
CG46-4	Collet, 1 3/8"-2"	—	—
CG46-5	Collet, 2"-2 1/2"	—	—
CG46-6	Collet, 2 1/2"-3"	—	—
CG4567N	Slide Screw, 1 1/4"-12 x 24"	—	—
CG4567O	Slide Hammer, 10 lb.	—	—
CG47-201	Expanding Rod for:	1 1/4"-12	1 1/8"-12
CG47-202	Master Collet	—	—
CG47-203	Collet Pad, 3"-3 1/2" (3)	—	—
CG47-204	Collet Pad, 3 1/2"-4" (3)	—	—
CG47-205	Collet Pad, 4"-4 1/2" (3)	—	—
CG47-206	Collet Pad, 3 1/2"-5" (3)	—	—
CG47-207	Collet Pad, 5"-5 1/2" (3)	—	—
CG47-208	Collet Pad, 5 1/2"-6" (3)	—	—
CG47-209	Collet Pad, 6"-6 1/2" (3)	—	—
CG47-210	Collet Pad, 6 1/2"-7" (3)	—	—
CG47-211	Screw, 3/4" (3 sets of 2)	—	—
CG47-212	Screw, 1 3/4" (3 sets of 2)	—	—

Accessories

CG40-11 (43/64"-53/64") Collet.

For needle bearings on Leece-Neville alternators. Use with CG40-4 expanding rod.

CG40-12 (15-18mm) Collet.

For pilot bearings on late model Ford transmissions. Use with CG40-4 expanding rod.

CG40-4-1 (4" long) Collet Extension.

For CG40 series collets.

CG46-8 Manual Adaptor.

For attaching CG46 series pullers to CG710 push/pull set.

CG46-7 Hydraulic Adaptor.

For attaching CG46 series pullers to CG105HY hydraulic bar style puller.

CG47-420 Hydraulic Adaptor.

For attaching CG47 series pullers to CG450HYA hydraulic bar style puller.

CG46-3 Expanding Rod.

CG2545AB Blind Hole Bearing Puller.

Includes CG40C and CG45 sets plus slide screw and hammers in storage box.

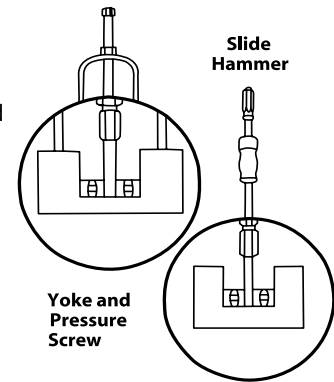
Includes:

CG40-1	CG40-9	CG45-2
CG40-2	CG40-15	CG270-8A
CG40-3	CG40A6	CG45-15
CG41-11	CG40A10	CG45-3
CG41-14	CG40-7	CG45-4
CG41-12	CG40-8	CG45-6
CG41-13	CG250-8A	CG45-7
CG40-4	CG250-9	CG66-2
	CG270-1A	



CG47

These special pullers will pull blind hole bearings, bushings and sleeves with inside diameters ranging from 1/4" to 7" where regular pullers won't reach. The operation is simple. After the special collet is inserted through the bearing or sleeve, a matched expanding rod is threaded into the collet and secured. Pulling can be done through bridge of bar type yokes or with side hammers.



Yoke and Pressure Screw

Slide Hammer



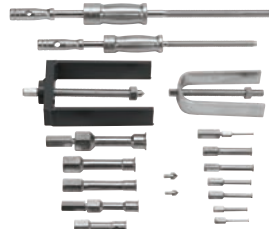
CG40CB

CG40CB Blind Hole Bearing Puller.

Includes 9 collets and yoke. Uses CG250-8A slide screw and CG250-9 slide hammer.

Includes:

CG40-1	CG40-9
CG40-3	CG40-15
CG41-11	CG40A6
CG41-14	CG40A10
CG41-12	CG40-7
CG41-13	CG40-8
CG40-4	CG40-2



CG2545AB



CG45

CG45 (1"-1 3/4") Puller Set.

3 collets and yoke. Uses CJ105-4B slide screw and CJ97-3A slide hammer.

Includes:

CG270-1A	CG45-4	CG45-6
CG45-2	CG45-15	CG45-7
CG45-3		



CG46

CG46 (1 5/8"-3") Puller Set.

3 collets, slide screw, and hammer. For large size blind hole bearings, Torrington needle bearings, heavy duty bearings on live center lathes, conveyor belts, and rollers.

Includes:

CG46-1	CG46-3	CG46-5
CG46-2	CG46-4	CG46-6

CG47 (3"-7") Puller Set.

Master collet and pads plus slide screw and hammer. Pulling size is changed by changing pads.

Includes:

CG4567N	CG47-204	CG47-209
CG4567O	CG47-205	CG47-210
CG47-201	CG47-206	CG47-211
CG47-202	CG47-207	CG47-212
CG47-203	CG47-208	



WARNING



- Screen the puller application
- Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job
- Read safety precautions on pages 594 to 597

DIESEL

Diesel Service Sets/Diesel Fuel Service



KRW200A



CUMDS12V



CUMDS24V

Tools Required for Cummins B and C Series Service Kits

Stock No.	Description	Applications				Set Contents	
		12 Valve	24 Valve			CUMDS12V	CUMDS24V
		pre 1994	1994 to 1998.5	1999 to 2002	2003	12 Valve	24 Valve
FB300A	Bent Blade Feeler Gauge	•	•	•	•	•	
MT33C	Compression Gauge	•	•	•	•	•	
MB5B	Bronze Injector Brush	•	•	•	•	•	
MB6BT	Stainless Steel Injector Brush	•	•	•	•	•	
YA9565A	Engine Turn Over Tool	•	•	•	•	•	
CJ140-1	Injector Slide Hammer Puller	•	•	•	•	•	
CJ141	12mm Injector Adaptor	•			•		
CJ142	14mm Injector Adaptor	•			•		
FRHM17	17mm 6-Point Crowfoot	•			•		
FRXM17	17mm 6-Point Flare Nut Socket	•			•		
M3584	Compression Adaptor	•			•		
SP144	Injection Pump Wrench	•			•		
SP145	Idle Wrench (10mm)	•			•		
TSM24	24mm 6-Point Deep Socket	•			•		
YA8331	Timing Indicator Gauge	•			•		
FRHM19	19mm 6-Point Crowfoot		•	•		•	
FRXM19	19mm 6-Point Flare Nut Socket		•	•		•	
EEPV313A	Compression Adaptor		•	•		•	
CJ143	Adaptor		•	•		•	
CJ144	Adaptor		•	•		•	
SP504	Gear Puller		•	•		•	
CJ148	Fuel Line Plug			•		•	
CJ149	Adaptor			•		•	
KRW200A	Storage Case				•	•	

Optional Tools

Stock No.	Description	pre 1994	1994 to 1998.5	1999 to 2002	2003		
MTTACH1	Digital Tachometer to measure engine RPM	•	•	•	•		
TWM14A	14mm 1/2" dr Shallow Socket use with V22A to adjust valves	•					
SP346	Fan Wrench (36mm)	•					

CUMDS12V Cummins B and C Series 12-Valve Diesel Set. Services Cummins B and C Series 12-valve engines from pre-1994. Additional applications include Dodge Ram 250 and 350 pickups, Ford pickups with 3.9L, 5.9L and 8.3L diesel engines, J.I. Case tractors and off-road equipment. 15 tools in storage case.

CUMDS24V Cummins B and C Series 24-Valve Diesel Set. Services Cummins B and C Series 12 and 24-valve engines 1994 and later. Additional uses include Dodge heavy duty pickups and all applications with ISB and ISC diesel engines. 14 tools in storage case.

Diesel Timing Gauge Set

SP500 Diesel Timing Gauge Set. The SP500 diesel gauge set will update existing 2017DSP diesel service sets to handle 1994 to 1998 Cummins "B" engines used in Dodge Ram 250/350 pickup trucks and some Fords. Updated 2017DSP set will also service J.I. Case tractors and off road equipment.



SP500

SP5001 Dial Indicator. Features rack and pinion construction. Refer to the pump manufacturer's service manual when using this gauge. Gauge diameter is 2 1/4 inches. Range is 30mm. Gauge is marked in .01mm increments.



SP503

SP503 Spline Socket – Blue-Point®. Used to remove and replace the delivery valve on most Bosch fuel injection pumps. Wrench size is 34-tooth. 1/2" drive size.



SP504

SP504 Gear Puller – Blue-Point. Used to remove the injection pump gear. Bolt thread is M8 x 1.25. Bolt length is 44mm.



SP5002

SP5002 Gauge Holder – Blue-Point. Used in fuel injection pump in place of the #1 delivery valve to locate the base circle of the injection pump cam. Male thread is M22 x 1.5.



SP7882

Injector Height Gauges—Blue-Point®

Use height gauges to set injectors during installation and at set service intervals. Knurled handle screws into gauge at 90° angle for work in close quarters.

Stock No.	Size	Series	Engine	Year
SP78	78.2mm	60	DDECI	1986-1993
		60 and 50	DDECII	1986-1993
SP80	78.8mm	60 and 50	DDECIII	1994-1997
SP79	80.3mm	60	DDECIII	Late 1997
		60 and 50	DDECIV	1997-1998
SP81	81.0mm	60 and 50	DDECIV	1998-1999
		-	Marine	2000-2003
SP82	82.1mm	60	See service manual	

SP7882 Diesel Injector Height Gauge Set. Five-in-one gauge set covers all applications for Detroit Diesel 50 and 60 series engines. Includes SP78, SP79, SP80, SP81 and SP82 injector gauges plus handle in vinyl storage pouch.



M3530



M3531

Governor Gap Wrenches

M3530 Governor Gap Adjusting Wrench. 3/8" open ends, 4" long. Special thin design with 30° and 60° angle heads.

M3531 Governor Gap Lock Nut Wrench. Similar to M3530 but has 7/16" open ends and is 4 1/4" long.



FCT706

Fan Clutch Wrench—Blue-Point.

FCT706 Fan Clutch Wrench. Fan clutch wrench for heavy duty truck engines. Hole pattern on tool aligns with fasteners on fan hub. Use with open end wrench to remove fan clutch. 24 1/2" length for maximum leverage. Applications include International (VT365, T444E, DT466, DT350 and HT530), Ford Power Stroke (7.6L and 6.0L), Detroit Diesel (Series 40) and John Deere.



BDD1

Injector Brush

BDD1 Injector Brush. Stainless steel wire brush is for cleaning carbon buildup in the injector cup.



SIMDM120A



M3525A



M3503B

Special Application Sockets

SIMDM120A Engine Bearing Cap Bolt Socket. Easily remove/replace engine bearing cap bolts on Detroit 60 diesel engines with Jake Brake® engine retarders. 12-point Flank Drive® Wrenching System provides superior turning power. Cold formed and heat-treated from a special alloy steel for maximum strength and durability. Industrial black finish helps prevent corrosion. 12 pt., 12mm, 1/2" square drive impact socket.

M3525A Spanner Socket. 1/2" drive, 3 7/32" long. Includes 1 1/8" internal hex for use on "Fuel Squeezer" series of engines.

M3503B Fuel Line Nut Socket. 1/2" wrench opening. 6-point, 3/8" drive. Shaped for access to fuel line nuts. 3 1/4" long. Additional applications on the head temperature sensor found on Buell Motorcycles.



S6200

S6200 Engine Bearing Cap Bolt Socket. Use to service engine cam bearing cap bolts on both older and newer generation Detroit Diesel engines. Newer generation Detroit Diesel engines use longer cam bolts than earlier generation engines. The S6200 is specially designed to work on both engine generations. 12mm wrench size. 1/2" drive. 4 3/8" overall length. S6200 is similar to Snap-on® SIMDM120A socket but is longer.



MFIMMD10

MFIMMD10 12-Point Metric Shallow Magnetic Socket.

For use on Detroit Diesel 60 series, the MFIMMD10 is used on the three camshaft gear thrust plate bolts located inside the camshaft gear cover within the front gear case on the engine. The mechanic has to go through the cover to start the bolts. If one is dropped, it is very labor intensive and time consuming to retrieve. Applies to 2002 and later 60 series Detroit engines with the compact gear case. PLEASE NOTE: Earlier engines with the tall gear case have 13mm six point bolts. Please use **MFIMM13** for this application.

Stock No.	Size, mm	Finish	Style	A	B	D	E
MFIMMD10	10	Industrial Finish	12-point	15.1	17.2	28.6	7.1



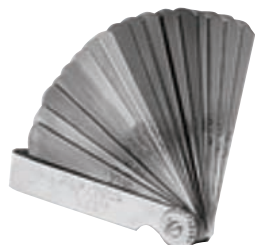
WARNING



• Read safety precautions on pages 594 to 597

DIESEL

Detroit



FB325A

Feeler Gauges—Blue-Point®.

FB325A U.S./Metric Feeler Gauge Set. For adjusting governor gap. Includes (25) 1/2" x 3" blades in sizes .0015" plus .002" through .025" in .001" increments.



FB308D

FB308D Step Feeler Gauge Set and Holder—Blue-Point. For adjusting valves. Includes 12 step blades in sizes .008"/.010" through .028"/.030".



FB328A

FB328A Step Feeler Gauge Set and Holder. For adjusting valves. Includes two step blades: .011"/.013" and .013"/.015".



Push Rod Wrenches

M3517B Push Rod Lock Nut Wrench. 1/2" open end, 102° offset handle.

M3518 Push Rod Adjusting Wrench. 5/16" open end, 102° offset handle.



AWM4D

Metric Hex Wrenches

AWM4D Metric L-Shape Hex Wrench. For adjusting governor gap. 4mm hex.

AWM5D Metric L-Shape Hex Wrench. For adjusting governor gap. 5mm hex.



YA9340

Belt Tensioning Tool—Blue-Point.

YA9340 Serpentine Belt Wrench. Use to release any serpentine belt tensioner with 1/2" square drive opening. Ratcheting action allows better positioning of the tool, which allows more swing angle than a solid type serpentine belt wrench. Reversible ratchet head is only 1" thick so it will fit between tensioner face and fan blades on s Series 60 Detroit Diesel and some Caterpillar engines. Also great for working on buses and delivery vans where the doghouse or engine shrouding restrict access. Compact overall length keeps handle from coming in contact with radiator hoses, charged air cooler pipes, hydraulic lines or frame rails. Vinyl grip for comfort. 13" overall length.



SRD6

SRD6 Belt Tensioner Release Tool. 6" long adaptor with 1/2" male square. The female triple square drive allows the user more flexibility to work around obstacles by coming in at different angles with a 1/2" breaker bar. Similar to Snap-on® 6" torque adaptors but with a male square. If using with a torque wrench, please refer to Snap-on part # SS306G Torque Chart for formula to obtain the correct applied torque.

Heavy Duty Applications.

For serpentine belt tensioners with a 1/2" square drive opening found on Series 60 Detroit Diesel and Caterpillar engines. Other heavy duty applications include buses and delivery vans where the doghouse or engine shrouding can get in the way and make the work area very tight.

Automotive Applications.

1/2" serpentine belt tensioners on Dodge/Chrysler (2.0L and 3.0L engines), Ford, Lincoln and Mercury (2.3L, 3.0L, 4.2L, 4.6L engines) plus GM (2.5L, 4.7L, 5.0L, 5.7L engines).

Ford/Navistar/Automotive Diesel



SP60

Fan Wrench

SP60 Fan Wrench. 1 7/8" (48mm) wrench services the cooling fan hub retaining nut. Has a 1/2" drive hole for torquing of the fan nut. 15 3/4" long.

Pulley Puller

SP448 Pulley Puller. For removing the air pump pulley. Fits over pulley flange.



SP448

Compression Adaptor

M3545B Glow Plug Compression Adaptor. For GM 4.3L and 5.7L plus Navistar 6.9L and 7.3L diesel engines. Replacement valve core is M3545A4. Must be used in conjunction with MT33C Compression Gauge and M3569 or M3570 Quick Couplers.



M3545B

M3545A4 Replacement Valve Core. Replaces valve core on M3545B.

Ford ICP Sensor Socket

S6196KR Ford ICP Sensor Socket. Easily remove and install the ICP Sensor on 2002 and 2003 Ford 6.0L diesel truck engines. Spring retention securely holds sensor during use. Flank Drive® wrenching system provides greater torque for less effort. Chrome finish for quick cleanup and corrosion resistance. 6-point configuration. Wrench Size: 1 1/16". Drive Size: 3/8". Outer Diameter: 1 7/16" (36.2mm). Length: 2 9/16" (64.8mm).



S6196KR

Diesel Turbo Wrench

PSWT10K Ford Power Stroke

Diesel Turbo Wrench. 10mm wrench is ideal for accessing the turbo mounting bolts located between the firewall and the turbo with exhaust intake in the way. Designed for use on 2003 and later 6L diesel Powerstroke engines used on Ford F250, F350, E250 and E350. Additional applications on Navistar VT365 engines and some International 4000 series of medium duty trucks. Wrench has a zero degree offset 6 point head. Designed to remove excessively tight fasteners off the intake when removing turbocharger where a conventional 15° offset wrench will not work. 5 1/2" long.



PSWT10K

Sensor and Filter Sockets

S3624 Filter Flip Socket. One tool will remove/install all three filter caps on Ford 6.0L Power Stroke diesel powered vehicles such as Super Duty Series Pickups, Econoline Vans and Excursions. Use for removal and installation of the Oil Filter cap plus Primary and Secondary Fuel filter caps on these vehicles. Not for impact use. Requires optional 3/8" drive extension (FX1 or FXWP1 1-1/2" long). See additional applications on pg 506.

Mercedes-Benz: diesel engines

S3624 Specifications

- Square drive size: 3/8"
- Wrench sizes: 24 and 35/36mm
- Wrenching Configuration: Flank Drive
- OD Major: 1.80" (45.7mm)
- OD Minor: 1.38" (34.9mm)
- Length: 1.73" (43.9mm)
- Finish: Nickel-Chrome

A129 Diesel Fuel Filter Socket. Use for removing and installing fuel filter housings found on 2002 and later Dodge Ram trucks with the 24-valve Cummins diesel engine. 1 1/8" wrench size. 3/8" drive.



S3624



A129



YA998A

Fuel Filter Wrenches – Blue-Point®

YA998A Ford Fuel Filter Wrench. Service 1994 and later Ford 7.3L diesel engines with old style caps (1994 to 1998) and newer style caps (1998 and later). 3/8" square drive. Overall dimensions of 3 5/8" x 7/8" x 1". Chrome finish.

FFW4 Ford Fuel Filter Wrench. Easily remove and install Ford power stroke diesel fuel caps and other diesel filter systems using the same configuration such as International and Navistar engines. Allows access to both fuel filter housing lids in the V of the Ford power stroke diesel engine. Designed to spread the force of removal over six contact points, preventing breakage.



FFW4

Diesel Pulse Adaptor

MT257B Diesel Pulse Adaptor. Test injector timing or engine RPM on diesel engines equipped with 1/4" or 6mm external steel fuel injector lines. Enables use with inductive pick-up timing light to test engine timing. The MT257B is not for use on diesels with common rail fuel systems.



MT257B

Quick Couplers

M3569 Quick Coupler. 45° offset.

M3570 Quick Coupler. 90° offset.



M3570



M3569



MB5B



MB73

Injector Brushes

MB5B Injector Brush. Bronze, non-abrasive brush cleans carbon from injector tips.

MB73 Injector Brush. Combination 5/16" and 13/16" diameter stainless steel wire brush to clean the injector bore and injector tip hole in the cylinder head.

Automotive Diesel Service Tools

SWR3 Water Sensor Socket. Easily remove/replace water sensor without damage when changing the fuel filter on 2001 to present GM 6.6L DuraMax diesel engines. The water sensor is attached to the fuel filter and can be damaged during fuel filter replacement. This damage is due to the use of water pump pliers and the lack of a special tool. GM 6.6L DuraMax diesel engine applications include 2001 to present Chevy/GMC pickups and Chevy/GMC medium duty trucks. Manufactured from high strength, chemical resistant glass filled nylon. 3/8" square drive.

NOTE: Due to possible sensor distortion from previous incorrect removal/installation methods, the sensor may slip in the SWR3 during removal. The SWR3 can be used to reinstall the sensor, when proper hand tightening is used.



SWR3

OFSKIT Oil/Fuel Filter Socket Set. Includes A127 and A106 oil filter sockets, S3624 filter flip socket and A129 cummins diesel fuel filter socket (4 pcs) in storage tray. Applications for A127, A106 and S3624 are listed on pg 506. Applications for A129 are listed on this page.



OFSKIT



WARNING



- Do not use chrome or industrial finish hand tools with impact drive
- Read safety precautions on pages 594 to 597

DIESEL

Automotive Diesel



YA8331

Timing Indicator Gauge

YA8331 Timing Indicator Gauge. For VW and Audi. Use to set Bosch diesel fuel injection pump timing. Gives a dial indicator reading to allow accurate pump timing setting. Dial indicator reads in graduations of .01 mm. Also use on 1981 to 1986 Volvo 2.4L V6 and 1989-1994 Dodge 5.9L V6.



S6105A

Glow Plug Tool

S6105A Glow Plug Socket. For GM 4.3L, 5.7L, 6.2L and 6.5L diesel engines. 3/8", 12-point socket holds the glow plug while servicing. Special deep clearance to hold glow plugs and Lumy probe. 2 1/8" long.



YA6180

Fan Clutch Wrench-Blue-Point®

YA6180 Fan Clutch Wrench. Use on GM and Ford diesel and gas engines with a 48mm fan clutch nut. Provides the extra leverage needed to remove the fan clutch nut. Overall length of 20 1/8". Head width of 4 1/8". Head thickness of 3/8".



S6104B

Metric Injector Sockets

S6104B Metric Injector Socket. For VW and Mercedes diesel engines. 27mm, 12-point. Clearance bored to fit over fuel injector. 1/2" drive. 3 1/4" long.



S6128

S6128 Metric Injector Socket. For Bosch type injectors on GM 6.2L 6.5L diesel engines. 30mm, 6-point. 2 1/16". 2 1/16" bolt clearance. 7/16" opening depth, 2 11/16" long. 7/8" external hex on drive end.

Cummins Service Tools



M1328A



M1321



M1329

Air Compressor/Fuel Pump Wrenches

M1328A Air Compressor/Fuel Pump Wrench. Includes 5/8", 12-point box wrench on one end for servicing fuel pumps and a specially designed 11/16" open end for access to air compressor bolts.

M1321 Air Compressor/Fuel Pump Wrench. Similar to M1328A but has a 12-point box wrench on both ends. One is 5/8"; the other is 11/16". Accommodates air compressor and fuel pump flange bolts on NH Series In-line 6 cylinder engines.

M1329 Fuel Pump Wrench. Includes 7/16", 12-point box end for servicing fuel pump bolts on NH series engines equipped with Cummins air compressors. 6 5/8" long.



M1322

Valve Adjusting Wrenches

M1322 Valve Adjusting Wrench. 3/4", 12-point box wrench to tighten lock nuts on rocker arms. Designed to clear the aftercooler. 14 3/4" long.

M1319 Valve Adjusting Wrench. 7/8", 12-point box wrench to tighten lock nuts on rocker arms. Designed to clear the aftercooler. 12" long.



SP346

Fan Wrench-Blue-Point

SP346 Fan Wrench. 36mm open end wrench services fan clutch attaching bolts on B Series Cummins Engines. Can also be used on fan clutch bolts on Navistar 6.9L and 7.3L engines. Wrench is 15" long and has a blue, vinyl covered handle.



CJ125A



CJ140-1



CJ144

Injector Pullers

CJ125A Injector Puller. Slide hammer puller services "D," "Top Stop," and small V8 injectors. 10 1/2" long.

CJ140 Diesel Injector Puller Set. Use on fuel injectors in Cummins "B" and "C" Series 3.9L, 5.9L and 8.3L engines used in Dodge pickups and Case tractors/off-road equipment. Will service all 1994 to 1998-1/2 standard injectors as well as fuel inlet tubes.

CJ140-1 Slide Hammer (8mm). Use to pull injectors from heads on 1998-1/2 to 2002 Dodge/Cummins. 8mm thread. Use CJ144 Puller to put the fuel inlet tube prior to removing the injector.

CJ141 Diesel Injector Puller Adaptor (12mm). Use on Cummins diesel injectors prior to 1994.

CJ142 Diesel Injector Puller Adaptor. Use on Cummins diesel injectors from 1994 to 1998-1/2. M14 X 1.5 threads.

CJ143 Diesel Injector Puller (8mm). Use on 1998-1/2 Cummins diesel injectors in tight access areas.

CJ144 Diesel Injector Puller (15mm). Use on 1998-1/2 to 2002 Cummins diesel fuel inlet tubes.



SP144



SP145

Injector Pump/Idle Lock Nut Wrench-Blue-Point®

SP144 Injection Pump Wrench. 13mm, 12-point box wrench is used to service the injection pump mounting bolts found on 5.9L Cummins engines.

SP145 Idle Lock Nut Wrench. 10mm, 12-point wrench with 90° angle is designed to remove or install mounting bolts on the diesel injection pump. For Cummins B Series 5.9L Engines.



YA9565A

Engine Turning Tool

YA9565A Engine Turning Tool. Used to rotate the engine for making valve and injection pump adjustments on Cummins and J.I. Case 3.9L, 5.9L and 8.3L "B" and "C" Series engines. 3/8" female square drive.

Cummins Service Tools



Wet Sleeve Pullers

CG80HYA Hydraulic Wet Sleeve Puller. Provides hydraulic pressure for removing wet sleeves on Cummins diesels, trucks, and heavy construction and farm equipment with a cylinder diameter of 3" to 6". Reach is 7" to 12". Adjustable bridge fits around studs in block. Includes a 6 ton hydraulic power pack. Contains 1 set each of CG80-11 and CG80-22.

CG80A Wet Sleeve Puller. Manual version of CG80HYA.

CG80-11 Insert (1/4"). 1/4" insert for CG80A/CG80HYA Wet Sleeve Pullers.

CG80-22 Insert (5/16"). 5/16" insert for CG80A/CG80HYA Wet Sleeve Pullers.



Engine Sockets

PPM516A Drain Plug Socket. 1/2" square male end with 1/2" drive. Extra strength to remove drain plugs. 1 7/16" long.

SIML200 6-Point Extra Deep Impact Socket. 5/8" single hex for the stud used for the rocker box on engines equipped with Jacobs engine brake. 1/2" drive, 5" long.

FTXEL45E Extra Long TORX® Socket Driver. Quickly and easily access intake bolts on Cummins N14 diesel engines without removing the air pump. Can also be used on older Cummins NH Big Cam 4 diesel engines. 3/8" square drive.



Timing Gauge Injectors

GA3711 Injector Timing Gauge Set.

Range is 0" to 1" in .001" increments. Time injectors on Cummins NH, NT, L-10, and V-model engines in or out of the chassis. Set includes two dial indicators, mounting hardware, instructions and CM6543350 storage case.

GA3707 Injector Adjustment Gauge Set. Indicator Range is 0" - 1" in .0005" increments. Adjust injector travel on NH, NT, L-10 and V model engines except those with Top Stop Injectors. Do not use this tool for engines with Top Stop Injectors. Obtain accurate plunger travel and uniform fuel delivery for top performance and maximum fuel economy. Comes in fitted storage case (CM6546950). Always refer to the appropriate shop manual and follow the recommended procedures when using this tool. The directions included with this tool are not meant to take the place of the appropriate shop manual.

Compression Adaptors

These compression adaptors are for use with the MT33C compression gauge on page 421.

M3540A Compression Adaptor. For Cummins 855 cu. in. NH and 903 V8 and L10 diesel engines.

M3584 Compression Adaptor. For Case/Cummins series "B" 2.9L, 3.9L, and 5.9L diesel engines.

M3585 Compression Adaptor. For Case/Cummins series "C" 8.3L engines.



WARNING



- Do not use chrome or industrial finish sockets with impact driver.
- Read safety precautions on pages 594 to 597

Pulley Installers and Pullers

CJ83C Pulley and Gear Puller.

Ideal for servicing crankshaft pulleys and gears and timing gears on a wide range of gasoline and diesel engines including Cummins accessory drives and water pumps. Nominal capacity is 3.5 tons. Use to remove accessory drive pulley (replace with M1324). Includes yoke; two each 3/8"-16 x 3", 5/16"-18 x 2 1/2", and M10-1.5 x 65mm studs; and 3/4"-16 x 5" pressure screw.

M1324 Pulley Installer. For installing the accessory drive pulley on the shaft. Includes 7/8"-14 NC threaded adaptor, washer-type bearing, and installer housing.



CJ83C



M1324



ST669

Torque Adaptor Set-Blue-Point®

ST669 Torque Adaptor Set.

Use to loosen and adjust lock nuts to manufacturing specifications.

ST669-1 Handle Assembly. Handle assembly.

M1302B18 12-point Deep Socket. 9/16" deep, 12-point socket.

M1302B24 12-point Deep Socket. 3/4" deep, 12-point socket.

M1302A5 Screwdriver. 1/2" x .062 screwdriver.

TM82 Flat Tip Socket Driver. 1/4" x .036 flat tip driver.



MB5B



MB6BT



BNH1

Injector Brushes-Blue-Point

MB5B Injector Brush. Bronze, non-abrasive brush cleans carbon from injector tips.

MB6BT Injector Brush. Stainless steel wire brush cleans the injector cavity in the cylinder head. For Cummins B series engines and J.I. Case equipment. 9" long.

BNH1 Injector Brush. For Cummins NH series engines.

Fuel Line Tools

CJ148 Fuel Line Plug.

For plugging fuel lines.

CJ149 Fuel Tube Remover.

For fuel inlet tubes on later model vehicles.

YA6615 Flare Nut Wrench-Blue-Point.

Use on Dodge trucks with 5.9L engines (2003 and later) and 6.7L engines (2007 and later). Easily slides into the confined area of the cylinder head. Wrench is required to hold the 24mm flare nut while the 19mm fuel line coupler is loosened. Helps prevent costly damage to the fuel lines.



YA6615



CJ148



CJ149

HEAVY DUTY TRUCK TOOLS



Special Application

S6197 Heavy Duty Driveline Socket. Use on Kenworth/Peterbuilt heavy duty drivelines that use 1/2" fasteners. Many other heavy duty 1/2" applications as well. Example: Socket will clear the weld yoke, when removing the cap screws holding the wing bushings to the end yoke. 1/2" wrench size, 12 point, 1/2" drive.

S6199 U-bolt Impact Socket. Most semitrucks use many 5/8" diameter U-bolts for springs and other suspension components. The S6199 will save you time as you do not need to cut off the excess thread compared to using a standard 1-1/8" deep socket that is 3/4" drive. The S6199 is up to 2" longer than a standard deep socket to easily accommodate the excess thread length. 1 1/8" wrench size, 6-point, 3/4" drive.

S6217 Head Bolt Impact Socket.

- For head bolts on heavy duty trucks and buses with Mercedes engine MBE900
- Clearance on certain Detroit Diesel head bolts with the Mercedes engine MBE900 require a thin walled socket
- Nothing can be removed to access more room because the head is cast
- Height of socket helps the technician when using a torque wrench due to the length of torque wrench handle for clearance

S6160 Extra Long Head Bolt Socket. Use on 1986 and later Nissan engines with 12mm head bolts. 8" length reaches past cam and rocker assembly to service head bolts. Thin profile socket and shank will reach through the access hole and past overhead camshaft. Additional high torque applications include removal and installation of universal joint flange bolts on Ford/Mercury cars such as Mustang, Crown Victoria, and Lincoln plus Ford Explorer, Ranger and F150/F250 trucks. 8" long. 12-point, industrial finish. 1/2" sq. drive.

S6194 Head Bolt Socket. Use on Toyota and Nissan cars and pickups plus Honda cars with 12mm head bolts. 4" length reaches past cam and rocker assembly to service head bolts. Thin profile socket and shank will reach through the access hole and past overhead camshaft. Additional high torque applications include removal and installation of universal joint flange bolts on Ford Explorer, Ranger and F150/F250 trucks. 4" long. 12-point, industrial finish. 1/2" sq. drive.

IMFDL242 Deep Thin Wall Impact Socket. Designed to remove the head bolts on Caterpillar C12, C15, C16 and 3406Es where the front 2 and back 2 head bolts are positioned under the valve covers. Clearance on certain Caterpillar head bolts requires a thin walled socket that needs to be a certain length. Nothing can be removed to access more room as the head is cast. Additional applications include Detroit Diesel main bearing cap bolts and 19mm head bolts on Mercedes Benz MBE904/MBE906 EGR engines (2007 and later). 3/4" wrench size, 3/4" drive.

SIMDM212 12-Point Metric Deep Impact Socket.

Applications: Use on flywheel bolts on Cummins ISX engines.

BSA916 Slack Adjuster Wrench. For brake service and slack adjuster installation on heavy-duty trucks equipped with Bendix® automatic slack adjusters. Use to turn the manual adjuster hex. Extra deep 9/16" hex allows reach to recessed adjusters. 14 1/2" overall length helps to overcome the anti-reverse mechanism. Turn over to reverse. Protective vinyl boot helps to keep contaminants out of the ratchet mechanism for extended tool life.

SRD35 Diesel Head Bolt Torque Adaptor. Special tool for use on Ford F250/F350 trucks and Excursions (2003-2007) plus Ford E-Series vans (2004-2009) including ambulance, law enforcement and shuttle bus conversions using the 6.0L Power Stroke diesel engine. When coupled with an SM18, 18mm socket, the SRD35 can access all of the head bolts eliminating the need to change tools or remove the adaptor during the job. Use of 3/4" drive ratchet/torque wrench transmits the high torque necessary to loosen and tighten head bolts, with less strain on the technician. Eliminates the need to remove the truck/van cab from the chassis to access the rear head bolts, saving time and preventing damage to the rear heat shield. Eliminates the need to remove the evaporator housing, saving time and the additional cost of refrigerant added during A/C recharging.

S6216 Detroit Diesel Head Bolt Impact Socket.

- Tight clearances between some head bolts and the cylinder head casting require a thin walled socket; these engines are found in truck, bus, motor home, marine and heavy equipment
- The increased height of the socket allows for clearance between the drive tool (ratchet, breaker bar or torque wrench) and installed valve train components, allowing technicians access to head bolts from either side of the engine

DW402C Dayton Lug Nut Impact Socket.

- 3/4" square drive with a 1 1/4", 6-point wrench opening
- Use with socket retainers

HSA716 Slack Adjuster Wrench.

- For brake service and slack adjuster installation on heavy-duty trucks equipped with Haldex® automatic slack adjusters
- Use to turn the manual adjuster hex
- Extra deep 7/16" hex allows reach to recessed adjusters
- 14 5/8" overall length helps to overcome the anti-reverse mechanism
- Turn over to reverse
- Protective vinyl boot helps to keep contaminants out of the ratchet mechanism for extended tool life

S6205 Valve Adjuster Socket. See through window in its 14mm socket to see the position of the 5mm hex blade. Faster valve adjustment time. Sized for low clearance. Made from heat treated steel. Soft grip handle.

Applications: 2002 and later Mercedes "900" series diesel engines. 2002 and later trucks and busses.

S6206 Valve Adjuster Socket. See through window in its 17mm socket to see the position of the 6mm hex blade. Faster valve adjustment time. Sized for low clearance. Made from heat treated steel. Soft grip handle.

Applications: 2002 and later Mercedes "4000" series diesel engines. 2002 and later trucks and busses.



SRDM624

Torque Adaptor

SRDM624 Torque Adaptor. Services the rear brake caliper mounting bracket assembly on 2007 Ford F450/550 trucks. Tool fits between the bracket bolt and frame to allow the use of a torque wrench to properly torque the bracket bolts. 24mm. 6" long. 12-point wrench design. 1/2" square drive.

Motorcycle Service Tools



Special Application

HD6529 Ratcheting Hex Wrench. Ratcheting hex wrench (1/4" hex dr., 3/16" hex bit) for Harley-Davidson® Evolution motor rocker box cover bolts. Reversible ratchet lever conveniently located for one hand operation. 3/16" hex bit is easily replaced if damaged. Low profile design for extra clearance between frame and engine. Comfortable rubber grip will not scratch chrome. 9 3/4" overall length for additional reach.

HXD22 Motorcycle Wheel Socket. Essential for removing motorcycle front wheels. Use torque wrench for axle torque specs. Use breaker bar to remove difficult fasteners. Applications: 2002 Kawasaki (ZX7R, ZRX1200, ZX12R, ZX6 models); 2002 Honda (CBR954RR model); 2002 Triumph (955i RS model).

HXD24 Motorcycle Wheel Socket. Essential for removing motorcycle front wheels. Use torque wrench for axle torque specs. Use breaker bar to remove difficult fasteners. Applications: Suzuki (1300GSXR, 1000GSXR); Hayabusa (various models).

TSP813 Motorcycle Tire Spreader. Permits one person installation of tubed tires on motorcycles, ATVs, small farm equipment and industrial equipment. Easily access valve stem hole when installing difficult 90° valve stems on tubed tires. Hard screwdriver style handle for comfort and control. All metal, heavy duty construction. Industrial black finish helps resist corrosion. Overall length is 23".

KAC1224TCA Motorcycle Gas Tank Cover. Fits Harley-Davidson Dyna®, Softail and Touring models. Also fits various models of Yamaha, Victory, Triumph and Kawasaki plus many more. Protects the finish while you perform routine maintenance. Keeps dust and dirt off the gas tank. Non-marring cover uses a non-abrasive inner liner that won't slide off. Use on the tank any time, on or off the motorcycle.

Stock No.	Drive Size, inches	External Hex, (mm)	Outer Dia., inches (mm)	Hex Depth, inches (mm)	Length, inches (mm)
HXD22	1/2	22	0.94 (23.8)	0.70 (17.8)	1.50 (38.1)
HXD24	1/2	24	1.03 (26.2)	0.70 (17.8)	1.50 (38.1)

General Service Tools

Stock No.	Description	See Catalog Page
CPT110A	Motorcycle Wheel Socket	474
A15A	Drag Link Socket	39
GF22	Drag Link Socket	30
YA243A	Dial Type Pressure Gauge	458
YA173A	Clip On Style Angled Air Chuck	459
VT1A	Valve Stem Inserter	460
GA599A	Tread Depth Gauge	460
SGSR104	Seal Remover Set	146
MT125A	Self Powered Timing Light	418
TA358	Torque Angle Gauge - 3/8" Drive	235
AWHDBK	Hex/Torx® Folding Wrench Set	117

CYCLESET Motorcycle Tool Set. This 33 pc. kit services most American manufactured motorcycles. From battery service, cable and clutch adjustments, to gas tank and seat removal, this set covers roadside maintenance and emergency repairs. Set is conveniently organized and stored in a gas tank shape bag measuring 10" long, 5 1/2" wide, and 2 1/4" high and is small enough to fit almost anywhere. Optional CT2 circuit tester and KERA100C multi-tool enhance set capabilities even further. Please visit www.snapon.com for full list of set components and applications.

S9724RHS Low Profile Spark Plug Socket. Low profile socket easily reaches 5/8" (16mm) spark plugs on muscle cars, ATVs, motorcycles and boats without interference from custom exhausts or chassis. Applications include Harley-Davidson motorcycles with large gas tanks (1986 and later Sportster® and 1999 and later twin cam models) plus small block Chevy, Ford, Mopar and other engines with 5/8" (16mm) spark plugs and racing exhaust headers. Spark plug extends through the socket for access in tight quarters. Patented tapered hex design retains spark plug securely without rubber insert or magnet. Spark plug is easily disengaged from socket by applying side pressure. Use ratcheting box wrench on 5/8" external hex drive. Length is 1 1/16".

S9704RHS Low Profile Spark Plug Socket. Low profile socket reaches 13/16" spark plugs on muscle cars, ATVs, motorcycles, RVs and boats without interference from custom exhausts or chassis. Applications include small or big block Chevy, Ford, Mopar and other engines with 13/16" spark plugs and racing exhaust headers. Spark plug extends through the socket for access in tight quarters. Patented tapered hex design retains spark plug securely without rubber insert or magnet. Spark plug is easily disengaged from socket by applying side pressure. Use with open end or ratcheting box wrench on 13/16" external hex drive. Length is 1 1/4".

SAM12LE Long Hex Socket Driver. Essential for removal or installation of bolt found on the lower forks of 2006 and newer Harley-Davidson Dyna series. Used when servicing the internal parts of the fork. 12mm. Length 98.0 mm.

NBATI Neck Bearing Adjustment Tool. The perfect tool for neck-bearing adjustment on Harley-Davidson motorcycles.

Motorcycle Service Equipment

Stock No.	Description	See Catalog Page
MTPV100	Motorcycle/ATV Peak Voltage Meter	226
EEPV303B	Motorcycle Compression Gauge Set	421
EEPV305A	Motorcycle Compression Gauge Adaptor	421
EEWB308B	Motorcycle Wheel Balancer	454
EEWH310A	Motorcycle Tire Changer	456
YA1715	Motorcycle Jack	477



WARNING



- Do not use chrome or industrial finish sockets with impact drivers.
- Read safety precautions on pages 594 to 597

MOTORCYCLE/AVIATION

Motorcycle Special Application



MTPV1000

Optional Accessories

- 0 - 400 AC/DC Amp clamp-on probe (EETA501C)
- 0 - 1,000 AC/DC Amp clamp-on probe (EETA502C)
- Boot Hook Hanger (EEDM503B1)
- K-Type temperature adapter (EEDM506B)
- Heavy duty surface probe for EEDM506B (EETH502B)
- Heavy duty gas probe for EEDM506B (EETH503B)

Applications

- Peak voltage measurement of secondary ignition systems on all types of vehicles and pleasure craft
- CDI ignition diagnosis on motorcycles, ATVs, and snowmobiles
- Digital multimeter functions to measure battery, sensor and circuit voltage
- Check continuity of wiring and resistance of ignition wires

Features

- Tester automatically selects the best range for taking a measurement on DCV, ACV and ohms
- Use AC/DC voltage ranges to check ignition coil primary, ignition pulse generator, exciter coil and battery
- Add adapters to measure temperature, RPM, pressure and amps
- Measure ohms to determine resistance of a coil or spark plug
- Use the continuity buzzer for finding breaks or shorts in wires
- Large, easy to read, 4,000 count LCD and bar graph to easily view rapidly changing input signals
- Lock readings on display with data hold
- View + or - spark readings with the push of a button
- Measure peak voltage of ignition coil and secondary spark
- Input connector for kV probe
- Auto power off to conserve battery power when not in use
- Includes Test Instrument, test lead set with alligator clips, protective rubber boot, kV probe, soft carrying case, 9V battery and instruction manual

Aviation Specialty Service Tools



NYZ7006MG



NYZ7025H50



NYZ701510

NYZ700110

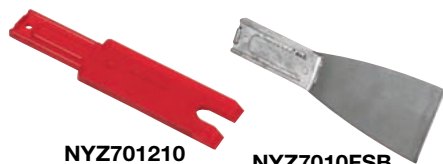
NYZ700510



NYZ701410

NYZ701810

NYZ701110



NYZ701210

NYZ7010FSB

NYROC™ Blades

Blade Size, inches	Description	Pack of 10	Pack of 200
1/8 wide	General Use	NYZ701810	NYZ7018200
1/4 wide	General Use	NYZ701410	NYZ7014200
1/2 wide	General Use	NYZ700510	NYZ7005200
3/4 wide	General Use	NYZ703410	NYZ7034200
1 wide	General Use	NYZ700110	NYZ7001200
1 wide	Button Head Rivet	NYZ701110	NYZ7011200
1 1/2 wide	General Use	NYZ701510	NYZ7015200
1 1/2 wide	Highlock for 3/8 high locks	NYZ701210	NYZ7012200

Blades available in 10 pack and 200 pack quantities only.

NYZ7010FSB Flexible Steel Blade. Use with NYZ7026EH Rubber Handle.

Guns and Hoses

NYZ7025H50 Air Hose (Anti-Static). NONSTAT® anti-static 1/4" hose is fully grounded to prevent static discharge. Hose is ideal for environments and projects where static control is essential. 50' long.

NYZ7024H100 Air Hose (Anti-Static). Same as NYZ7025H50 except 100' long.

NYZ7006MG Vibro Gun Kit. Kit includes medium duty Vibro gun, 1", 1/2" and 1/4" NYROC® blades (1 each) plus blade locks in black kit bag. Medium duty Vibro gun adds pneumatic power to all scraping jobs using standard NYROC blades.



NYZ7000MDKIT



NYZ7007HD

Complete Kits

NYZ7000MDKIT Master Mastic Removal Kit.

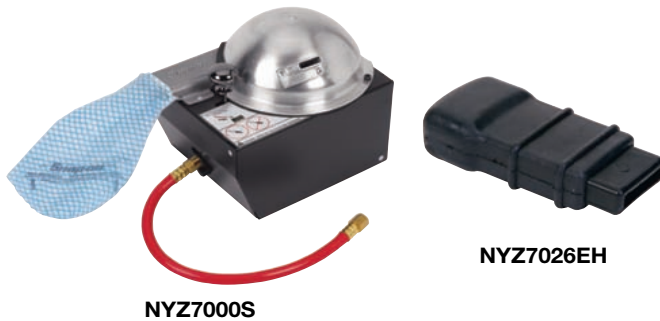
- Saves most of the time and labor involved to remove PRC and other mastics from every area of an aircraft without damage to the substrate
- Speed controllable vibration gun permits infinitely variable job performance
- The included pneumatic blade sharpener rapidly puts an edge on all NYROC blades up to 1" width right at the job site
- Completely portable system is fully grounded and anti-static. Kit includes medium duty Vibro gun, pneumatic blade sharpener, (1) anti-static vacuum bag, (1) sharpening disc, (1) manual handle, (2) 1" NYROC blades, (2) 1/2" NYROC blades, (2) 1/4" NYROC blades, blade locks and connecting hoses in padded storage case

NYZ7007HD Manual Mastic Removal Kit.

- The hand kit is ideal for aviation, automotive and industrial use especially for delicate jobs and limited access scraping applications
- The NYROC blades are sharpened with sandpaper, small stone or optional pneumatic sharpener
- Kit includes (6) 1" NYROC blades, (6) 1/2" NYROC blades, (3) 1/4" NYROC blades and ergonomic rubber handle

AVIATION/SAFETY WIRING

Specialty Service Tools



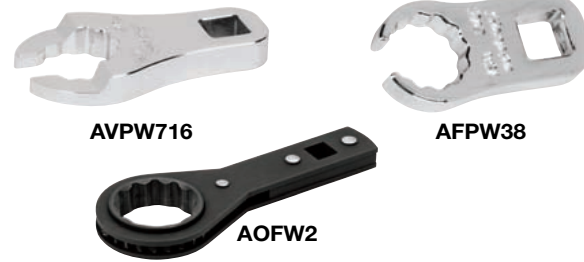
Accessories

NYZ7004VB Anti-Static Vacuum Bags. Anti-static vacuum bags for NYZ7000S blade sharpener. Pack of 10.

NYZ700AD Abrasive Sharpening Discs. Abrasive sharpening discs for NYZ7000S blade sharpener. Pack of 10.

NYZ7000S Pneumatic Blade Sharpener. Pneumatic powered sharpener quickly sharpens all NYROC™ blades up to 1" in width. Consistently sharpens blades to the optimal 51° angle. Operates with single push button. Connects directly to shop air. Removed material is collected in disposable anti-static vacuum bag attached directly to the discharge chute.

NYZ7026EH NYROC Blade Holder. The vulcanized rubber padded blade holder, works exclusively with NYROC blades. Fits comfortably in the users hand, reduces operator fatigue and helps to prevent injury.



Aircraft Vacuum/Fuel Pump Wrenches

AVPW716 Aircraft Vacuum Pump Wrench. Removes and replaces vacuum pump flange nuts on aviation and experimental aircraft. Use with any 1/4" drive extension. Easily fits into tight areas between the pump and nearby accessories. The cut-down head design adds greater flexibility than a wrench with a bent shank.

Applications Include:

Cessna: Skyhawk, Skylane, Stationair
Piper: Cub, Warrior, Archer, Seminole, Aztec, Navaho, Chieftain
Mooney: M20 series, M200 series, Ovation, Acclaim
Beechcraft: Bonanza, Duchess, Baron
Cirrus: SR20 and SR22

AFPW38 Aircraft Fuel Pump Wrench. The AFPW38 is a small crowfoot which will remove and install the fuel primer/injector line on Continental and Lycoming engines. Can be used with a 1/4" drive extension and will easily fit into tight areas.

Aircraft Oil Filter Wrench

AOFW2 Aviation Oil Filter Wrench. Oil filter wrench can be used for installing and removing oil filters on all standard general aviation aircraft with 1" hex oil filters. Compact size allows for reach in restricted areas. 3/8" drive torque wrench. Please refer to Snap-on® SS306G Torque Chart for formula to obtain the correct applied torque.

Safety Wiring – Blue-Point®



Wire Twisters

Cushion throat wire twisters feature a polyurethane filler that is bonded into the tool's cutter head to help prevent flying wire bits. A special undercut design helps maintain cutting edges and increases tool durability. Ideal for assembly line applications.



Wire Twister/Cutters

Stock No.	Description/Features	Wire Capacity, inches	Overall Length, inches	Wire Retainer
GA311C	Wide range of applications.	.060	10 1/2	No
PR311	Similar to GA311C, but not spring loaded. Right hand only with manual return.	.060	10 1/2	No
WT11B	Small size for use in tight quarters.	.041	8 1/2	No
WTR1A	Reversible wire twisters let you perform right and left hand twist with the same tool. Spring return and control knob.	.041	8 3/4	No
WTRW6A	Reversible wire twister lets you perform right and left hand twist with the same tool. Spring return and control knob. Oval cushioned throat captures and holds wire firmly.	.041	6	Yes

Safety Wire

Stock No.	Wire Size, inches	Container
WT105-2004	.020	1/4 lb. Spool
WT105-3204	.032	1/4 lb. Spool
WT105-4204	.041	1/4 lb. Spool
WT105-2016	.020	1 lb. Canister
WT105-2516	.025	1 lb. Canister
WT105-3216	.032	1 lb. Canister
WT105-4116	.041	1 lb. Canister
WT105-5116	.051	1 lb. Canister



WARNING



• Read safety precautions on pages 594 to 597

TORQUE



Known For Getting The Job Done Right The First Time.

Your reputation depends on your ability to deliver precise results. Snap-on offers the largest selection of torque tools available, providing the accuracy you need to turn more fasteners and tighten them to spec.

Torque In Less Time.

- TechAngle®—Electronic torque wrench does the job of multiple torque wrenches and an angle gauge to complete precise “torque to yield” specifications. Angle calculation is based on the same gyroscope technology that keeps helicopters flying level.
- Techwrench®—Hand tool that revolutionized the industry. Electronic easy-to-use push button tool that precisely measures torque applied to the fastener. Measures ft. lbs., in. lbs. and Nm.
- Click-type torque wrenches—Provide consistently accurate readings and rugged, trouble-free performance.

Techwrench® Torque Wrenches

TechAngle® torque wrenches are truly revolutionary. They do the job of multiple torque wrenches and an angle gauge to complete precise “torque plus turn” specifications at a fraction of the cost. Even better, it saves you some serious time on every head bolt or connecting rod nut. www.torqueinlesstime.com

TechAngle

Eliminates the need for angle gauges and protractors, providing the most accurate and fastest way to achieve torque plus angle tightening sequences now specified by many manufacturers.

- Digital readout shows torque setting then changes to the follow-up angle
- Not affected by ratcheting
- Angle calculation based on the same gyroscope technology that keeps helicopters flying level
- Torque accuracy: 2% CW, 3% CCW from 20-100% F.S. 4% CW, 6% CCW from 10-19% F.S. 8% CW, 10% CCW from 5-9% F.S.
- Angle accuracy $\pm 1\%$ of reading $\pm 1^\circ$ @ angular velocity $> 10^\circ/\text{sec}$ $< 180^\circ/\text{sec}$.
- Display resolution 1°
- More information at www.snapon.com/torque/techangle and www.torqueinlesstime.com



ATECH2FR100

Techwrench (all models)

- Manual preset and automatic track and peak hold modes
- Torque units conversion: N•m, ft-lb, in-lb.
- Audible (tone) and tactile (vibrating handle) preset alerts
- Display resolution: 0.1 ft-lb, 0.1 N•m, 1 in-lb.
- Each button has only one function (power on, preset increase, preset decrease, unit of measure select)
- Comfortable, non-slip grip
- Stand on handle bottom keeps tool from rolling off flat surface
- Sealed flex head ratchets move $\pm 15^\circ$
- Three "AA" alkaline cells included
- Low battery indicator and auto shut-off (after 2 minutes idle)
- Operating temperature 40-110°F (5-42°C)
- Storage temperature 0-122°F (-20-50°C)
- Humidity up to 90% non-condensing
- Designed to withstand shocks without failure
- Splash-proof, protects against water and most automotive shop fluid
- EU/CE-DE, ES, FR, IT, NL, PT, UK and Japanese language manual
- ISO-6789-2003 and ASME B107-28-2005 standards compliant
- Certificate of N.I.S.T. traceability for 20% to 100% of full scale
- Includes storage case
- More information at www.snapon.com/torque/techwrench



TECH2R100

TechAngle Models/2% Accuracy/Flex Head

Specifications	ATECH2FR100	ATECH3FR250
Square Drive, inches	3/8	1/2
Head Type	Sealed Flex Head	Sealed Flex Head
Gear Teeth	36	36
Gear Action	10°	10°
Range, in. lb.	60-1,200	150-3,000
Range, ft. lb.	5-100	12.5-250
Range, N•m	13.5-135.0	17.5-340
Angle Range	5°-360°	5°-360°
Head Depth, inches	5/8	3/4
Head Width, inches	1 5/32	1 5/8
Operating Temperature	40-110°F (5-42°C)	40-110°F (5-42°C)
Storage Temperature	0-122°F (-20-50°C)	0-122°F (-20-50°C)
Humidity	up to 90% non-condensing	up to 90% non-condensing
Housing Color	Grey	Grey
Length, inches	17	26
Ratchet Service Kit	RKRF936	RKRS936

The certification of accuracy provided per ASME and ISO Standards is 20% to 100% of full scale.

Standard Models/2% Accuracy/Flex Head

Specifications	TECH1FR240	TECH2FR100	TECH3FR250	TECH4R600
Square Drive, inches	1/4	3/8	1/2	3/4
Head Type	Sealed Flex Head	Sealed Flex Head	Sealed Flex Head	Sealed Fixed Ratchet
Gear Teeth	36	36	36	32
Gear Action	10°	10°	10°	11°
Range, in. lb.	24-240	60-1,200	300-3,000	720-7,200
Range, ft. lb.	2-20	5-100	25-250	60-600
Range, N•m	2.7-27.12	6.7-135	34-339	81-813
Head Depth, inches	7/16	5/8	3/4	1 1/4
Head Width, inches	7/8	1 5/32	1 5/8	2 1/2
Housing Color	Red	Grey	Red	Red
Length, inches	15 1/4	17 1/4	26 1/4	48
Ratchet Service Kit	RKRT936	RKRF936	RKRS936	RKRQC4

The certification of accuracy provided per ASME and ISO standards is 20% to 100% of full scale.

Standard Models/2% Accuracy/Fixed Head

Specifications	TECH1R240	TECH2R100	TECH3R250
Square Drive, inches	1/4	3/8	1/2
Head Type	Sealed Fixed Ratchet	Sealed Fixed Ratchet	Sealed Fixed Ratchet
Gear Teeth	36	36	36
Gear Action	10°	10°	10°
Range, in. lb.	24-240	60-1,200	300-3,000
Range, ft. lb.	2-20	5-100	25-250
Range, N•m	2.7-27.12	6.7-135	34-339
Head Depth, inches	7/16	5/8	3/4
Head Width, inches	7/8	1 5/32	1 5/8
Housing Color	Red	Red	Red
Length, inches	15 1/4	17 1/4	26 1/4
Ratchet Service Kit	RKRT936	RKRF936	RKRS936

The certification of accuracy provided per ASME and ISO Standards is 20% to 100% of full scale.

Techwrench (standard models)

- Torque accuracy ratchet head models: 2% CW, 3% CCW from 20-100% F.S. 4% CW, 6% CCW from 10-19% F.S. 8% CW, 10% CCW from 5-9% F.S. (TECH2 only)
- Torque accuracy interchangeable head models: 4% CW, 6% CCW from 20-100% F.S. 8% CW, 12% CCW from 10-19% F.S. 16% CW, 20% CCW from 5-9% F.S. (TECH Y only)
- Tolerance (early preset alert) - 2% of torque setting



TECH2FR100



WARNING



- Do not exceed rated torque • Do not use to break fasteners loose
- Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages 594 to 597

TORQUE

Techwrench® Torque Wrenches

Techmemory™ electronic torque wrenches include TORQLOG®, a downloading software on CD for IBM PCs and a 6' RS232 serial cable. 2 Microsoft® Excel® templates are also in the CD for customer convenience. The download template provides basic statistical analysis of dumped readings. The date/time template adds a date and time stamp to each reading while the wrench is attached to the PC. Templates can be customized to suit specific user needs. 6 button operation. RS232 port for downloading data to computer for analysis. All models include 3 "AA" batteries for power. Comfortable, non-slip grip. Stand on handle bottom keeps tool from rolling off flat surface. Flex head ratchet moves 15°. All models have a low battery indicator and auto shutoff (after 2 minutes idle). Designed to withstand shocks without failure. Splash-proof to protect against water and most automotive shop fluid. Includes storage case. EU/CE—DE, ES, FR, IT, NL, PT, UK all models. Complies with ISO-6789-2003 and ASME B107-28-2005 Standards. Additional technical information is available at www.snapon.com/torque/techwrench.

Techmemory™ Features:

- Torque accuracy TECH1, 2 and 3 ratchet head models: 1% CW, 1.5% CCW 2% CW, 3% CCW from 10-19% F.S. 4% CW, 8% CCW from 5-9% F.S. (TECH2 only)
 - Torque accuracy TECH4 ratchet head model: 2% CW, 3% CCW from 20-100% F.S. 4% CW, 6% CCW from 10-19% F.S.
 - Torque accuracy interchangeable head models: 4% CW, 6% CCW from 20-100% F.S. 8% CW, 12% CCW from 10-19% F.S. 4% CW, 20% CCW from 5-9% F.S. (TECH Y only)
 - Manual peak store, recall, clear and print functions
 - Memory capacity: 1000 peak readings
 - TechLog™ download software CD included
 - Excel Download Template with basic statistics
 - Date/time Excel download template (wrench connected to PC)
 - Serial RS232, with selectable 1200 to 19.2K baud rate
 - Serial cable: 6' with 9 pin PC interconnect included
- Applications:
- Automotive service—printout provides assurance that lug nuts, head bolts, etc. have been tightened to specification
 - Assembly operations—gather data to manage quality
 - Manufacturing ISO and SPC—generate statistics for technical files and process auditing
 - Military—document compliance with maintenance schedules and inspections
 - Aviation—include torque data in maintenance reports



TECH2YM100

Memory Models/4% Accuracy/Interchangeable Head and "D" Models

Specifications	TECH1JM240	TECH1JDM240	TECH2YM100	TECH2YDM100	TECH3XM250	TECH3XDM250
Head Type	Interchangeable	Interchangeable	Interchangeable	Interchangeable	Interchangeable	Interchangeable
Range, in. lb.	24-240	24-240	60-1,200	60-1,200	300-3,000	300-3,000
Range, ft. lb.	2-20	2-20	5-100	5-100	25-250	25-250
Range, N•m	2.7-27.12	2.7-27.12	6.7-135	6.7-135	34-339	34-339
Shank Dia.	J (0.425")	J (0.425")	Y (0.560")	Y (0.560")	X (0.735")	X (0.735")
Torque Setting Resolution	0.1 ft. lb. (0.1 N•m, 1 in. lb.)	0.1 ft. lb. (0.1 N•m, 1 in. lb.)	1 ft. lb. (1 N•m, 1 in. lb.)	1 ft. lb. (1 N•m, 1 in. lb.)	1 ft. lb. (1 N•m, 1 in. lb.)	1 ft. lb. (1 N•m, 1 in. lb.)
Housing Color	Red	Grey	Red	Grey	Red	Grey
Overall Lgth., in. (mm)	13 1/2 (343)	13 1/2 (343)	15 1/2 (394)	15 1/2 (394)	23 1/2 (597)	23 1/2 (597)
Weight, lbs. (kg)	1.6 (.73)	1.6 (.73)	1.9 (.86)	1.9 (.86)	2.9 (1.32)	2.9 (1.32)

Wrench length specification does not include the length of interchangeable heads. The certification of accuracy provided per ASME and ISO standards is 20% to 100% of full scale. See pg 237-239 for interchangeable tool heads.

Techwrench Features: (all "D" models)

- Hidden torque preset adjustment (momentary displays at Zero/Tare)
- Hidden tolerance adjustment + and - 1 to 16% of preset value



TECH2Y100



TECH3XD250

Standard Models/4% Accuracy/Interchangeable Head and "D" Models

Stock No.	Range, in. lb.	Range, ft. lb.	Range, N•m	Shank Diameter	Housing Color	Length, inches
TECH1J240	24-240	2-20	2.7-27.12	J (0.425")	Red	13 3/4
TECH2Y100	60-1,200	5-100	6.7-135	Y (0.560")	Red	15 1/2
TECH3X250	300-3,000	25-250	34-339	X (0.735")	Red	23 3/4
TECH4Z600	720-7,200	60-600	81-813	Z (0.990")	Red	42
TECH1JD240	24-240	2-20	2.7-27.12	J (0.425")	Grey	13 3/4
TECH2YD100	60-1,200	5-100	6.7-135	Y (0.560")	Grey	15 1/2
TECH3XD250	300-3,000	25-250	34-339	X (0.735")	Grey	23 3/4
TECH4ZD600	720-7,200	60-600	81-813	Z (0.990")	Grey	42

Wrench length specification does not include the length of interchangeable heads. The certification of accuracy provided per ASME and ISO Standards is 20% to 100% of full scale. See pg 237-239 for Interchangeable Tool Heads.



TECH2FRM100

Memory Models/1% Accuracy/Ratcheting/Flex Head

Specifications	TECH1FRM240	TECH2FRM100	TECH3FRM250	TECH4RM600
Square Drive, inches	1/4	3/8	1/2	3/4
Head Type	Flex Head	Flex Head	Flex Head	Fixed Ratchet
Gear Teeth	36	36	36	32
Gear Action	10°	10°	10°	11°
Range, in. lb.	24-240	60-1,200	300-3,000	720-7,200
Range, ft. lb.	2-20	5-100	25-250	60-600
Range, N•m	2.7-27.12	6.7-135	34-339	81-813
Head Depth, inches	7/16	5/8	3/4	1 1/4
Head Width, inches	7/8	1 5/32	1 5/8	2 1/2
Torque Setting Resolution	0.1 ft. lb. (0.1 N•m, 1 in. lb.)	1 ft. lb. (1 N•m, 1 in. lb.)	1 ft. lb. (1 N•m, 1 in. lb.)	1 ft. lb. (1 N•m, 1 in. lb.)
Overall Length, in. (mm)	15 (381)	17 (432)	26 (660)	48 (1,219)
Ratchet Service Kit	RKRT936	RKRF936	RKRS936	RKRQC4
Housing Color	—	Grey	Red	—
Weight, lbs. (kg)	1.7 (.77)	2.2 (.98)	3.7 (1.68)	10.0 (4.54)

The certification of accuracy provided per ASME and ISO standards is 20% to 100% of full scale.



TECH2YDM100

Adjustable Click-Type

The QD Series of click-type Torque Instruments features an innovative design that provides consistently accurate readings and rugged, trouble-free performance.

Features:

- **Certificate of Calibration.** A Certificate of Calibration (right) is packed with every QD series torque instrument. Actual certification readings and individual instrument serial number are included. Each torque instrument, as calibrated at the factory, is certified to meet the accuracy specified in ASME and was calibrated on a torque standard traceable to the National Institute of Standards Technology (NIST)
- **Accuracy.** All QD series torque instruments are accurate to $\pm 4\%$ clockwise and $\pm 6\%$ counterclockwise from 20% of full scale to full scale
- **Long Life Ratchet Head.** QD series torque instruments feature the Snap-on® high strength sealed ratchet head. Sealed ratchet heads keep out dirt and moisture while being virtually maintenance free. Applies to all QD series ratchet head models. (U.S. Patent 6,125,722) applies to 1/4", 3/8" and 1/2" drive ratchet head models only
- **Minimal Friction "Hour Glass" Cam.** Retains and releases lubricant where needed to reduce friction

Snap-on Certificate of Calibration										
Model No.	QD2FR75				Serial Number	0198492147				
Type	Micrometer adjustable				Calibration equipment	Vorsatest				
Range	15.00 ft-lb - 75.00 ft-lb				Accuracy of calibrator	.25%				
Manufacturer	Snap-on									
Set Torque (ft-lb)		Readings (ft-lb)								
Clockwise torque (Tolerance: 4.0%)										
15.00	15.11	0.7%	15.11	0.7%	15.11	0.7%	15.11	0.7%	15.11	0.7%
45.00	44.44	-1.2%	44.44	-1.2%	44.44	-1.2%	44.44	-1.2%	44.44	-1.2%
75.00	75.99	1.3%	77.13	2.8%	77.13	2.8%	77.13	2.8%	77.13	2.8%
Counterclockwise torque (Tolerance: 6.0%)										
15.00	15.23	1.5%	15.23	1.5%	15.23	1.5%	15.13	0.9%	15.55	3.7%
45.00	45.20	0.7%	45.20	0.7%	45.20	0.7%	45.20	0.7%	45.20	0.7%
75.00	72.32	-3.6%	72.32	-3.6%	72.32	-3.6%	72.32	-3.6%	72.32	-3.6%
Result: Measured values are within tolerance according to : ISO 6789										
Date	1/21/05	Operator	Eric Brathwaite	Supervisor	Gilbert Cervantes					

- **Laser Marked Scale.** Easier reading with varying light sources
- **Positive Stop.** Instrument cannot be accidentally disassembled if wound down past scale
- **Long-Term Protection.** Each instrument includes a storage case



QD2100



QD2R100



QD2RN50

U.S. Torque Instruments (in. lb.)/ $\pm 4\%$ Accuracy

Square Drive, Inches	Stock No.	Head Style	Gear Teeth	Swing Arc	Range, min.	Range, max.	Increments	Length, in.	Head Width, in.	Head Depth, in.	Storage Case	Ratchet Service Kit
1/4	QD150	Fixed	—	—	10 in. lb.	50 in. lb.	.5 in. lb.	9 3/4	5/8	13/16	PBQD1	—
1/4	QD1R50	Fixed Ratchet	36	10°	10 in. lb.	50 in. lb.	.5 in. lb.	9 7/8	7/8	7/16	PBQD1	RKRT936
1/4	QD1200	Fixed	—	—	40 in. lb.	200 in. lb.	1 in. lb.	10 15/16	5/8	13/16	PBQD1	—
1/4	QD1R200	Fixed Ratchet	36	10°	40 in. lb.	200 in. lb.	1 in. lb.	11 1/16	7/8	7/16	PBQD1	RKRT936
3/8	QD2R200	Compact Ratchet	36	10°	40 in. lb.	200 in. lb.	1 in. lb.	11 1/16	7/8	7/16	PBQD1	RKRF936
3/8	QD21000	Fixed	—	—	200 in. lb.	1,000 in. lb.	5 in. lb.	14 9/16	1	1 3/16	PBQD2	—
3/8	QD2R1000	Fixed Ratchet	36	10°	200 in. lb.	1,000 in. lb.	5 in. lb.	15 9/16	1 5/32	9/16	PBQD2	RKRF936
1/2	QD3R1600	Fixed Ratchet	36	10°	320 in. lb.	1,600 in. lb.	10 in. lb.	19	1 5/8	3/4	PBQD3	RKRS936
1/2	QD32500	Fixed	—	—	500 in. lb.	2,500 in. lb.	10 in. lb.	18 1/8	1	1 1/4	PBQD3	—
1/2	QD3R2500	Fixed Ratchet	36	10°	500 in. lb.	2,500 in. lb.	10 in. lb.	19 1/8	1 5/8	3/4	PBQD3	RKRS936

U.S. Torque Instruments (ft. lb.)

3/8	QD275	Fixed	—	—	15 ft. lb.	75 ft. lb.	.5 ft. lb.	14 9/16	1	1 3/16	PBQD2	—
3/8	QD2FR75	Flex Ratchet	36	10°	15 ft. lb.	75 ft. lb.	.5 ft. lb.	15 3/4	1 5/32	9/16	PBQD2	RKRF936
3/8	QD2100	Fixed	—	—	20 ft. lb.	100 ft. lb.	.5 ft. lb.	14 9/16	1	1 3/16	PBQD2	—
3/8	QD2R100	Fixed Ratchet	36	10°	20 ft. lb.	100 ft. lb.	.5 ft. lb.	15 9/16	1 5/32	9/16	PBQD2	RKRF936
1/2	QD3150	Fixed	—	—	30 ft. lb.	150 ft. lb.	1 ft. lb.	18	1	1 1/4	PBQD3	—
1/2	QD3R150	Fixed Ratchet	36	10°	30 ft. lb.	150 ft. lb.	1 ft. lb.	19	1 5/8	3/4	PBQD3	RKRS936
1/2	QD3250	Fixed	—	—	50 ft. lb.	250 ft. lb.	1 ft. lb.	23 3/16	1	1 1/4	PBQD3	—
1/2	QD3R250	Fixed Ratchet	36	10°	50 ft. lb.	250 ft. lb.	1 ft. lb.	24 3/16	1 5/8	3/4	PBQD3	RKRS936
1/2	BRUTUS3R250D	Fixed Ratchet	36	10°	50 ft. lb.	250 ft. lb.	1 ft. lb.	28	1 3/8	3/4	—	RKRS936
3/4	QD4400	Fixed	—	—	80 ft. lb.	400 ft. lb.	2.5 ft. lb.	33 3/4	1 1/2	1 1/2	PBQC4	—
3/4	QD4R400	Fixed Ratchet	32	11°	80 ft. lb.	400 ft. lb.	2.5 ft. lb.	35 3/4	2 1/2	1 1/4	PBQC4	RKRQC4
3/4	QD4600	Fixed	—	—	120 ft. lb.	600 ft. lb.	5 ft. lb.	40 3/4	1 1/2	1 1/2	PBQC4	—
3/4	QD4R600	Fixed Ratchet	32	11°	120 ft. lb.	600 ft. lb.	5 ft. lb.	42 3/4	2 1/2	1 1/4	PBQC4	RKRQC4
1	QD5R1000	Fixed Ratchet	30	12°	200 ft. lb.	1,000 ft. lb.	5 ft. lb.	71	3 1/8	1 1/2	PBQC5	RKRQC5

Metric Torque Instruments (kg•m, kg•cm)

3/8	QD2RM1000	Flex Head	36	10°	200 kg•cm	1,000 kg•cm	5 kg•cm	15 9/16	1 5/32	9/16	PBQD2	RKRF936
1/2	QD3RM30	Fixed Ratchet	36	10°	6 kgm	30 kgm	.2 kgm	19	1 5/8	3/4	PBQD3	RKRS936

Newton Meter Torque Wrenches/ $\pm 4\%$ Accuracy

1/4	QD1RN6	Fixed Ratchet	36	10°	12 dN•m	60 dN•m	.5 dN•m	9 7/8	7/8	7/16	PBQD1	RKRT936
1/4	QD1RN25	Fixed Ratchet	36	10°	50 dN•m	250 dN•m	1 dN•m	11 3/4	7/8	7/16	PBQD1	RKRT936
3/8	QD2RN25	Compact Ratchet	36	10°	50 dN•m	250 dN•m	1 dN•m	11 3/4	7/8	7/16	PBQD2	RKRF936
3/8	QD2RN50	Fixed Ratchet	36	10°	10 N•m	50 N•m	.5 N•m	15 9/16	1 5/32	9/16	PBQD2	RKRF936
3/8	QD2RN100	Fixed Ratchet	36	10°	20 N•m	100 N•m	.5 N•m	15 9/16	1 5/32	9/16	PBQD2	RKRF936
1/2	QD3RN200	Fixed Ratchet	36	10°	40 N•m	200 N•m	2 N•m	19	1 5/8	3/4	PBQD3	RKRS936
1/2	QD3RN350	Fixed Ratchet	36	10°	70 N•m	350 N•m	2 N•m	24 3/16	1 5/8	3/4	PBQD3	RKRS936
3/4	QD4RN800	Fixed Ratchet	32	11°	150 N•m	800 N•m	5 N•m	42 3/4	2 1/2	1 1/4	PBQC4	RKRQC4

*All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)

All wrenches and drivers are calibrated per ASME and ISO standards for accuracy, from 20% to 100% of full scale, using NIST traceable equipment.



WARNING



• Do not exceed rated torque • Do not use to break fasteners loose

• Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages 594 to 597

TORQUE

Adjustable Click-Type, TQ Series

TQ Thumb Wheel Series:

- Flex Head Models — offer sealed Snap-on® ratchets, which flex up to 15° to provide knuckle and obstruction clearance
- Fixed Ratchet Models — offer a sealed Snap-on ratchet that is rigidly fixed in line with the torque body
- Snap-on Sealed Ratchet Head — virtually maintenance free; more time working with the tool, less time on tool maintenance
- Thumb Screw Type Adjustment — faster than cycling through a micrometer style torque wrench. Guard prevents setting from being changed accidentally. Setting is displayed in window. Conversion table to N•m displayed on handle
- Sealed Neck — keeps dust and grit away from the torque mechanism for longer tool life
- “Split Beam” Measuring Element — provides accurate, reliable readings and eliminates the heavy coil spring used in conventional click type wrenches. This yields fewer moving parts, reducing friction and wear

- Cushion Grip Handle — provides comfort plus control and resists most automotive fluids
- Designed for measuring torque in a clockwise direction only. Wrench is not reversible
- EU — GB, FR, ES, DE

Guaranteed Accuracy:

TQ Series - Accurate within ±4% of any clockwise setting from 20% of full scale to full scale.

TQR400E/TQR600E

- Only ±4% of setting when used in the following orientations:
- Main body vertical orientation
- Torque wrench square drive axis with vertical orientation
- In all other positions, guaranteed accuracy is ±5%. Accuracy is guaranteed in the clockwise direction from 20% of capacity to full capacity



TQFR100B



TQFR250E



TQR600E

U.S. Reading Torque Wrenches with Conversion Scale/±4% Accuracy

Square Drive, in.	Stock No.	Head Style	Gear Teeth	Swing Arc	Range, max.	Range, min.	Increments	Length, inches	Head Width, inches	Head Depth,* inches	Ratchet Service Kit
3/8	TQFR50B	Flex Head	30	12°	600 in. lb.	120 in. lb.	10 in. lb.	17 5/8	1 1/8	9/16	RKQJA2D
3/8	TQFR100B	Flex Head	30	12°	100 ft. lb.	20 ft. lb.	2 ft. lb.	17 5/8	1 1/8	9/16	RKQJA2D
3/8	TQR100B	Fixed Ratchet	30	12°	100 ft. lb.	20 ft. lb.	2 ft. lb.	18 5/8	1 5/32	5/8	RKRF936
1/2	TQFR250E	Flex Head	36	10°	250 ft. lb.	50 ft. lb.	5 ft. lb.	22 3/8	1 5/8	3/4	RKRS936
1/2	TQR250E	Fixed Ratchet	36	10°	250 ft. lb.	50 ft. lb.	5 ft. lb.	22 3/8	1 5/8	3/4	RKRS936
3/4	TQR400E**	Detach Ratchet	32	11°	400 ft. lb.	80 ft. lb.	10 ft. lb.	38 1/8	2 1/2	1 1/4	RKRTQ4
3/4	TQR600E**	Detach Ratchet	32	11°	600 ft. lb.	120 ft. lb.	10 ft. lb.	48 5/8	2 1/2	1 1/4	RKRTQ4

Newton Meter Torque Wrenches with Conversion Scale/±4% Accuracy

3/8	TQFRN130B	Flex Head	30	12°	130 N•m	25 N•m	5 N•m	17 5/8	1 1/8	9/16	RKQJA2D
3/8	TQFRN68B	Flex Head	30	12°	68 N•m	14 N•m	2 N•m	17 5/8	1 1/8	9/16	RKQJA2D
1/2	TQFRN350D	Flex Head	32	11°	350 N•m	70 N•m	5 N•m	22 1/8	1 5/8	3/4	R33BFRK

Metric Torque Wrenches with Conversion Scale/±4% Accuracy

1/2	TQFRM34D	Flex Ratchet	32	11°	5.0 kg•m	34 kg•m	1.0 kg•m	22 1/8	1 5/8	3/4	RKTQ3
3/4	TQFRM80C	Detach Ratchet	32	11°	26.0 kg•m	80 kg•m	2.0 kg•m	48	2 3/8	1 1/4	RKRQC4

All wrenches are non-reversible.

*Does not include square drive dimension.

**3-piece construction disassembles for storage/transport.

**All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)
All wrenches and drivers are calibrated per ASME and ISO standards for accuracy, from 20% to 100% of full scale, using NIST traceable equipment.*



TE50FUA



TE175L



U.S. Reading/Standard 2% Accuracy

Square Drive, inches	Basic Models Stock No.	Follow-up Models Stock No.	Signal Models Stock No.	Range	Increments	Length, inches	Width, inches	Head* Depth, inches	Storage Case
1/4	TE1A	TE1FUA	—	15 in. lb.	1/4 in. lb.	9 29/32	2 11/16	1 1/4	PB9
1/4	TE3A	TE3FUA	—	30 in. lb.	1/2 in. lb.	9 29/32	2 11/16	1 1/4	PB9
1/4	TE6A	TE6FUA	—	75 in. lb.	1 in. lb.	9 29/32	2 11/16	1 1/4	PB9
3/8	TE12A	TE12FUA	TE12LA	150 in. lb.	2 1/2 in. lb.	9 29/32	2 11/16	1 1/4	PB9
3/8	TE25A	TE25FUA	TE25LA	300 in. lb.	5 in. lb.	9 29/32	2 11/16	1 1/4	PB9
3/8	TE50A	TE50FUA	TE50LA	600 in. lb.	10 in. lb.	12 1/2	2 11/16	1 1/4	PB9
3/8	TE12FA	TE12FFUA	TE12FLA	12 ft. lb.	1/2 ft. lb.	9 29/32	2 11/16	1 1/4	PB9
3/8	TE25FA	TE25FFUA	TE25FLA	25 ft. lb.	1/2 ft. lb.	9 29/32	2 11/16	1 1/4	PB9
3/8	TE50FA	TE50FFUA	TE50FLA	50 ft. lb.	1 ft. lb.	12 1/2	2 11/16	1 1/4	PB9
1/2	TE51	TE51FU	TE51L	600 in. lb.	10 in. lb.	15	2 11/16	1 5/16	—
1/2	TE51F	TE51FFU	TE51FL	50 ft. lb.	1 ft. lb.	15	2 11/16	1 5/16	—
1/2	TE100	TE100FU	TE100L	100 ft. lb.	1 ft. lb.	16	2 3/4	1 3/8	PBR5
1/2	TE175	TE175FU	TE175L	175 ft. lb.	2 1/2 ft. lb.	18 3/4	2 3/4	1 3/8	PBR5
1/2	TE250	TE250FU	TE250L	250 ft. lb.	5 ft. lb.	23 3/4	2 3/4	1 3/8	PB8A
3/4	TE352A	TE352FUA	TE352LA	350 ft. lb.	5 ft. lb.	29 7/8	3 1/4	1 25/32	—
3/4	TE602A	TE602FUA	TE602LA	600 ft. lb.	10 ft. lb.	40 7/8	3 1/4	1 25/32	PB39
1	TE803**	TE803FU**	TE803L**	800 ft. lb.	10 ft. lb.	66 13/16	3 9/16	2 1/2	—
1	TE1003**	TE1003FU**	TE1003L**	1,000 ft. lb.	10 ft. lb.	66 13/16	3 9/16	2 1/2	—
1	TE1503†	TE1503FU†	TE1503L†	1,500 ft. lb.	25 ft. lb.	80	4 13/32	2 1/8	—
1	TE2003†	TE2003FU†	TE2003L†	2,000 ft. lb.	25 ft. lb.	80	4 13/32	2 1/8	—
1 1/2	TE2005†	TE2005FU†	TE2005L†	2,000 ft. lb.	25 ft. lb.	80	3 9/16	2 3/8	—
1 1/2	TE3005†	TE3005FU	TE3005L	3,000 ft. lb.	50 ft. lb.	140	5 1/2	2 13/16	—



TESI75



TESI75L

Newton Meter Reading/Standard 2% Accuracy

Square Drive, inches	Basic Models Stock No.	Follow-up Models Stock No.	Signal Models Stock No.	Range, N•m	Increments, N•m	Length, inches	Width, inches	Head* Depth, inches	Storage Case
1/4	TESI5	TESI5FU	TESI5L	5	.2	9 29/32	2 11/16	1 1/4	PB9
1/4	TESI10	TESI10FU	TESI10L	10	.5	9 29/32	2 11/16	1 1/4	PB9
3/8	TESI20	TESI20FU	TESI20L	20	.5	9 29/32	2 11/16	1 1/4	PB9
3/8	TESI30	TESI30FU	TESI30L	30	1	9 29/32	2 11/16	1 1/4	PB9
3/8	TESI60	TESI60FU	TESI60L	60	2	12 1/2	2 11/16	1 1/4	PB9
3/8	TESI70	TESI70FU	TESI70L	70	2	12 1/2	2 11/16	1 1/4	PB9
3/8	TESI75	TESI75FU	TESI75L	75	1	12 1/2	2 11/16	1 1/4	PB9
1/2	TESI125	TESI125FU	TESI125L	125	5	16	2 11/16	1 3/8	PBR5
1/2	TESI200	TESI200FU	TESI200L	200	5	18 3/4	2 3/4	1 3/8	PBR5
1/2	TESI250	TESI250FU	TESI250L	250	5	18 3/4	2 3/4	1 3/8	PBR5
3/4	TESI500A	TESI500FUA	TESI500LA	500	10	29 7/8	3 1/4	1 25/32	PB39
3/4	TESI800A	TESI800FUA	TESI800LA	800	20	40 7/8	3 1/4	1 25/32	PB39
1	TESI1360**	TESI1360FU**	TESI1360L**	1,360	20	66 13/16	3 9/16	2 1/2	—
1	—	TESI2803FU†	TESI2803L†	2,800	50	80	4 13/32	2 1/8	—
1 1/2	TESI2805†	—	—	2,800	50	80	4 25/32	2 3/8	—
1 1/2	—	TESI4000FU	TESI4000L	4,000	100	140	5 1/2	2 13/16	—

*Does not include square drive dimension.

**Includes separately packed 92TQPA 4' tubular extension handle.

†Includes separately packed 93TQPA 5' tubular extension handle.

Guaranteed Accuracy:

Standard 2% models are accurate within ±2% of the reading from 20% of full scale to full scale clockwise and counterclockwise.



WARNING



- Do not exceed rated torque • Do not use to break fasteners loose
- Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages 594 to 597

TORQUE

TORQOMETER®



TER175



TER175L

Combination U.S./Newton Meter Reading - Precise 1% Accuracy

Square Drive, Inches	Basic Models Stock No.	Follow up Models Stock No.	Signal Models Stock No.	N•m Range	N•m Increments	U.S. Range	U.S. Increments	Length, inches	Width, inches	Head* Depth, inches	Storage Case
1/4	TER1A	TER1FUA	—	1.7 N•m	.05 N•m	15 in. lb.	.5 in. lb.	9 29/32	2 11/16	1 1/4	PB9
1/4	TER3A	TER3FUA	—	3.5 N•m	0.1 N•m	30 in. lb.	1 in. lb.	9 29/32	2 11/16	1 1/4	PB9
1/4	TER6A	TER6FUA	—	8.4 N•m	0.2 N•m	75 in. lb.	1 in. lb.	9 29/32	2 11/16	1 1/4	PB9
3/8	TER12A	TER12FUA	TER12LA	17 N•m	.5 N•m	150 in. lb.	5 in. lb.	9 29/32	2 11/16	1 1/4	PB9
3/8	TER25A	TER25FUA	TER25LA	3,200 N•cm	50 N•cm	300 in. lb.	5 in. lb.	9 29/32	2 11/16	1 1/4	PB9
3/8	TER50A	TER50FUA	TER50LA	60 N•m	1 N•m	600 in. lb.	20 in. lb.	12 1/2	2 11/16	1 1/4	PB9
1/2	TER51	TER51FU	TER51L	60 N•m	1 N•m	600 in. lb.	20 in. lb.	15	2 11/16	1 5/16	—
1/2	TER100	TER100FU	TER100L	140 N•m	5 N•m	100 ft. lb.	2 ft. lb.	16	2 3/4	1 3/8	PBR5
1/2	TER175	TER175FU	TER175L	230 N•m	10 N•m	175 ft. lb.	5 ft. lb.	18 3/4	2 3/4	1 3/8	PBR5
1/2	TER250	—	TER250L	340 N•m	10 N•m	250 ft. lb.	10 ft. lb.	23 3/4	2 3/4	1 3/8	PB8A
3/4	TER352A	TER352FUA	TER352LA	480 N•m	10 N•m	350 ft. lb.	5 ft. lb.	29 7/8	3 1/4	1 3/8	PB39
3/4	TER602A	TER602FUA	TER602LA	800 N•m	20 N•m	600 ft. lb.	20 ft. lb.	40 7/8	3 1/4	1 25/32	PB39
1	TER1003**	TER1003FU**	TER1003L**	1,360 N•m	20 N•m	1,000 ft. lb.	20 ft. lb.	66 13/16	3 9/16	2 1/32	—



TEC175



TEC175L

Combination U.S./Metric Reading - Standard 2% Accuracy

Square Drive, Inches	Basic Models Stock No.	Follow up Models Stock No.	Signal Models Stock No.	Metric Range	Metric Increments	U.S. Range	U.S. Increments	Length, inches	Width, inches	Head* Depth, inches	Storage Case
1/4	TEC1A	TEC1FUA	—	16 kg•cm	1 kg•cm	15 in. lb.	.5 in. lb.	9 29/32	2 11/16	1 1/4	PB9
1/4	TEC3A	TEC3FUA	—	35 kg•cm	1 kg•cm	30 in. lb.	1 in. lb.	9 29/32	2 11/16	1 1/4	PB9
1/4	TEC6A	TEC6FUA	—	90 kg•cm	2.5 kg•cm	75 in. lb.	1 in. lb.	9 29/32	2 11/16	1 1/4	PB9
3/8	TEC12A	TEC12FUA	TEC12LA	175 kg•cm	5 kg•cm	150 in. lb.	5 in. lb.	9 29/32	2 11/16	1 1/4	PB9
3/8	TEC25FA	TEC25FFUA	TEC25FLA	350 kg•cm	10 kg•cm	25 ft. lb.	1 ft. lb.	9 29/32	2 11/16	1 1/4	PB9
3/8	TEC50A	TEC50FUA	TEC50LA	700 kg•cm	20 kg•cm	600 in. lb.	20 in. lb.	12 1/2	2 11/16	1 1/4	PB9
1/2	TEC51	TEC51FU	TEC51L	700 kg•cm	20 kg•cm	600 in. lb.	20 in. lb.	15	2 11/16	1 5/16	—
1/2	TEC100	TEC100FU	TEC100L	14 kg•m	.5 kg•m	100 ft. lb.	2 ft. lb.	16	2 3/4	1 3/8	PBR5
1/2	TEC175	TEC175FU	TEC175L	25 kg•m	1 kg•m	175 ft. lb.	5 ft. lb.	18 3/4	2 3/4	1 3/8	PBR5
1/2	TEC250	TEC250FU	TEC250L	35 kg•m	1 kg•m	250 ft. lb.	10 ft. lb.	23 3/4	2 3/4	1 3/8	PB8A
3/4	TEC352A	TEC352FUA	TEC352LA	50 kg•m	1 kg•m	350 ft. lb.	10 ft. lb.	29 7/8	3 1/4	1 29/32	PB39
3/4	TEC602A	TEC602FUA	TEC602LA	80 kg•m	2 kg•m	600 ft. lb.	20 ft. lb.	40 7/8	3 1/4	1 25/32	PB39
1	TEC803**	TEC803FU**	TEC803L**	110 kg•m	2 kg•m	800 ft. lb.	25 ft. lb.	66 13/16	3 9/16	2 1/32	—
1	—	TEC1003FU**	TEC1003L**	136 kg•m	2 kg•m	1,000 ft. lb.	20 ft. lb.	66 13/16	3 9/16	2 1/32	—
1	—	TEC1503FU†	TEC1503L†	200 kg•m	5 kg•m	1,500 ft. lb.	25 ft. lb.	80	4 13/32	2 1/8	—
1	—	TEC2003FU†	TEC2003L†	280 kg•m	5 kg•m	2,000 ft. lb.	50 ft. lb.	80	4 13/32	2 1/8	—
1 1/2	TEC2005†	TEC2005FU†	TEC2005L†	280 kg•m	5 kg•m	2,000 ft. lb.	50 ft. lb.	80	4 13/32	2 3/8	—
1 1/2	—	TEC3005FU	TEC3005L	400 kg•m	5 kg•m	3,000 ft. lb.	50 ft. lb.	140	5 1/2	2 13/16	—

*Does not include square drive dimension.

**Includes separately packed 92TQPA 4" tubular extension handle.

†Includes separately packed 93TQPA 5" tubular extension handle.

Guaranteed Accuracy:

Precise 1% models are accurate within $\pm 1\%$ of the reading from 20% of full scale to full scale clockwise and counterclockwise.

Standard 2% models are accurate within $\pm 2\%$ of the reading from 20% of full scale to full scale clockwise and counterclockwise.

**All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)
All wrenches and drivers are calibrated per ASME and ISO standards for accuracy, from 20% to 100% of full scale, using NIST traceable equipment.*

T-handle TORQOMETER®



TEX602TLA



TEXC2003TFU



85TQP

U.S. Reading Standard 2% Accuracy

Input Drive Female Sq., in.	Output Drive Male Sq., in.	Follow up Models Stock No.	Light Signal Models Stock No.	U.S. Range, ft. lb.	U.S. Increments, ft. lb.	Metric Range kg•m	Metric Increments, kg•m	Length, inches	Width, inches	Head Depth, inches	Optional "T" Bars/Extension Handles			
											"T" Bars	Length, inches	Ext., inches	Length, inches
3/4	3/4	TEX602TFUA	TEX602TLA	600	10	—	—	9	3 1/4	3 3/4	79TQP	45	—	—
3/4	1	TEX1003TFUA	TEX1003TLA	1,000	10	—	—	9 7/8	3 3/8	4 1/8	81TQP	66	—	—
1	1	—	TEX2003TL	2,000	25	—	—	10 7/8	4 3/8	4 7/16	82TQP	18	85TQP	31
1	1 1/2	TEX2005TFU	—	2,000	25	—	—	10 7/8	4 3/8	4 7/16	82TQP	18	85TQP	31

Combination U.S./Metric Reading

3/4	3/4	TEXC602TFUA	TEXC602TLA	600	20	80	2	9	3 1/4	3 3/4	79TQP	45	—	—
3/4	1	TEXC1003TFUA	TEXC1003TLA	1,000	20	136	2	9 7/8	3 3/8	4 1/8	81TQP	66	—	—
1	1	TEXC2003TFU	TEXC2003TL	2,000	50	280	5	10 7/8	4 3/8	4 7/16	82TQP	18	85TQP	31

TORQOMETER Torque Drivers - 1/4" Drive



TQSC4FUA



TQSSC4FUA

U.S. Reading Standard 2% Accuracy

Standard Basic Models Stock No.	Standard Follow up Models Stock No.	Length, inches	Stubby Basic Models Stock No.	Stubby Follow up Models Stock No.	Length, inches	Range	Increments
TQS025A	TQS025FUA	7 3/4	TQSS025A	TQSS025FUA	5 1/4	48 in. oz./3 in. lb.	1 in. oz./ 1/16 in. lb.
TQS050A	TQS050FUA	7 3/4	TQSS050A	TQSS050FUA	5 1/4	96 in. oz./6 in. lb.	2 in. oz./ 1/8 in. lb.
TQS1A	TQS1FUA	7 3/4	TQSS1A	TQSS1FUA	5 1/4	192 in. oz./12 in. lb.	4 in. oz./ 1/4 in. lb.
TQS2A	TQS2FUA	7 3/4	TQSS2A	TQSS2FUA	5 1/4	384 in. oz./24 in. lb.	8 in. oz./ 1/2 in. lb.
TQS2.5A	TQS2.5FUA	7 3/4	TQSS2.5A	TQSS2.5FUA	5 1/4	480 in. oz./30 in. lb.	12 in. oz./1 in. lb.
TQS4A*	TQS4FUA*	8 11/16	TQSS4A*	TQSS4FUA*	5 1/4	50 in. lb.	1 in. lb.
TQS6A*	TQS6FUA*	8 11/16	TQSS6A*	TQSS6FUA*	5 1/4	75 in. lb.	1 in. lb.

Combination U.S./Metric Reading - Standard 2% Accuracy

—	TQSC1FUA	7 3/4	—	TQSSC1FUA	5 1/4	17 kg•cm/15 in. lb.	.5 kg•cm/.5 in. lb.
—	TQSC2.5FUA	7 3/4	—	TQSSC2.5FUA	5 1/4	35 kg•cm/30 in. lb.	1 kg•cm/1 in. lb.
—	TQSC4FUA*	8 11/16	—	TQSSC4FUA*	5 1/4	56 kg•cm/50 in. lb.	2 kg•cm/2 in. lb.
—	TQSR6FUA	—	—	TQSSC6FUA*	5 1/4	90 kg•cm/75 in. lb.	3 kg•cm/5 in. lb.

Combination U.S./Newton Meter Reading - Standard 2% Accuracy**

—	TQSR1FUA	7 3/4	—	—	—	160 N•cm/15 in. lb.	5 N•cm/.25 in. lb.
—	TQSR2.5FUA	7 3/4	—	—	—	3.4 N•m/30 in. lb.	.1 N•m/1 in. lb.
—	TQSR4FUA*	8 11/16	—	—	—	550 N•cm/50 in. lb.	10 N•m/1 in. lb.
—	TQSR6FUA*	8 11/16	—	—	—	8.4 N•m/75 in. lb.	.2 N•m/5 in. lb.

All drivers come in PB47 Plastic Case.

*Includes 1/4" internal square drive in handle.

** Precise 1% models are available on special order.

ANSI Spec. B107.14.2004 applies to all these models.

Torque Angle Gauges

TA358 Torque Angle Gauge.

- Determines angle controlled torque tightening
- Allows user to follow manufacturer's specifications
- Use on automotive, diesel and industrial equipment plus head bolts and rod bolts on motorcycles
- 3/8" square drive

TA362 Torque Angle Gauge.

- Allows user to follow manufacturer's specifications
- Calibrated in degrees in large, easy-to-read increments
- 3/4" square drive

TA360 Torque Angle Gauge.

- Similar to TA362 except 1/2" square drive



TA362



WARNING



• Do not exceed rated torque • Do not use to break fasteners loose

• Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages 594 to 597

TORQUE

Torque Screwdrivers



QDRIVER3P

Preset Torque Screwdrivers/±6% Accuracy

- Ideal for low torque assemblies and precision application
- Drivers accept all standard 1/4" hex screwdriver bits
- Cam-over torque limiting clutch free wheels when set torque is achieved
- Accuracy is ±6% from 20% to 100% of full scale in clockwise direction only for all drivers in series
- Lightweight construction features red anodized aluminum body with stainless steel shank
- Comfortable ergonomic tri-lobe grip and magnetic bit retention
- Not supplied with certificate of calibration

Stock No.	Range, minimum	Range, maximum	Length, inches
QDRIVER1P	6 in. oz. (4 N•cm)	32 in. oz. (22 N•cm)	4 9/16
QDRIVER2P	10 in. oz. (7 N•cm)	100 in. oz. (70 N•cm)	5 5/8
QDRIVER3P	1.5 in. lb. (16 N•cm)	15 in. lb. (169 N•cm)	5 5/8
QDRIVER4P	4 in. lb. (45 N•cm)	40 in. lb. (451 N•cm)	6



QDRIVER3

Adjustable Torque Screwdrivers/±6% Accuracy

- Ideal for low torque assemblies, precision applications and dash/under dash work on most domestic and imported vehicles
- Drivers accept all standard 1/4" hex screwdriver bits
- Cam-over torque limiting clutch free wheels when set torque is achieved
- Accuracy is ±6% from 20% to 100% of full scale in clockwise direction only for all drivers in series
- Lightweight construction features red anodized aluminum body with stainless steel shank
- Comfortable ergonomic tri-lobe grip and magnetic bit retention

Stock No.	Range	Resolution	Length, inches
QDRIVER2	20 - 100 in. oz. (14 - 70 N•cm)	1 in. oz.	5 7/16
QDRIVER3	3 - 15 in. lb. (34 - 169 N•cm)	.2 in. lb.	5 7/16
QDRIVER4	5 - 40 in. lb. (56 - 451 N•cm)	.5 in. lb.	6 11/16
QDRIVER4NM	90 - 450 N•cm		6 11/16

Torque Limiting Drivers/±4% Accuracy

QTS135 Adjustable Limiting Driver.

- Micrometer type adjustment
- Clutch allows 25° of free rotation on reaching set torque
- Guaranteed accuracy: within ±4% of setting from 20% of capacity to full capacity clockwise and counterclockwise

Stock No.	Range, minimum	Range, maximum	Increments	Length, inches
QTS135	5 in. lb.	35 in. lb.	0.5 in. lb.	7



QTS135

QTSP135 U.S. Preset Limiting Driver.

- Clutch mechanism to help prevent over torquing by allowing free rotation upon reaching the set torque value
- Ideal selection for assembly line work where the same requirement is constant
- Can be reset at different torque values or readjusted for accuracy whenever necessary

Interchangeable Head, Click Type Torque Wrenches

- Selection—there are 2 adjustable models for quickly setting desired torque and 8 preset models for assembly line work
- Slim profile—each torque body is thin enough and long enough to get into tight areas
- Micrometer type adjustment—ensures fast, accurate settings and changes
- Guaranteed accuracy—all QC series interchangeable torque wrenches are accurate ±4% clockwise and ±6% counterclockwise from 20% of full scale to full scale

Interchangeable heads permit ratcheting, fixed, or open end torquing capability with either adjustable or preset torque wrench bodies. A push of the locking pin provides quick change action, with a wide range of head styles to choose from.



QC1I200



QC1P300



QC3P200

Torque Wrench Bodies/Adjustable/±4% Accuracy

Stock No.	Model Type	Shank Dia.	Range	Increments	Length, inches
QC1I200	Adjustable	J (0.425")	40-200 in. lb.	1 in. lb.	9 3/8
QC2I75	Adjustable	J (0.425")	5-75 ft. lb.	.5 ft. lb.	13

Torque Wrench Bodies/Pre-Set/±4% Accuracy

Stock No.	Model Type	Shank Dia.	Range	Length, inches
QC1P60	Preset	J (0.425")	10-60 in. lb. (11-66 dN•m)	6
QC1P100	Preset	J (0.425")	15-100 in. lb. (17-113 dN•m)	8
QC1P300	Preset	J (0.425")	60-300 in. lb. (68-339 dN•m)	10
QC2P75	Preset	J (0.425")	5-75 ft. lb. (7-100 N•m)	11
QC3P150	Preset	Y (0.560")	30-150 ft. lb. (41-203 N•m)	23
QC3P200	Preset	Y (0.560")	40-200 ft. lb. (55-270 N•m)	23
QC4P300	Preset	X (0.735")	60-300 ft. lb. (82-400 N•m)	27

Heads for Interchangeable Head, Click-Type



QJD12A

Square Drive Heads/Ratcheting

Allow use of torque wrench bodies on previous page with sockets, crowfoot wrenches, or other similar attachment.

Square Drive, inches	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	Head O.D., in.	Depth, in.	Center of Fastener to Retaining Pin	Ratchet Service Kit
1/4	QJD8A-72** (350)	—	—	—	17/32	9/64	QJD Series - 2.50"	RKRT936
3/8	QJD12A** (900)	QYD12A** (1,200)	—	—	21/32	11/64	QYD Series - 3.00"	RKRF936
1/2	QJD16A** (900)	QYD16A** (2,400)	QXD16A** (3,000)	—	21/32	11/64	QXD Series - 4.50"	RKRS936
3/4	—	—	QXD24A (3,600)	QZD24B (7,200)	25/32	11/64	QZD Series - 5.75"	RKRQC4
1	—	—	QXD32A (3,600)	QZD32B (7,200)	29/32	11/64	—	RKRQC5

(** U.S. Patent 6,125,722 applies to these ratchet heads.)

Value in parentheses in chart is the Maximum Recommended Working Torque, in. lb.

Square Drive Heads/Fixed

Allow use of torque wrench bodies on previous page with sockets, crowfoot wrenches, or other similar attachments.

Square Drive, inches	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	Center of Fastener to Retaining Pin
1/4	QJSD8A (350)	—	—	—	QJD Series - 2.50"
3/8	QJSD12A (900)	QYSD12A (1,200)	—	—	QYD Series - 3.00"
1/2	QJSD16A (900)	QYSD16A (2,400)	QXSD16A (3,000)	—	QXD Series - 4.50"
3/4	—	—	QXSD24A (3,600)	QZSD24A (7,200)	QZD Series - 5.75"
1	—	—	QXSD32A (3,600)	QZSD32A (7,200)	—



QYSD16A

Value in parentheses is the Maximum Recommended Working Torque, in. lb.

*All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)

All wrenches and drivers are calibrated per ASME and ISO standards for accuracy, from 20% to 100% of full scale, using NIST traceable equipment.

Open End Heads

□	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	O.D., inches	Head Depth, inches
1/4	QJO8A* (55)	—	—	—	17/32	9/64
5/16	QJO10A (110)	—	—	—	21/32	11/64
3/8	QJO12A (220)	—	—	—	25/32	11/64
7/16	QJO14A (310)	—	—	—	29/32	11/64
1/2	QJO16A (410)	—	—	—	1 1/16	11/64
9/16	QJO18A (695)	QYO18A (695)	—	—	1 1/16	11/64 [QJO18A = 9/32]
5/8	QJO20A (835)	QYO20A (835)	—	—	1 5/16	11/64 [QJO20A = 9/32]
11/16	QJO22A (900)	QYO22A (1,185)	—	—	1 7/16	11/64 [QJO22A = 5/16]
3/4	QJO24A (900)	QYO24A (1,500)	QXO24A (1,500)	—	1 19/32	11/64 [QJO24A = 11/32]
13/16	QJO26A (900)	QYO26A (2,310)	QXO26A (1,965)	—	1 23/32	3/8
7/8	QJO28A (900)	QYO28A (2,310)	—	—	1 23/32	3/8
15/16	QJO30A (900)	QYO30A (2,400)	QXO30A (2,400)	—	1 29/32	13/32
1	QJO32A (900)	QYO32A (2,400)	QXO32A (3,575)	QZO32A (3,575)	2 1/32	7/16
1 1/16	QJO34A (900)	QYO34A (2,400)	—	—	2 3/16	15/32
1 1/8	—	QYO36A (2,400)	QXO36A (3,600)	QZO36A (4,400)	2 5/16	15/32
1 3/16	—	—	—	QZO38A (5,200)	2 7/16	1/2
1 1/4	—	QYO40A (2,400)	QXO40A (3,600)	QZO40A (5,775)	2 9/16	17/32
1 5/16	—	QYO42A (2,400)	—	QZO42A (5,600)	2 21/32	9/16
1 3/8	—	QYO44A (2,400)	QXO44A (3,600)	—	2 3/16	19/32
1 7/16	—	QYO46A (2,400)	QXO46A (3,600)	QZO46A (7,200)	3	19/32
1 1/2	—	QYO48A (2,400)	QXO48A (3,600)	QZO48A (7,200)	3 1/16	5/8
1 9/16	—	QYO50A (2,400)	QXO50A (3,600)	QZO50A (7,200)	3 3/16	21/32
1 5/8	—	QYO52A (2,400)	QXO52A (3,600)	QZO52A (7,200)	3 11/32	11/16
1 11/16	—	—	QXO54A (3,600)	QZO54A (7,200)	3 13/32	23/32
1 3/4	—	—	QXO56A (3,600)	QZO56A (7,200)	3 9/16	23/32
1 13/16	—	—	QXO58A (3,600)	QZO58A (7,200)	3 21/32	13/32
1 7/8	—	—	QXO60A (3,600)	QZO60A (7,200)	3 13/16	25/32
2	—	—	QXO64A (3,600)	QZO64A (7,200)	4 1/16	27/32
2 1/16	—	—	—	QZO66A (7,200)	4 3/16	27/32
2 1/8	—	—	—	QZO68A (7,200)	4 5/16	5/8
2 1/4	—	—	—	QZO72A (7,200)	4 9/16	15/16
2 1/4	—	—	—	QZO80A (7,200)	5 1/16	1

Center of fastener to retaining pin:

* QJO Series - 2.50"

* QYO Series - 3.00"

* QXO Series - 4.50"

* QZO Series - 5.75"



QJO28A

Value in parentheses is the Maximum Recommended Working Torque, in. lb.

*Use with QC1P100 and QC11200 Torque Bodies only; other heads may be used with all listed torque bodies.



WARNING



• Do not exceed rated torque • Do not use to break fasteners loose

• Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages 594 to 597

TORQUE

Interchangeable Head, Click-Type

Open End Heads, mm



QJOM11A

Center of fastener
to retaining pin:

- * QJOM Series - 2.50"
- * QYOM Series - 3.00"
- * QXOM Series - 4.50"
- * QZOM Series - 5.75"

mm	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	O.D., mm	Head Depth, mm
6	QJOM6A* (60)	—	—	—	13.5	3.6
7	QJOM7A* (75)	—	—	—	13.5	3.6
8	QJOM8A* (120)	—	—	—	16.5	3.3
9	QJOM9A (170)	—	—	—	19.8	4.8
10	QJOM10A (265)	—	—	—	19.8	4.8
11	QJOM11A (400)	—	—	—	22.9	5.6
12	QJOM12A (430)	—	—	—	26.9	6.1
13	QJOM13A (495)	—	—	—	26.9	6.1
14	QJOM14A (665)	QYOM14A (665)	—	—	29.5	6.6
15	QJOM15A (885)	QYOM15A (885)	—	—	33.3	6.9
16	QJOM16A (900)	QYOM16A (1,060)	—	—	33.3	6.9
17	QJOM17A (900)	QYOM17A (1,235)	—	—	37.1	7.3
18	QJOM18A (900)	QYOM18A (1,375)	QXOM18A (1,375)	—	37.1	7.3
19	QJOM19A (900)	QYOM19A (1,650)	QXOM19A (1,650)	—	40.4	7.6
20	—	QYOM20A (1,925)	QXOM20A (1,925)	—	43.7	9.2
21	QJOM21A (900)	QYOM21A (2,160)	QXOM21A (2,160)	—	43.7	9.2
22	QJOM22A (900)	QYOM22A (2,400)	QXOM22A (2,470)	—	43.7	9.2
23	QJOM23A (900)	QYOM23A (2,400)	QXOM23A (2,745)	—	47	10
24	QJOM24A (900)	QYOM24A (2,400)	QXOM24A (2,970)	QZOM24A (2,970)	49	11
25	QJOM25A (900)	QYOM25A (2,400)	—	QZOM25A (3,295)	52	11
26	QJOM26A (900)	—	QXOM26A (3,570)	QZOM26A (3,570)	53	11
27	QJOM27A (900)	QYOM27A (2,400)	—	QZOM27A (3,825)	55	12
29	—	QYOM29A (2,400)	QXOM29A (3,600)	QZOM29A (4,550)	58	12
30	—	QYOM30A (2,400)	QXOM30A (3,600)	QZOM30A (4,950)	61	13
32	—	QYOM32A (2,400)	QXOM32A (3,600)	QZOM32A (5,755)	65	14
34	—	QYOM34A (2,400)	QXOM34A (3,600)	QZOM34A (6,595)	68	14
36	—	QYOM36A (2,400)	QXOM36A (3,600)	QZOM36A (7,200)	74	15

Value in parentheses is the Maximum Recommended Working Torque, in. lb.

*Use with QC1P100 and QC1I200 Torque bodies only; other heads may be used with all listed torque bodies.

12-Point Box End Heads, inches



QJX12A



QXX52A

Center of fastener
to retaining pin:

- * QJX Series - 2.50"
- * QYX Series - 3.00"
- * QXX Series - 4.50"
- * QZX Series - 5.75"

in	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	O.D., inches	Head Depth, inches
1/4	QJX8A (220)	—	—	—	13/32	3/16
9/32	QJX9A (250)	—	—	—	13/32	3/16
3/8	QJX12A (490)	—	—	—	9/32	1/4
7/16	QJX14A (715)	—	—	—	21/32	5/16
1/2	QJX16A (900)	—	—	—	3/4	11/32
9/16	QJX18A (900)	QYX18A (1,340)	—	—	27/32	3/8
5/8	QJX20A (900)	QYX20A (2,050)	—	—	15/16	13/32
11/16	QJX22A (900)	QYX22A (2,400)	—	—	1 1/32	7/16
3/4	QJX24A (900)	QYX24A (2,400)	QXX24A (2,630)	—	1 1/8	15/32
13/16	QJX26A (900)	QYX26A (2,400)	—	—	1 3/16	17/32
7/8	QJX28A (900)	QYX28A (2,400)	QXX28A (3,600)	—	1 9/32	9/16
15/16	QJX30A (900)	QYX30A (2,400)	QXX30A (3,600)	—	1 3/8	19/32
1	QJX32A (900)	QYX32A (2,400)	QXX32A (3,600)	—	1 15/32	21/32
1 1/16	QJX34A (900)	QYX34A (2,400)	—	QZX34A (5,940)	1 9/16	11/16
1 1/8	—	—	QXX36A (3,600)	QZX36A (6,430)	1 5/8	11/16
1 3/16	—	QYX38A (2,400)	—	QZX38A (7,200)	1 3/4	3/4
1 1/4	—	QYX40A (2,400)	QXX40A (3,600)	QZX40A (7,200)	1 13/16	3/4
1 5/16	—	—	—	QZX42A (7,200)	1 29/32	3/4
1 7/16	—	—	QXX46A (3,600)	QZX46A (7,200)	2 1/16	7/8
1 1/2	—	QYX48A (2,400)	QXX48A (3,600)	QZX48A (7,200)	2 5/32	7/8
1 9/16	—	—	—	QZX50A (7,200)	2 1/4	7/8
1 5/8	—	QYX52A (2,400)	QXX52A (3,600)	QZX52A (7,200)	2 11/32	7/8
1 3/4	—	—	—	QZX56A (7,200)	2 17/32	1 1/32
1 13/16	—	—	QXX58A (3,600)	QZX58A (7,200)	2 5/8	1 1/32
1 7/8	—	—	QXX60A (3,600)	QZX60A (7,200)	2 11/32	1 1/32
2	—	—	QXX64A (3,600)	QZX64A (7,200)	2 7/8	1 1/32
2 1/16	—	—	—	QZX66A (7,200)	2 21/32	1 3/16
2 1/8	—	—	—	QZX68A (7,200)	3 1/16	1 3/16
2 1/4	—	—	—	QZX72A (7,200)	3 7/32	1 3/16
2 1/2	—	—	—	QZX80A (7,200)	3 19/32	1 5/16

Value in parentheses is the Maximum Recommended Working Torque, in. lb.

Interchangeable Head, Click-Type

12-Point Box End Heads, mm

mm	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	O.D., mm	Head Depth, mm
6	QJXM6A (180)	—	—	—	11	5
7	QJXM7A (240)	—	—	—	11	5
8	QJXM8A (265)	—	—	—	13	6
9	QJXM9A (355)	—	—	—	14	6
10	QJXM10A (630)	—	—	—	15	7
11	QJXM11A (710)	—	—	—	17	8
12	QJXM12A (805)	—	—	—	18	8
13	QJXM13A (900)	—	—	—	20	9
14	QJXM14A (900)	QYXM14A (1,400)	—	—	21	9
15	QJXM15A (900)	QYXM15A (1,770)	—	—	22	10
16	QJXM16A (900)	QYXM16A (2,195)	—	—	24	10
17	QJXM17A (900)	QYXM17A (2,365)	QXXM17A (2,365)	—	25	11
18	QJXM18A (900)	QYXM18A (2,400)	QXXM18A (2,690)	—	27	12
19	QJXM19A (900)	QYXM19A (2,400)	QXXM19A (2,860)	—	28	12
20	QJXM20A (900)	QYXM20A (2,400)	QXXM20A (3,070)	—	30	13
21	QJXM21A (900)	QYXM21A (2,400)	QXXM21A (3,295)	—	31	13
22	QJXM22A (900)	QYXM22A (2,400)	QXXM22A (3,600)	—	32	14
23	QJXM23A (900)	QYXM23A (2,400)	QXXM23A (3,600)	—	34	15
24	QJXM24A (900)	QYXM24A (2,400)	QXXM24A (3,600)	QZXM24A (4,505)	35	15
25	—	—	—	QZXM25A (4,950)	37	16
26	QJXM26A (900)	QYXM26A (2,400)	—	QZXM26A (5,380)	38	16
27	QJXM27A (900)	QYXM27A (2,400)	QXXM27A (3,600)	QZXM27A (5,940)	39	17
29	—	QYXM29A (2,400)	—	QZXM29A (6,640)	42	18
30	—	QYXM30A (2,400)	QXXM30A (3,600)	QZXM30A (7,035)	44	19
32	—	QYXM32A (2,400)	QXXM32A (3,600)	QZXM32A (7,200)	46	19
34	—	QYXM34A (2,400)	—	QZXM34A (7,200)	48	19
36	—	QYXM36A (2,400)	—	QZXM36A (7,200)	53	22

Value in parentheses is the Maximum Recommended Working Torque, in. lb.



QYXM21A

Center of fastener to retaining pin:

- * QJXM Series - 2.50"
- * QYXM Series - 3.00"
- * QXXM Series - 4.50"
- * QZXM Series - 5.75"

Flare Nut Heads, 6-Point, inches

Shank Dia. J (0.425")	Shank Dia. Y (0.560")	O.D., inches	Head Depth, inches
7/16	QJRXS14A (500)	—	27/32
15/16	QJRXS30A (900)	—	1 1/2
5/8	—	QYRXS20A (950)	1 3/32
11/16	—	QYRXS22A (1,100)	1 5/32
3/4	—	QYRXS24A (1,245)	1 1/4
13/16	—	QYRXS26A (1,400)	1 5/16
7/8	—	QYRXS28A (1,600)	1 13/32
15/16	—	QYRXS30A (1,750)	1 1/2
1	—	QYRXS32A (1,900)	1 9/16
1 1/8	—	QYRXS36A (2,200)	1 3/4

Value in parentheses is the Maximum Recommended Working Torque, in. lb.

Flare Nut Heads, 6-Point, mm

Shank Dia. J (0.425")	Shank Dia. Y (0.560")	O.D., mm	Head Depth, mm
10	QJRXSM10A (400)	—	20
11	QJRXSM11A (500)	—	21
12	QJRXSM12A (600)	—	22
13	QJRXSM13A (700)	—	24
14	QJRXSM14A (740)	—	25
16	—	QYRXSM16A (900)	27
17	QJRXSM17A (900)	QYRXSM17A (1,000)	29
18	—	QYRXSM18A (1,125)	30
19	—	QYRXSM19A (1,250)	32
20	—	QYRXSM20A (1,350)	33

Value in parentheses is the Maximum Recommended Torque, in. lb.

Flare Nut Heads, 12-Point, inches

Shank Dia. Y (0.560")	O.D., inches	Head Depth, inches
9/16	QYRX18A (800)	1
5/8	QYRX20A (950)	1 3/32
11/16	QYRX22A (1,100)	1 5/32
3/4	QYRX24A (1,245)	1 1/4
13/16	QYRX26A (1,400)	1 11/32
7/8	QYRX28A (1,600)	1 13/32
15/16	QYRX30A (1,750)	1 1/2
1	QYRX32A (1,900)	1 19/32
1 1/16	QYRX34A (2,050)	1 21/32
1 1/8	QYRX36A (2,200)	1 3/4
1 3/16	QYRX38A (2,400)	1 7/16
1 1/4	QYRX40A (2,400)	1 29/32

Value in parentheses is the Maximum Recommended Torque, in. lb.



QJRX18A

Center of fastener to retaining pin:

- QJRXS Series - 2.50"
- QYRXS Series - 3.00"
- QJRXSM Series - 2.50"
- QYRXSM Series - 3.00"
- QJRX Series - 3.00"
- QJRO Series - 2.50"
- QYRO Series - 3.00"
- QJROM Series - 2.50"
- QYROM Series - 3.00"

Open End Heads/Ratcheting, mm

Shank Dia. J (0.425")	Shank Dia. Y (0.560")	O.D., mm	Head Depth, mm
10	QJROM10A (245)	—	20

Value in parentheses is the Maximum Recommended Torque, in. lb.

Open End Heads/Ratcheting, inches

Shank Dia. J (0.425")	Shank Dia. Y (0.560")	O.D., inches	Head Depth, inches
5/16	QJRO10A (130)	—	5/8
7/16	—	QYRO14A (415)	7/8
1/2	—	QYRO16A (515)	1
9/16	QJRO18A (720)	QYRO18A (720)	1 1/8
5/8	—	QYRO20A (1,100)	1 7/32

Value in parentheses is the Maximum Recommended Torque, in. lb.



WARNING



• Do not exceed rated torque • Do not use to break fasteners loose

• Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages 594 to 597 **239**

TORQUE

Geared Head Multipliers

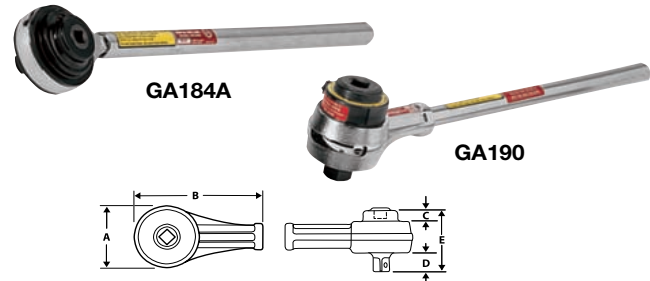
Geared Head Multipliers X4 Models

- Use singularly or stack up to three X4s
- Stacking multiplies, not adds, torque ratios—resulting torque can be considerable
- Only the torque ratio changes; total capacity is equal to and does not exceed the capacity of the largest wrench in the stack

Specifications	GA184A	GA185	GA190
Reaction Type	Bar	Bar	Bar
Output Capacity, ft. lb.	1,000	2,000	2,000
Input Capacity, ft. lb.	249	588	588
Gear Ratio	4.0:1	4.0:1	4.0:1
Torque Ratio	3.4:1**	3.4:1**	3.4:1**
Reductions	1	—	1
Input Drive Female Square, inches	1/2	3/4	3/4
Output Drive Male Square, inches	3/4	1	1
Dimension A, O.D., inches	3 1/2	3 3/4	3 3/4
Dimension B, Length, inches	6 5/8	6 5/8	6 5/8
Dimension C, Head Height, inches	1/2	3/4	1 1/2
Dimension D, Drive End Height, inches	3/4	1	1
Dimension E, Overall Height, inches	3 11/32	4 3/8	5
Overall Length, inches	22	25	25
Anti-Backlash	—	—	Yes

**Accuracy of Torque Ratio is $\pm 10\%$.

NOTE: Handle or other anchor plate serves as a "reaction bar" and must be placed against a strong fixed object.



Geared Head Multipliers

- Some models feature a replacement square drive to protect components by automatically shearing when rated output is exceeded by 3% to 10%
- All models include an input/output conversion chart in ft. lb. and N•m



Specifications	YA290PLUS	YA300	YA391	YA292	YA392	YA393	YA394	YA395
Reaction Type	Bar	Bar	Bar	Bar	Bar	Bar	Plate	Plate
Output Capacity, ft. lb.	750	1,000	1,200	2,000	2,200	3,200	5,000	8,000
Input Capacity, ft. lb.	227	303	200	500	162	173	189	154
Gear Ratio	1:4	4.0:1	6.3:1	4.27:1	15.0:1	20.25:1	29.25:1	60.0:1
Torque Ratio	1:3.3	3.3:1**	6.0:1*	3.7:1**	13.6:1*	18.5:1*	26.5:1*	52.0:1*
Reductions	1	1	1	1	2	3	2	2
Input Drive Female Square, inches	1/2	1/2	1/2	3/4	1/2	1/2	1/2	1/2
Output Drive Male Square, inches	3/4	3/4	3/4	1	1	1	1 1/2	1 1/2
Bearings	—	—	Needle	—	Needle	Needle	Needle	Needle
Length, inches	8 3/4	17 1/2	20	19 1/2	20	20	15	15 1/2
Width, inches	2 3/4	2 13/16	4	4 1/2	4	4	8 5/8	6
Height, inches	3 1/4	3 5/16	4 1/16	3 3/4	5 13/16	6 1/2	8 3/4	10 3/4
Storage Case	Yes	—	Yes	—	Yes	Yes	Yes	Yes
Angle Protractor	—	—	Yes	—	Yes	Yes	—	—
Anti-Backlash	—	—	—	—	Yes	Yes	Yes	Yes
Replacement Square Drive	No	—	YA391RK	—	YA392RK	YA393RK	YA394RK	YA395RK

*Accuracy of Torque Ratio is $\pm 5\%$.

**Accuracy of Torque Ratio is $\pm 10\%$.

NOTE: Handle or other anchor plate serves as a "reaction bar" and must be placed against a strong fixed object.



YA390

YA390 Reversible Air Motor.

- Provides up to 200 ft. lb. of input power for each of the YA Series Gear Multipliers
- Output drive: 1/2"
- Maximum operating air pressure: 60 PSIG
- Free speed: 70 RPM, Dimensions: 16 1/4" x 3 1/8" x 4 3/4"

Electronic Torque Wrenches

Electronic Dial Type Torque Wrenches

- Great for worldwide automotive, nuclear, military and industrial markets
- Digital accuracy is + / - 1% from 20% to 100% of full scale in both directions
- Three-step LED visual signal system: Over torque alarm (Red), Approaching target warning signal when getting close (Yellow at 90% of target), and target achieved signal when desired torque is obtained (Green)
- Secondary audible alarm goes off when desired torque is reached



ED2600

Stock No.	Square Drive, inches	Range, maximum	Range N•m
ED1050	1/4	50 in. lb., 4.17 ft. lb., 57.61 Kg•cm	5.65 N•m
ED2250	3/8	250 in. lb., 20.83 ft. lb., 288.03 Kg•cm	28.25 N•m
ED2600	3/8	600 in. lb., 50 ft. lb., 691.27 Kg•cm	67.8 N•m

Features:

- Display can be turned 180° to allow left hand usage
- 4 units of measurement on the same torque wrench: in. lb., ft. lb., N•m, Kg•cm
- Large 2 inch easy to read single scale eliminates confusion on conversion scales
- Tough polycarbonate body ensures durability
- Comfort cushion grip reduces strain for prolonged use
- Rubber boot protects work piece
- The durable, composite and steel body beam provides years of accurate service
- Packaged in storage box for maximum protection
- 9 Volt battery with long life and easy replacement, 80 hours
- Battery cover designed to be FOD proof
- EU/CE - DE, ES, FR, IT, GB (all units)

*All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)

All wrenches and drivers are calibrated per ASME and ISO standards for accuracy, from 20% to 100% of full scale, using NIST traceable equipment.

Electronic Torque Wrenches

- Largest storage capacity available—memory stores up to 4,000 torque values
- Downloading capability—individual torque values and store values in memory may be directly downloaded to a printer or data logger via an RS-232 connection
- Selectable modes of operation—“peak hold” and “track” modes of operation are standard
- Range—available from 5 in. lb. to 600 ft. lb. engineering units can be selected through the keypad (in. oz., in. lb., ft. lb., N•m, dN•m, kg•cm, and kg•cm)
- Accuracy—±1% from 10% to 100% of scale
- Quality Construction—proven industrial quality. All Electrotork electronic torque wrenches are designed for continuous use
- 9V alkaline battery included



QCE215A

Electrotork® Torque Wrenches

High degree of accuracy, clockwise or counterclockwise regardless of handhold position. Easy to read scales and sealed membrane keypad enhance operator usefulness. Each wrench includes a storage case.

Stock No.	Square Drive, inches	Range	Increments	Length, inches
QCE115A	1/4	5-50 in. lb., 5.6-56 dNm, 5.7-57 kg•cm, 80-800 in. oz	.01 in. lb., .01 dN•m, .01 kg•cm, .10 in. oz.	13 1/2
QCE215A	3/8	25-250 in. lb., 28-282 dN•m, 29-288 kg•cm	.01 in. lb., .10 dN•m, .10 kg•cm	14 7/8
QCE225A	3/8	5-50 ft. lb., 68-677 dNm, 69-691 kg•cm, 60-600 in. lb.	.01 ft. lb., .10 dN•m, .10 kg•cm, .10 in. lb.	14 7/8
QCE325A	1/2	25-250 ft. lb., 34-338 N•m, 3.4-34 kg•m	.10 ft. lb., .10 N•m, .01 kg•m	21 1/2
QCE425A	3/4	60-600 ft. lb., 81-813 N•m, 8.3-83 kg•m	.10 ft. lb., .10 N•m, .01 kg•m	46 1/2

The certification of accuracy provided per ASME and ISO Standards is 20% to 100% of full scale.
P11350 Optional PC download cable is available.

Electronic Torque Testers

Designed to be a sturdy, low cost tester, these electronic torque testers can be placed on the wall in the factory or on a bench to allow operators to test torque wrenches or power tools without having to leave their station.

- Integral transducer and sturdy housing allow mounting in virtually any position
- Integral transducer: Full bridge strain gauge, 350 ohms, 1500 µE, 3mV/V F.S., 3.75V excitation
- Unique neck design allows operator to see display when testing long torque wrenches
- Accuracy: ±0.5% of reading ±1 count in the least significant digit (10% to 100% of full range) at 25° C
- Display accuracy: 4 digits, 9,999 counts
- Stability: +0.044% per °C
- Track and peak modes
- Can be used with non-impacting power tools (joint rate simulators required)
- Dual scale (English/N•m or English/dN•m)
- Auto/manual display reset
- Reads bi-directional (clockwise and counterclockwise)
- Uses rechargeable NiCad batteries. Charger included
- All testers include power adaptor cord, socket adaptor (internal to internal) and PB1ETT storage case



QC1ETT50

Stock No.	Square Drive, inches	Range, English	Range, N•m
QC1ETT10	1/4	10-100 in.oz.	7.0-70.6 cN•m
QC1ETT400	1/4	40-400 in. oz.	28-280 cN•m
QC1ETT50	1/4	5-50 in. lb.	5.6-56 dN•m
QC1ETT100	1/4	10-100 in. lb.	11.3-113 dN•m
QC2ETT250	3/8	25-250 in. lb.	28-280 dN•m
QC2ETT1000	3/8	100-1,000 in. lb.	113-1,130 dN•m
QC3ETT250	1/2	25-250 ft. lb.	34-339 N•m
QC4ETT600	3/4	60-600 ft. lb.	81-813 N•m

The certification of accuracy provided per ASME and ISO Standards is 10% to 100% of full scale.

**All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)*

All wrenches and drivers are calibrated per ASME and ISO standards for accuracy, from 20% to 100% of full scale, using NIST traceable equipment.



WARNING



• Do not exceed rated torque • Do not use to break fasteners loose

• Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages 594 to 597 **241**

TORQUE

Versatorq® Torque Metering/Data Acquisition System

The Versatorq system can be used for any job requiring repetitive torque applications or regular inspection of fastener torque. This system can also be used to verify pneumatic and mechanical torque wrench accuracy. Peak torque can be captured by using a rotary sensor with a

- **Versatile** - battery operated and lightweight, with available ranges from 2 in. oz. to 20 in. oz. to 150 ft. lb. to 1,500 ft. lb. and 7 units of measure: in. oz., in. lb., ft. lb., N•m, d•Nm, kgm, and kgcm. The Versatorq system can be used with sockets, extensions, universal joints, ratcheting drivers or any of these combined
- **Data Acquisition** - store and recall up to 3,500 readings. An internal memory backup battery retains setup and last memory data for up to 10 years
- **Track or Peak Mode** - track mode displays applied torque value and peak mode displays highest torque value
- **Easily Calibrated** - customer calibration supports ISO9000. Instructions for step by step calibration provided in the users manual
- **Smart Sensors** - built in EEPROM memory chip stores sensor identification and calibration factors. Factory calibrated, a sensor retains its accuracy with all Versatorq meters; just plug in the desired sensor. Periodic recalibration is necessary



VERSATORQ
Torque Acquisition Meter
Includes VERSACHARGE1
charger and PB57A case.



VERSAMETER

Sensors sold separately.

Versameter
Electronic Torque Acquisition Meter
Performs most of the same functions as the Versatorq Torque Acquisition Meter. Will not perform the data storage/recall, statistical analysis and histogram functions and does not offer the serial output port feature.

Versatorq System Accessories

Stock No.	Description
VERSACHARGE1	Power Pack, 120VAC to 9VDC
VERSACHARGE2	Power Pack, 220VAC to 9VDC (Europe)
VERSACHARGE3	220VAC to 9VDC Power Pack / Charger (Australia / United Kingdom)
VERSAPHONE	Head Phones
VERSACABLE	RS-232 Serial Printer Cable
VERSACABLE2	PC Interface Cable
PB57A	Carrying Case



VERSA2S100

non-impact power tool operating at less than 1,000 RPM and being driven into a soft joint. Inspectors can check critical fastener torque and record data for quality audits. Perfect for process quality control. The Versatorq system can internally perform statistical analysis, including histograms, and print to a serial printer.

- **120VAC/220VAC, 60 Hz Adaptor** - rechargeable battery and belt clip allow you to take it to the task or use it at the bench with the optional table stand and AC adaptor
- **PC Statistical Analysis Output** - download histogram, minimum and maximum reading, mean, sigma N, sigma, Cp, Cpk, % error and number of readings under and over tolerance
- **Serial Port Interface with Computer or Printer** - true RS-232 communications port for downloading to computer or serial printer or configurable to MITUTOYO statistical printer protocol
- **Visual and Audio Cues** - analog bar graph at top of display provides a live indication of applied torque. An OVER warning flag comes on to indicate that maximum sensor range has been exceeded. Green MIN LED indicates lower tolerance has been achieved, and Red MAX LED indicates upper tolerance has been exceeded. Audio alarm produces a distinctive 2 kHz tone. Includes an audio output jack for optional headphones in a noisy environment

Versatorq®/Versameter® System Specifications

Specifications	Description
VERSATORQ	120VAC Charger, and Carrying Case.
VERSATORQ1	Basic Torque Acquisition Meter
Modes - VERSAMETER	TRACK, PEAK HOLD
Display	4 digit with alpha and numeric function flags
Display Capacity*	+/- 4 digits, 8,000 counts
Accuracy	±1% of Reading (10 to 100% of Sensor Range) (+/- 2% with VERSA1S10 and VERSA1S20 Sensors)
Push-Button Keypad	MIN/MAX Alarm, ZERO TARE, SET-UP, UNITS, STORE/RECALL/CLEAR, SEND, STATISTICS, ENTER
Units Of Measure	in. oz., in. lb., ft. lb., N•m, dN•m, kg•m, kg•cm
Operating Temperature	5°C to 42°C (40°F to 110°F)
Storage Temperature	-10°C to 50°C (-2°F to 12°F)
Humidity	Up to 90%, non-condensing
Dimensions	3" W, 2.5" H (3" with belt clip), 6" D
Weight	1 lb.
Charge Life (full charge to shutoff)	20 hours continuous
Battery Charger	120VAC or 220VAC, 50-60 Hz
Data Storage/Recall	3,500 measurements
Battery Charger Output	9VDC, 200mA
Serial Output Port - VERSATORQ1	RS-232 (True), 300-19.2K baud, and Mitutoyo (statistical protocol)
Statistical Analysis - VERSATORQ1	MAX, MIN, Sigma, Cp, Cpk, % Error, -NoGo, +NoGo
Histogram - VERSATORQ1	Lower set limit, upper set limit, 10 divisions

*Versatorq display ignores torque input less than .5% of full scale in track mode and 2.0% of full scale in peak mode.

NOTE: Please reference the Versatorq instruction manual for the sensor ranges and resolutions in different units of torque measurement.

Versatorq Sensors

Stock No.	Square Drive, inches	Range	Sensor Diameter, inches	Sensor Length, inches	Cable Length, inches
VERSA1S20*	1/4	2-20 in. oz.	.5	2.9	48
VERSA1S10*	1/4	1-10 in. lb.	.7	2.9	48
VERSA1S50	1/4	5-50 in. lb.	.9	2.1	48
VERSA1S200	1/4	20-200 in. lb.	.9	2.1	48
VERSA2S100	3/8	10-100 ft. lb.	1.2	2.4	48
VERSA3S250	1/2	25-250 ft. lb.	1.4	2.6	48
VERSA4S600	3/4	60-600 ft. lb.	2.0	3.9	96
VERSA5S1500**	1	150-1,500 ft. lb.	2.4**	4.4	92†

*Knurled handles allow for fingertip control.

**Diameter does not include side mounted connector.

† Heavy duty coiled cord with 4-pin MS-style connector.

Versatest™ Electronic Torque Tester



VERSATEST

The Versatest Indicator is a laboratory grade instrument used for precise, in house torque wrench testing and calibration. High precision torque transducers provide system readings with an accuracy of +/- 0.25% of indicated value. Transducers are available in ranges from 15-200 in. oz. to 200-2,000 ft. lb. and feature a special built in memory chip that identifies the range and maintains the calibration between all Versatest Indicators. Setup and calibration programming is entered via front panel membrane keys. The Versatest can store and recall up to 3,000 different torque/force readings. Statistical analysis stored in memory can be downloaded to a computer or serial printer. A hard wired lithium battery keeps the internal memory and the date/time clock operating for up to 10 years.

Versatest Specifications

Specifications	Description
Display	Large 5.5" x 1.5" backlighted LCD graphics display (240 x 64 dot matrix, 0.67" torque digits character height)
Capacity	5 significant digits +/- 32,000 counts (16 bit A/D)
Sample Rate	2,000 samples per second
Display Rate	5 updates per second
Accuracy*	+/- 0.25% OF READING AT 25° C (with TTC Transducer calibration)
Temperature Drift	+ 0.03% / °C (+0.017% / °F)
Bar Graph	100 segment analog of applied torque scaled to Limits Set value
Units Of Measure	in. oz., in. lb., ft. lb., N•m, dN•m, kg•cm and kg•m
Modes	TRACK, PEAK HOLD, FIRST PEAK, POWER TOOL
Soft Key User Interface	Units, Calibration, Date/Time, Statistics, HI/Low Limits Set, Data Store, Data Recall, Printer Setup, Zero, Auto/Manual Store/Send/Clear
Select Keys	Increment, Decrement, Shift Left, Shift Right, Enter
Operating Temperature	10 to 32° C (50 to 90° F)
Storage Temperature	-20 to 50° C (-2 to 122° F)
Humidity	85% Relative Humidity @ 21° C (70°F)
Dimensions	10" wide x 4" high x 10.5" deep (including carry handle)
Power Supply	Auto Switching 100VAC-24-VAC, 50/60 Hz, 50 watts
Data Storage/Recall	3,000 Measurements
Statistical Analysis	Max, Min, Range, Mean, Sigma N, Sigma, Cp, Cpk, % Error, -NoGo, +NoGo
Histogram	Lower Set Limit, Upper Set Limit, 10 Divisions
Printer/Computer Serial Output Port	RS232 (True), 300-19.2K Baud
Computer Serial Com Port	RS232 (True), 300-19.2K Baud
Analog Output	+(CW)/-(CCW) 1.8V at Transducer Full Range Linearity, +/-1% of reading
Loader Control Relays	Two, Normally Open, Form A, Rated 12VDC @ 1/2A close contact at 110% CW or CCW or torque/force transducer range

* TTC Transducers used with, but not calibrated to, the Versatest Indicator provide a system accuracy of +/- 0.5% of reading @ 25° C.

Refer to Transducer Chart on page 245 for additional information.

Features:

- Automatic downloading
- RS232C serial port - use with printer or PC
- Data storage/recall (with date/time stamp) holds up to 3,000 measurements
- Real time clock
- Smart transducers
- Analog output—connect to oscilloscope or X-Y plotter
- External printer can be mounted on top of the Versatest unit
- Remote foot switch interface for send/print functions
- Four modes—TRACK, PEAK HOLD, FIRST PEAK, POWER TOOL
- Statistic Process Control (SPC) built in



VERSATEST600

VERSATEST600 Electronic Torque Metering System.

Provides high speed monitoring of static and dynamic torque inputs. Includes the Versatest indicator, VERSA600LDR2 loader, TTC12 transducer, TTC400 4-in-1 transducer and TTC5000-1 4-in-1 adaptor plate.

VERSA600LDR2 Mechanical Loader. Unit will load dial, micrometer, beam and electronic torque wrenches. Maximum capacity of 600 ft. lb. Use with any TTC series transducer from 15 in. oz. to 600 ft. lb.

Accessories

TTC3421	Mounting Bracket "A"
TTC3422	Mounting Bracket "B"
TTC15002	Mounting Bracket "C"
TTC1121	Serial Printer
TTC501	Connects TTC610 Digital Indicator to PC
TTC502	Connects TTC610 Digital Indicator to printer
TTC75006	Torque Screwdriver Testing Kit



WARNING



- Do not exceed rated torque • Do not use to break fasteners loose
- Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages 594 to 597

TORQUE

Versatest™ Electronic Torque Tester

Motor Controller on TTC2800 - mounts in this location.



TTC2000
Basic System.
Optional accessories on next page.

- Automatic sensor recognition with TTC series “Smart” transducers
- Range: 15 in. oz. to 2,000 ft. lb. (bi-directional)
- Total uncertainty (10% to 100% of range): +/- 0.25% of indicated torque value
- Alpha-numeric 8 digit display
- Memory to 3,000 values
- Includes low profile serial printer
- Date and time stamp for stored values
- Statistical analysis performed on stored data
- Programmable manual or automatic options for clear, store and print functions
- Recall and review of stored torque values
- Modes—TRACK, PEAK, FIRST PEAK and POWER TOOL
- Optional angle encoder
- RS232C port is standard
- Analog output is standard
- Full digital circuitry
- 8 torque measurement units: in. oz., in. lb., ft. lb., cN•m, dN•m, N•m, kg•cm and kg•m
- Automatic lock up for transducer protection
- Automatic zero
- Automatic transducer recognition
- Operates on 120VAC or 240VAC

TTC2000/TTC2800 System Specifications

TTC2000 Manual Loader System	Torque/Force Display	Eight digit, alpha-numeric, super bright red LED, 0.55 inch character height
	Capacity	8 digits +/- 32,000 counts (16 bit A/D)
	Accuracy*	+/- 0.25% of reading at 25° C (with TTC Transducer calibration)
	Temperature Drift	+ 0.03% / C (+ 0.017% / F)
	Units Of Measure	TORQUE: ft. lb., in. lb., in. oz., N•m, dN•m, kg•cm and kg•cm; FORCE: lbf, ozf, N, dN, kp and gf
	Maximum Range Display	2-line x 16 character 5 x 8 dot-matrix LCD used for MAX. Transducer range, Units, Angle, Calibration, Date/Time, Statistics, Torque/Force or Torque/Angle Limits Set, Data Store/Recall, Printer Set Up
	Modes	Track, Peak Hold, Angle, First Peak, Power Tool
	Operating Temperature	10 to 32° C (50 to 90° F)
	Storage Temperature	-20 to 50° C (-2 to 122° F)
	Humidity	Up to 90%, Non-condensing
	Power Supply	120VAC +/-10%, 50/60Hz @ 3.14A (including motor current)
	Data Storage/Recall	3,000 Measurements
	Statistical Analysis	Max, Min, Range, Mean, SigmaN, Sigma, Cp, Cpk, % Error, -NoGo, +NoGo
	Histogram	Lower Set Limit, Upper Set Limit, 10 Divisions
	Printer/Computer Serial Output Port	RS232 (True), 300-19.2K Baud
	Computer Serial Com Port	RS232 (True), 300-19.2K Baud (Optional)
	Analog Output	+(CW)/-(CCW) 1.8V at Transducer Full Range Linearity, +/-1% of reading
Loader Control Relays	Two, Normally Open, Form A, Rated 12DVC @ 1/2A close contact at 110% CW or CCW or torque/force transducer range	
Loader Hand Crank	Input torque 8 ft. lb. Maximum, Output Torque 2,000 ft. lb. Maximum	
TTC2800 Motorized Control Loader System	Motorized Loader Modes	Manual; Auto Dial; Auto 1st Peak
	Motorized Loader Power Supply	120VAC +/- 10% Hz @ 3.14A (including motor current); (optional step down transformer for 240VAC operation)

TTC2000/TTC2800 System Components

	Stock No.	Description	Application
TTC2000 Components	TTC600	Mechanical Loader	Applies load to torque wrenches for testing on TTC2000. Includes loader, torque indicator stand, torque pin, protective shield, small transducer adaptor, and power cord. 45" W x 24" D x 9.5" H
	TTC610	Digital Indicator	Torque tester for the TTC2000 System.
	KRL762PY	Roller/Storage Cabinet	Used to mount TTC600/TTC610 (TTC2000) or TTC800/TTC810 (TTC2800) and store accessories. Not available individually
TTC2800 Components	TTC800	Motorized Loader	Applies load to torque wrenches for testing on TTC2800 System
	TTC810	Digital Indicator	Torque Tester for the TTC2800 System
	KRL762PY	Roller/Storage Cabinet	Used to mount TTC600/TTC610 (TTC2000) or TTC800/TTC810 (TTC2800) and store accessories. Not available individually

**All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)*

All wrenches and drivers are calibrated per ASME and ISO standards for accuracy, from 20% to 100% of full scale, using NIST traceable equipment.

Electronic Torque Tester and Calibrator



Transducers

All TTC series transducers include the correct adaptor for the indicated torque range.

Stock No.	Description	Sq. Drive Size	Range	Bench Top Mounting Bracket
TTC5	Transducer	1/4	15-200 in. oz.	TTC3421
TTC6	Transducer	1/4	4-50 in. lb.	TTC3421
TTC65	Transducer	1/4	15-150 in. lb.	TTC3421
TTC7	Transducer	3/8	30-400 in. lb.	TTC3421
TTC8	Transducer	3/8	80-1,000 in. lb.	TTC3421
TTC10	Transducer	1/2	10-125 ft. lb.	TTC3422
TTC11	Transducer	1/2	20-250 ft. lb.	TTC3422
TTC12	Transducer	3/4	60-600 ft. lb.	TTC3422
TTC13	Transducer	1	100-1,000 ft. lb.	TTC15002
TTC14	Transducer	1	200-2,000 ft. lb.	TTC15002
TTC400*	4-in-1 Transducer	1/4 3/8 3/8 1/2	4-50 in. lb. 30-400 in. lb. 80-1,000 in. lb. 20-250 ft. lb.	— — — —
TTC5000-1**	4-in-1 Adaptor Plate	—	—	—

*TTC400 requires the TTC5000-1 adaptor plate when used with the TTC600 manual loader, TTC800 motorized loader and VERSA600LDR.

**Required for TTC400 4-in-1 torque transducer to be used on TTC600/TTC800 loaders.

Calibration Wheels/Arms

Use to calibrate any TTC series transducer. Arms are certified to manufacturer's standards.

TTC500	2.5" Calibration Wheel, 1/4" sq. dr.
TTC1510	5" Calibration Wheel, 1/4" drive (includes 3/8" adaptor)
TTC1520	10" Calibration Butterfly, 1/2" square drive
TTC1540	40" Calibration Arm, 1 1/4" square drive (includes 3/4" adaptor)



TTC25002

Accessories

Stock No.	Description
TTC501	Connects TTC610 Digital Indicator to PC
TTC502	Connects TTC610 Digital Indicator to printer
TTC25002	Free standing calibration stand with mounting block and hardware for use with TTC2000/TTC2800 Systems and all TTC Series Transducers
TTC75002	Torque Screwdriver Testing Kit
TTC5500-1	Extension Arm (required for wrenches longer than 45")

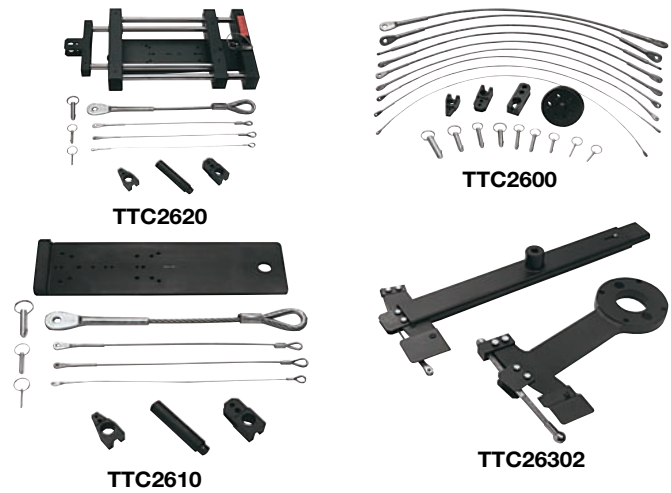
Joint Rate Simulator Adaptors

- Use with torque tester when testing non-impacting power tools
- Square drive adaptor is placed on top of square drive of the torque tester and tightened with a set screw
- Adaptor bit is inserted into the power tool and mated to the top of the joint adaptor
- By stacking the bellville washers in set patterns, the joint rate adaptor can simulate soft, medium, or hard joints

Stock No.	Square Drive, inches	Capacity, in. lb.	Adaptor Bit	Load Screw
QC1JRS50	1/4	50	1/4" Hex x 3/16" Hex	1/4" x 28 x 1
QC2JRS400	3/8	400	3/8" Square Internal x 3/8" Hex	7/16" x 20 x 1.5
QC2JRS1000	3/8	1,000	3/8" Square Internal x 1/2" Hex	5/8" x 18 x 1.5



QC2JRS400



Force Testing Equipment

- Reaction arms, cables, mounting plates and fixtures are available for testing tensiometers plus compression and tension gauges. The TTC600 and TTC800 loaders and TTC series transducers can be configured to deliver compression and tension loads
- The TTC610/TTC810 indicator also provides measurement, display, storage and statistical analysis for FORCE inputs

TTC2600	Tensiometer Testing Kit
TTC2610	Tension Gauge Testing Kit
TTC2620	Compression Gauge Testing Kit
TTC26302	Force Arm Kit (Only one is needed for any Force Testing Kit)

Weight Sets

Use to calibrate any TTC series transducer. All weights are NIST (NBS) traceable.

TTC3200	Weight Set #1 (Use for all TTC Series Transducers)
TTC3210	Weight Set #2 (For 200 in. oz. to 250 ft. lb. TTC Series Transducers)
TTC3220	Weight Set #3 (For 600 ft. lb To 2,000 ft. lb. TTC Series Transducers)



Weight Hangers/Trays

Use to calibrate any TTC series transducer. Weight trays certified as to weight.

TTC301	Weight Hanger, 8 oz.
TTC3040	Weight Tray, 7.5 lb.
TTC3020	Weight Tray, 15 lb.
TTC3030	Weight Tray, 50 lb.



WARNING



- Do not exceed rated torque • Do not use to break fasteners loose
- Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages 594 to 597

TORQUE

Electronic Bench Top Torque Testers



TBT600A

Horizontal Torque Testers and Transducers

- TBT600A designed to be a complete and flexible calibration solution
- Peak hold feature incorporates “hands free” mode to increase efficiency
- Certificate generation function allows unit to print certifications directly to a printer or computer
- NTEP certified scale is independently traceable to NIST standard Handbook 44 and stored data of tester calibration for auditing purposes

Stock No.	Description	Range	Resolution
TBTT16A	Transducer	7.5 in. lb. to 200 in. lb.	.002 ft. lb., 02 in. lb., 025 in. oz., .002 N•m., .0002 kg•m., .02 kg•cm
TBTT100A	Transducer	5 ft. lb. to 100 ft. lb.	.01 ft. lb., 1 in. lb., 2 in. oz., .01 N•m., .001 kg•m, 1 kg•cm
TBTT600A	Transducer	30 ft. lb. to 600 ft. lb.	.05 ft. lb., 5 in. lb., 10 in. oz., 1 N•m., .01 kg•m., 1 kg•cm



TCR175



TCR600

Torque Comparators

TCR175 Torque Comparator.

- To determine if a torque wrench requires calibration to maintain proper application of torque
- Large and easy to read dial and simple operation makes the tester quick and easy to use for everyday verification of torque calibration
- 1/2" female square drive input and 175 ft. lb. capacity with 5 ft. lb. graduations and 230 N•m capacity with 10 N•m increments is a perfect fit for the most popular torque wrenches
- Integrated exercise adaptor makes it easy to break in simple, providing the most accurate results (as per B107.14M standard)
- 2% accurate within $\pm 2\%$ of the reading from 20% of full scale to full scale clockwise and counterclockwise
- Can check a 3/8" drive torque wrench by using an adaptor A2A or adaptor GAF2A
- Includes certificate of calibration compliance

TCR600 Torque Comparator.

Similar to TCR175 except for these differences:

- 3/4" female square drive input and 600 ft. lb. capacity with 10 ft. lb. graduations and 800 N•m capacity with 20 N•m increments is a perfect fit for the most popular torque wrenches
- Compact design with 1/4" steel mounting plate allows for convenient installation in any direction - horizontally on a bench, vertically on a wall, or on any other sturdy, flat surface
- Use on most 3/4" drive torque wrenches including these popular Snap-on® models: TECH4R600/TECH4RM600, QD4400/QD4R400, QD4600/QD4R600, TQR400E/TQR600E, TE352A/TE602A series and TEC352A/TEC602A series

**All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)
All wrenches and drivers are calibrated per ASME and ISO standards for accuracy, from 20% to 100% of full scale, using NIST traceable equipment.*

POWER TOOLS

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POWER TOOLS

DELIVERING POWERFUL INNOVATION.

From lithium cordless impact wrenches, to powerful air tools, to ergonomic sanders—Snap-on delivers control, comfort and, of course, power.

Power.

Power means a lot of things, but the bottom line is it's about getting the job done. Snap-on gives you more ways to do it.

- **Powerful torque**—It all starts here. Snap-on uses heavy duty components combined with strong, lightweight bodies to give you more power per pound.
- **Cordless tools**—Snap-on's new lithium series offers long-lasting power for the tools you use most.
- **Accessibility**—Snap-on brings power to places where only hand tools used to go.



Comfort And Control.

All the power in the world means nothing if you are fighting excess weight, vibration and noise. Snap-on® power tools are built with the comfort and control you need to use them all day, every day.

- **Balanced weight**—Glass-filled nylon housings balance the weight of cordless tools for better control.
- **Ergonomic grips**—It's not rocket science, if the tool feels good in your hand, it's easier to use.
- **Compact nose design**—Removing unnecessary bulk allows better access to restricted areas.



CORDLESS

Progress Is Measured In The Power To Move On To Your Next Job.

Each Snap-on® cordless tool combines surprising power with maximum mobility.

- Lightweight and comfortable—Snap-on cordless tools are designed to feel balanced and natural in your hand.
- Power—Pull the trigger and feel the power. That's when you realize why Snap-on has become a leader in the cordless category.

Durability.

If you are going to use tools that go anywhere, they'd better work when you get there.

- Snap-on builds tools with the best components and engineers them to exact standards.
- Higher grade metals—Internal components combined with glass-filled nylon housings give you a tool that will stand up in the toughest shop environment.

More Ways To Give You Power.

Snap-on recently added more battery options to the power tool collection.

Lithium Batteries

Our new lithium batteries are made for the long work day. They weigh less and last longer than Ni-Cad batteries, making them ideal for the tools you use most.



Ni-Cad Batteries

When it comes to keeping costs down, Ni-Cad is still the first choice. For techs who need to watch their budget, but still want to go cordless, Ni-Cad has the advantage.



Green Terminal

For ultimate versatility, the Green Terminal Block tools give you the option of using lithium or Ni-Cad batteries as a power source.



Impacts

Specifications	CT6855	CT6850	CT4450A	CT4410A	CT561
Battery Type	Lithium 3.0Ahr	Ni-Cad 2.5Ahr	Ni-Cad 2.5Ahr	Ni-Cad 2.5Ahr	Ni-Cad 700 mAmp
Battery Voltage	18V	18V	14.4V	14.4V	7.2V
Square Drive, inches	1/2	1/2	1/2	3/8	3/8
Torque Output, ft. lbs. (N•m)	400 (475)	400 (475)	150 (203)	150 (203)	50 (68)
Blows Per Minute, bpm	2,100	2,100	2,900	2,900	3,000
Free Speed, rpm	2,200	2,200	2,280	2,280	2,500
Charge Time (minutes)	30	40	35	35	55
Length, in. (mm)	9.95 (252)	9.95 (252)	6.4 (163)	6.4 (163)	6.2 (157)
Weight w/Battery, lbs. (kg)	6.8 (3.1)	7.6 (3.4)	4.6 (2.1)	4.6 (2.1)	1.7 (.77)
Warranty (battery)	2 Years/1,000 Cycles	1 Year	1 Year	1 Year	1 Year
Warranty (tool, charger)	1 Year	1 Year	1 Year	1 Year	1 Year
Pinned Anvil Version	CT6855P	CT6850P	CT4450AP	CT4410AP	—
Quick Change Anvil Version	CT6855QC (7/16")	CT6850QC (7/16")	—	CT4410AQC (1/4")	—
Tool Body Only	CT6850DB	CT6850DB	CT4450ADB	CT4410ADB	CT561DB

Drills/Drivers

Specifications	CDR6855	CDR6850	CDR4450	CTS561CL	CTS561
Battery Type	Lithium 3.0Ahr	Ni-Cad 2.5Ahr	Ni-Cad 2.5Ahr	Ni-Cad 700 mAmp	Ni-Cad 700 mAmp
Battery Voltage	18V	18V	14.4 V	7.2V	7.2V
Chuck Capacity, inches	1/2	1/2	1/2	1/4 Hex	1/4 Hex
Torque Output, inches lbs. (N•m)	450 (50.8)	450 (50.8)	400 (45.2)	60 (6.78)	60 (6.78)
Clutch Settings	22	22	22	6	—
Gear Box Type	2 speed	2 speed	2 speed	1 speed	1 speed
RPM (Low)	0-500	0-500	0-350	—	—
RPM (High)	0-1800	0-1800	0-1,500	375	375
Charge Time (minutes)	30	40	35	55	55
Length, inches (mm)	10.25 (260)	10.25 (260)	7.85 (199)	5.2 (132)	4.6 (117)
Weight w/Battery, lbs. (kg)	5.5 (2.5)	6.3 (2.8)	4.9 (2.2)	1.5 (.68)	1.2 (.55)
Warranty (battery)	2 Years/1,000 Cycles	1 Year	1 Year	1 Year	1 Year
Warranty (tool)	1 Year	1 Year	1 Year	1 Year	1 Year
Tool Body Only	CDR6850DB	CDR6850DB	CDR4450DB	CTS561CLDB	CTS561DB

Reciprocating Saws/Grease Guns

Specifications	CTRS6855 Recip Saw	CTRS6850 Recip Saw	CGG4850 Grease Gun
Battery Type	Lithium 3.0Ahr	Ni-Cad 2.5Ahr	Ni-Cad 2.5Ahr
Battery Voltage	18V	18V	18V
Strokes Per Minute, inches (mm)	1 (25.4)	1 (25.4)	—
Strokes Per Minute	2,300	2,300	—
Capacity (tubes dispensed w/one battery)	—	—	12
Hose Length, inches (mm)	—	—	30 (762)
Pressure Rating (psi)	—	—	7,500
Charge Time (minutes)	30	40	40
Length, inches (mm)	17 (431)	17 (431)	15.8 (401)
Weight w/Battery, lbs. (kg)	7.7 (3.4)	8.7 (4.0)	9.5 (4.3)
Warranty (battery)	2 Years/1,000 Cycles	1 Year	1 Year
Warranty (tool)	1 Year	1 Year	1 Year
Tool Body Only	CTRS6850DB	CTRS6850DB	CGG4850DB



WARNING



- Use only impact sockets and accessories with impact wrenches
- Read safety precautions on pages 594 to 597

CORDLESS












Cordless Kits



CK6850DIRL

Cordless Kits

When multiple cordless tools are needed at the same time, take a look at investing in cordless kits. Kits offer superior value and come complete with batteries, a battery charger, flashlight and tote bag. Add versatility, add mobility and add on to your cordless kit down the road with additional cordless tools. Snap-on® offers tool-only options to build your portfolio of tools. Lithium or Ni-Cad. Mix or match. Snap-on cordless allows you to operate the same tool with either Lithium or Ni-Cad batteries.

Set Contains:	CK6850DL	CK6850DIL	CK6850DIRL	CK6850DRL	CK6850CIL	CK6855DL	CK6855DIL	CK6855DIRL	CK6855DRL	CK6855CIL	CK4410DIL
 CDR6850DB 18V Drill Body	•	•	•	•	•	•	•	•	•		
 CT6850DB 18V 1/2" Drive Impact Wrench Body		•	•		•		•	•			•
 CTRS6850DB 18V Reciprocating Saw Body and blades			•	•				•	•		
 CDR4450DB 14.4V Drill Body											•
 CT4410ADB 14.4V 3/8" Drive Impact Wrench Body											•
 DBBPT13 Blue-Point® Drill Bit Set	•					•					
 CTB6185 18V Lithium Battery (2)						•	•	•	•	•	
 CTB4187 18V Ni-Cad Batteries (2)	•	•	•	•	•						
 CTB4147 14.4V Ni-Cad Batteries (2)											•
 CTC620 Battery Charger	•	•	•	•	•	•	•	•	•	•	•
 CTC628 Mobile Battery Charger					•						•
 CTL4918 Rechargeable Xenon® Flashlight	•	•	•	•	•	•	•	•	•	•	•
 CTTOTEA Tote Bag	•	•	•	•	•	•	•	•	•	•	•

CORDLESS

18 Volt Impact Wrenches



CT6855



CT6850



Friction Ring



Quick Change



Pinned Anvil

18 Volt Impact Wrenches

CT6855/CT6850 Series.

- 2 battery choices available – 18V Lithium or 18V Ni-Cad match the needs of any application
- Glass-filled nylon housing is rugged and provides durability and strength
- Patented air flow system routes cool air over the motor, extending tool life
- Needle bearing supported helical cut steel gears distribute even torque load from the motor
- Ergonomic cushion grip absorbs vibration and reduces user fatigue
- Super heavy duty motor is cushion mounted to reduce vibration
- Heavy duty heat sink protects switch and dissipates heat to prolong life
- One hand forward/reverse lever changes direction easily

Specifications	CT6855	CT6850	CT6850P	CT6850QCDB	CT6850DB	CT6850M	CT6850PM
Battery Type	Lithium 3.0Ahr	Ni-Cad 2.5Ahr	Ni-Cad 2.5Ahr	Ni-Cad 2.5Ahr / Lithium 3.0Ahr	Ni-Cad 2.5Ahr/ Lithium 3.0Ahr	Ni-Cad 2.5Ahr	Ni-Cad 2.5Ahr
Battery Voltage	18V	18V	18V	18V	18V	18V	18V
Square Drive, inches	1/2	1/2	1/2	7/16 Hex	1/2	1/2	1/2
Anvil Type	Friction Ring	Friction Ring	Pinned	Quick Change	Friction Ring	Friction Ring	Pinned
Torque Output ft. lbs. (N•m)	400 (475)	400 (475)	400 (475)	400 (475)	400 (475)	400 (475)	406 (475)
Blow Per Minute, bpm	2,100	2,100	2,100	2,100	2,100	2,100	2,100
Free Speed, rpm	2,200	2,200	2,200	2,200	2,200	2,200	2,200
Charge Time (minutes)	30	40	40	—	—	40	40
Length, inches (mm)	9.95 (225)	9.95 (225)	9.95 (225)	9.95 (225)	9.95 (225)	9.95 (225)	9.95 (225)
Weight w/Battery, lbs. (kg)	6.8 (3.1)	7.6 (3.5)	7.6 (3.5)	*5.3 (2.4)	*5.0 (2.2)	7.5 (3.4)	7.5 (3.4)
Warranty (tool & charger)	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year
Warranty (battery)	2 Year/1,000 cycles	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year
Battery (qty)	CTB6185 (1)	CTB4187 (2)	CTB4187 (2)	Not Included	Not Included	CTB4187 (2)	CTB4187 (2)
Blow Molded Storage Case	PB165	PB165	PB165	Not Included	Not Included	PB165	PB165
Charger	CTC620	CTC620	CTC620	Not Included	Not Included	CTC628	CTC628
Optional Protective Boot	CT4850B00T	CT4850B00T	CT4850B00T	CT4850B00T	CT4850B00T	CT4850B00T	CT4850B00T

CT6850DB & CT6850QCDB are tool bodies only and do not include batteries, charger or case

* battery not included in weight



WARNING



- Use only impact sockets and accessories with impact wrenches
- Read safety precautions on pages 594 to 597

CORDLESS

18 Volt Drills



CDR6855



CDR6850

18 Volt Drills

CDR6855/CDR6850 Series.

- 2 battery choices available – 18V Lithium or 18V Ni-Cad match the needs of any application
- Industrial strength, heavy duty gearing designed for drilling in metal
- Heavy duty single sleeve keyless chuck with carbide jaws grips bits securely and prevents slippage
- 22-position clutch with a 2-speed gearbox provides torque control for driving applications
- Glass-filled nylon housing is rugged and provides durability and strength
- Over-molded ergonomic cushion grip absorbs vibration and reduces user fatigue
- Stainless steel motor screens keep debris out of the motor, extending tool life
- Contoured variable speed trigger provides ergonomic comfort and superior control

Specifications	CDR6855	CDR6850	CDR6850DB
Battery Type	Lithium 3.0Ahr	Ni-Cad 2.5Ahr	Ni-Cad 2.5Ahr/Lithium 3.0Ahr
Battery Voltage	18V	18V	18V
Chuck Capacity, inches	1/2	1/2	1/2
Torque Output, in. lbs. (N•m)	450 (50.8)	450 (50.8)	450 (50.8)
Clutch Settings	22	22	22
Gear Box Type	2-speed	2-speed	2-speed
RPM (Low)	0-500	0-500	0-500
RPM (High)	0-1,800	0-1,800	0-1,800
Charge Time (minutes)	30	40	—
Length, inches (mm)	10.25 (260)	10.25 (260)	10.25 (260)
Weight w/Battery, lbs. (kg)	5.5 (2.5)	6.3 (2.8)	* 3.7 (1.6)
Warranty (tool & charger)	1 Year	1 Year	1 Year
Warranty (battery)	2 Years/1,000 cycles	1 Year	1 Year
Battery (qty)	CTB6185 (1)	CTB4187 (2)	Not Included
Blow Molded Storage Case	PB165	PB165	Not Included
Charger	CTC620	CTC620	Not Included

CDR6850DB is the tool body only and does not include batteries, charger or case
 * battery not included in weight

CORDLESS

18 Volt Reciprocating Saws



CTRS6855



CTRS6850

18 Volt Reciprocating Saws CTRS6855/CTRS6850 Series.

- 2 battery choices available – 18V Lithium or 18V Ni-Cad match the needs of any application
- 75-Amp rated, heavy duty variable speed trigger provides long life and is contoured to reduce user fatigue
- Heavy duty 14-ga. internal wiring withstands high current loads during heavy sawing
- Spring-loaded blade retention system requires no tools and ejects broken blades easily
- Non-slip cushion grip nose reduces vibration and provides positive tool control
- Heavy duty armature and balanced motor design provide smooth operation
- Turbine style cooling system reduces heat buildup, extending tool life
- Sealed nose mechanism prevents dirt and sawing debris from damaging internal components

Specifications	CTRS6855	CTRS6850	CTRS6850DB
Battery Type	Lithium 3.0Ahr	Ni-Cad 2.5Ahr	Ni-Cad 2.5Ahr/Lithium 3.0Ahr
Battery Voltage	18V	18V	18V
Stroke Length, inches (mm)	1 (25.4)	1 (25.4)	1 (25.4)
Strokes Per Minute	2,300	2,300	2,300
Charge Time (minutes)	30	40	—
Length, inches (mm)	17 (431)	17 (431)	17 (431)
Weight w/Battery, lbs. (kg)	7.7 (3.4)	8.7 (4.0)	6.0 (2.7)
Warranty (tool & charger)	1 Year	1 Year	1 Year
Warranty (battery)	2 Years/1,000 cycles	1 Year	1 Year
Battery (qty)	CTB6185 (1)	CTB4187 (2)	Not Included
Blow Molded Storage Case	*CTRS4850-34	*CTRS4850-34	Not Included
Charger	CTC620	CTC620	Not Included

CTRS6850DB is the tool body only and does not include batteries, charger or case
*Optional case

Grease Gun

18 Volt Grease Guns

- All steel heavy duty gearing provides strength and durability
- High pressure 7,500 psi hose stays flexible in cold weather
- Planetary-spur gear system resists wear and stripping

Specifications	CGG4850	CGG4850DB	CGG4850NC
Battery Type	Ni-Cad 2.5Ahr	Ni-Cad 2.5Ahr	Ni-Cad 2.5Ahr
Battery Voltage	18V	18V	18V
Capacity, Tubes Per Charge	12	12	12
Hose Length, inches (mm)	30 (762)	30 (762)	30 (762)
Charge Time (minutes)	40	—	—
Length, in. (mm)	15.8 (401)	13 (330)	15.8 (401)
Weight w/Battery, lbs. (kg)	9.5 (4.3)	7.5 (3.4)	8.0 (3.6)
Warranty (tool & charger)	1 Year	1 Year	1 Year
Warranty (battery)	1 Year	1 Year	1 Year
Battery (qty)	CTB4187 (2)	Not Included	Not Included
Blow Molded Storage Case	CGG4850-18	CGG4850-18	CGG4850-18
Charger	CTC620	Not Included	Not Included

CGG4850DB is the tool body only and does not include batteries, charger or case



CGG4850



WARNING



- Use only impact sockets and accessories with impact wrenches
- Read safety precautions on pages 594 to 597

CORDLESS

14.4 Volt Impacts & Drills



CT4410A



CDR4450A



Friction Ring



Quick Change



Pinned Anvil

14.4 Volt Impact Wrenches

- Compact, balanced, glass-filled nylon housing provides durability and strength
- Built-in LED illuminates work area
- Cushion mounted heavy duty motor reduces vibration
- Patented air flow system routes cool air over the motor, extending tool life
- Over-molded ergonomic cushion grip absorbs vibration and reduces user fatigue
- Heat treated alloy gears provide power and durability
- Heavy duty heat sink protects switch and dissipates heat to prolong life
- One hand forward/reverse lever changes direction easily

14.4 Volt Drills

- Built in LED illuminates work area
- Rare earth magnet motor increases power and efficiency
- 22-position clutch with a 2-speed gearbox provides torque control
- Over molded ergonomic cushion grip absorbs vibration and reduces user fatigue
- 1/2" capacity chuck with carbide jaws provides secure bit retention and easy changes
- Heavy duty heat sink protects switch and dissipates heat to prolong life
- One hand forward/reverse lever changes direction easily
- Single sleeve chuck allows for easy bit changes

Specifications	Impact Wrenches							Drills	
	CT4410A	CT4410AP	CT4410AQC	CT4410ADB	CT4450A	CT4450AP	CT4450ADB	CDR4450	CDR4450DB
Battery Type	Ni-Cad 2.5 Ahr	Ni-Cad 2.5 Ahr	Ni-Cad 2.5 Ahr	Ni-Cad 2.5 Ahr	Ni-Cad 2.5 Ahr	Ni-Cad 2.5 Ahr	Ni-Cad 2.5 Ahr	Ni-Cad 2.5 Ahr	Ni-Cad 2.5 Ahr
Battery Voltage	14.4V	14.4V	14.4V	14.4V	14.4V	14.4V	14.4V	14.4V	14.4V
Square Drive, inches	3/8	3/8	1/4 Hex	3/8	1/2	1/2	1/2	1/2	1/2
Anvil Type	Friction Ring	Pinned	Quick Change	Friction Ring	Friction Ring	Pinned	Friction Ring	—	—
Torque Output ft. lbs. (N•m)	150 ft. lbs. (203)	150 ft. lbs. (203)	150 ft. lbs. (203)	150 ft. lbs. (203)	150 ft. lbs. (203)	150 ft. lbs. (203)	150 ft. lbs. (203)	400 in. lbs. (45.2)	400 in. lbs. (45.2)
Gear Box Type	—	—	—	—	—	—	—	2-speed	2-speed
Clutch Settings	—	—	—	—	—	—	—	22	22
Free Speed, rpm	2,280	2,280	2,280	2,280	2,280	2,280	2,280	0-350/0-1,500	0-350/0-1,500
Blows Per Minute, bpm	2,900	2,900	2,900	2,900	2,900	2,900	2,900	—	—
Charge Time (minutes)	35	35	35	—	35	35	—	35	—
Length, inches (mm)	6.4 (163)	6.4 (163)	6.4 (163)	6.4 (163)	6.4 (163)	6.4 (163)	6.4 (163)	7.8 (199)	7.8 (199)
Weight w/Battery, lbs. (kg)	4.6 (2.1)	4.6 (2.1)	4.6 (2.1)	2.7 (1.2)	4.6 (2.1)	4.6 (2.1)	2.7 (1.2)	4.9 (2.2)	3.0 (1.3)
Warranty (tool & charger)	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year
Warranty (battery)	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year
Battery (qty)	CTB4147 (2)	CTB4147 (2)	CTB4147 (2)	Not Included	CTB4147 (2)	CTB4147 (2)	Not Included	CTB4147 (2)	Not Included
Blow Molded Case	PB165	PB165	PB165	Not Included	PB165	PB165	Not Included	PB165	Not Included
Charger	CTC620	CTC620	CTC620	Not Included	CTC620	CTC620	Not Included	CTC620	Not Included

CT4410ADB, CT4450ADB and CDR4450DB are tool body only and do not include batteries, chargers or case.

7.2 Volt Impact/Screwdrivers



CT561



CTS561CL

7.2 Volt Impact Wrenches

- Small, lightweight design is easy to control and reduces user fatigue
- Oversized forward/reverse toggle trigger for versatility
- Integrated soft grip handle provides comfort and positive tool control
- Tapered, lightweight, aluminum nose gets into restricted applications easily

7.2 Volt Screwdrivers

- 1/4" quick change hex chuck provides secure bit retention
- 6-position clutch for added torque control (CTS561CL only)
- Small, lightweight design maneuvers easily in restricted access applications
- Up to 250 in. lbs. of manual torque can be applied to break stubborn fasteners loose
- Gearless spindle lock has no teeth or gears to break or chip



CTS561

Specifications	Impact Wrenches		Screwdrivers			
	CT561	CT561DB	CTS561	CTS561DB	CTS561CL	CTS561CLDB
Battery Type	Ni-Cad 700 mAmp	Ni-Cad 700 mAmp	Ni-Cad 700 mAmp	Ni-Cad 700 mAmp	Ni-Cad 700 mAmp	Ni-Cad 700 mAmp
Battery Voltage	7.2V	7.2V	7.2V	7.2V	7.2V	7.2V
Drive Size	3/8" Sq. Dr.	3/8" Sq. Dr.	1/4" Hex	1/4" Hex	1/4" Hex	1/4" Hex
Torque Output, in. lbs. (N•m)	600 (67.8)	600 (67.8)	60 (6.78)	60 (6.78)	60 (6.78)	60 (6.78)
Clutch Settings	—	—	—	—	6	6
Free Speed, rpm	2,500	2,500	375	375	375	375
Blows Per Minute, bpm	3,000	3,000	—	—	—	—
Charge Time (minutes)	55	55	55	55	55	55
Length, inches (mm)	6.4 (136)	6.4 (136)	4.6 (117)	4.6 (117)	5.2 (132)	5.2 (132)
Weight w/Battery, lbs. (kg)	1.7 (.77)	1.7 (.77)	1.2 (.55)	1.2 (.55)	1.5 (.68)	1.5 (.68)
Warranty (tool & charger)	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year
Warranty (battery)	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year
Battery (qty)	CTB5172 (2)	Not Included	CTB5172 (2)	Not Included	CTB5172 (2)	Not Included
Blow Molded Case/Soft Case	CTSC1	Not Included	PB166	Not Included	PB166	Not Included
Charger	CTC572	Not Included	CTC572	Not Included	CTC572	Not Included

*CTS561DB, CTS561CLDB & CT561DB are the tool bodies only and do not include batteries, charger or case



WARNING



- Use only impact sockets and accessories with impact wrenches
- Read safety precautions on pages 594 to 597

Australia	Charger	Stock No.	Application
Chargers:	Dual Chemistry Charger	CTCFA620	Charges all 14.4V / 18V Ni-Cad or Lithium slide-on style batteries
	Multi-Volt Ni-Cad Charger	CTCFA420	Charges all 9.6V, 12V, 14.4V and 18V Ni-Cad slide-on or tower style batteries
	7.2V Ni-Cad Charger	CTCA572	Charges all 7.2V batteries
Tools:	Tool	Ni-Cad Version	Lithium Version
	18V Impact Wrench	CTA6850	CTA6855
	18V Drill	CDRA6850	CDRA6855
	18V Reciprocating Saw	CTRSA6850	CTRSA6855
	14.4V Impact Wrench	CTA4410A	—
	14.4V Drill	CDRA4450	—
	7.2V Screwdriver	CTSA561	—
	7.2V Screwdriver w/ Clutch	CTSA561CL	—
7.2V Impact Wrench	CTA561	—	

United Kingdom	Charger	Stock No.	Application
Chargers:	Dual Chemistry Charger	CTCFU620	Charges all 14.4V / 18V Ni-Cad or Lithium slide-on style batteries
	Multi-Volt Ni-Cad Charger	CTCFU420	Charges all 9.6V, 12V, 14.4V and 18V Ni-Cad slide-on or tower style batteries
	Battery Charger	CTCU572	Charges all 7.2V batteries
Tools:	Tool	Ni-Cad Version	Lithium Version
	18V Impact Wrench	CTU6850	CTU6855
	18V Drill	CDRU6850	CDRU6855
	18V Reciprocating Saw	CTRSU6850	CTRSU6855
	14.4V Impact Wrench	CTU4410A	—
	14.4V Drill	CDRU4450	—
	7.2V Screwdriver	CTSU561	—
	7.2V Screwdriver w/Clutch	CTSU561CL	—
7.2V Impact Wrench	CTU561	—	

Korea	Charger	Stock No.	Application
Chargers:	Dual Chemistry Charger	CTCFK620	Charges all 14.4V / 18V Ni-Cad or Lithium slide-on style batteries
Tools:	Tool	Ni-Cad Version	Lithium Version
	18V Impact Wrench	CTK6850	CTK6855
	18V Drill	CDRK6850	CDRK6855
	18V Reciprocating Saw	CTRSK6850	CTRSK6855

Europe	Charger	Stock No.	Application
Chargers:	Dual Chemistry Charger	CTCFE620	Charges all 14.4V / 18V Ni-Cad or Lithium slide-on style batteries
	Multi-Volt Ni-Cad Charger	CTCFE420	Charges all 9.6V, 12V, 14.4V and 18V Ni-Cad slide-on or tower style batteries
	Battery Charger	CTCE572	Charger for 7.2V tools
Tools:	Tool	Ni-Cad Version	Lithium Version
	18V Impact Wrench	CTE6850	CTE6855
	18V Drill	CDRE6850	CDRE6855
	18V Reciprocating Saw	CTRSE6850	CTRSE6855
	14.4V Impact Wrench	CTE4410	—
	14.4V Drill	CDRE4450	—
	7.2V Screwdriver	CTSE561	—
	7.2V Screwdriver w/ Clutch	CTSE561CL	—
7.2V Impact Wrench	CTE561	—	

Japan	Charger	Stock No.	Application
Chargers:	Dual Chemistry Charger	CTCJ620	Charges all 14.4V / 18V Ni-Cad or Lithium slide-on style batteries
	Multi-Volt Ni-Cad Charger	CTCJ420	Charges all 9.6V, 12V, 14.4V and 18V Ni-Cad slide-on or tower style batteries
	Battery Charger	CTCJ572	Charges all 7.2V batteries
Tools:	Tool	Ni-Cad Version	Lithium Version
	18V Impact Wrench	CTJ6850	CTJ6855
	18V Drill	CDRJ6850	CDRJ6855
	18V Reciprocating Saw	CTRSJ6850	CTRSJ6855
	14.4V Impact Wrench	CTJ4410	—
	14.4V Drill	CDRJ4450	—
	7.2V Screwdriver	CTSJ561	—
	7.2V Screwdriver w/ Clutch	CTSJ561CL	—
7.2V Impact Wrench	CTJ561	—	

All Countries	Charger	Stock No.	Application
Chargers:	12 VDC Mobile Charger	CTC628	Charges all 14.4V / 18V Ni-Cad or Lithium slide-on style batteries
	12 VDC Mobile Charger	CTC428	Charges all 9.6V, 12V, 14.4V and 18V Ni-Cad slide-on or tower style batteries
	7.2 VDC Mobile Charger	CTC578	Charges all 7.2V batteries

Screwdriver Accessories/Polisher/Engraver



CTEXTSET Quick Change Extension Set.

- Includes: CTEXT6 and CTEXT12 quick change extensions plus a T15 Torx® bit (1/4" shank) and a Phillips® bit (power groove hex shank)
- Ideal companion to the CTS561 and CTS561CL series screwdrivers where extended reach is needed



ETBS360A 3.6 Volt Screwdriver Kit.

- Forward, reverse and manual modes
- 1/4" slip chuck accommodates most 1/4" power bits
- Includes #2 Phillips and 5.5 slotted bits
- 3.6V Ni-Cad battery recharges in 1 hour



CTS561HOLSTR Bit Holster.

- Holster for CTS561/CTS561CL series cordless screwdrivers
- Includes 3 flat tip bits (3/16", 7/32", 1/4"), 3 Phillips bits (#0, #1, #2) and 2 Torx bits (T15, T25)



ETB1580A Polisher.

- 6 position speed setting allows user to dial in desired speed
- Variable speed trigger lets user vary the speed within the range and have control over polishing speed
- Push button spindle lock for quick and easy pad changes



CTS561BITSET Quick Change Bit Set.

- Quick change bit set for Snap-on CTS561 and CTS561CL cordless screwdrivers plus other power drivers
- Assortment of 22 popular sized bits (all 3" long) plus a 1/4" square drive (2" long) in storage case



GA236B Engraver.

- Marks all materials
- Includes solid carbide tip
- **GA236-32 Diamond Tip.**
- Optional heavy duty tip



WARNING



• Read safety precautions on pages 594 to 597

AIR

It's About Making The Best Tool. And Then Making It Better.

For decades, Snap-on has built a reputation for lightweight, ergonomic tools that combine power and unmatched durability.

- Snap-on delivers tools that help you finish the job, not stand in the way of it.
- Snap-on has taken air to a new level by fitting heavy duty components into smaller places, giving you more power without more weight.

Unsurpassed Power And Speed.

Big torque and speed come from innovation—inside and out.

- Twin hammer impact mechanisms—Unique hammer design results in more power per blow.
- 8-vane rotors—More vanes in the rotor mean smoother power transfer to the impact hammers and less power lost in the motor.

Making Your Job Easier.

Really, this is what it's all about; air tools with features to make everyday tasks simpler.

- Better balance—For more user control.
- Compact nose design—Allows easy access into tight spaces.

Durability.

Snap-on® air tools feature heavy duty components made to resist the everyday wear and tear of the shop.



- One-piece magnesium housings—Keeps internal components in better alignment. Magnesium is incredibly tough and lightweight.
- Oil-bath lubrication—Unique technology keeps internal components continuously lubricated for smooth operation and longer tool life.

Ergonomic Design.

Snap-on power tools are designed to work comfortably and feel natural.

- Reduced vibration—Smooth-flowing motors and shock absorption reduce the stress from vibration.
- Tip-valve trigger—For an intuitive flow of power from the user to the tool.
- Comfort grips—Over-molded, cushion grips further absorb shock and take the strain out of repetitive use.



Quick Reference Chart

Impact Wrench

Stock No.	Drive Size, inches (mm)	Max. Torque, ft. lbs. (N•m)	Free Speed RPM	Blows per Minute	Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	Vibration Level, m/s ²	Sound Level dBa Pressure	Length, inches (mm)	Weight, lbs. (kg)
IM1800	1 (25)	1,800 (2,440)	5,500	900	6.7 (48) [190]	8.5	104	14 (356)	15 (6.8)
IM1800L	1 (25)	1,800 (2,440)	5,500	900	6.7 (48) [190]	8.5	104	20 (508)	16 (7.3)
AT1300A	1 (25)	3,000 (4,068)	4,000	505	5.3 (38) [150]	4.4	103	21 (533)	25.6 (11.6)
AT1300AL	1 (25)	2,700 (3,661)	4,000	505	5.3 (38) [150]	4.4	103	27 (686)	28 (12.7)
MG1200	3/4 (19)	1,200 (1,627)	7,000	1,200	6.4 (46) [181]	2.02	102	8 (203)	8 (3.6)
MG1200L	3/4 (19)	1,200 (1,627)	7,000	1,200	6.4 (46) [181]	2.02	102	10 (254)	9 (4.09)
MG1200XL	3/4 (19)	1,200 (1,627)	7,000	1,200	6.4 (46) [181]	2.02	102	13 (330)	10 (4.5)
MG1200P	3/4 (19)	1,200 (1,627)	7,000	1,200	6.4 (46) [181]	2.02	102	8 (203)	8 (3.6)
AT760	3/4 (19)	1,100 (1,492)	4,000	905	5.6 (40) [159]	<4.3	114.4	9.5 (241)	8.5 (3.8)
AT760L	3/4 (19)	1,100 (1,492)	4,000	905	5.6 (40) [159]	<4.3	114.4	14.6 (371)	9.8 (4.4)
MG725	1/2 (13)	810 (1,098)	9,800	1,270	4.0 (29) [113]	6.6	99.9	7.7 (194)	4.8 (2.2)
MG725L	1/2 (13)	810 (1,098)	9,800	1,270	4.0 (29) [113]	6.6	99.9	9.7 (245)	5.0 (2.3)
MG725P	1/2 (13)	810 (1,098)	9,800	1,270	4.0 (29) [113]	6.6	99.9	7.7 (194)	4.8 (2.2)
MG3255	1/2 (13)	325 (440)	8,200	1,400	2.4 (17) [68]	4.54	96.6	6.1 (155)	2.8 (1.3)
MG3255L	1/2 (13)	325 (440)	8,200	1,400	2.4 (17) [68]	4.54	96.6	7.6 (193)	2.9 (1.3)
MG3255P	1/2 (13)	326 (442)	8,200	1,400	2.4 (17) [68]	4.54	96.6	6.1 (155)	2.8 (1.3)
MG3255LP	1/2 (13)	325 (440)	8,200	1,400	2.4 (17) [68]	4.54	96.6	7.6 (193)	2.9 (1.3)
AT123A	1/2 (13)	425 (576)	9,000	1,000	2.8 (20) [79]	13	108	7.3 (185)	5.8 (2.6)
AT123AL	1/2 (13)	425 (576)	9,000	1,000	2.8 (20) [79]	13	108	9.3 (236)	6.1 (2.8)
AT555B	1/2 (13)	550 (745)	7,500	1,000	2.2 (16) [62]	3.75	100	7.8 (198)	5.8 (2.6)
AT560	1/2 (13)	520 (705)	7,500	1,205	3.9 (28) [111]	<6.75	111	6.7 (170)	4.6 (2.1)
ATC500	1/2 (13)	525 (712)	10,500	1,250	3.5 (25) [99]	<2.5	95.5	7.8 (198)	5 (2.3)
MG325	3/8 (10)	325 (440)	8,200	1,400	2.4 (17) [68]	4.54	96.6	6.1 (155)	2.8 (1.3)
MG325P	3/8 (10)	325 (440)	8,200	1,400	2.4 (17) [68]	4.54	96.6	6.1 (155)	2.8 (1.3)
AT380	3/8 (10)	180 (244)	11,000	1,400	2.7 (19) [76]	3.5	105	6.3 (160)	2.7 (1.2)
AT321	3/8 (10)	175 (237)	11,000	1,500	3.8 (27) [108]	9.8	109	6.1 (155)	2.9 (1.3)
AT365	3/8 (10)	250 (339)	9,000	1,250	2.7 (19) [76]	6.5	107.7	6.5 (165)	2.7 (1.2)
AT351	3/8 (10)	175 (237)	9,700	1,200	2.5 (18) [71]	3.09	109.2	7.6 (194)	2.5 (1.2)
AT235MCA	1/4 (6)	25 (34)	13,000	2,900	1.67 (12) [47]	<2.5	95.1	6.2 (158)	1.4 (.64)

Ratchet

Stock No.	Drive Size, inches (mm)	Torque Range, ft.lbs. (N•m)	Free Speed RPM	Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	Vibration Level, m/s ²	Sound Level dBa Pressure	Length, inches (mm)	Weight, lbs. (kg)
AT705B	1/2 (13)	5 - 50 (6 - 68)	150	3.0 (22) [85]	8.7	89	10.7 (273)	2.5 (1.14)
FAR72C	3/8 (10)	5 - 65 (6 - 88)	225	2.7 (19) [76]	6.4	90	11.8 (300)	3 (1.3)
FAR7200	3/8 (10)	5 - 70 (7 - 97) open mode; 5-50 (7-67) quiet mode	260 (open mode); 200 (quiet mode)	4.5 (32) [127]	6.4	93 (open mode); 87 (quiet mode)	12.1 (308)	3 (1.3)
FAR2505	3/8 (10)	0 - 35 (6 - 47)	235	1.4 (10) [40]	6.2	85	7.7 (197)	1.4 (.6)
AT704	3/8 (10)	5 - 55 (6 - 75)	200	3.9 (28) [111]	<3.9	104	10.5 (266)	3.3 (1.5)
AT700F	3/8 (10)	5 - 45 (6 - 61)	150	3.0 (22) [85]	8.7	89	10.1 (257)	3.5 (1.6)
AT702	3/8 (10)	5 - 60 (6 - 81)	200	3.0 (22) [85]	12.6	95	10.4 (265)	2.4 (1.1)
AT738	3/8 (10)	0 - 60 (0 - 81)	300	4.0 (29) [113]	5.9	102	11.2 (285)	3 (1.3)
FAR2500	1/4 (6)	0 - 35 (6 - 47)	235	1.4 (10) [40]	6.2	85	7.8 (197)	1.4 (.66)
FAR25A	1/4 (6)	5 - 25 (6 - 34)	225	1.4 (10) [40]	6.2	88	6.7 (171)	1.2 (.57)
AT203	1/4 (6)	5 - 25 (6 - 34)	285	3.1 (22) [88]	<4.4	100	7.4 (188)	1.2 (.57)
AT200D	1/4 (6)	5 - 20 (6 - 27)	150	1.4 (10) [40]	3.3	85	8.7 (222)	1.1 (.50)
AT204	1/4 (6)	5 - 22 (6 - 30)	275	2.4 (17) [68]	<1.7	91	4.9 (127)	1.4 (.66)

Drill

Stock No.	Chuck Size, inches (mm)	Rated Power, hp (kW)	Torque Range, in.lbs. (N•m)	Free Speed RPM	Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	Vibration Level, m/s ²	Sound Level dBa Pressure	Length, inches (mm)	Weight, lbs. (kg)
PDR5000A	1/2 (13)	0.45 (.33)	0 - 300 (0 - 34)	450	3.8 (27) [108]	<2.5	80	8.7 (222)	3 (1.3)
AT5000	1/2 (13)	0.45 (.33)	0 - 120 (0 - 14)	490	3.8 (27) [108]	<2.5	82	9 (229)	3.8 (1.7)
PDR3000A	3/8 (10)	0.45 (.33)	0 - 50 (0 - 6)	2,500	3.5 (25) [99]	<2.5	80	7 (178)	2.5 (1.1)
AT3000	3/8 (10)	0.2 (.15)	0 - 35 (0 - 4)	2,000	3.5 (25) [99]	<2.5	105	7.6 (194)	3.2 (1.4)
AT811	3/8 (10)	0.25 (.19)	0 - 55 (0 - 6)	1,320	3.4 (24) [95]	<.8	110	8.2 (208)	2.5 (1.1)
AT184	5/16 (8)	-	-	1,800	8.4 (60) [238]	<1.0	84	7.9 (201)	3.1 (1.4)
AT801MCA	1/4 (6)	0.25 (.19)	0 - 18 (0 - 2)	1,800	9.4 (68) [266]	<2.5	96.4	7.2 (183)	1.5 (.68)

Hammer

Stock No.	Bore Diameter, inches (mm)	Blows per Minute	Piston Stroke, inches	Shank Opening, inches (mm)	Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	Vibration Level, m/s ²	Sound Level dBa Pressure	Length, inches (mm)	Weight, lbs. (kg)
PH3050A	3/4 (19)	2,500	3	0.401 (10.1)	1.8 (13) [51]	1.5	94	8.9 (227)	5.9 (2.7)
AT2050	3/4 (19)	3,400	2.75	0.401 (10.1)	2.5 (18) [71]	3.0	99	7.4 (187)	4.6 (2.1)



WARNING



• Read safety messages about each type of Air Tool on the following pages and the safety precautions on pages 594 to 597

Quick Reference Chart

Finishing Tool

Stock No.	Pad Size, inches (mm)	Style	Rated Power, hp (kW)	Free Speed RPM	Spindle Thread, inches	Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	Vibration Level, m/s ²	Sound Level dBa Pressure	Length, inches (mm)	Weight, lbs. (kg)
PSF4312	3 (76)	Orbital	0.25 (.19)	12,000	1/4-20	2 (14) [57]	2.1	76	3 (76)	1.4 (.65)
PS4512	5 (127)	Orbital	0.25 (.19)	12,000	5/16-24	2 (14) [57]	2.3	77	5 (127)	1.7 (.77)
PS4612	6 (152)	Orbital	0.25 (.19)	12,000	5/16-24	2 (14) [57]	2.3	81	6 (152)	2.5 (1.14)
PSF4612	6 (152)	Orbital Finishing	0.25 (.19)	12,000	5/16-24	2 (14) [57]	2.1	81	6 (152)	2.4 (1.11)
PS4609	6 (152)	Geared (NV)	0.42 (.31)	1,000	3/8	3 (21.7) [85]	5.9	82	11 (281)	3.7 (1.70)
PS4609V	6 (152)	Geared (V)	0.42 (.31)	1,000	3/8	3 (21.7) [85]	5.9	82	11 (281)	3.7 (1.70)
PS4809	8 (203)	Geared (NV)	0.42 (.31)	1,000	3/8	3 (21.7) [85]	5.9	82	11 (281)	4 (1.82)
PS4809V	8 (203)	Geared (V)	0.42 (.31)	1,000	3/8	3 (21.7) [85]	5.9	82	11 (281)	4 (1.82)
AT408	8 (203)	Geared (NV)	0.5 (.37)	850	5/16-24	5 (36) [142]	3.7	87	11 (281)	4.8 (2.18)
AT411A	6 (152)	Dual Action	0.5 (.37)	10,000	5/16-18	5 (36) [142]	3.7	79	8 (203)	4.7 (2.14)
AT465B	5 (127)	Angle	0.8 (.59)	6,100	5/16-11	4.8 (34) [136]	<2.5	84	9.7 (248)	2.9 (1.32)
AT450B	7 (177)	Angle	1 (.74)	5,100	5/16-11	4.8 (34) [136]	5.6	84	15.7 (400)	5.5 (2.50)
AT460B	7 (177)	Verticle	0.67 (.49)	4,500	5/16-11	4.8 (34) [136]	<2.5	83	7.3 (185)	5 (2.27)
AT425R	5 (127)	Reversible Hi-speed	0.45 (.33)	13,000	7/16-20	4.3 (31) [122]	<0.8	93	5.3 (135)	2.8 (1.28)
AT475A	—	In Line	—	1,800	—	2.3 (17) [65]	14.9	87	16 (406)	6.8 (3.09)
AT435A	—	Jitter Bug	0.5 (.37)	8,000	—	3 (22) [85]	4.5	84	6.7 (171)	4.6 (2.09)
AT450BP	7 (177)	Angle Polisher	1 (.74)	5,100	5/8-11	4.8 (34) [136]	<2.5	84	15.7 (400)	5.5 (2.50)
AT460BP	7 (177)	Vertical Polisher	0.67 (.49)	4,500	5/8-11	4.8 (34) [136]	<2.5	83	7.3 (185)	5 (2.27)
AT401MCA	3 (76)	Micro Surface Prep	0.25 (.19)	15,000	1/4-20	2.1 (15) [59]	<2.5	84	4.7 (119)	.97 (.44)
AT402MCA	3 (76)	Micro Sander	0.25 (.19)	15,000	5/16-24	2.1 (15) [59]	<2.5	84	5.2 (133)	1.1 (.50)
AT403MCA	3 (76)	Micro Polisher	0.25 (.19)	6,000	5/16-24	2.2 (16) [62]	<2.5	86	5.6 (143)	1.3 (.60)
PT280THUGA	—	Material Removal Tool	0.45 (.33)	3,500	—	4 (28) [113]	2.8	85	12 (304)	2.4 (1.09)

Cutting Tools

Stock No.	Wheel Size, inches (mm)	Rated Power, hp (kW)	Free Speed RPM	Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	Vibration Level, m/s ²	Sound Level dBa Pressure	Length, inches (mm)	Weight, lbs. (kg)
PT250R	3 (76)	0.5 (.37)	22,000	2.7 (19) [76]	<2.5	84	7.2 (183)	1.2 (.55)
AT154R	4 (101.5)	0.9 (.67)	16,000	3.6 (26) [102]	<.6	104	14.8 (376)	3.1 (1.4)
AT157R	3 (76)	0.45 (.33)	20,000	3.5 (25) [99]	<3.8	100	7.3 (185)	1.9 (.86)
AT215	2 (50)	0.5 (.37)	15,000	3 (22) [85]	<2.86	73	7.4 (188)	1.8 (.82)
AT415B	4 1/2 (114)	0.86 (.64)	12,000	3.2 (23) [91]	5.1	87	10 (254)	4.2 (1.9)

Grinders

Stock No.	Free Speed RPM	Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	Vibration Level, m/s ²	Sound Level dBa Pressure	Length, inches (mm)	Weight, lbs. (kg)
AT192A	11,000	1 (7) [28]	10.1	94	9.3 (235)	1.7 (.80)
AT194A	8,250	.70 (5) [20]	<6.6	87	6.7 (175)	1 (.45)
AT185	—	11.3 (81) [320]	<2.5	48.6	9.3 (235)	2.6 (1.2)
AT195	—	4 (29) [113]	<2.5	99.6	10 (254)	2.8 (1.3)
AT180C	3,500	4 (29) [113]	4.3	97	7.6 (194)	1.9 (.88)

Die Grinder

Stock No.	Collet Size, inches	Rated Power, hp (kW)	Free Speed RPM	Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	Vibration Level, m/s ²	Sound Level dBa Pressure	Length, inches (mm)	Weight, lbs. (kg)
PT100	1/4	0.3 (.2)	25,000	1.4 (10) [40]	3.8	84	5.8 (149)	1.6 (.73)
PT110	1/4	0.3 (.2)	25,000	1.4 (10) [40]	3.8	84	5.6 (144)	1.9 (.86)
PT200R	1/4	0.5 (.3)	22,000	2.7 (19) [76]	3.8	84	6.7 (170)	1.8 (.83)
PT210R	1/4	0.5 (.3)	22,000	3 (22) [85]	<2.5	84	6.6 (168)	2.0 (.93)
PT200LR	1/4	0.5 (.3)	22,000	1.4 (10) [40]	2.6	84	10.6 (269)	2.0 (.91)
AT115	1/4	0.2 (.15)	22,000	4 (29) [113]	<2.5	102	6.5 (165)	1.3 (.61)
AT118	1/4	0.2 (.15)	20,000	2.1 (15) [59]	2.5	104	5.5 (140)	1.1 (.50)
AT105	1/4	0.2 (.15)	22,000	4 (29) [113]	<2.5	102	6.5 (165)	1.3 (.61)
AT109*	1/4	0.2 (.15)	20,000	2.1 (15) [59]	2.5	104	5.5 (140)	1.1 (.50)
AT119DGK	1/4	0.2 (.15)	2,000	2.1 (15) [59]	2.5	100	6.8 (173)	1.1 (.50)
AT1070A	1/8	—	75,000	1 (7) [28]	2.0	72	5.3 (135)	.55 (.25)
AT1070RA	1/8	—	75,000	1 (7) [28]	2.0	72	5.9 (150)	.46 (.21)

* See p. 280 for AT109DGK Die Grinder Kit specifications.

1", 3/4" Drive Impact Wrenches



IM1800



6" Long Anvil (L)



MG1200



Thru-Hole Anvil (P)



3" Long Anvil (L)



6" Extra Long Anvil (XL)

Super Duty Air Impact Wrenches

IM1800 Series 1" Drive.

- Convenient D-handle and side handle for less user fatigue
- Lightweight aluminum nose for better balance
- Standard and long anvils are thru-hole design for positive socket retention
- High torque to remove stubborn fasteners quicker
- Lightweight aluminum housing for less user fatigue
- 3-position speed control and full power reverse have more control when tightening or removing fasteners
- Twin hammer mechanism is durable and hard hitting, using fewer parts resulting in less down time
- Sealed in oil bath lubrication keeps impact mechanism lubricated for less wear and longer tool life

Super Duty Air Impact Wrenches

MG1200 Series 3/4" Drive.

- 1 piece magnesium housing assures precision alignment of components and reduces vibration
- Continuous oil bath lubrication reduces wear and increases life
- Twin hammer mechanism delivers hard hitting blows with fewer moving parts for longer tool life
- 6 vane rotor delivers maximum torque and speed to remove stubborn fasteners
- Cushion grip variable speed trigger reduces user fatigue
- Balanced design distributes weight evenly to increase control
- Anvil stops with release of the trigger to prevent throwing fasteners
- 1 hand reverse button for easy operation

Super Duty

Specifications	IM1800	IM1800L	MG1200	MG1200L	MG1200XL	MG1200P
Drive Size, inches (mm)	1 (25)	1 (25)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)
Max. Torque, ft. lbs. (N•m)	1,800 (2,440)	1,800 (2,440)	1,200 (1,627)	1,200 (1,627)	1,200 (1,627)	1,200 (1,627)
Free Speed RPM	5,500	5,500	7,000	7,000	7,000	7,000
Blows per Minute	900	900	1,200	1,200	1,200	1,200
Extended Anvil Length, inches (mm)	—	6 (152)	—	3 (76)	6 (152)	—
Anvil Type	Friction Ring w/ Thru Hole	Thru Hole	Friction Ring	Friction Ring w/ Thru Hole	Friction Ring w/ Thru Hole	Thru Hole
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	6.7 (48) [190]	6.7 (48) [190]	6.4 (46) [181]	6.4 (46) [181]	6.4 (46) [181]	6.4 (46) [181]
Air Inlet Thread Size	1/2"-14 NPT	1/2"-14 NPT	3/8"-18 NPT	3/8"-18 NPT	3/8"-18 NPT	3/8"-18 NPT
Recommended Hose Size, inches	1/2	1/2	3/8	3/8	3/8	3/8
Vibration Level, m/s ²	8.5	8.5	2.02	2.02	2.02	2.02
Sound Level dBA Pressure	104	104	102	102	102	102
Length, inches (mm)	14 (356)	20 (508)	8 (203)	10 (254)	13 (330)	8 (203)
Weight, lbs. (kg)	15 (6.8)	16 (7.3)	8 (3.6)	9 (4.09)	10 (4.5)	8 (3.6)
Vinyl Boot (included)	—	—	MG1200BOOT	MG1200BOOT	MG1200BOOT	MG1200BOOT

Impact wrench suffix: P = Pinned anvil, L = Long anvil, XL = Extra long anvil. Standard anvil for applications where frequent socket change is required. Pinned anvil for high-torque applications where socket security is a priority. Long or Extra long anvil for tight applications that require extra reach.



WARNING



- Use only impact sockets and accessories with impact wrenches
- Read safety precautions on pages 594 to 597

AIR

1", 3/4" Drive Impact Wrenches—Blue-Point®



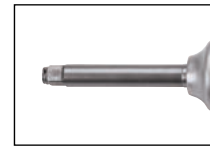
AT1300A



6" Long Anvil (L)



AT760



6" Long Anvil (L)

Heavy Duty Air Impact Wrenches

AT1300A Series 1" Drive.

- Workhorse performance for use on trucks, buses and heavy equipment
- Steel nose for rugged, demanding applications
- Pin clutch style impact mechanism for fast startup and high torque requirements
- Thru-hole anvil

Heavy Duty Air Impact Wrenches

AT760 Series 3/4" Drive.

- Lightweight composite housing with aluminum nose
- 3 position thumb operated forward/reverse lever
- Bottom handle exhaust
- Twin hammer mechanism

Heavy Duty

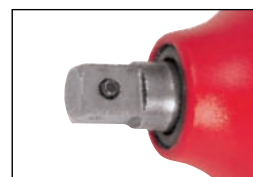
Specifications	AT1300A	AT1300AL	AT760	AT760L
Drive Size, inches (mm)	1 (25)	1 (25)	3/4 (19)	3/4 (19)
Max. Torque, ft. lbs. (N•m)	3,000 (4,068)	2,700 (3,661)	1,100 (1,492)	1,100 (1,492)
Free Speed RPM	4,000	4,000	4,000	4,000
Blows per Minute	505	505	905	905
Extended Anvil Length, inches (mm)	—	6 (152)	—	6 (152)
Anvil Type	Friction Ring w/Thru Hole	Friction Ring w/Thru Hole	Friction Ring	Friction Ring
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	5.3 (38) [150]	5.3 (38) [150]	5.6 (40) [159]	5.6 (40) [159]
Air Inlet Thread Size	1/2"-14 NPT	1/2"-14 NPT	3/8"-18 NPT	3/8"-18 NPT
Recommended Hose Size, inches	1/2	1/2	3/8	3/8
Vibration Level, m/s ²	4.4	4.4	<4.3	<4.3
Sound Level dBA Pressure	103	103	114.4	114.4
Length, inches (mm)	21 (533)	27 (686)	9.5 (241)	14.6 (371)
Weight, lbs. (kg)	25.6 (11.6)	28 (12.7)	8.5 (3.8)	9.8 (4.4)
Vinyl Boot (optional)	—	—	AT760B00T	AT760B00T

Impact wrench suffix: L = Long anvil. Standard anvil for applications where frequent socket change is required.
Long anvil for tight applications that require extra reach.

1/2" Drive Impact Wrenches



MG725



Pinned Anvil (P)



3" Long Anvil (L)

MG725 Series 1/2" Drive.

- 1 piece machined magnesium is extremely durable and lightweight and provides alignment of internal parts to reduce vibration
- 8 vane rotor provides faster motor startup and greater performance with more torque
- Patented cushion grip helps insulate user's hand from cold and reduces vibration to reduce user fatigue
- Patented tip valve trigger provides increased air flow and greater tool control
- Twin hammer impact mechanism is durable and hard hitting to quickly remove stubborn fasteners
- Sealed-in oil bath lubrication keeps impact mechanism lubricated for less wear
- Slim style nose is ideal for working in restricted access areas
- Anvil stops with release of the trigger to prevent throwing of fasteners
- Cushion grip trigger button delivers improved comfort and control

1/2" Drive Super Duty

Specifications	MG725	MG725L	MG725P
Drive Size, inches (mm)	1/2 (13)	1/2 (13)	1/2 (13)
Max. Torque, ft. lbs. (N•m)	810 (1,098)	810 (1,098)	810 (1,098)
Free Speed RPM	9,800	9,800	9,800
Blows per Minute	1,270	1,270	1,270
Extended Anvil Length, inches (mm)	—	3 (76)	—
Anvil Type	Friction Ring	Friction Ring	Pinned
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	4.0 (29) [113]	4.0 (29) [113]	4.0 (29) [113]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	3/8	3/8	3/8
Vibration Level, m/s ²	6.6	6.6	6.6
Sound Level dBa Pressure	99.9	99.9	99.9
Length, inches (mm)	7.7 (194)	9.7 (245)	7.7 (194)
Weight, lbs. (kg)	4.8 (2.2)	5.0 (2.3)	4.8 (2.2)
Vinyl Boot (included)	MG725B00T	MG725B00T	MG725B00T

Impact wrench suffix: P = Pinned anvil, L = Long anvil. Standard anvil for applications where frequent socket change is required. Pinned anvil for high-torque applications where socket security is a priority. Long anvil for tight applications that require extra reach.



WARNING



- Use only impact sockets and accessories with impact wrenches
- Read safety precautions on pages 594 to 597

AIR

1/2" Drive Impact Wrenches—Blue-Point®



AT123A

AT123A 1/2" Drive.

- Twin hammer impact mechanism provides harder hitting blows
- Steel nose case with lightweight aluminum housing
- Pressure feed grease lubrication
- Convenient slide bar forward/reverse



2" Long Anvil (L)



AT555B

AT555B 1/2" Drive.

- Powerful twin hammer clutch
- Reverse bias motor provides additional breakaway torque
- Built-in power regulator
- Molded ergonomic handle improves grip



AT560

AT560 1/2" Drive.

- Lightweight composite housing
- 3 position thumb operated forward/reverse lever
- Bottom handle exhaust
- Twin hammer mechanism
- Contoured aluminum nose



ATC500

ATC500 1/2" Drive.

- Aluminum front housing and composite rear housing combine to deliver a durable, lightweight and balanced unit
- Ribbed, textured handle provides maximum comfort and control
- 4 position power regulator for greater job versatility
- Twin hammer impact mechanism for longer life and greater power

Heavy Duty

Specifications	AT123A	AT123AL	AT555B	AT560	ATC500
Drive Size, inches (mm)	1/2 (13)	1/2 (13)	1/2 (13)	1/2 (13)	1/2 (13)
Max. Torque, ft. lbs. (N•m)	425 (576)	425 (576)	475 (644)F, 550 (745) R	520 (705)	525 (712)
Free Speed RPM	9,000	9,000	6,800 (F), 7,500 (R)	7,500	10,500
Blows per Minute	1,000	1,000	1,000	1,205	1,250
Extended Anvil Length, inches (mm)	—	2 (51)	—	—	—
Anvil Type	Friction Ring	Friction Ring	Friction Ring	Friction Ring	Friction Ring
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	2.8 (20) [79]	2.8 (20) [79]	2.2 (16) [62]	3.9 (28) [111]	3.5 (25) [99]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	3/8	3/8	3/8	3/8	3/8
Vibration Level, m/s ²	13	13	3.75	<6.75	<2.5
Sound Level dBa Pressure	108	108	100	111	95.5
Length, inches (mm)	7.3 (185)	9.3 (236)	7.8 (198)	6.7 (170)	7.8 (198)
Weight, lbs. (kg)	5.8 (2.6)	6.1 (2.8)	5.8 (2.6)	4.6 (2.1)	5 (2.3)
Vinyl Boot (optional)	AT123-45	AT123-45	AT555B00T	AT560B00T	IMC500B00T

Impact wrench suffix: L = Long anvil. Standard anvil for applications where frequent socket change is required. Long anvil for tight applications that require extra reach.

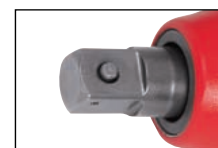
3/8" Drive Impact Wrenches



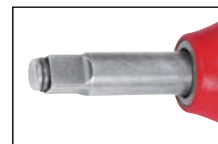
MG325



MG3255



Pinned Anvil (P)



2" Long Anvil (L)



2" Long Pinned Anvil (LP)

MG325 3/8" Drive and MG3255 1/2" Drive

MG325 Features:

- 1 piece magnesium housing for precise internal component alignment to reduce vibration
- Twin hammer impact mechanism delivers hard hitting blows with fewer moving parts to quickly remove stubborn fasteners
- Continuous oil bath lubrication prolongs tool life by reducing premature component wear
- 8 vane motor delivers maximum speed and torque
- Lightweight, balanced design distributes weight evenly to reduce user fatigue
- One handed forward/reverse lever for user convenience
- Cushion grip handle insulates user's hand from cold and absorbs vibration
- Comfort cushion trigger button allows the user to work comfortably with less finger stress
- Anvil stop feature means anvil will stop when trigger is released to avoid throwing fasteners

MG3255 Features:

- Same features as MG325, except for a 1/2" drive anvil
- Compact, yet powerful, 1/2" model is ideal for working in confined areas

MG3255P (Pinned anvil)

- Same features as MG3255, except for a pinned anvil

MG3255L (Long anvil)

- Same features as MG3255, except for a long anvil

MG3255LP (Long pinned anvil)

- Same features as MG3255, except for a long pinned anvil

Super Duty

Specifications	MG325	MG325P	MG3255	MG3255L	MG3255P	MG3255LP
Drive Size, inches (mm)	3/8 (10)	3/8 (10)	1/2 (13)	1/2 (13)	1/2 (13)	1/2 (13)
Max. Torque, ft. lbs. (N•m)	325 (440)	325 (440)	325 (440)	325 (440)	326 (442)	325 (440)
Free Speed RPM	8,200	8,200	8,200	8,200	8,200	8,200
Blows per Minute	1,400	1,400	1,400	1,400	1,400	1,400
Extended Anvil Length, inches (mm)	—	—	—	2 (51)	—	2 (51)
Anvil Type	Friction Ring	Pinned	Friction Ring	Friction Ring	Pinned	Pinned
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	2.4 (17) [68]	2.4 (17) [68]	2.4 (17) [68]	2.4 (17) [68]	2.4 (17) [68]	2.4 (17) [68]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	3/8	3/8	3/8	3/8	3/8	3/8
Vibration Level, m/s ²	4.54	4.54	4.54	4.54	4.54	4.54
Sound Level dBa Pressure	96.6	96.6	96.6	96.6	96.6	96.6
Length, inches (mm)	6.1 (155)	6.1 (155)	6.1 (155)	7.6 (193)	6.1 (155)	7.6 (193)
Weight, lbs. (kg)	2.8 (1.3)	2.8 (1.3)	2.8 (1.3)	2.9 (1.3)	2.8 (1.3)	2.9 (1.3)
Vinyl Boot (included)	MG325B00T	MG325B00T	MG325B00T	MG325B00T	MG325B00T	MG325B00T

Impact wrench suffix: P = Pinned anvil, L = Long anvil, LP = Long pinned anvil. Standard anvil for applications where frequent socket change is required. Pinned anvil for high-torque applications where socket security is a priority. Long anvil for tight applications that require extra reach.



WARNING



- Use only impact sockets and accessories with impact wrenches
- Read safety precautions on pages 594 to 597

AIR

3/8", 1/4" Drive Impact Wrenches—Blue-Point®



AT380

AT380 3/8" Drive.

- Twin hammer impact mechanism
- Slim style nose for restricted access applications
- Variable speed trigger for superior control
- Built-in 5 position air regulator



AT321

AT321 3/8" Drive.

- Single hammer impact mechanism
- Steel nose case with lightweight aluminum housing
- Convenient slide bar forward/reverse bar width regulator



AT365

AT365 3/8" Drive.

- Composite housing
- 3 position thumb operated forward/reverse lever
- Twin hammer mechanism
- Contoured aluminum nose



AT351

AT351 3/8" Drive.

- Built-in air inlet swivel
- 8 position power regulator
- Rotary action air motor is ball bearing mounted for balance, speed and power
- Ideal tool for small engine repair and bench work



AT235MCA

AT235MCA 1/4" Drive Micro.

- Fast speed
- Lightweight composite housing with molded comfort grip
- Convenient one handed forward/reverse lever
- Oversized trigger with variable speed

3/8", 1/4" Drive Impact

Specifications	AT380	AT321	AT365	AT351	AT235MCA
Drive Size, inches (mm)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)	1/4 (6)
Max. Torque, ft. lbs. (N•m)	180 (244)	175 (237)	250 (339)	175 (237)	25 (34)
Free Speed RPM	11,000	11,000	9,000	9,700	13,000
Blows per Minute	1,400	1,500	1,250	1,200	2,900
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	2.7 (19) [76]	3.8 (27) [108]	2.7 (19) [76]	2.5 (18) [71]	1.67 (12) [47]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	3/8	3/8	3/8	3/8	3/8
Vibration Level, m/s ²	3.5	9.8	6.5	3.09	<2.5
Sound Level dBa Pressure	105	109	107.7	109.2	95.1
Length, inches (mm)	6.3 (160)	6.1 (155)	6.5 (165)	7.6 (194)	6.2 (158)
Weight, lbs. (kg)	2.7 (1.2)	2.9 (1.3)	2.7 (1.2)	2.5 (1.2)	1.4 (.64)
Vinyl Boot (optional)	YA877A	AT321-44	AT365B00T	—	—

3/8", 1/4" Drive Ratchets



FAR72C



FAR7200



FAR25A

FAR72C and FAR7200 3/8" Drive.

- Dual pawls for smooth operation and performance
- Patented "stop lock" pins prevent ratchet pawl lock up
- Steel wear bushings to prevent ratchet head wear
- Comfortable variable speed trigger for added comfort and control
- Zerk fitting in selector knob allows ratchet head lubrication for longer tool life
- Tip valve style trigger provides featherability and versatility
- Patented muffler bypass allows tool to be used in quiet mode or full power (FAR7200 only)
- Cushion grip handle for added comfort and control (FAR7200 only)

FAR25A 1/4" Drive.

- Air motor vanes resist wear, chipping, cracking and moisture
- Needle bearing supported drive shaft provides a smooth running tool
- Ergonomic handle design provides a sure grip and reduces fatigue
- Paddle style variable speed trigger is spring loaded for easy control
- Directional muffler rotates exhaust away from the user
- Lightweight clamshell housing easily accesses restricted areas



FAR2500



FAR2505

FAR2500 1/4" Drive and FAR2505 3/8" Drive Mini Ratchets.

- Balanced, lightweight housing for superior control with less user fatigue
- Soft grip handle increases comfort, reduces vibration and insulates against cold
- Hard coated motor plates help prevent scoring for longer tool life
- Improved rotor vanes provide more power and speed for greater performance in low pressure environments
- Large, lightweight selector knob is easy to turn with greasy hands, easy to reverse direction
- Zerk fitting in selector knob allows ratchet head to be lubricated for longer tool life
- Robust head design for maximum strength and durability
- All ball bearing construction and high strength alloy steel gear system for increased durability

Air Ratchets

Specifications	FAR72C	FAR7200	FAR2505	FAR2500	FAR25A
Drive Size, inches (mm)	3/8 (10)	3/8 (10)	3/8 (10)	1/4 (6)	1/4 (6)
Torque Range, ft.lbs. (N•m)	5 - 65 (6 - 88)	5 - 70 (7 - 97) open mode; 5-50 (7-67) quiet mode	0 - 35 (6 - 47)	0 - 35 (6 - 47)	5 - 25 (6 - 34)
Free Speed RPM	225	260 (open mode); 200 (quiet mode)	235	235	225
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	2.7 (19) [76]	4.5 (32) [127]	1.4 (10) [40]	1.4 (10) [40]	1.4 (10) [40]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	3/8	3/8	3/8	3/8	3/8
Vibration Level, m/s ²	6.4	6.4	6.2	6.2	6.2
Sound Level dBa Pressure	90	93 (open mode); 87 (quiet mode)	85	85	88
Length, inches (mm)	11.8 (300)	12.1 (308)	7.7 (197)	7.8 (197)	6.7 (171)
Weight, lbs. (kg)	3 (1.3)	3 (1.3)	1.4 (.6)	1.4 (.66)	1.2 (.57)
Vinyl Boot (included)	YA889	YA880	YA905	YA905	YA888



WARNING



- Use only impact sockets and accessories with impact wrenches
- Read safety precautions on pages 594 to 597

AIR

1/2", 3/8", 1/4" Drive Ratchets—Blue-Point®



AT705B

AT705B 1/2" Drive.

- 1/2" drive ratchet in a 3/8" drive body
- Ball bearing mounted motor for longer tool life



AT704

AT704 3/8" Drive.

- Lightweight aluminum housing
- Rugged ball bearing mounted air motor and precision planetary gear system
- Easy to use variable speed throttle plus adjustable air regulator



AT700F

AT700F 3/8" Drive.

- Lightweight aluminum housing
- Rugged ball bearing mounted air motor and precision planetary gear system
- Easy to use variable speed throttle plus adjustable air regulator



AT702

AT702 3/8" Drive High Torque.

- Flywheel mechanism
- Rugged ball bearing mounted air motor coupled with precision planetary gear system
- Easy to use variable speed throttle and adjustable air regulator



AT738

AT738 3/8" Drive.

- Reactionless mechanism absorbs kickback when running fasteners tight
- High RPM removes fasteners quickly
- Adjustable air regulator
- Ideal tool for spark plugs, water pumps, shocks and muffler clamps



AT203

AT203 1/4" Drive.

- Lightweight aluminum housing
- Rugged ball bearing mounted air motor and precision planetary gear system
- Easy to use variable speed throttle plus adjustable air regulator



AT200D

AT200D 1/4" Drive.

- Lightweight aluminum housing
- Rugged ball bearing mounted air motor and precision planetary gear system



AT204

AT204 1/4" Drive Mini.

- Ideal for working in tight quarters
- Head clearance is less than 3/4"
- Includes variable speed trigger, adjustable air regulator and 5' nylon braided whip hose for maneuverability and control
- Polished aluminum housing provides strength and durability

Air Ratchets

Specifications	AT705B	AT704	AT700F	AT702	AT738	AT203	AT200D	AT204
Drive Size, inches (mm)	1/2 (13)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)	1/4 (6)	1/4 (6)	1/4 (6)
Torque Range, ft.lbs. (N•m)	5 - 50 (6 - 68)	5 - 55 (6 - 75)	5 - 45 (6 - 61)	5 - 60 (6 - 81)	0 - 60 (0 - 81)	5 - 25 (6 - 34)	5 - 20 (6 - 27)	5 - 22 (6 - 30)
Free Speed RPM	150	200	150	200	300	285	150	275
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	3.0 (22) [85]	3.9 (28) [111]	3.0 (22) [85]	3.0 (22) [85]	4.0 (29) [113]	3.1 (22) [88]	1.4 (10) [40]	2.4 (17) [68]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Vibration Level, m/s ²	8.7	<3.9	8.7	12.6	5.9	<4.4	3.3	<1.7
Sound Level dBa Pressure	89	104	89	95	102	100	85	91
Length, inches (mm)	10.7 (273)	10.5 (266)	10.1 (257)	10.4 (265)	11.2 (285)	7.4 (188)	8.7 (222)	4.9 (127)
Weight, lbs. (kg)	2.5 (1.14)	3.3 (1.5)	3.5 (1.6)	2.4 (1.1)	3 (1.3)	1.2 (.57)	1.1 (.50)	1.4 (.66)
Vinyl Boot (included)	AT700E49A	—	AT700E49A	AT700E49A	AT738BOOT	—	AT200D22A	—

1/2", 3/8" Drive Drills



PDR5000A



PDR3000A

PDR5000A and PDR3000A 1/2" and 3/8" Reversible.

- Top mounted forward/reverse switch allows 1 hand operation, means more convenience for user
- 5 vane air motor provides more drilling power to get the job done faster
- Over-molded cushion handle insulates from cold and vibration to reduce user fatigue
- Reversible variable speed trigger for more control of drilling speed allows precise drilling and increased safety
- Internal ball bearing construction for smooth operation and extended tool life
- 3 planet industrial strength gear train provides durability for heavy duty drilling applications
- Precise .0025" chuck runout enables precision drilling and yields a high quality job
- Ergonomically designed lightweight aluminum housing provides a high power to weight ratio, allowing more productivity with less fatigue

1/2" and 3/8" Capacity Drills

Specifications	PDR5000A	PDR3000A
Chuck Size, inches (mm)	1/2 (13)	3/8 (10)
Rated Power, hp (kW)	0.45 (.33)	0.45 (.33)
Torque Range, in.lbs. (N•m)	0 - 300 (0 - 34)	0 - 50 (0 - 6)
Free Speed RPM	450	2500
Spindle Thread, inches	1/2-20 UNF	3/8-24 UNF
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	3.8 (27) [108]	3.5 (25) [99]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	3/8	3/8
Vibration Level, m/s ²	<2.5	<2.5
Sound Level dBa Pressure	80	80
Length, inches (mm)	8.7 (222)	7 (178)
Weight, lbs. (kg)	3 (1.3)	2.5 (1.1)
Auxiliary Handle	PDR5000-40A	—
Keyless Chuck (optional)	—	PDR3A-2



AT184

AT184 Spotweld Drill.

- Twist depth control collar allows precise setting of drilling depth up to 1/4"
- 2 speed trigger for low or high speeds
- Includes (1) 5/16" (8 mm) drill bit and removeable clamp arm

Spotweld Drill

Specifications	AT184
Chuck Size, inches (mm)	5/16 (8)
Rated Power, hp (kW)	—
Torque Range, in.lbs. (N•m)	—
Free Speed RPM	1,800
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	8.4 (60) [238]
Air Inlet Thread Size	1/4"-18 NPT
Recommended Hose Size, inches	3/8
Vibration Level, m/s ²	<1.0
Sound Level dBa Pressure	84
Length, inches (mm)	7.9 (201)
Weight, lbs. (kg)	3.1 (1.4)
Spotweld Drill Bit (8mm) (included)	AT183-50
Spotweld Drill Bit (6.5mm) (optional)	AT183-43
Spotweld Drill Bit (10mm) (optional)	AT183-51
Support Arm 5.5 (optional)	AT184-26A



WARNING



• Read safety precautions on pages 594 to 597

AIR

1/2", 3/8", 1/4" Drills—Blue-Point®



AT5000

AT5000 1/2" Reversible.

- Chuck key conveniently stores in handle
- Variable speed trigger
- Convenient, 1 hand forward/reverse operation
- Bottom handle exhaust directs exhaust away from the work



AT3000

AT3000 3/8" Reversible.

- 1 hand forward/reverse operation
- Bottom handle diffused exhaust
- Comfort grip handle
- Keyless chuck



AT811

AT811 3/8" Angle.

- Convenient 1 hand pushbutton forward/reverse
- Rear exhaust keeps air away from the work area
- Built-in chuck key holder keeps the key at hand for quick bit changes
- Ball bearing construction for longer tool life



AT801MCA

AT801MCA 1/4" Micro.

- Small size ideal for working in confined areas
- Durable composite housing stands up to rugged use
- Reverse lever conveniently positioned for 1 hand operation
- Oversize variable speed trigger

1/4", 3/8" and 1/2" Capacity Drills

Specifications	AT5000	AT3000	AT811	AT801MCA
Chuck Size, inches (mm)	1/2 (13)	3/8 (10)	3/8 (10)	1/4 (6)
Rated Power, hp (kW)	0.45 (.33)	0.2 (.15)	0.25 (.19)	0.25 (.19)
Torque Range, in.lbs. (N•m)	0 - 120 (0 - 14)	0 - 35 (0 - 4)	0 - 55 (0 - 6)	0 - 18 (0 - 2)
Free Speed RPM	490	2,000	1,320	1,800
Spindle Thread, inches	1/2-20 UNF	3/8-24 UNF	3/8-24 UNF	3/8-24 UNF
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	3.8 (27) [108]	3.5 (25) [99]	3.4 (24) [95]	9.4 (68) [266]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	3/8	3/8	3/8	3/8
Vibration Level, m/s ²	<2.5	<2.5	<.8	<2.5
Sound Level dBa Pressure	82	105	110	96.4
Length, inches (mm)	9 (229)	7.6 (194)	8.2 (208)	7.2 (183)
Weight, lbs. (kg)	3.8 (1.7)	3.2 (1.4)	2.5 (1.1)	1.5 (.68)
Auxiliary Handle	PDH1A	—	—	—
Vinyl Boot (optional)	AT5000BOOT	AT3000BOOT	—	—



PH3050A



PHG3050CH4A



AT2050

PH3050A Super Duty.

- Dual elastomer cushions absorb shock and vibration to reduce user fatigue
- Phenolic (Kevlar® reinforced) flutter disc provides long life
- Direct multi-port front exhaust keeps air and debris away from user
- High grade steel barrel provides greater strength
- Variable speed soft touch trigger provides featherability for greater control
- 4 position built in air regulator varies power for different applications
- Air line screen helps prevent foreign particles from clogging trigger mechanism
- Hardened steel piston delivers harder blows for maximum impact

AT2050 Heavy Duty-Blue-Point®.

- Variable speed trigger with built-in speed regulator
- Quick change chuck makes bit changing easy
- Comfort grip handle for less user fatigue
- Hard hitting to get the job done quicker



PH200D

PHG3050CH4A Set

Includes:

PH3050A	Heavy Duty Air Hammer	PHG59A	Taper Punch, 3/16" tip
PH200D	Retainer Chuck	PHG87A	Muffler Cutter, 17/32" wide
PHG55A	Flat Chisel, 3/4" wide	PB1D	Storage Box
PHG57A	Double Blade Panel Cutter, 3/4" wide		

PH200D Universal Quick Change Chuck Retainer.

- Use for fast and easy insertion/removal of air hammer bits
- Non-turning insert design reduces wear for longer tool life
- Constructed from high grade steel; insert is constructed from durable polyurethane elastomer
- Universal design fits most air hammers
- Knurled chrome collar ensures a sure gripping surface, even with greasy hands

Super and Heavy Duty

Specifications	PH3050A	AT2050
Bore Diameter, inches (mm)	3/4 (19)	3/4 (19)
Blows per Minute	2,500	3,400
Piston Stroke, inches	3	2.75
Shank Opening, inches (mm)	0.401 (10.1)	0.401 (10.1)
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	1.8 (13) [51]	2.5 (18) [71]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	5/16	5/16
Vibration Level, m/s²	1.5	3.0
Vibration Level	1.5 m/s ²	3 m/s ²
Sound Level dBa Pressure	94	99
Length, inches (mm)	8.9 (227)	7.4 (187)
Weight, lbs. (kg)	5.9 (2.7)	4.6 (2.1)
Vinyl Boot (optional)	PH3050B00T	AT2050B00T



WARNING



- Use air hammer accessories only for intended purpose
- Read safety precautions on pages 594 to 597

Die Grinders

PT Series

- Ergonomic handle is contoured to fit comfortably in the hand as well as absorb vibration
- Adjustable rear exhaust outlet allows adjustment of exhaust away from the work area while keeping material removal away from operator's face
- Thermally balanced air motor acts as internal cooling system to protect moving parts, efficiently routing air to control surface temperature of tool
- Built in 10 position power/speed regulator precisely matches tool speed to job requirements
- Easy bit changing using standard wrenches
- Safety style variable speed paddle trigger helps prevent accidental starting of tool
- Low dBA rating reduces fatigue from noise



PT100

PT100 Mini



PT110

PT110 Mini Right Angle



PT200R

PT200R Standard



PT210R

PT210R Right Angle



PT200LR

PT200LR Extended

Straight and Angle Head - 1/4" Collet

Specifications	PT100	PT110	PT200R	PT210R	PT200LR
Collet Size, inches	1/4	1/4	1/4	1/4	1/4
Rated Power, hp (kW)	0.3 (.2)	0.3 (.2)	0.5 (.3)	0.5 (.3)	0.5 (.3)
Free Speed RPM	25,000	25,000	22,000	22,000	22,000
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	1.4 (10) [40]	1.4 (10) [40]	2.7 (19) [76]	3 (22) [85]	1.4 (10) [40]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	3/8	3/8	3/8	3/8	3/8
Vibration Level, m/s ²	3.8	3.8	3.8	<2.5	2.6
Sound Level dBa Pressure	84	84	84	84	84
Length, inches (mm)	5.8 (149)	5.6 (144)	6.7 (170)	6.6 (168)	10.6 (269)
Weight, lbs. (kg)	1.6 (.73)	1.9 (.86)	1.8 (.83)	2.0 (.93)	2.0 (.91)

Die Grinders—Blue-Point®



AT115



AT118



AT105



AT109

AT115 Standard.

- Comfort grip insulates from cold and vibration
- Brass bezel and air inlet provide durability and long life
- High quality bearings improve productivity with less repair
- Rear exhaust directs air away from work area

AT118 Right Angle Mini.

- Comfort grip insulates from cold and vibration
- Small size fits in palm
- High quality bearings improve productivity with less repair
- Rear exhaust directs air away from work area

AT105 Standard.

- Aluminum housing for long lasting durability
- Intended for most standard deburring operations
- High quality bearings improve productivity with less repair
- Rear exhaust directs air away from work area

AT109 Right Angle Mini.

- Aluminum housing for long lasting durability
- Compact mini design with 90° head for easy access
- High quality bearings improve productivity with less repair
- Rear exhaust directs air away from work area

Straight and Angle Head - 1/4" Collet

Specifications	AT115	AT118	AT105	AT109*
Collet Size, inches	1/4	1/4	1/4	1/4
Rated Power, hp (kW)	0.2 (.15)	0.2 (.15)	0.2 (.15)	0.2 (.15)
Free Speed RPM	22,000	20,000	22,000	20,000
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	4 (29) [113]	2.1 (15) [59]	4 (29) [113]	2.1 (15) [59]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	3/8	3/8	3/8	3/8
Vibration Level, m/s ²	<2.5	2.5	<2.5	2.5
Sound Level dBa Pressure	102	104	102	104
Length, inches (mm)	6.5 (165)	5.5 (140)	6.5 (165)	5.5 (140)
Weight, lbs. (kg)	1.3 (.61)	1.1 (.50)	1.3 (.61)	1.1 (.50)

* See p. 280 for AT109DGK die grinder kit specifications.



AT1070A

AT1070A Pencil.

- Twist-action variable speed control
- 5' (1.5 M) long protected air hose
- Used with 1/8" shank grinding accessories rated a minimum of 75,000 RPM
- Ideal for tight spaces and easy cleaning of dies, rotors and brake pads



AT1070RA

AT1070RA Pencil.

- Same as AT1070A except features right angle head

Pencil Die Grinders

Specifications	AT1070A	AT1070RA
Collet Size, inches	1/8	1/8
Rated Power, hp (kW)	—	—
Free Speed RPM	75,000	75,000
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	1 (7) [28]	1 (7) [28]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	3/8	3/8
Vibration Level, m/s ²	2.0	2.0
Sound Level dBa Pressure	72	72
Length, inches (mm)	5.3 (135)	5.9 (150)
Weight, lbs. (kg)	.55 (.25)	.46 (.21)



WARNING



- Do not use grinder accessories above their maximum rated RPM
- Read safety precautions on pages 594 to 597

AIR

Cutting Tools



PT250R

PT250R 3" Cut Off Tool.

- Adjustable cutting wheel guard rotates to any safe and convenient position
- Adjustable rear exhaust keeps exhaust away from the work area
- Thermally balanced air motor acts as internal cooling system to protect moving parts and efficiently routes air to control surface temperature of tool, reducing motor vibration and collecting runout
- 10 position power/speed regulator precisely matches tool speed to job requirements



AT154R

AT154R 4" Reversible Cut Off Tool.

- 14.8" overall length provides extended reach for easier access
- Reverse mode controls the direction of sparks for safety
- Exhaust diffused through the rear of tool away from work surface
- Side handle provides additional tool control



AT157R

AT157R 3" Reversible Cut Off Tool.

- Reversible to change direction of sparks
- Built in speed regulator for fine tuning
- Side handle provides additional tool control
- Extended reach for hard to access areas

Cut Off Tools

Specifications	PT250R	Blue-Point®/Reversible	
		AT154R	AT157R
Wheel Size, inches (mm)	3 (76)	4 (101.5)	3 (76)
Rated Power, hp (kW)	0.5 (.37)	0.9 (.67)	0.45 (.33)
Free Speed RPM	22,000	16,000	20,000
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	2.7 (19) [76]	3.6 (26) [102]	3.5 (25) [99]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	3/8	3/8	3/8
Vibration Level, m/s ²	<2.5	<.6	<3.8
Sound Level dBa Pressure	84	104	100
Length, inches (mm)	7.2 (183)	14.8 (376)	7.3 (185)
Weight, lbs. (kg)	1.2 (.55)	3.1 (1.4)	1.9 (.86)
3" Cutter Wheels (36 grit) (optional)	AT150-20A	—	AT150-20A
3" Cutter Wheels (54 grit) (optional)	AT150-29A	—	AT150-29A
4" Cutter Wheels	—	AT154RWHLMP	—

Grinders—Blue-Point®



AT215

AT215 2" Angle Grinder.

- (6) 2" wheels
- Moveable guard, up to 50° in either direction, fits various applications
- Built-in speed regulator allows user to set desired speed, providing more control
- Rear exhaust with rotating deflector directs air away from work area with no resulting blow-back at user
- Safety lever throttle prevents accidental startups for increased safety



AT415B

AT415B 4 1/2" Compact Grinder.

- Includes 1 grinding disc.

Grinders

Specifications	AT215	AT415B
Wheel Size, inches (mm)	2 (51)	4 1/2 (114)
Rated Power, hp (kW)	0.5 (.37)	0.86 (.64)
Free Speed RPM	15,000	12,000
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	3 (22) [85]	3.2 (23) [91]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	3/8	3/8
Vibration Level, m/s ²	<2.86	5.1
Sound Level dBa Pressure	73	87
Length, inches (mm)	7.4 (188)	10 (254)
Weight, lbs. (kg)	1.8 (.82)	4.2 (1.9)
Grinding Discs	AT215GWSET (opt.)	AT415A51



AT192A

AT192A High Speed Reciprocating Saw.

- Adjustable blade guard to control cutting depth
- Teflon® coated piston for smooth operation and durability
- Comfort grip handle with safety lever throttle
- Includes bi-metal blades: (1) 18PTI, (1) 24TPI, (1) 32TPI



AT194A

AT194A Micro Air Saw.

- Compact size for easy access in tight quarters
- Guarded hose extension helps prevent damage to finished surfaces
- Performs straight or scroll cuts in metal and plastic
- Includes bi-metal blades: (1) 18PTI, (1) 24TPI, (1) 32TPI

Air Saws

Specifications	AT192A	AT194A
Free Speed RPM	11,000	8,250
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	1 (7) [28]	.70 (5) [20]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	3/8	3/8
Vibration Level, m/s ²	10.1	<6.6
Sound Level dBa Pressure	94	87
Length, inches (mm)	9.3 (235)	6.7 (175)
Weight, lbs. (kg)	1.7 (.80)	1 (.45)
Replacement Blades		
Bi-Metal Blade, 18TPI, 3 3/4" long (qty. 5)	AT190-39A	AT190-39A
Bi-Metal Blade, 24TPI, 3 3/4" long (qty. 5)	AT190-40A	AT190-40A
Bi-Metal Blade, 32TPI, 3 3/4" long (qty. 5)	AT190-41A	AT190-41A



AT185

AT185 Dual Punch Tool.

- Use to make 3/16" and 5/16" punches in light sheet metal
- Head swivels 360° for maximum versatility

Specifications	AT185
Free Speed RPM	—
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	11.3 (81) [320]
Air Inlet Thread Size	1/4"-18 NPT
Recommended Hose Size, inches	3/8
Vibration Level, m/s ²	<2.5
Sound Level dBa Pressure	48.6
Length, inches (mm)	9.3 (235)
Weight, lbs. (kg)	2.6 (1.2)

AT180C Nibbler.

- Cuts mild steel sheet up to 16 gauge (0.62") (1.55mm)
- Anvil is adjustable for forward, backward and left or right cutting
- Readily cuts most non-ferrous materials including aluminum, brass, formica, laminates, fiberglass and masonite

Specifications	AT180C
Free Speed RPM	3,500
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	4 (29) [113]
Air Inlet Thread Size	1/4"-18 NPT
Recommended Hose Size, inches	3/8
Vibration Level, m/s ²	4.3
Sound Level dBa Pressure	97
Length, inches (mm)	7.6 (194)
Weight, lbs. (kg)	1.9 (.88)



AT195

AT195 Powered Shears.

- Trims, outlines and shears
- Replaceable brass filter screen
- Built in speed regulator

Specifications	AT195
Free Speed RPM	—
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	4 (29) [113]
Air Inlet Thread Size	1/4"-18 NPT
Recommended Hose Size, inches	3/8
Vibration Level, m/s ²	<2.5
Sound Level dBa Pressure	99.6
Length, inches (mm)	10 (254)
Weight, lbs. (kg)	2.8 (1.3)



AT180C



WARNING



- Do not operate without the guard
- Do not use grinding discs or accessories above their maximum rated RPM
- Read safety precautions on pages 594 to 597

AIR

Sanders



PS4512



PS4612



PSF4612

PS4512/PS4612/PSF4612 Orbital Sanders.

- Delivers 12,000 RPM with unsurpassed control and comfort
- Soft, ergonomic adjustable grip is indexable and can be rotated to fit the user's hand
- Patented O-ring sealed motor extends tool life by preventing dust and debris from entering mechanical components
- S-shaped paddle lever to better fit the curve of the user's hand to provide comfort and resist fatigue
- Internal notches on inside of grip provide additional comfort and prevent grip from rotating after initial positioning
- Multi-position regulator controls maximum speed for versatility
- Robust front spindle and precision balanced crank extend motor life and provide smoother operation with minimal vibration
- Patented bearing dust shield extends motor life by preventing contamination of lower motor bearings
- Composite over-molded housing is lightweight and easy to maneuver
- Non-Vacuum PSA pad included
- Optional PSV4612KIT vacuum kit is also available



PSF4312



PS4609



PS4809

PSF4312 3" Orbital Sander.

- Same features as PS4612 except:
- 3" lightweight, 30 gram pad is flexible for spot sanding and feather edging, providing more control of the application

PS4609 6" and PS4809 8" Geared Sanders.

- Removal and leveling of large amounts of filler materials such as glue or epoxy
- Leveling small welds
- Removing coatings prior to painting
- For use on metal, solid surfaces, wood and fiberglass
- Super ergonomic adjustable grip is indexable to multiple positions for optimum comfort
- Made of soft material for maximum vibration absorption
- PS4609V (VAC) model
- PS4809V (VAC) model

Orbital and Geared Sanders

Specifications	PS4512	PS4612	PSF4612	PSF4312	PS4609	PS4609V	PS4809	PS4809V
Pad Size, inches (mm)	5 (127)	6 (152)	6 (152)	3 (76)	6 (152)	6 (152)	8 (203)	8 (203)
Rated Power, hp (kW)	0.25 (.19)	0.25 (.19)	0.25 (.19)	0.25 (.19)	0.42 (.33)	0.42 (.33)	0.42 (.33)	0.42 (.33)
Free Speed RPM	12,000	12,000	12,000	12,000	1,000	1,000	1,000	1,000
Spindle Thread, inches	5/16-24	5/16-24	5/16-24	1/4-20	3/8	1/4	3/8	3/8
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	2 (14) [57]	2 (14) [57]	2 (14) [57]	2 (14) [57]	3 (21.7) [85]	3 (21.7) [85]	3 (21.7) [85]	3 (21.7) [85]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Vibration Level, m/s ²	2.3	2.3	2.1	2.1	5.9	5.9	5.9	5.9
Sound Level dBa Pressure	77	81	81	76	82	82	82	82
Length, inches (mm)	5 (127)	6 (152)	6 (152)	3 (76)	11 (281)	11 (281)	11 (281)	11 (281)
Weight, lbs. (kg)	1.7 (.77)	2.5 (1.14)	2.4 (1.11)	1.4 (.65)	3.7 (1.70)	3.7 (1.70)	4 (1.82)	4 (1.82)
Standard Pad	PS4512-1AH	PS4612-1AH	PS4612-1AH	PS4312-2H	PS468-34	PS468-34V	PS468-35	PS468-35V

Sanders–Blue-Point®



AT408

AT408 8" Dual Action Sander.

- Rear diffused exhaust
- Built-in adjustable speed regulator
- Removable brass filter screens out debris



AT411A

AT411A 6" Dual Action Sander.

- For fine sanding operations and swirl free finishing
- Comfort handle helps reduce fatigue
- Converts from rotary to random orbit action by sliding drive plate
- Built-in thumb wheel speed regulator



AT465B

AT465B 5" Compact Angle Sander.

- Built-in adjustable speed regulator
- Rear diffused exhaust
- Side mount auxiliary handle
- Safety throttle lever



AT450B

AT450B 7" Heavy Duty Angle Sander.

- Built-in adjustable speed regulator
- Recommended for sanding and finishing
- Conventional rear exhaust
- Safety throttle lever



AT460B

AT460B 5" Heavy Duty Vertical Angle Sander.

- Built-in adjustable speed regulator
- Recommended for sanding and finishing
- Side mount auxiliary handle
- Lightweight aluminum housing

Dual Action and Angle Sanders–Blue-Point

Specifications	AT408	AT411A	AT465B	AT450B	AT460B
Pad Size, inches (mm)	8 (203)	6 (152)	5 (127)	7 (177)	7 (177)
Rated Power, hp (kW)	0.5 (.37)	0.5 (.37)	0.8 (.59)	1 (.74)	0.67 (.49)
Free Speed RPM	850	10,000	6,100	5,100	4,500
Spindle Thread, inches	5/16-24	5/16-18	5/16-11	5/16-11	5/16-11
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	5 (36) [142]	5 (36) [142]	4.8 (34) [136]	4.8 (34) [136]	4.8 (34) [136]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	3/8	3/8	3/8	3/8	3/8
Vibration Level, m/s ²	3.7	3.7	<2.5	5.6	<2.5
Sound Level dBa Pressure	87	79	84	84	83
Length, inches (mm)	11 (281)	8 (203)	9.7 (248)	15.7 (400)	7.3 (185)
Weight, lbs. (kg)	4.8 (2.18)	4.7 (2.14)	2.9 (1.32)	5.5 (2.50)	5 (2.27)
Standard Pad	AT408-2	AT411A-1	AT465-20H	AT450-46H	AT450-46H

Reversible Disc Sanders–Blue-Point

Specifications	AT425R
Pad Size, inches (mm)	5 (127)
Rated Power, hp (kW)	0.45 (.33)
Free Speed RPM	13,000
Spindle Thread, inches	7/16-20
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	4.3 (31) [122]
Air Inlet Thread Size	1/4"-18 NPT
Recommended Hose Size, inches	3/8
Vibration Level, m/s ²	<0.8
Sound Level dBa Pressure	93
Length, inches (mm)	5.3 (135)
Weight, lbs. (kg)	2.8 (1.28)
Standard Pad	AT425R-24
3" Replacement Pad (opt.)	AT425R-22
4" Replacement Pad (opt.)	AT425R-23



AT425R

AT425R 5" Reversible Hi-speed Sander.

- Comfort grip handle
- 1 hand forward/reverse lever
- Built-in speed regulator
- Includes 3 backing discs: 3", 4", 5"



WARNING



- Do not use sanding discs or accessories above maximum rated RPM
- Read safety precautions on pages 594 to 597

Finishing Tools



AT109DGK

AT109DGK Die Grinder Kit.

- Aluminum housing
- Compact mini design
- Rear exhaust

Includes: AT109 mini angle die grinder plus 2" (50.8mm) ROLOC® pad (1 ea.), 2" (50.8mm) coarse discs (2 ea.), 2" (50.8mm) medium discs (2 ea.), 2" (50.8mm) 24 grit discs (2 ea.), 2" (50.8mm) 36 grit discs (2 ea.), 2" (50.8mm) crud discs (2 ea.), 3" (76.2mm) ROLOC pad (1 ea.), 3" (76.2mm) 50 grit discs (2 ea.), 3" (76.2mm) 120 grit discs (2 ea.), 3" (76.2mm) crud discs (2 ea.), 1/4" shank adaptor (1 ea.) and spanner wrenches (2 ea.) in storage case.



AT119DGK

AT119DGK Die Grinder Kit.

- Thread-on style disc provides a more compact head than collet style units
 - 115° offset head provides a more ergonomic grinding position
 - Ideal for cleaning dies, rotors, backing plates and gasket material
- Includes: 115° Mini Offset Angle Die Grinder plus: 2" (50.8mm) ROLOC pad (1 ea.), 2" (50.8mm) coarse discs (2 ea.), 2" (50.8mm) medium discs (2 ea.), 2" (50.8mm) 24 grit discs (2 ea.), 2" (50.8mm) 36 grit discs (2 ea.), 2" (50.8mm) crud discs (2 ea.), 3" (76.2mm) ROLOC pad (1 ea.), 3" (76.2mm) coarse discs (2 ea.), 3" (76.2mm) medium discs (2 ea.), 3" (76.2mm) 50 grit discs (2 ea.), 3" (76.2mm) 120 grit discs (2 ea.), 3" (76.2mm) crud discs (2 ea.), and spanner wrench (1 ea.) in storage case.

Specifications	AT109DGK	AT119DGK
Rated Power, hp (kW)	0.2 (.15)	0.45 (.33)
Free Speed RPM	20,000	2,000
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	2.1 (15) [59]	2.1 (15) [59]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	3/8	3/8
Vibration Level, m/s ²	2.5	<6.92
Sound Level dBa Pressure	104	100
Length, inches (mm)	5.5 (140)	6.81 (173)
Weight, lbs. (kg)	1.1 (50)	1.1 (50)



AT475A

AT475A Heavy Duty In Line Sander.

- 5/8" stroke
- Minimal vibration
- For fast material removal
- Pad has positive locking clamps



AT435A

AT435A Jitterbug Sander.

- Features top mounted throttle
- For fast material removal
- Built-in speed regulator
- Pad has positive locking clamps

In-Line and Jitterbug Sanders

Specifications	AT475A	AT435A
Rated Power, hp (kW)	—	0.5 (.37)
Free Speed RPM	1,800	8,000
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	2.3 (17) [65]	3 (22) [85]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	3/8	3/8
Vibration Level, m/s ²	14.9	4.5
Sound Level dBa Pressure	87	84
Length, inches (mm)	16 (406)	6.7 (171)
Weight, lbs. (kg)	6.8 (3.09)	4.6 (2.09)
Standard Pad	AT475A-29	AT435A-48

Finishing Tools–Blue-Point®



AT401MCA



AT402MCA



AT403MCA

AT401MCA, AT402MCA and AT403MCA Micro Series Features.

- Powerful direct drive gear train for greater durability
- Larger 2 finger trigger for better control
- High quality bearings for longer tool life
- Composite housing with comfort grip insulates from cold
- Bottom handle diffused exhaust
- Variable speed trigger

Specifications	AT401MCA	AT402MCA	AT403MCA
Pad Size, inches (mm)	3 (76)	3 (76)	3 (76)
Rated Power, hp (kW)	0.25 (.19)	0.25 (.19)	0.25 (.19)
Free Speed RPM	15,000	15,000	6,000
Spindle Thread, inches	1/4"-20	5/16"-24	5/16"-24
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	2.1 (15) [59]	2.1 (15) [59]	2.2 (16) [62]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	3/8	3/8	3/8
Vibration Level, m/s ²	<2.5	<2.5	<2.5
Sound Level dBa Pressure	84	84	86
Length, inches (mm)	4.7 (119)	5.2 (133)	5.6 (143)
Weight, lbs. (kg)	.97 (.44)	1.1 (.50)	1.3 (.60)



AT401MCKA

AT401MCKA Micro Dual Action Sander Kit.

- Includes: AT401MCA micro surface prep tool, (1) 2" ROLOC® pad, (1) 3" ROLOC pad, (5) 2" 40 grit pads and (5) 3" 80 grit pads in storage case



AT402MCKA

AT402MCKA Micro Dual Action Sander Kit.

- Includes: AT402MCA micro sander, (1) 3" Hook-It® pad, (25) 3" 180-grit pads, (25) 3" 200 grit pads, (10) 3" 320 grit pads and (10) 3" 800 grit pads in storage case



AT403MCKA

AT403MCKA Micro Polisher Kit.

- Includes: AT403MCA micro polisher, (1) 3" Hook-It pad, (1) 3" wool pad, and (1) 3" foam pad in storage case



AT460BP

AT460BP Heavy Duty Angle Polisher.

- Removeable side handle
- Includes wool pad



AT450BP

AT450BP Heavy Duty Vertical Polisher.

- Removeable side handle
- Includes wool pad

Polishers

Specifications	AT450BP	AT460BP
Pad Size, inches (mm)	7 (177)	7 (177)
Rated Power, hp (kW)	1 (.74)	0.67 (.49)
Free Speed RPM	5,100	4,500
Spindle Thread, inches	5/8"-11	5/8"-11
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	4.8 (34) [136]	4.8 (34) [136]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	3/8	3/8
Vibration Level, m/s ²	<2.5	<2.5
Sound Level dBa Pressure	84	83
Length, inches (mm)	15.7 (400)	7.3 (185)
Weight, lbs. (kg)	5.5 (2.50)	5 (2.27)
Standard Pad	AT450-46H	AT450-46H
Spanner Wrench (opt.)	AT450-50	AT450-50



WARNING



- Do not use sanding discs or accessories above maximum rated RPM
- Read safety precautions on pages 594 to 597

Finishing Tools



PT280THUGA

Specifications	PT280THUGA
Rated Power, hp (kW)	0.45 (.33)
Free Speed RPM	3,500
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	4 (28) [113]
Air Inlet Thread Size	1/4"-18 NPT
Recommended Hose Size, inches	3/8
Vibration Level, m/s ²	2.8
Sound Level dBa Pressure	85
Length, inches (mm)	12 (304)
Weight, lbs. (kg)	2.4 (1.09)

PT280THUGA Crud Thug® Removal Air Tool.

- Quickly remove seam sealers, rust, paint and underbody protectors
- Optional rubber eraser wheel for pinstripe and graphics removal
- Easily removes automotive “crud” without fumes, heat buildup or surface damage
- Includes 1 fine wire wheel and 1 coarse wire wheel
- Thermally balanced air motor routes air between housing and liner for cooler tool temperatures and longer life
- Planetary gear system for increased torque
- Ergonomic cushion grip insulates against cold and vibration
- Adjustable exhaust outlet in rear of tool allows choice of exhaust direction
- 10 position power/speed regulator allows easy RPM adjustment
- Paddle style trigger for precise speed control



PT280-301MP5



PT280-302MP5



PT280-303MP3



PT280-304



PT280-305



PT280-306



PT280-300-11



PT280-301-11



PT280-302-11



PT280-304-11



PT280-305-11



PT280-306-11

Stock No.	Description	Width, mm	Wheel Diameter, inches	Wire Style	Min. Safe Free Speed RPM	Applications
PT280-301MP5	Wire Wheel (coarse)	23	4.05	Bent, sharpened spring steel tips	4,000	Removes sealers and coatings. Profiles steel surfaces, rough fiberglass, plastic and rubber.
PT280-302MP5	Wire Wheel (fine)	23	4.05	Straight, hardened spring steel tips	4,000	Removes light rust, paint and gasket material. Cleans contours and tight areas.
PT280-303MP3	Rubber Eraser Wheel	30	4.13	—	3,500	Removes vinyl, decals and pinstripes, along with reflective and DOT tape. Also removes molding and adhesive tape.
PT280-304	Stainless Steel Wire Wheel (fine)	23	4.05	Straight tip stainless steel	4,000	Removes paint, oxidation and liquid gaskets. Cleans weld seams and rivets.
PT280-305	Stainless Steel Wire Wheel (coarse)	23	4.05	Bent tip stainless steel	4,000	Removes paint, corrosion, cleans weld seams, burn and slag. Effective for non-ferrous metals.
PT280-306	Wire Wheel (medium)	23	4.05	Bent, sharpened spring steel tips	4,000	Removes heavy rust, paint, epoxy and marine growth. Profiles aluminum surfaces.
PT280-300-11	Hub	11	4.05	—	4,000	Use to mount wire wheel to tool.
PT280-301-11	Wire Wheel (coarse)	11	4.05	Bent, sharpened spring steel tips	4,000	Removes sealers and coatings. Profiles steel surfaces, roughs fiberglass, plastic and rubber.
PT280-302-11	Wire Wheel (fine)	11	4.05	Straight, hardened spring steel tips	4,000	Removes light rust, paint and gasket material. Cleans contours and tight areas.
PT280-304-11	Stainless Steel Wire Wheel (fine)	11	4.05	Straight, hardened stainless steel tips	4,000	Removes paint, oxidation and liquid gaskets. Cleans weld seams and rivets.
PT280-305-11	Stainless Steel Wire Wheel (coarse)	11	4.05	Bent, sharpened stainless steel tips	4,000	Removes paint, corrosion, cleans weld seams, burn and slag. Effective for non-ferrous metals.
PT280-306-11	Wire Wheel (medium)	11	4.05	Bent, sharpened spring steel tips	4,000	Remove heavy rust, paint, epoxy and marine growth. Profiles aluminum surfaces.



POWER TOOL ACCESSORIES

A More Productive Work Solution.

When you pair Snap-on® tools with Snap-on accessories you get a system with complementary technologies that gives you more power, control, durability and productivity.

Working Together.

Snap-on offers a full range of accessories to help you get the most out of your power tool.

- Hardened drill bits—Allow you to get the most out of your drill and resist breakage.
- Premium grade oil—Keeps your power tools well lubricated for longer life.



POWER TOOL ACCESSORIES

Air/Cordless Tool Boots



YA848



YA883



YA888



PH3050BOOT



YA969

Air/Cordless Boots

		Air Tool Stock No.	Stock No.	
Air Impact Wrench Boots	3/4" Sq. Drive	AT760	AT760B00T	
		AT775 / AT775L	YA979	
		IM75 MG1200	YA770 MG1200B00T	
		1/2" Sq. Drive	AT123A Series	AT123-45
	1/2" Sq. Drive	AT500C / AT500D	YA972	
		AT555 / AT555A Series	AT531-25	
		AT560	AT560B00T	
		IM51 / IM510 Series	YA848	
		IM5100	YA978	
		IM6100 Series / IM6500HP	YA980	
		XT7100	XT7100B00T	
		MG725 Series	MG725B00T	
		3/8" Sq. Drive	AT321	AT321-44
		3/8" Sq. Drive	AT351	—
	AT365		AT365B00T	
	AT355A		YA977	
	AT360		AT360-25	
	IM31 Series		YA877A	
	IM32 Series		YA1032	
	MG31 Series		MG31B00T	
MG325 Series	MG325B00T			
1/4" Sq. Drive	AT225B Series		YA975	
AT235 Series	—			
Air Drill Boots	1/2" Capacity	AT856	—	
		AT5000	AT5000B00T	
	3/8" Capacity	AT3000	AT3000B00T	

		Air Tool Stock No.	Stock No.
Air Ratchet Boots	1/2" Sq. Drive	AT705 Series	AT700E49A
		AT205 Series	AT200D22A
		AT700 Series / AT702	AT700E49A
	3/8" Sq. Drive	FAR7200, FAR72B, FAR72C	YA889A
		PTR205A	YA905
		PTR215A	YA905
		PTR225A	YA905
	1/4" Sq. Drive	AT200 Series	AT200D22A
		FAR25, FAR25A	YA888
		PTR200A, FAR2500, FAR2505	YA905
Air Hammer Boots	—	AT2050	AT2050B00T
		PH3050/PH3050A	PH3050B00T
Cordless Impact Wrench Boots	1/2" Sq. Drive	CT3450, CT3850 Series	YA982
		CT4850, CT6850, CT6855 Series	CT4850B00T
		CT4410A Series	CT4410B00T
	3/8" Sq. Drive	CT30 Series	YA968
		CT310 Series	YA982
		CT3110, CT3110HP Series	YA969
Battery Boots	18V	CTB4185/CTB4187 Series	CTB4185B00T
	14.4V	CTB4145/CTB4147 Series	CTB4145B00T

Impact Wrench and Ratchet Accessories



MRB25

MRB25 Magnetic Impact Wrench Holder.

- Attach to lift post, tool storage unit or cart to keep impact gun handy
- Ideal for tire and wheel shops
- 160 lbs. of magnetic force
- Outer diameter of base is 3 7/8"
- Inner diameter of holder is 2 7/8"



YA4190

YA4190 Grease Gun.

- Fits all flush type fittings
- Good for FAR72B/FAR70 series air ratchets
- Spring return plunger
- 3 oz. capacity

YA4190DIS Grease Dispenser.

- Grease dispenser attachment for YA4190
 - Contains 3 oz. of mobil temp SHC-32 grease for Snap-on® FAR series air ratchets
- YA4190FAR Grease Gun Assembly.**
YA4190CAP Grease Gun Head.



YA4190DIS



YA4190FAR



YA4190CAP

POWER TOOLS ACCESSORIES

Drill Accessories



DC150



DC15014



DCA500



DCB500



AT3000-26



PDAH1A

DC150 Chuck Set.

- Includes 1/4" and 3/8" drill chucks, a chuck key and a set of 5 stubby drill bits in 1/8", 3/16", 1/4", 5/16", and 3/8" sizes
- Packaged in a storage case

DC15014 Drill Chuck.

- 1/4" drill chuck

DC15038 Drill Chuck.

- 3/8" drill chuck

DCA375 Drill Chuck.

- 3/8" chuck fits AT3000 drill
- Thread size is 3/8"-24: capacity is 1/32" to 3/8"
- Includes PD3A3 chuck key

DCA500 Drill Chuck.

- 1/2" chuck fits AT5000 drill
- Thread size is 1/2"-20: capacity is 1/16" to 1/2"
- Includes PD30-3 chuck key

DCB375 Drill Chuck.

- 3/8" chuck
- General use on light duty drills
- 3/8"-24 thread: capacity is 1/32" to 3/8"
- Includes AT825-7 chuck key

DCB500 Drill Chuck.

- 1/2" chuck fits AT3000 drill
- Thread size is 3/8"-24: capacity is 1/16" to 1/2"
- Includes PD30-3 chuck key

AT5000-6-1 Chuck Key.

- 1/2", for AT5000

AT3000-26 Keyless Chuck.

- 3/8" keyless chuck, for AT3000 drill

PD3A3 Chuck Key.

- 3/8" replacement key for PDR3A and AT800 drills

PDAH1A Auxiliary Handle.

- Provides 2 handed power and control when used in conjunction with air drills



PTB32K

PTB32K Power Bit Set.

- Ideal for use with cordless drills and screwdrivers, includes 30 1/4" hex shank bits plus 2 adaptors
- Storage case clearly indicates bit type and size

Set Includes:

Flat Tip Bits	5/32", 3/16", 7/32", 1/4", 9/32"
Hex Bits	3/32", 7/64", 1/8", 5/32", 3/16", 7/32", 1/4"
PHILLIPS® Bits	#0, #1, #2, #3
POZIDRIV® Bits	#0, #1, #2, #3
TORX® Tamper Resistant Bits	T10, T15, T20, T25, T27, T30, T40
Square Bits	#0, #1, #2
Adaptors	1/4" hex male to 1/4" square male, 1/4" hex Quick Change Coupler



YA52PBSQC

YA52PBSQC Power Bit Set.

- Ideal for use with cordless drills and screwdrivers
- Includes 49 1/4" hex shank bits in short and long lengths, 2 hex adaptors and quick change chuck
- Storage case holds all components

Set Includes:

Flat Tip Bits (Short)	5-6, 6-8, 8-10 (2 each), 10-12
Flat Tip Bits (Long)	6-8, 8-10, 10-12
Hex Bits (Short)	1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 9/32"
Hex Bits (Long)	5/32", 3/16", 7/32"
PHILLIPS Bits (Short)	#1, #2 (2 each), #3
PHILLIPS Bits (Long)	#1, #2, #3
TORX Tamper Resistant Bits (Short and Long)	T10, T15, T20, T25, T27, T30, T40
Square Bits (Short and Long)	#1, #2, #3
Clutch Bits (Short and Long)	5/32", 3/16"
Double End Bits	6-8 x #2 PHILLIPS, 8-10 x #3 PHILLIPS
Adaptors	1/4" hex female to 1/4" hex female, 1/4" hex male to 1/4" square male, 1/4" hex Quick Change Chuck



CTS561BITSET

CTS561BITSET Quick Change Bit Set.

- For Snap-on® CTS561 and CTS561CL cordless screwdrivers plus other power drivers
- Quick change hex saves time changing bits
- Includes 22 bits (all 3" long) plus a 1/4" square drive (2" long)
- Storage case included

Set Includes:

PHILLIPS Bits	#0, #1, #2
Flat Tip Bits	5/32", 3/16", 7/16", 1/4", 9/32"
TORX Bits	T10, T15, T20, T25, T27, T30, T40
Hex Bits	3/32", 7/64", 1/8", 5/32", 3/16", 7/32", 1/4"



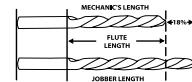
WARNING



• Read safety precautions on pages 594 to 597

POWER TOOL ACCESSORIES

Drill Bits



DBTBC121

DBTBC121 THUNDERBIT Cobalt Drill Bit Set.

- DBTBC1/16 thru DBTBC3/8 (21 bits) in B121B metal drill index



DBTBC129

DBTBC129 THUNDERBIT Cobalt Drill Bit Set.

- DBTBC1/16 thru DBTBC1/2 (29 bits) in B129B metal drill index



DBTB121

DBTB121 THUNDERBIT High Speed Drill Bit Set.

- DBTB1/16 thru DBTB3/8 (21 bits) in B121B metal drill index



DBTB129

DBTB129 Drill Bit Set.

- DBTB1/16 thru DBTB1/2 (29 bits) in B129B metal drill index

High Speed Steel Drill Bits



DBTR129

DBTR129 Drill Bit Set.

- DBTR1/16 thru DBTR1/2 (29 bits) in B129B metal drill index

THUNDERBIT®/Cobalt - Jobber Length 135° Split Point

- For drilling at higher speeds in tougher drilling conditions
- They feature 135° split points for easier drill starting without the need for center punching
- Heavy duty web construction for higher strength and less breakage
- Improved chip ejection through a specially engineered flute design

Stock No.	Size, inches	Stock No.	Size, inches
DBTBC1/16	1/16	DBTBC19/64	19/64
DBTBC5/64	5/64	DBTBC5/16	5/16
DBTBC3/32	3/32	DBTBC21/64	21/64
DBTBC7/64	7/64	DBTBC11/32	11/32
DBTBC1/8	1/8	DBTBC23/64	23/64
DBTBC9/64	9/64	DBTBC3/8	3/8
DBTBC5/32	5/32	DBTBC25/64	25/64
DBTBC11/64	11/64	DBTBC13/32	13/32
DBTBC3/16	3/16	DBTBC27/64	27/64
DBTBC13/64	13/64	DBTBC7/16	7/16
DBTBC7/32	7/32	DBTBC29/64	29/64
DBTBC15/64	15/64	DBTBC15/32	15/32
DBTBC1/4	1/4	DBTBC31/64	31/64
DBTBC17/64	17/64	DBTBC1/2	1/2
DBTBC9/32	9/32	—	—

THUNDERBIT/High Speed Steel Jobber Length - 135° Split Point

- Industrial grade steel with bronze oxide surface treatment
- Bits will drill at higher speeds in tougher drilling conditions
- 135° split points for easier drill starting without the need for center punching
- Heavy duty web construction for higher strength and less breakage
- Improved chip ejection thru a specially engineered flute design

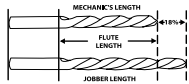
Stock No.	Size, inches	Stock No.	Size, inches
DBTB1/16	1/16	DBTB19/64	19/64
DBTB5/64	5/64	DBTB5/16	5/16
DBTB3/32	3/32	DBTB21/64	21/64
DBTB7/64	7/64	DBTB11/32	11/32
DBTB1/8	1/8	DBTB23/64	23/64
DBTB9/64	9/64	DBTB3/8	3/8
DBTB5/32	5/32	DBTB25/64	25/64
DBTB11/64	11/64	DBTB13/32	13/32
DBTB3/16	3/16	DBTB27/64	27/64
DBTB13/64	13/64	DBTB7/16	7/16
DBTB7/32	7/32	DBTB29/64	29/64
DBTB15/64	15/64	DBTB15/32	15/32
DBTB1/4	1/4	DBTB31/64	31/64
DBTB17/64	17/64	DBTB1/2	1/2
DBTB9/32	9/32	—	—

Mechanic's Length - 135° Point with 3 Flat Shank

Stock No.	Size, inches	Stock No.	Size, inches	Stock No.	Size, inches
DBTR1/16	1/16	DBTR7/32	7/32	DBTR3/8	3/8
DBTR5/64	5/64	DBTR15/64	15/64	DBTR25/64	25/64
DBTR3/32	3/32	DBTR1/4	1/4	DBTR13/32	13/32
DBTR7/64	7/64	DBTR17/64	17/64	DBTR27/64	27/64
DBTR1/8	1/8	DBTR9/32	9/32	DBTR7/16	7/16
DBTR9/64	9/64	DBTR19/64	19/64	DBTR29/64	29/64
DBTR5/32	5/32	DBTR5/16	5/16	DBTR15/32	15/32
DBTR11/64	11/64	DBTR21/64	21/64	DBTR31/64	31/64
DBTR3/16	3/16	DBTR11/32	11/32	DBTR1/2	1/2
DBTR13/64	13/64	DBTR23/64	23/64	—	—

POWER TOOLS ACCESSORIES

High Speed Steel Drill Bits



Jobber Length - 118° Point

Stock No.	Size, inches	Stock No.	Size, inches
DBF1/16C	1/16	DBF19/64C	19/64
DBF5/64C	5/64	DBF5/16C	5/16
DBF3/32C	3/32	DBF21/64C	21/64
DBF7/64C	7/64	DBF11/32C	11/32
DBF1/8C	1/8	DBF23/64C	23/64
DBF9/64C	9/64	DBF3/8C	3/8
DBF5/32C	5/32	DBF25/64C	25/64
DBF11/64C	11/64	DBF13/32C	13/32
DBF3/16C	3/16	DBF27/64C	27/64
DBF13/64C	13/64	DBF7/16C	7/16
DBF7/32C	7/32	DBF29/64C	29/64
DBF15/64C	15/64	DBF15/32C	15/32
DBF1/4C	1/4	DBF31/64C	31/64
DBF17/64C	17/64	DBF1/2C	1/2
DBF9/32C	9/32	—	—



DB129C

DB129C Drill Bit Set.

- DBF1/16C thru DBF1/2C (29 bits) in B129C metal drill index



DB121C

DB121C Drill Bit Set.

- DBF1/16C thru DBF3/8C (21 bits) in B121C metal drill index



DB113C

DB113C Drill Bit Set

- DBF1/16C thru DBF1/4C (13 bits) in B113B metal drill index

Jobber Length - Letter Size - 118° Point

Stock No.	Size, inches	Stock No.	Size, inches
DBAA1A	.234 (A)	DBAA1N	.302 (N)
DBAA1B	.238 (B)	DBAA1O	.316 (O)
DBAA1C	.242 (C)	DBAA1P	.323 (P)
DBAA1D	.246 (D)	DBAA1Q	.332 (Q)
DBAA1E	.250 (E)	DBAA1R	.339 (R)
DBAA1F	.257 (F)	DBAA1S	.348 (S)
DBAA1G	.261 (G)	DBAA1T	.358 (T)
DBAA1H	.266 (H)	DBAA1U	.368 (U)
DBAA1I	.272 (I)	DBAA1V	.377 (V)
DBAA1J	.277 (J)	DBAA1W	.386 (W)
DBAA1K	.281 (K)	DBAA1X	.397 (X)
DBAA1L	.290 (L)	DBAA1Y	.404 (Y)
DBAA1M	.295 (M)	DBAA1Z	.413 (Z)

DBA126B Letter Drill Bit Set. DBAA1A thru DBAA1Z (26 pcs) (.234" to .413") in B126C metal index.



DBA126B

Jobber Length - Metric Size - 118° Point

Stock No.	Size, mm	Stock No.	Size, mm
DBM1A	1	DBM7.5A	7.5
DBM1.5A	1.5	DBM8A	8
DBM2A	2	DBM8.5A	8.5
DBM2.5A	2.5	DBM9A	9
DBM3A	3	DBM9.5A	9.5
DBM3.5A	3.5	DBM10A	10
DBM4A	4	DBM10.5A	10.5
DBM4.5A	4.5	DBM11A	11
DBM5A	5	DBM11.5A	11.5
DBM5.5A	5.5	DBM12A	12
DBM6A	6	DBM12.5A	12.5
DBM6.5A	6.5	DBM13A	13
DBM7A	7	—	—

DBM125C Metric Drill Bit Set. DBM1A thru DBM13A (25 pcs) (1 to 13mm) in B125C metal index.



DBM125C



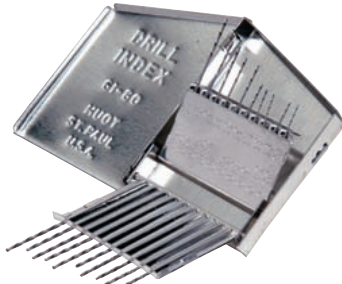
WARNING



• Read safety precautions on pages 594 to 597

POWER TOOL ACCESSORIES

Wire Gauge Drill Bits



DB120C



DBC260A

Wire Gauge 118° Point (Cobalt and High Speed Steel)

Cobalt	High Speed Steel	Decimal Equiv. inches	Length, inches	Cobalt	High Speed Steel	Decimal Equiv. inches	Length, inches
DBCE1A	DBE1B	.2280	3 7/8	DBCE41A	DBE41B	.0960	2 3/8
DBCE2A	DBE2B	.2210	3 7/8	DBCE42A	DBE42B	.0935	2 1/4
DBCE3A	DBE3B	.2130	3 3/4	DBCE43A	DBE43B	.0890	2 1/4
DBCE4A	DBE4B	.2090	3 3/4	DBCE44A	DBE44B	.0860	2 1/8
DBCE5A	DBE5B	.2055	3 3/4	DBCE45A	DBE45B	.0820	2 1/8
DBCE6A	DBE6B	.2040	3 3/4	DBCE46A	DBE46B	.0810	2 1/8
DBCE7A	DBE7B	.2010	3 5/8	DBCE47A	DBE47B	.0785	2
DBCE8A	DBE8B	.1990	3 5/8	DBCE48A	DBE48B	.0760	2
DBCE9A	DBE9B	.1960	3 5/8	DBCE49A	DBE49B	.0730	2
DBCE10A	DBE10B	.1935	3 5/8	DBCE50A	DBE50B	.0700	2
DBCE11A	DBE11B	.1910	3 1/2	DBCE51A	DBE51B	.0670	2
DBCE12A	DBE12B	.1890	3 1/2	DBCE52A	DBE52B	.0635	1 7/8
DBCE13A	DBE13B	.1850	3 1/2	DBCE53A	DBE53B	.0595	1 7/8
DBCE14A	DBE14B	.1820	3 3/8	DBCE54A	DBE54B	.0550	1 7/8
DBCE15A	DBE15B	.1800	3 3/8	DBCE55A	DBE55B	.0520	1 7/8
DBCE16A	DBE16B	.1770	3 3/8	DBCE56A	DBE56B	.0465	1 3/4
DBCE17A	DBE17B	.1730	3 3/8	DBCE57A	DBE57B	.0430	1 3/4
DBCE18A	DBE18B	.1695	3 1/4	DBCE58A	DBE58B	.0420	1 5/8
DBCE19A	DBE19B	.1660	3 1/4	DBCE59A	DBE59B	.0410	1 5/8
DBCE20A	DBE20B	.1610	3 1/4	DBCE60A	DBE60B	.0400	1 5/8
DBCE21A	DBE21B	.1590	3 1/4	—	DBE61B	.0390	1 5/8
DBCE22A	DBE22B	.1570	3 1/8	—	DBE62B	.0380	1 1/2
DBCE23A	DBE23B	.1540	3 1/8	—	DBE63B	.0370	1 1/2
DBCE24A	DBE24B	.1520	3 1/8	—	DBE64B	.0360	1 1/2
DBCE25A	DBE25B	.1495	3	—	DBE65B	.0350	1 1/2
DBCE26A	DBE26B	.1470	3	—	DBE66B	.0330	1 3/8
DBCE27A	DBE27B	.1440	3	—	DBE67B	.0320	1 3/8
DBCE28A	DBE28B	.1405	2 7/8	—	DBE68B	.0310	1 3/8
DBCE29A	DBE29B	.1360	2 7/8	—	DBE69B	.0295	1 3/8
DBCE30A	DBE30B	.1285	2 3/4	—	DBE70B	.0280	1 1/4
DBCE31A	DBE31B	.1200	2 3/4	—	DBE71B	.0260	1 1/4
DBCE32A	DBE32B	.1160	2 3/4	—	DBE72B	.0250	1 1/8
DBCE33A	DBE33B	.1130	2 5/8	—	DBE73B	.0240	1 1/8
DBCE34A	DBE34B	.1110	2 5/8	—	DBE74B	.0225	1
DBCE35A	DBE35B	.1100	2 5/8	—	DBE75B	.0210	1
DBCE36A	DBE36B	.1065	2 1/2	—	DBE76B	.0200	7/8
DBCE37A	DBE37B	.1040	2 1/2	—	DBE77B	.0180	7/8
DBCE38A	DBE38B	.1015	2 1/2	—	DBE78B	.0160	7/8
DBCE39A	DBE39B	.0995	2 3/8	—	DBE79B	.0145	3/4
DBCE40A	DBE40B	.0980	2 3/8	—	DBE80B	.0135	3/4

DBC260A Cobalt Drill Bit Set. DBCE1A thru DBCE60A (60 pcs) (.2280" to .0400") in a B160C metal index.

DB160C High Speed Drill Bit Set. DBE1B thru DBE60B (60 pcs) (.2280" to .0400") in a B160C metal index.

DB120C High Speed Drill Bit Set. DBE61B thru DBE80B (20 pcs) (.0390" to .0135") in a metal index.

Drill Bits—Blue-Point®



DBBPC21

Jobber Length - 135° Split Point (Cobalt)

Stock No.	Size, Inches	Stock No.	Size, Inches
DBBPC1/16	1/16	DBBPC15/64	15/64
DBBPC5/64	5/64	DBBPC1/4	1/4
DBBPC3/32	3/32	DBBPC17/64	17/64
DBBPC7/64	7/64	DBBPC9/32	9/32
DBBPC1/8	1/8	DBBPC19/64	19/64
DBBPC9/64	9/64	DBBPC5/16	5/16
DBBPC5/32	5/32	DBBPC21/64	21/64
DBBPC11/64	11/64	DBBPC11/32	11/32
DBBPC3/16	3/16	DBBPC23/64	23/64
DBBPC13/64	13/64	DBBPC3/8	3/8
DBBPC7/32	7/32	—	—

DBBPC21 Cobalt Drill Bit Set. DBBPC1/16 thru DBBPC3/8 (21 pcs) (1/16" to 3/8") in metal drill bit index.

Jobber Length - 135° Split Point (High Speed Steel)

Stock No.	Size, Inches	Stock No.	Size, Inches
DBBP1/16	1/16	DBBP15/64	15/64
DBBP5/64	5/64	DBBP1/4	1/4
DBBP3/32	3/32	DBBP17/64	17/64
DBBP7/64	7/64	DBBP9/32	9/32
DBBP1/8	1/8	DBBP19/64	19/64
DBBP9/64	9/64	DBBP5/16	5/16
DBBP5/32	5/32	DBBP21/64	21/64
DBBP11/64	11/64	DBBP11/32	11/32
DBBP3/16	3/16	DBBP23/64	23/64
DBBP13/64	13/64	DBBP3/8	3/8
DBBP7/32	7/32		

DBBP21 HSS Drill Bit Set. DBBP1/16 thru DBBP3/8 (21 pcs) (1/16" to 3/8") in metal drill bit index.



DBBP21

135° Split Point (High Speed Steel) (Titanium Coated)

Stock No.	Size, Inches
DBBPT1/16	1/16
DBBPT5/64	5/64
DBBPT3/32	3/32
DBBPT7/64	7/64
DBBPT1/8	1/8
DBBPT9/64	9/64
DBBPT5/32	5/32
DBBPT11/64	11/64
DBBPT3/16	3/16
DBBPT13/64	13/64
DBBPT7/32	7/32
DBBPT15/64	15/64
DBBPT1/4	1/4

DBBPT13 Titanium Coated Steel Drill Bit Set. DBBPT1/16 thru DBBPT1/4 (13 pcs) (1/16" to 1/4") in metal drill bit index.



DBBPT13

Specialized Drill Bits



DBLS105A

Left-Hand Fractional Drill Bits (High Speed Steel)

Use right hand drill bits to make a hole in the broken screw before the extractor is inserted. Left-hand drill bits tend to loosen screws for easier removal.

Stock No.	Size, inches	Flute Length, inches	Overall Length, inches
DBLS1/8A	1/8	1 3/8	3
DBLS3/16A	3/16	2	3 1/2
DBLS1/4A	1/4	2 1/2	4
DBLS5/16A	5/16	2 5/8	4 1/2
DBLS11/32A	11/32	2 3/4	4 1/2

DBLS105A Left Hand Drill Bit Set. DBLS1/8 thru DBLS11/32 (5 pcs) in a plastic pouch.



DBCL105A

Left-Hand Fractional Drill Bits (Cobalt)

Stock No.	Size, inches
DBCL5/64A	5/64
DBCL7/64A	7/64
DBCL5/32A	5/32
DBCL3/16	3/16
DBCL1/4A	1/4
DBCL9/32	9/32
DBCL19/64A	19/64
DBCL5/16	5/16
DBCL11/32	11/32
DBCL3/8	3/8
DBCL13/32	13/32
DBCL7/16	7/16
DBCL15/32	15/32
DBCL1/2	1/2

DBCL105A Left Hand Drill Bit Set. DBCL5/64, DBCL7/64, DBCL5/32, DBCL1/4 and DBCL19/64 drill bits (5 pcs) in a plastic pouch.



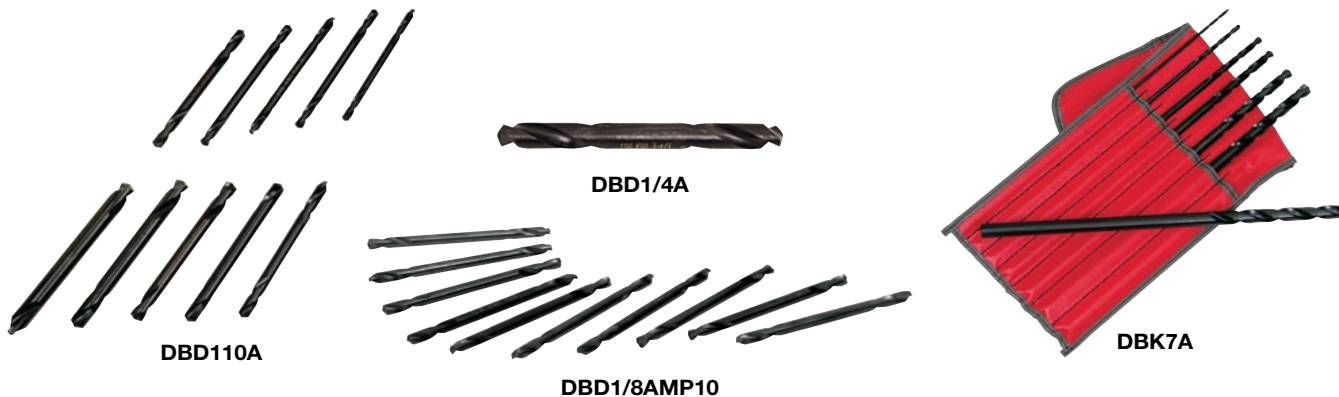
WARNING



• Read safety precautions on pages 594 to 597

POWER TOOL ACCESSORIES

Specialized Drill Bits



Double Ended - 135° Split Point

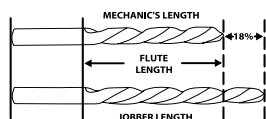
Stock No.	Size	Stock No.	Size
DBD7/64A	7/64"	DBD7/32A	7/32"
DBD1/8A	1/8"	DBD1/4A	1/4"
DBD9/64A	9/64"	DBD11A	#11
DBD5/32A	5/32"	DBD20A	#20
DBD3/16A	3/16"	DBD30A	#30

DBD110A Double-Ended Drill Bit Set. DBD7/64A thru DBD30A (10 pcs) (7/64" to #30) in a plastic pouch.
DBD1/8AMP10 Double Ended Drill Bit (10 pack). 10 pack of DBD1/8A drill bits.

Aircraft Length - 135° Split Point

Extra long bits for drilling thick materials.

Stock No.	Size, inches	Flute Length, inches	Length, inches	Set Contains:
DBT1/8A	1/8	1 5/8	12	•
DBT3/16A	3/16	2 1/4	12	•
DBT1/4A	1/4	2 3/4	12	•
DBT5/16A	5/16	3 1/4	12	•
DBT3/8A	3/8	3 3/4	12	•
DBT7/16A	7/16	4	12	•
DBT1/2A	1/2	4 1/2	12	•



CSE485B

1/2" Reduced Shank Drill Bits - 118° Point

- Ideal for cutting in low and medium tensile strength materials
- Flatted shank provides a more secure grip for the drill chuck

Stock No.	Size, inches
CSE345B	17/32
CSE365B	9/16
*CSE375	37/64
CSE385B	19/32
CSE405B	5/8
CSE425B	21/32
CSE445B	11/16
CSE465B	23/32
*CSE475	45/64
CSE485B	3/4
CSE505B	25/32
CSE525B	13/16
CSE565B	7/8
*CSE575	59/64
CSE605B	15/16
CSE645B	1

*Use with TDP6 pipe tap set on page 192.



YA409

YA409 90° Angle Drill Kit

- Allows drilling up to 1/4" holes in confined areas by positioning the bit at a 90° angle to the drill
- Threaded drill bits provide consistent concentricity and eliminate slippage

Kit includes:

- YA409 Drive unit; chucking spud
- YA409-316M 3/16" bit, 1 1/4" long
- YA409-18L 1/8" bit, 2 1/8" long
- YA409-332L 3/32" bit, 2 1/8" long
- YA409-18M 1/8" bit, 1 1/4" long
- YA409-18S 1/8" bit, 3/4" long
- YA409-15 Storage Case

Accessories for YA409 Set

Size	2 1/8" Long Bit Stock No.	1 1/4" Medium Bit Stock No.	3/4" Short Bit Stock No.
#10	YA409-10L	YA409-10M	YA409-10S
#11	—	—	YA409-11S
#13	—	—	YA409-13S
#20	—	—	YA409-20S
#21	—	—	YA409-21S
#27	—	—	YA409-27S
#30	YA409-30L	YA409-30M	YA409-30S
#40	YA409-40L	YA409-40M	YA409-40S
1/16"	YA409-116L	—	—
3/32"	YA409-332L	YA409-332M	YA409-332S
1/8"	YA409-18L	YA409-18M	YA409-18S
9/64"	—	—	—
5/32"	YA409-532L	YA409-532M	YA409-532S
3/16"	YA409-316L	YA409-316M	YA409-316S
1/4"	YA409-14L	YA409-14M	YA409-14S

YA409-6 Threaded Collet. Allows the use of 1/4" diameter shank grinding burs and abrasive wheels.

POWER TOOLS ACCESSORIES

Specialized Drill Bits



YA1TA

Titanium-Nitride Step Drills

- Titanium-nitride coating creates a surface hardness that makes these tools last 4 to 5 times longer than ordinary drill bits
- Surface coating also reduces friction, resulting in a tool that runs cooler running dry

Size Range	Increments	Stock No.	Shank Size	Hole Sizes Per Bit	Length, inches
1/8" - 1/2"	1/32"	YA1TA	1/4"	13	3 1/4
3/16" - 1/2"	1/16"	YA2TA	1/4"	6	3 1/4
1/4" - 3/4"	1/16"	YA3TA	3/8"	9	2 5/8
3/16" - 7/8"	1/16"	YA4TA	3/8"	12	3
4 - 12mm	1mm	YA1MTA	1/4" - 6.5mm	9	3 1/4
6 - 18mm	2mm	YA3MTA	3/8" - 10mm	7	2 5/8
4 - 22mm	2mm	YA4MTA	3/8" - 10mm	10	3
5 - 35mm	2mm-3mm	YA5MTA	1/2" - 13mm	13	3 3/32



YA263A

Step Drills

Size Range, inches	Increments, inches	Stock No.	Shank Size, inches	Hole Sizes Per Bit	Length, inches	Set Contains:
1/8 - 1/2	1/32	YA261A	1/4	13	3 1/4	•
3/16 - 1/2	1/16	YA262A	1/4	6	3 3/8	•
3/8	—	YA265A	1/4	1	1 5/8	
1/4 - 3/4	1/16	YA263A	3/8	9	2 5/8	•
3/16 - 7/8	1/16	YA267A	3/8	12	3	
9/16 - 1	1/16	YA266A	1/2	8	2 1/2	

Hole Saws

- High speed cutting edge welded to an alloy steel back to absorb shocks
- Cut clean, accurate holes in steel and cast iron pipe, steel plates, aluminum, copper, brass, stainless steel, wood or plastic
- Side slits make it easy to knock out the spent disks

Stock No.	Dia., inches	Recommended Arbors	Stock No.	Dia., inches	Recommended Arbors
LHS18D	9/16	LHS1C, LHS6C	LHS64D	2	LHS3D
LHS20D	5/8	LHS1C, LHS6C	LHS66D	2 1/16	LHS3D
LHS22D	11/16	LHS1C, LHS6C	LHS68D	2 1/8	LHS3D
LHS24D	3/4	LHS1C, LHS6C	LHS72D	2 1/4	LHS3D
LHS26D	13/16	LHS1C, LHS6C	LHS76D	2 3/8	LHS3D
LHS28D	7/8	LHS1C, LHS6C	LHS80D	2 1/2	LHS3D
LHS30D	15/16	LHS1C, LHS6C	LHS88D	2 3/4	LHS3D
LHS32D	1	LHS1C, LHS6C	LHS96D	3	LHS3D
LHS34D	1 1/16	LHS1C, LHS6C	LHS100D	3 1/8	LHS3D
LHS36D	1 1/8	LHS1C, LHS6C	LHS104D	3 1/4	LHS3D
LHS38D	1 3/16	LHS1C, LHS6C	LHS112D	3 1/2	LHS3D
LHS40D	1 1/4	LHS3D	LHS116D	3 5/8	LHS3D
LHS42D	1 5/16	LHS3D	LHS120D	3 3/4	LHS3D
LHS44D	1 3/8	LHS3D	LHS128D	4	LHS3D
LHS46D	1 7/16	LHS3D	LHS132D	4 1/8	LHS3D
LHS48D	1 1/2	LHS3D	LHS136D	4 1/4	LHS3D
LHS50D	1 9/16	LHS3D	LHS144D	4 1/2	LHS3D
LHS52D	1 5/8	LHS3D	LHS148D	4 3/4	LHS3D
LHS54D	1 11/16	LHS3D	LHS152D	5	LHS3D
LHS56D	1 3/4	LHS3D	LHS168D	5 1/2	LHS3D
LHS58D	1 13/16	LHS3D	LHS184D	6	LHS3D
LHS60D	1 7/8	LHS3D	—	—	—

LHS608B Hole Saw and Arbor Kit. Includes LHS44D, LHS48D, LHS56D, LHS64D, LHS80D and LHS96D hole saws plus LHS6C and LHS3D arbors and LHS8C arbor adaptor (9 pcs) in storage case. Recommended speed charts are included.

LHS606D Hole Saw and Arbor Kit. Includes LHS24D, LHS28D, LHS32D, LHS36D and LHS40D hole saws plus LHS6C arbor and LHS8C arbor adaptor (7 pcs) in storage case. Recommended speed charts are included.

Hole Saw Arbors and Pilot Drills

Stock No.	Thread Size	Fits Saws, inches	Fits Drill Chucks, inches	Replacement Pilot Drill
LHS5C	1/2"-20	9/16 - 1 3/16	1/4	LHS4D
LHS6C	1/2"-20	9/16 - 1 3/16	3/8	—
LHS1C	1/2"-20	9/16-1 3/16	1/2	LHS4D
LHS3D	5/8"-18	1 1/4 - 6	3/8	—
LHS8C	Arbor adaptor to convert 1/2"-20 thread to 5/8"-18			

GA219B Hole Cutter Kit.

- Cuts holes in sheet metal, pipe, plastic and wood up to 1/4" thick
- Special design helps prevent clogging so cutting need not be interrupted to clear chips
- Includes 7 high speed steel cutters (5/16", 3/8", 7/16", 1/2", 9/16", 5/8" and 3/4"), an arbor with a spring-loaded pilot guide, a hex wrench, an extra pilot and stop and spacer washers in a storage case



WARNING



• Read safety precautions on pages 594 to 597



LHS18D

LHS48D

LHS608B

LHS64D



LHS606D



LHS1C

LHS5C

LHS6C



LHS8C



GA219B

LHS3D

POWER TOOL ACCESSORIES

Drilling Accessories



CL6

CL6 Cutting Oil.

- Superior anti-weld and lubricating properties reduce heat buildup in drill bits, grinding burrs and other metal cutting tools
- 1 pint bottle



R120

R120 Tapered Reamer.

- Tapers from 1/8" to 1/2"
- Ideal for removing burrs and enlarging holes
- Includes crossbar

R121 Tapered Reamer.

- Tapers from 1/2" to 1"
- Similar to R120 but has a 3/8" square head for use with socket wrenches when extra torque is required



YA806

YA806 Pin Vise.

- Thumb pressure swivel head
- Includes 2 double-ended collets enclosed within the tool
- Capacity is 0" to 1/8"



DEBUR300

DEBUR300 Deburring Tool.

- Easily deburr drilled and machined holes
- Pushbutton locking collet enables quick, easy blade changes
- Includes 3 round head deburring blades
- Blades store in handle of tool
- Weighs 1 lb.
- 6" long



YA246A

YA246A Micro Utility Drill Set.

- Knurled surface at chuck end of pin vise provides a sure gripping surface
- Long 1 7/8" drill length
- Includes pin vise and 12 precision HSS twist drills from .0635" to .0225", numbers 52 to 74
- Applications: fuel injectors, fuel lines, welding and soldering torch tips, shower heads, water jets, electronics and hobbies

Wire Brushes



Style/Application	Stock No.	Brush Diameter, inches	Shank Size Arbor Size, inches	Wire Diameter, inches	Maximum Rated RPM
Crimped for removing carbon from cylinder heads and valve parts	AC2D	1	1/4	.020	20,000
	AC3D	3/4	1/4	.020	20,000
Solid end for cleaning aluminum cylinder heads and transmission parts	AC16D	3/4	1/4	.006	20,000
Spiral twist for removing heavy deposits	AC6A	3/4	1/4	.014	20,000
	AC7D	1	1/4	.020	20,000
Cup type for cleaning wheel rims and scuffing tires	AC240B	1 1/2	1/4	.012	6,000
Hollow end crimped cup for light duty cleaning	AC241B	2 1/2	1/4	.012	6,000
Cup flared for deburring, cleaning hard-to-reach areas and wheel rims, and scuffing tires	AC208A	1 1/2	1/4	.008	20,000
	AC212A	1 1/2	1/4	.012	20,000
	AC214A	2 1/2	1/4	.014	18,000
	AC224A	3	1/4	.014	15,000
Encapsulated wire end brushes for a consistent stiff brushing action	AC204C	1/2	1/4	.014	8,000
	AC205C	3/4	1/4	.014	8,000
	AC206C	1	1/4	.014	8,000
Knot type, single row wire cup for heavy duty surface applications	AC339A	3	5/8"-11	.020	12,500
	AC341B	3	5/8"-11	.012	7,000
	AC342B	4	5/8"-11	.020	7,000
Crimped cup for light duty cleaning	AC343A	4	5/8"-11	.014	6,000
	AC345	3	5/8"-11	.012	12,500

POWER TOOLS ACCESSORIES

Wire Brushes/Flap Wheels



AC420A



AC616



AC243



AC17D



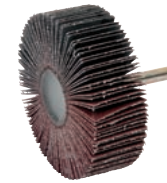
AC10306



A24B



AC4Z60T27MP



AC3180FWMP



AC13002

	Stock No.	Brush Dia., inches	Shank Size Arbor Size, inches	Wire Diameter, inches	Maximum Rated RPM
Knotted wire wheel for heavy duty cleaning	AC420A	4	5/8 - 11	.020	20,000
	AC421A	4	M10 x 1.25"	.020	20,000
Crimped Wire Wheel. general purpose cleaner	AC616	3	1/4	.0118	20,000
Wire Brush. medium duty general cleaner	AC17D	1	1/4	.006	20,000
	AC243	3	5/8 - 11	.014	14,000
End Brush. ideal for cleaning right angle	AC10302	1/2	1/4	.014	25,000
	AC10306	3/4	1/4	.014	22,000

A24B Arbor Adaptor.

- Adapts electric drill to light duty grinding and wire brushing: use with wheels and brushes up to 4" in diameter
- Shank is 1/4"; arbor is 1/2" in diameter: length is 1 3/4"
- Maximum rated RPM: 20,000

	Stock No.	Diameter, inches	Type	Grit	Quantity to Pack
Flap Discs	AC2Z40T27MP	2	27	40	10
	AC2Z60T27MP	2	27	60	10
	AC2Z80T27MP	2	27	80	10
	AC3Z40T27MP	3	27	40	10
	AC3Z60T27MP	3	27	60	10
	AC3Z80T27MP	3	27	80	10
Flap Wheels	AC4Z60T27MP	4	27	60	10
	AC3160FWMP	3		60	10
	AC3180FWMP	3		80	10
	AC31120FWMP	3		120	10

AC13002 Drill Accessory Kit.

- Includes AC616 crimped wire wheel, AC240B crimped wire cup brush, AC3D crimped wire end brush and AC3180FWMP abrasive flap wheel

ACMANDREL Mandrel.

- 1/4" stem for use on 2" and 3" flap discs

Cutting and Grinding Accessories



AT415CWMP

AT415CWMP Cut Off Wheel.

- Use for metal notching and bolt cutting
- Use on 4 1/2" grinders with 5/8" x 11 thread arbor
- Maximum rated RPM: 13,300
- Re-order in multipacks

AT415T27MP Grinding Wheel.

- Use for rough grinding applications
- Use on 4 1/2" grinders with 5/8" x 11 thread arbor
- Maximum rated RPM: 13,300
- Re-order in multipacks

ETA125A Grinding Wheel Set.

- Use with ET1350/ET1360
- Maximum rated RPM: 12,000



AT415-20B

AT415-20B Grinding Disc.

- For AT415B grinder
- 4" diameter x 3/16" thick with 5/8" arbor hole
- Maximum rated RPM: 12,000
- Package of 5 discs



ETA250A

ETA250A Grinding Wheel Set.

- 1/4 x 4 1/2 x 7/8
- Grit coarse (24)
- Maximum rated RPM: 12,000



AT415A51

AT415A51 Grinding Discs.

- For AT415B grinder
- 4 1/2" diameter x 3/16" thick with 7/8" arbor hole
- Maximum rated RPM: 12,000
- Package of 5 discs



AT150C28A

AT150C28A Cutter Wheels.

- 3" diameter x 1/32" thick with 3/8" arbor hole
- Grit 54-grit
- Maximum rated RPM: 25,000



AT215GWSET

AT215GWSET 2" Grinding Wheel Set.

- Replacement grinding wheels for AT215 (2 inch, 60-grit, 6 pcs.)
- Maximum rated RPM: 20,000



AC13003

AC13001

AC13001 Mini Grinder Kit.

- Includes AC4Z60T27MP flap disc, AC339A knot cup brush and AC402A knot wire wheel

AC13003 Cut/Grind/Finish Kit.

- Includes AC4Z60T27MP flap disc, AC339A knot cup brush, AT415T27MP grinding wheel and (2) AT415CWMP Cut Off wheels



WARNING



- Do not use power tool accessories above their maximum rated RPM
- Read safety precautions on pages 594 to 597

POWER TOOL ACCESSORIES

Grinding Burrs

Grinding burrs are ideal for use with Snap-on® die grinders described on p. 274-275. 1/4" and 1/8" shank burrs are available - all with solid carbide heads. The 1/8" shank units all have a maximum head diameter of 1/8".



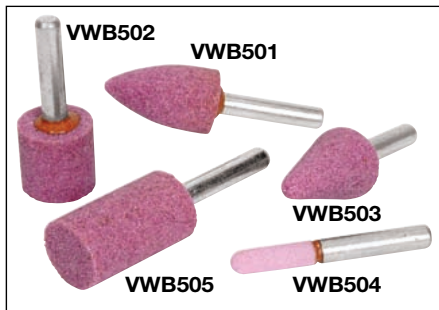
VWBL400



VWB200C



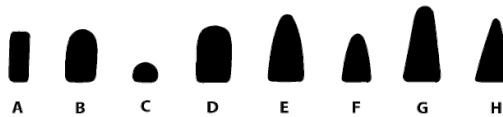
VWB800D



VWB500



VWB700A



Grinding Burr Styles

1/4" Shank, Burrs

	Stock No.	Style	Shank Length, in.	Flute Length, in.	Head Dia., in.	Recommended RPM		Set Contains:	
						Cast Iron	Stainless		
1/4" Shank, Burrs - Generally used for ferrous metals.	VWB1C	A	—	5/8	1/4	22,000	23,000	•	
	VWB9B	A	—	1	1/2	16,000	24,000		
	VWB2B	B	—	3/4	3/8	18,000	27,000	•	
	VWB10B	B	—	1	1/2	16,000	24,000		
	VWB3B	C	—	1/4	5/16	20,000	30,000	•	
	VWB4B	D	—	7/8	1/2	16,000	24,000	•	
	VWB11B	E	—	3/4	3/8	18,000	27,000		
	VWB5B	E	—	1	1/2	16,000	24,000	•	
	VWB6B	F	—	3/4	3/8	18,000	27,000	•	
	VWB7B	G	—	1 1/8	1/2	16,000	24,000	•	
VWB12B	G	—	1 1/16	3/8	18,000	27,000			
VWB8B	H	—	7/8	1/2	16,000	24,000	•		
1/4" Shank, Long Reach Burrs - Use for surface conditioning of non-ferrous materials like magnesium, soft steel and hard plastic plus porting of aluminum engine parts	VWBL401	—	4	—	3/8	14,000	17,000		•
	VWBL402	—	4	—	3/8	14,000	17,000		•
	VWBL403	—	4	—	3/8	14,000	17,000		•
	VWBL404	—	4	—	3/8	14,000	17,000		•
1/4" Shank, Wide Fluted Burrs - For non-ferrous metals, plastics, and softer material.	VWB206B	A	—	1	1/2	15,000	25,000		•
	VWB204B	A	—	3/4	1/4	15,000	25,000		•
	VWB203B	B	—	1	1/2	15,000	25,000		•
	VWB202B	E	—	1	1/2	15,000	25,000		•
	VWB201B	G	—	1 1/8	1/2	15,000	25,000		•
VWB205B	G	—	1 1/16	3/8	15,000	25,000		•	

1/4" Shank, Mounted Points

Stock No.	Size Inches	Maximum RPM	Set Contains:	
VWB501	11/16 x 1 1/4	28,000	•	
VWB502	3/4 x 3/4	28,000	•	
VWB503	3/4 x 1 1/8	28,000	•	
VWB504	1/4 x 1 3/4	28,000	•	
VWB505	3/4 x 1/4	28,000	•	
VWB506	3/8 x 1	28,000		
VWB507	1/4 x 1 1/4	28,000		
VWB508	11/16 x 7/8	28,000		

1/8" Shank, Burrs

Stock No.	Style	Flute Length, in.	Recommended RPM		
			Cast Iron	Stainless	
VWB301B	A	9/16	20,000	75,000	•
VWB302B	B	9/16	20,000	75,000	•
VWB303B	C	1/8	20,000	75,000	•
VWB304B	D	7/32	20,000	75,000	•
VWB305B	E	1/2	20,000	75,000	•
VWB306B	F	3/8	20,000	75,000	•
VWB307B	G	1/2	20,000	75,000	•
VWB308B	H	7/16	20,000	75,000	•

POWER TOOLS ACCESSORIES

Air and Reciprocating Saw Blades

Air Saw Blades

Bi-Metal Blades	AT192A	AT194A
Bi-Metal Blade, 18TPI, 3 3/4" long (qty. 5)	AT190-39A	AT190-39A
Bi-Metal Blade, 24TPI, 3 3/4" long (qty. 5)	AT190-40A	AT190-40A
Bi-Metal Blade, 32TPI, 3 3/4" long (qty. 5)	AT190-41A	AT190-41A



AT190-40A

Metal Cutting Blades

Bi-metal reciprocating saw blades with precision ground teeth for maximum cutting power, greater control and higher speed.

Stock No.	Application / Material Thickness	Teeth per Inch	Blade Thickness, inches	Blade Length, inches	Qty.
CTRS614MC	Metal 1/8" to 3/8" thick	14	.035	6	5 each
CTRS614MCB	Metal 1/8" to 3/8" thick	14	.035	6	50 each
CTRS914MC	Metal 1/8" to 3/8" thick	14	.035	9	5 each
CTRS618MC	Metal 1/8" to 1/4" thick	18	.035	6	5 each
CTRS618MCB	Metal 1/8" to 1/4" thick	18	.035	6	50 each
CTRS918MC	Metal 1/8" to 1/4" thick	18	.035	9	5 each
CTRS624MC	Metal less than 1/8" thick	24	.035	6	5 each
CTRS624MCB	Metal less than 1/8" thick	24	.035	6	50 each



CTRS614MC

General Purpose Blades

Versatile bi-metal blades for general purpose cutting of metal, plastic laminates and wood with nails.

Stock No.	Application / Material Thickness	Teeth per Inch	Blade Thickness, inches	Blade Length, inches	Qty.
CTRS658GP	Metal/Plastic/Wood	5 to 8 variable	.050	6	5 each
CTRS658GPB	Metal/Plastic/Wood	5 to 8 variable	.050	6	50 each
CTRS966GP	Metal/Plastic/Wood	6	.050	9	5 each
CTRS126GP	Metal/Plastic/Wood	6	.050	12	5 each



CTRS126GP

Demolition Blades

Extra heavy duty bi-metal blades with thicker body and variable 5/8 tooth pitch are ideal for heavy demolition work in wood with nails also strong enough to handle thick metals.

Stock No.	Application / Material Thickness	Teeth per Inch	Blade Thickness, inches	Blade Length, inches	Qty.
CTRS658DB	Nail Embedded Wood	5 to 8 variable	.062	6	5 each
CTRS958DB	Nail Embedded Wood	5 to 8 variable	.062	9	5 each



CTRS658DB

Wood Cutting Blades

Bi-metal blades with precision ground teeth for fast cutting of wood 3/8" and thicker.

Stock No.	Application / Material Thickness	Teeth per Inch	Blade Thickness, inches	Blade Length, inches	Qty.
CTRS67WB	Fast Cutting Wood 3/8" and thicker	7	.040	6	5 each
CTRS97WB	Fast Cutting Wood 3/8" and thicker	7	.040	9	5 each



CTRS67WB



WARNING



- Do not use power tool accessories above their maximum rated RPM
- Read safety precautions on pages 594 to 597

POWER TOOL ACCESSORIES

Sander Accessories



PS4612-1AH



PS4612V-1AH



PS468-34HL



PS468-34V

Replacement Pads

Stock No.	Size, inches	Type	Style	Use on:
PS4312-1H	3	PSA	Vacuum/Non-vacuum	PSF4312
PS4312-2H	3	Velcro	Vacuum/Non-vacuum	PSF4312
PS4512-1AH	5	PSA	Non-vacuum	PS4512
PS4512V-1AH	5	PSA	Vacuum	PS4512
PS4512-2H	5	Velcro	Non-vacuum	PS4512
PS4512V-2H	5	Velcro	Vacuum	PS4512
PS4612-1AH	6	PSA	Non-vacuum	PS4612 & PSF4612
PS4612V-1AH	6	PSA	Vacuum	PS4612 & PSF4612
PS4612-2H	6	Velcro	Non-vacuum	PS4612 & PSF4612
PS4612V-2H	6	Velcro	Vacuum	PS4612 & PSF4612
PS468-34	6	PSA	Non-vacuum	PS4609
PS468-34V	6	PSA	Vacuum	PS4609
PS468-34HL	6	Velcro	Non-vacuum	PS4609
PS468-34VHL	6	Velcro	Vacuum	PS4609
PS468-35	8	PSA	Non-vacuum	PS4809
PS468-35V	8	PSA	Vacuum	PS4809
PS468-35HL	8	Velcro	Non-vacuum	PS4809
PS468-35VHL	8	Velcro	Vacuum	PS4809



PSV4612KIT

PSV4312KIT

Vacuum Adaptor Kits (contains vacuum adaptor & shroud)		
PSV4312KIT	Vacuum Kit for 3" Sanders	PSF4312
PSV4612KIT	Vacuum Kit for 5" & 6" Sanders	PS4512, PS4612 & PSF4612

Tune-up Kits (contains seals, o-rings, washers, valve, rotor & vanes)		
PS43-TK	Tune-up Kit for 3" Sanders	PSF4312
PS46-TK	Tune-up Kit for 5" & 6" Sanders	PS4512, PS4612 & PSF4612



POLISHW8A

POLISHW8A Wool Buffing Pad (8").

- Ideal for cutting, buffing, and removal of scratches and paint imperfections
- 1 1/2" wool pile lasts longer than standard wool pads
- Washable for easy cleanup
- Use for base and clear coats, acrylic, enamel, lacquer, urethane, fiberglass, plastics and other applications
- Can be used with AT450AP, AT460AP, ET1460, ET1480, ET1490 and ETB1570 polishes



POLISHB8C

POLISHB8C Buffing Pad.

- 8" yellow buffing pad for use with electric and pneumatic power tools with 5/8"-11 thread



POLISHD8C

POLISHD8C Detailing Pad.

- 8" white detailing pad for use with electric and pneumatic power tools with 5/8"-11 thread. Use with POLISH1CSA polish/sealant



YA7341

YA7341 Bonnet Cleaning Tool.

- Run the spur wheels over your buffing pad or bonnet and it will work to dislodge and remove dry, hardened polish

POWER TOOLS ACCESSORIES

Air Hammer Accessories



PHG1005AK

PHG1055K

Set
Contains:

PHG1005AK

PHG1055K

Stock No.	Description	Application	Length, inches	Tip, inches		
PHG63A	Ball Joint and Tie Rod Separators	For separating ball joints and tie rods	7 3/8	13/16 opening		
PHG69A	Ball Joint and Tie Rod Separators	For separating ball joints and tie rods	7 3/8	1 opening		
PHG93A	Ball Joint and Tie Rod Separators	For separating ball joints and tie rods	8 3/4	1 1/4 opening		
PHG94A	Ball Joint and Tie Rod Separators	For separating ball joints and tie rods	7 13/16	5/8 opening		
PHG64A	Bent End Chisel	Shears ball joint rivets	10 1/2	9/8		
PHG76A	Bushing Cutter	For bushing cutting	6 1/4	1/2		
PH75A	Bushing Driver	For -pneumatic bushing driving	5 1/2	1/2		
PHG155A	Cold Chisel	Cuts bolts, nuts, tees and angles. Also splits and bevels. Non-turn shank	7	21/32		
PHG85A	Curved Flat Chisel	For rivet cutting work	5 3/4	5/8		
PHG57A	Double Bladed Panel Cutter	For panels cutting and sheet metal cutting	6	3/4	•	•
PHG73A	Drift Punch	For punching out pins and other driving applications	6 1/2	1/2		•
PHG77	Drift Punch	For punching out pins and other driving applications that need extra reach	18	0.5		
PHG55A	Flat Chisel	For normal chisel cutting applications	6 1/2	3/4	•	•
PHG58B	Flat Chisel	For normal chisel cutting applications, when extra reach is needed	10	3/4		
PHG84A	Flat Chisel	For hammering application, when extra reach is needed	18	3/4		
PHG99	Flat Chisel	For normal chisel cutting applications, when a wide blade is needed	6 1/2	1 1/2		
PHG111	Hinge Pin Punch	Remove and install tube-hinge pins on car and truck doors	7 3/8	0.237		
PHG112	Hinge Pin Punch	Remove and install tube-hinge pins on car and truck doors	7 3/8	0.302		
PHG95A	Hole Punch	Punches 3/16" diameter starting hole in sheet metal to prepare it for use with CJ107 and CJ114 Body Dent Pullers.	5 5/8	—		
PHG66A	Inside Cutter	For cutting the exhaust pipe inside the flange	8 3/4	3/16		
PHG87A	Inside Cutter	For removing the tail pipe	8 3/4	7/8		
PH201	Needle Scaler	Projecting rods chip away rust and scale. Use only at low pressure	7 13/16	—		
PHG21	Offset Bushing Splitter	For bushing cutting, when extra reach is needed	8 3/8	5/8		
PHG65A	Outside Cutter	For cutting the muffler flange	8 5/8	7/8		
PHG151A	Panel Cutter	Edges and trims sheet metal. Cutting end is offset 25". Non-turn shank	6 7/8	5/8		
PHG74A	Riveter	For 3/16" stem	5 13/16	1/2		
PHG78A	Riveter	For 1/4" stem	5 13/16	1/2		
PHG88A	Riveter	For forming heads on 3/16" compression rivets	5 13/16	1/2		
PHG89A	Riveter	For forming heads on 1/4" compression rivets	3 7/8	7/8		
PHG80A	Roll Pin Punch	For removing and installing roll pins	7 1/2	1/4		
PHG81A	Roll Pin Punch	For removing and installing roll pins	7 1/2	5/16		
PHG68	Round Hammer	For Hammering applications, when extra reach is needed	7	1		•
PHG71A	Round Hammer	For hammering applications	4 1/4	1		
PHG56A	Scraper	For scraping applications	6 3/16	1 5/16		
PHG51A	Sheet Metal Ripper	For sheet metal ripping and cutting	5 3/8	5/8		•
PHG161A	Slitting Chisel	Cuts exhaust system pipes, 1/8" tip thickness. Non-turn shank	8 3/4	1		
PHG61A	Slitting Chisel	For cutting tail pipes and other surfaces	6 7/8	1		•
PH1038	Socket Adaptor	Attaches to air hammer to provide vibration while turning stubborn fasteners. 3/4" hex, 3/8" square drive	5	—		
PHG70A	Spot Weld Breaker	For weld removal	6 1/4	3/4		•
PHG59A	Tapered Punch	For removal of pins	6 1/2	3/16		•
PHG72A	U-Joint Trunion Driver	For needle type trunions	3 7/8	7/8		
PH200D	Universal Quick Change Chuck Retainer	Use for fast, easy insertion/removal of air hammer bits	—	—		
PHG83A	Valve Guide Remover	For removing and installing valve guides	190mm	7.7mm pilot		
PHG86A	Valve Guide Remover	For removing and installing valve guides	190mm	9.3mm pilot		
PHG91A	Valve Guide Remover	For removing and installing valve guides	189mm	6.5mm pilot		
PHG96A	Valve Guide Remover	For removing and installing valve guides	189mm	6.9mm pilot		
PHG97A	Valve Guide Remover	For removing and installing valve guides	189mm	5.2mm pilot		



PHG94A

PHG64A



PHG76A

PHG155A



PHG85A

PHG57A



PHG73A

PHG58B



PHG111

PHG95A



PHG87A

PH201



PHG65A

PHG151A



PHG74A

PHG88A



PHG80A

PHG71A



PHG56A

PHG51A



PHG161A

PHG61A



PH1038

PHG70A



PHG59A

PHG72A



PHG97A

PH200D



WARNING



• Use air hammer accessories only for intended applications
• Read safety precautions on pages 594 to 597

POWER TOOL ACCESSORIES

Non Vented Blow Guns



JT13A



JT16



JT17



JT18



JT25



YA1052



YA4010



YA1050B



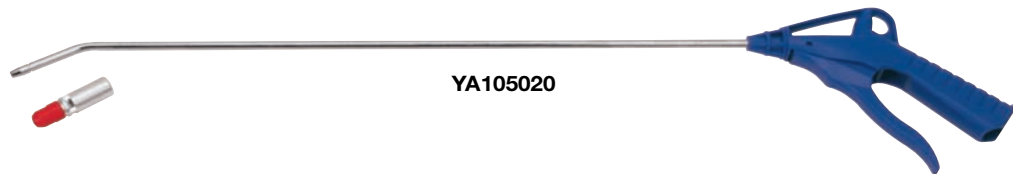
JT14



JT23



JT24



YA105020

Non Vented Blow Guns

Do not use non vented blow guns above 30 psi air supply pressure.

JT13A Blow Gun.

- Tapered, rubber tip for a leak proof connection between gun and fluid line
- Vinyl coated control lever
- Hanging hook for storage
- 4 1/2" long

JT16 Blow Gun. Brass tip version of JT13.

JT17 Blow Gun. Same as JT13 except with a 3" tip extension in place of the rubber tip.

JT18 Blow Gun Same as JT17 except with a 6" tip extension.

JT25 Blow Gun Same as JT13 except with a 3", flexible nylon tip.

YA1050B Blow Gun. Pistol grip style with front full size trigger. Infinitely variable flow. 10 1/4" long.

YA4010 Quick Change Tip. Conical rubber tip for YA1050.

JT14 Blow Gun. Industrial, interchange style coupler.

JT15 Blow Gun. Universal 1/4" pipe threading.

JT20 Blow Gun. ARO style coupler.

JT21 Blow Gun. True flate style male coupler.

JT22 Blow Gun. Lincoln style male coupler.

JT23 Blow Gun. Solid brass. Industrial interchange style coupler.

JT24 Blow Gun. Solid brass. ARO style coupler.

YA105020 Blow Gun.

- 20" bent nozzle
- Trigger provides variable air flow control
- Lightweight body with ergonomically designed grip provides comfort and control
- Venturi tip directs air sideways if tip end is obstructed
- Reinforced 1/4-18NPT inlet

YA105013 Blow Gun. Same as YA105020 except 13" bent nozzle.

YA1050T2 Venturi Air Booster. Venturi nozzle draws in ambient air for extra-high flow increasing by 100%. Suitable for deflecting lightweight wood chips. Diverts air when dead ended, reducing the outlet pressure to less than 2 bar (29 psi).

YA1050T1 Removable Star Tip. Removable star tip for YA105020 blow gun.

YA1050T3. Rubber Tip Kit Rubber tip set for YA105020 blow gun.

YA1050T4 Chip/Fluid Shield. Chip/fluid shield for YA105020 blow gun.

POWER TOOLS ACCESSORIES

Vented Blow Guns

Vented Blow Guns

Do not obstruct vents. Do not use vented blow guns above 135 psi maximum air supply pressure.

JT11AS Blow Gun.

- Vented tip
- Paddle type air control lever regulates airflow from partial to full line pressure
- Valve has no cutoff and no restrictions
- Tip is side vented includes hanging hook
- 6 1/2" long, 4" tube

JT19 Venturi Tip Blow Gun.

- Directs air sideways if tip end becomes obstructed and increases airflow
- Includes stabilizer valve for variable pressure
- 1" hanging hook and paddle type air control lever
- 1/4"-18 NPT(f) inlet

YA1055B Blow Gun.

- Variable flow trigger offers precise air flow control
- 6 outlet "star tip" delivers an even distribution of air
- 4" full flow tube
- Complies with OSHA safety standards
- Air inlet: 1/4" NPT



JT11AS



JT19

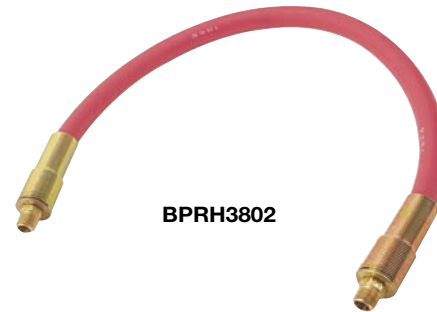
YA1055B

Air Hoses and Swivels

Rubber Air Hoses

Ideal for industrial applications. Male threads at both ends.

Stock No.	Hose I.D., inches	Hose Length, feet	Thread Size	Maximum Pressure, psi
BPRH3802	3/8	2	1/4"-18 NPT	300
BPRH3825	3/8	25	1/4"-18 NPT	300
BPRH3850	3/8	50	1/4"-18 NPT	300
BPRH1250	1/2	50	3/8"-18 NPT	300



BPRH3802

Air Hoses/Reinforced Polyurethane

- Extremely lightweight for easy maneuverability
- Reinforced construction eliminates layer separation resulting from expansion and contraction during pulsating operations
- More abrasion resistant than PVC and rubber hoses
- Easy to wrap and store even in subzero weather
- UV stabilized for longer outdoor life
- Strain relief features a tight bending radius to virtually eliminate hose kinking
- Reusable fittings and strain reliefs for longer life

Stock No.	Color	Hose I.D., inches	Hose Length, feet	Thread Size	Temp. Range	Working Press.
AIRHOSE35	Red	3/8	35	1/4" NPT	-40°F to 165°F (-40°C to 73.9°C)	200 psi @ 70°F (21°C)
AIRHOSE50	Red	3/8	50	1/4" NPT	-40°F to 165°F (-40°C to 73.9°C)	200 psi @ 70°F (21°C)



AIRHOSE35

Air Swivel Connectors

- Swivels turn 360° at 2 points for complete tool maneuverability
- Air hoses hang straight to the floor

Stock No.	Thread Size	Maximum Pressure, psi	Airflow
YA502M	1/4" NPT	150	Up to 4.6 CFM (33 SCFM)
YA503M	3/8"-18 NPT	150	Up to 6.3 CFM (45 SCFM) [178 LPM]



YA502M



WARNING



- Do not direct blow gun at yourself or others
- Read safety precautions on pages 594 to 597

POWER TOOL ACCESSORIES

Air Line Couplers and Adaptors



AHC23PMC



AHC26C



AHC25MC



AHC23MC



AHC21MC



AHC27MC



AHC22MC



AHC28MC

IM10D Air Valve.

- Volume of airflow can be regulated with 1/4 turn of control knob
- Male/female threads



IM10D

Air Line Couplers and Adaptors

Body Size, inches	Style	Thread Size	Quick Coupler Male	Quick Coupler Female	Adaptor Male	Adaptor Female
1/4	Lincoln	1/4"-18 NPT	—	AHC26C	AHC26MC	AHC26FC
1/4	True-Flate	1/4"-18 NPT	—	AHC24C	AHC24MC	AHC27FC
3/8	True-Flate	3/8"-18 NPT	—	AHC25C	AHC25MC	AHC25FC
1/4	ARO	1/4"-18 NPT	AHC23PMC	AHC23C	AHC23MC	AHC23FC
1/4	Industrial Interchange	1/4"-18 NPT	AHC21PMC	AHC21C	AHC21MC	AHC21FC
3/8	Industrial Interchange	1/4"-18 NPT	—	AHC22D	AHC22MC	AHC22FC
3/8	Industrial Interchange	3/8"-18 NPT	—	AHC28C	AHC28MC	AHC28FC
1/2	Industrial Interchange	1/2"-14 NPT	—	AHC27C	AHC27MB	AHC27FC
1/4	Rigid Mounting*	1/4"-18 NPT	—	AHC21PC	—	—
1/4	Hi-Flow	1/4"-18 NPT	—	AHCC98B	AHCCP97B	—
1/4	Hi-Flow HVLP	1/4"-18 NPT	AHCC91B	AHCC90B	—	AHCCP90B

* Conforms to Mil Spec MIL-C-4109F

- All adaptors are plated steel to improve durability



AHC22FC



AHC25FC



AHCCP97B

General Accessories



IM1PT



IM1OZMP12



CL6

Lubrication Accessories

IM1PT Air Motor Oil.

- Formulated to lubricate, clean and protect expensive components
- Cleans all piston and rotary air motors and helps prevent rust formation
- 1 pint bottle

IM1PTMP6 Air Motor Oil.

- 6 pack of IM1PT 16 oz. bottles.

IM1OZMP12 Air Motor Oil.

- 12 pack of 1 oz. bottles.

CL6 Cutting Oil.

- Superior anti-weld and lubricating properties reduce heat buildup in drill bits, grinding burrs and other metal cutting tools
- 1 pint bottle



AT187

AT187 Engraving Pens.

- Mark tools and other objects to prevent theft
- Use on hardened steel plate (up to HRC55), metals, glass, stone, ceramic, plastics and more
- Used for deburring operations plus reshaping screw or bolt heads for removal
- Rugged metal housing
- Knurled fingertip control
- Tips sold separately



CTTOTEA



BPTOTE

CTTOTEA Power Tool Tote Bag.

- Wide opening for easy access to tools, extra padding for protection
- Durable 600 Denier® outside for strength
- Interior pockets and compartments for tool organization
- Padded handles for comfortable transport
- Reinforced bottom for strength
- 6 external pockets for extra storage
- Approximate inside dimensions, open: 18"L x 8"W x 11 1/2"D

BPTOTE Tote Bag.

- Heavy duty 600 x 300D polyester
- Water resistant, rugged and versatile
- Wide top opening for easy access
- Multiple interior and external pockets for organization
- Overall dimensions: 16 1/2"L x 10 1/2"W x 12 1/4"H

Specifications	AT187
Recommended Air Pressure, psi	90
Air Consumption, average, cfm (scfm)	1.0 (7)
Free Speed, rpm	14,000
Sound Level, dBA	90
Air Inlet Thread Size	1/4"-18 NPT
Recommended Hose Size, inches	3/8
Hose Length, inches	59 1/2
Overall Length, inches	5 1/2 without hose
Weight, lbs.	.48

AT187-11 Coarse 45° Carbide Engraving Tip.

For AT187.

AT187-13 Fine 15° Carbide Engraving Tip.

For AT187.

AT187-14 Medium 30° Carbide Engraving Tip.

For AT187.

TOOL STORAGE

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TOOL STORAGE

INNOVATION THAT DELIVERS EVERYDAY. ESPECIALLY PAYDAY.

Owning Snap-on® tool storage says a lot about you: you're proud, you're professional and you don't cut corners.

**Personalize. Customize. Organize.
Never Compromise.**

When you order a tool storage unit from Snap-on, configured to your needs, what you're really buying is a more productive work day.

- Breadth—From the groundbreaking EPIQ to the Masters, Classic and Heritage Series, as well as carts and specialty storage, Snap-on has the solutions for any job.
- System expansion—As your tool collection and capabilities grow, Snap-on gives you the options to grow with your needs.



TOOL STORAGE

Unprecedented Innovation.

Building it better means asking what techs need to make the job easier. From the answers came EPIQ powered tool storage, ISO-Ride™ Technology and InPulse™ drawers.

- Powered tool storage—The revolutionary EPIQ Series with PowerCab™ charges your tools while you securely store them.
- Mobile storage—From roll cabs to carts to the one-of-a-kind Road Chest, Snap-on® offers more ways to take your tools anywhere you need them.

Unsurpassed Quality And Durability.

Snap-on tool storage units are built to last and tested to the extremes. Because second best is not an option.

- Double wall construction—Prevents a dent or ding from turning into a drawer that won't open right.
- Heavy duty construction—Structural continuity means Snap-on puts quality design into each form, each weld and each component, then designs them to work in harmony to produce a stronger unit.
- Multi-coat paint—Impressive powder coat process provides quality finishes in a variety of colors.



TOOL STORAGE

Roll Cab - Quick Reference Chart



	Features	EPIQ	Masters	Classic	Heritage	Heritage Standard	Blue-Point®
Steel Gauge:	Bottom	16 (14 Gauge Super Duty Skid Support System)	16 (14 Gauge Extra Heavy Duty Skid Support System)	16 (14 Gauge Heavy Duty Skid Support System)	16 (14 Gauge Heavy Duty Skid Support System on 53" Roll Cabs)	16	16
	Top	16 (Super Duty Stiffeners)	16 (Extra HD Stiffeners)	16 (Heavy Duty Stiffeners)	16 (Medium Duty Stiffeners)	16 (Medium Duty Stiffeners)	18 (Medium Duty Stiffeners)
	Back	16	16	16	18	18	20
	Side	16	16	16	18	18	20
	False Side Panels	18	18	18	20	20	20
	Drawer Front	18	18	18	20	20	20
	Drawer Body	18	18	18	18	18	20
	Drawer Back	18	18	18	20	20	20
	Standing Seam	•	•				
Corner Gussets	4	4	4	2 (40"); 4 (53")	2	2	
Features:	Slides, lbs. (ball bearing)	227	227	120	120	100	80-100
	Handle	Chrome w/grips	Chrome w/insert	Ergonomic	Ergonomic	Ergonomic	Straight
	Drawer Trim	Dual-function Aluminum	Alum. Installed	Alum. Installed	Alum. Installed	Plastic - Manual	Plastic - Manual
	Corner Trim	Alum. Wrap Installed	Alum. Installed				
	Lock	Removeable Core	Removeable Core	Removeable Core	Removeable Core	Std Y Series Flat	Flat Key
	Casters	7" x 2" Super Duty ISO-Ride 8,000 lbs.	6" x 2" Extra Heavy ISO-Ride 6,800 lbs.*	6" x 2" 2,400 lbs.	6" x 2" 2,400 lbs.	5" x 2" 1,200 lbs.	5" x 1.25" 1,120 lbs.
	Caster/ Handle Mounting	Weld Nut/ Heavy Plate	Weld Nut/ Heavy Plate	Weld Nut/ Heavy Plate	Weld Nut & Plate	Weld Nut & Plate	Weld Nut
	Top Mat	Non-Directional Rubber	Non-Directional Rubber	Non-Directional Rubber	Uni-Directional Rubber	Uni-Directional Rubber	Rubber
	Drawer Liner	Non-Slip Premium	Non-Slip Premium	Semi Non-Slip	Foam	Foam	Foam
	Drawer Retention	Impulse	Lock-N-Roll	Lock-N-Roll	Lock-N-Roll	Lock-N-Roll	Lock-N-Roll
	Paint	All Powder Coat Scratch Resistant	All Powder Coat Scratch Resistant	All Powder Coat Scratch Resistant	E-Coat Red; Scratch Resistant Powder Colors	E-Coat Red; Scratch Resistant Powder Colors	E-Coat Red; Powder Blue
	Colors Available	13 Standard & 8 Optional	11 Standard & 10 Optional	7 Standard; 9 Optional	4 Standard; 7 Optional	3 Standard	Red & Blue
Integrated Power Available	•	Optional Cabinet					

*6800 lbs. casters on all Masters except KRL722A, KRL756B, KRL1056B
Tools shown in tool storage not included

Created By Techs. For Techs.

When Snap-on® wanted to improve on already legendary tool storage, it went to the people who know the work best. Technicians. The result? The first fully-powered tool storage unit that works the way you do. At its core, EPIQ Series is about a passion for excellence.



- **PowerBank™**—Charge and store your cordless tools in this lockable bank.
- **PowerHouse™**—Power and store a diagnostic tool or PC under the lockable flip-top.

- **PowerTop™**—A stainless steel work surface with integrated power sources accommodates laptops, power tools and a variety of accessories.



Details That Matter.

Drawers and casters often have the most demanding jobs of any part of a roll cab, so Snap-on equipped EPIQ Series with the best.

- **InPulse™ Drawers**—Intuitive flush finish drawers that are easier to open, smoother to close and don't drift open.
- **ISO-Ride™ Casters**—7" swivel-lock wheels with independent spring suspension for a smooth ride.



Designed To Last.

EPIQ Series roll cabs are built to withstand the most demanding shops and hold their resale value for years.

- **Standing seams**—Top edge is rolled over for extra strength and a finished look.
- **Super duty skid support system** is stronger and absorbs the shock of heavy loads.
- **Corner gussets**—Reinforced to prevent racking.



EPIQ SERIES

Quick Reference Chart



Roll Cabs	Specifications	KERP842B	KERN842B	KERP843B	KERN843B	KERP762B	KERP763B	KERN682B	KERN602B
Capacity	Approx Cubic Inches	55,760	54,695	53,407	53,316	49,719	47,485	43,922	38,000
	Approx Square Inches	13,541	15,165	13,876	13,898	11,985	12,114	12,412	10,650
	Load Capacity, lbs.	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000
Footprint	Width, inches	84	84	84	84	76	76	68	60
	Depth, inches	30	30	30	30	30	30	30	30
	Height, inches	46 7/8	46 7/8	46 7/8	46 7/8	46 7/8	46 7/8	46 7/8	46 7/8
Drawers	Drawer Banks	2	2	3	3	2	3	2	2
	Drawer Count	8	13	14	19	8	14	13	13
	Widest Drawer, inches (Qty.)	62 (7)	62 (7)	62 (2)	62 (2)	54 (7)	54 (2)	62 (2)	54 (2)
	Slides, lbs. (ball bearing)	227	227	227	227	227	227	227	227
	Double Slide (included)	Yes (5)	Yes (5)	Yes (6)	Yes (2)	Yes (5)	Yes (6)	Yes (2)	Yes (2)
Extras	Writing Surface (Qty.)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (2)	Yes (1)	Yes (1)	Yes (1)
	Third Caster Set Option	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Weight	Net Weight, lbs.	990	1,044	990	1,044	936	936	832	774
	Shipping Weight, lbs.	990	1,044	990	1,044	936	936	832	774
EPIQ Configurations	Power™ Bank	Yes	No	Yes	No	Yes	Yes	No	No
	Non-Directional Rubber Top	KERP842B0	KERN842B0	KERP843B0	KERN843B0	KERP762B0	KERP763B0	KERN682B0	KERN602B0
	Stainless Steel PowerTop™	KERP842B4	KERN842B4	KERP843B4	KERN843B4	KERP762B4	KERP763B4	KERN682B4	KERN602B4
	Stainless Steel PowerHouse™ Top	KERP842B5	KERN842B5	KERP843B5	KERN843B5	KERP762B5	KERP763B5	—	—
Optional Add-ons Available	Top Chest	KECN842A	KECN842A	KECN843A	KECN843A	—	—	KECN682A	KECN602A
	Top Drawer Section	KESN842A	KESN842A	KESN843A	KESN843A	—	—	KESN682A	KESN602A
	Locker	KELN302AL KELN302AR	KELN302AL KELN302AR	KELN302AL KELN302AR	KELN302AL KELN302AR	KELN302AL KELN302AR	KELN302AL KELN302AR	KELN302AL KELN302AR	KELN302AL KELN302AR
	WorkCenter	KEWN840A	KEWN840A	KEWN840A	KEWN840A	KEWN760A	KEWN760A	KEWN682A	KEWN602A
	Overhead	KEHN840A	KEHN840A	KEHN840A	KEHN840A	KEHN760A	KEHN760A	KEHN682A	KEHN602A
	Stainless Steel PowerTop	KWSP3084BST	KWSP3084BST	KWSP3084BST	KWSP3084BST	KWSP3076BST	KWSP3076BST	KWSP3068B	KWSP3060B
	Stainless Steel PowerHouse Top	KWSH3084BST	KWSH3084BST	KWSH3084BST	KWSH3084BST	KWSH3076BST	KWSH3076BST	—	—

Tools shown in tool storage not included



All EPIQ Series units are available in 13 standard colors. Add suffix to base stock number for special colors.



KERP763B4PCM
76" EPIQ with PowerBank™ and PowerTop™.



KERP763B0PDG
76" EPIQ with PowerBank.



KERP763B5PES
76" EPIQ with PowerBank and PowerHouse Top.



KERP843B5PJK
84" EPIQ with PowerBank and PowerHouse™ Top.



KERP843B4PKS
84" EPIQ with PowerBank and PowerTop.



KERP843B0PJH
84" EPIQ with PowerBank.

EPIQ Series Roll Cab Drawer Sizes

Width		Depth		Height		KERP763B	KERP843B
Inches	mm	Inches	mm	Inches	mm	Drawers	Drawers
11 5/8	295	26 13/16	681	30 1/2	774	1	1
19 5/8	498	26 7/8	682	1 11/16	42.9	3	3
19 5/8	498	27 15/16	709	3 15/16	100	1	1
19 5/8	498	27 15/16	709	10 5/8	270	1	1
30 1/16	764	26 7/8	682	1 11/16	42.9	3	—
30 1/16	764	27 15/16	709	3 15/16	100	2	—
30 1/16	764	27 15/16	709	6 3/16	157	1	—
38 1/16	967	26 7/8	682	1 11/16	42.9	—	3
38 1/16	967	27 15/16	709	3 15/16	100	—	2
38 1/16	967	27 15/16	709	6 3/16	157	—	1
54 1/16	1,374	27 15/16	709	2 11/16	68.2	1	—
54 1/16	1,374	27 15/16	709	4 7/8	124	1	—
62 1/16	1,577	27 15/16	709	2 11/16	68.2	—	1
62 1/16	1,577	27 15/16	709	4 7/8	124	—	1
Total Drawer Count						14	14

Tools shown in tool storage not included



WARNING



- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

EPIQ SERIES

Roll Cabs



KERP762B5PU
76" EPIQ with PowerBank™ and PowerHouse™ Top.



KERP762B4PBO
76" EPIQ with PowerBank and PowerTop.



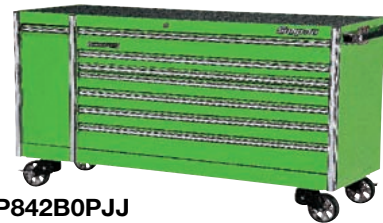
KERP762B0PC
76" EPIQ with PowerBank.



KERP842B5PBO
84" EPIQ with PowerBank and PowerHouse Top.



KERP842B4PAW
84" EPIQ with PowerBank and PowerTop™.



KERP842B0PJJ
84" EPIQ with PowerBank.

EPIQ Series Roll Cab Drawer Sizes

Width		Depth		Height		KERP762B	KERP842B
Inches	mm	Inches	mm	Inches	mm	Drawers	Drawers
11 5/8	295	26 13/16	681	30 1/2	774	1	1
54 1/16	1,374	26 7/8	682	1 11/16	42.9	1	—
54 1/16	1,374	27 15/16	709	2 11/16	68.2	1	—
54 1/16	1,374	27 15/16	709	3 13/16	96.8	3	—
54 1/16	1,374	27 15/16	709	4 7/8	124	1	—
54 1/16	1,374	27 15/16	709	6	152	1	—
62 1/16	1,577	26 7/8	682	1 11/16	42.9	—	1
62 1/16	1,577	27 15/16	709	2 11/16	68.2	—	1
62 1/16	1,577	27 15/16	709	3 13/16	96.8	—	3
62 1/16	1,577	27 15/16	709	4 7/8	124	—	1
62 1/16	1,577	27 15/16	709	6	152	—	1
Total Drawer Count						8	8

Tools shown in tool storage not included

Colors Available



All EPIQ Series units are available in 13 standard colors.
Add suffix to base stock number for special colors.

EPIQ SERIES

Roll Cabs



KERN842B4PC
84" EPIQ with PowerTop™.



KERN842B0PBO
84" EPIQ.



KERN842B5PBO
84" EPIQ with PowerHouse Top.



KERN843B5PCM
84" EPIQ with PowerHouse™ Top.



KERN843B4PC
84" EPIQ with PowerTop.



KERN843B0PKS
84" EPIQ.

EPIQ Series Roll Cab Drawer Sizes

Width		Depth		Height		KERN842B	KERN843B
Inches	mm	Inches	mm	Inches	mm	Drawers	Drawers
19 5/8	498	26 7/8	682	1 11/16	42.9	2	5
19 5/8	498	27 15/16	709	3 15/16	100	2	3
19 5/8	498	27 15/16	709	6 3/16	157	1	1
19 5/8	498	27 15/16	709	10 5/8	270	1	2
30 1/16	764	26 7/8	682	1 11/16	42.9	—	3
30 1/16	764	27 15/16	709	3 15/16	100	—	2
30 1/16	764	27 15/16	709	6 3/16	157	—	1
54 1/16	1,374	27 15/16	709	2 11/16	68.2	—	1
54 1/16	1,374	27 15/16	709	4 7/8	124	—	1
62 1/16	1,577	26 7/8	682	1 11/16	42.9	1	—
62 1/16	1,577	27 15/16	709	2 11/16	68.2	1	—
62 1/16	1,577	27 15/16	709	3 13/16	96.8	3	—
62 1/16	1,577	27 15/16	709	4 7/8	124	1	—
62 1/16	1,577	27 15/16	709	6	152	1	—
Total Drawer Count						13	19



WARNING



- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

EPIQ SERIES

Roll Cabs



KERN602B4PBO
60" EPIQ with PowerTop™.



KERN602B0PJJ
60" EPIQ.



KERN682B0PU
68" EPIQ.



KERN682A4PAW
68" EPIQ with PowerTop.

EPIQ Series Roll Cab Drawer Sizes

Width		Depth		Height		KERN602B	KERN682B
Inches	mm	Inches	mm	Inches	mm	Drawers	Drawers
19 5/8	498	26 7/8	682	1 11/16	42.9	3	3
19 5/8	498	27 15/16	709	3 15/16	100	1	1
19 5/8	498	27 15/16	709	10 5/8	270	1	1
30 1/16	764	26 7/8	682	1 11/16	42.9	3	—
30 1/16	764	27 15/16	709	3 15/16	100	2	—
30 1/16	764	27 15/16	709	6 3/16	157	1	—
38 1/16	967	26 7/8	682	1 11/16	42.9	—	3
38 1/16	967	27 15/16	709	3 15/16	100	—	2
38 1/16	967	27 15/16	709	6 3/16	157	—	1
54 1/16	1,374	27 15/16	709	2 11/16	68.2	1	—
54 1/16	1,374	27 15/16	709	4 7/8	124	1	—
62 1/16	1,577	27 15/16	709	2 11/16	68.2	—	1
62 1/16	1,577	27 15/16	709	4 7/8	124	—	1
Total Drawer Count						13	13

Colors Available



All EPIQ Series units are available in 13 standard colors.
Add suffix to base stock number for special colors.

KECN602A0 Series Top Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
28,285 (463,508)	8,351 (53,877)	525	605	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	10	60 (1,524)	30 (762)	46 5/8 (1,184)
Drawers	2	19 5/8 (498)	26 7/8 (682)	1 11/16 (42.9)
	3	19 5/8 (498)	27 15/16 (709)	3 15/16 (100)
	2	30 1/16 (764)	26 7/8 (682)	1 11/16 (42.9)
	3	30 1/16 (764)	27 15/16 (709)	3 15/16 (100)
Top Compartment	1	54 1/16 (1,374)	27 15/16 (709)	4 7/8 (123.8)



KECN602APBO

KECN682A0 Series Top Chest

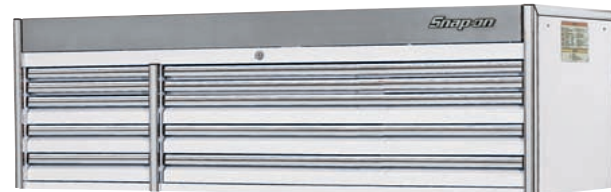
Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
32,740 (536,512)	9,675 (62,419)	600	685	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	10	68 (1,727)	30 (762)	46 5/8 (1,184)
Drawers	2	19 5/8 (498)	26 7/8 (682)	1 11/16 (42.9)
	3	19 5/8 (498)	27 15/16 (709)	3 15/16 (100)
	2	38 1/16 (967)	26 7/8 (682)	1 11/16 (42.9)
	3	38 1/16 (967)	27 15/16 (709)	3 15/16 (100)
Top Compartment	1	62 1/16 (1,577)	27 15/16 (709)	4 7/8 (123.8)



KECN682A0PC

KECN842A0 Series Top Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
41,343 (677,490)	12,376 (79,845)	750	850	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	10	84 (2,133)	30 (762)	46 5/8 (1,184)
Drawers	2	54 1/16 (1,374)	26 7/8 (682)	1 11/16 (42.9)
	3	54 1/16 (1,374)	27 15/16 (709)	3 15/16 (100)
	2	19 5/8 (498)	26 7/8 (682)	1 11/16 (42.9)
	3	19 5/8 (498)	27 15/16 (709)	3 15/16 (100)
Top Compartment	1	80 (2,032)	27 15/16 (709)	4 7/8 (124)



KECN842A0PU

KECN843A0 Series Top Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
40,070 (656,629)	11,774 (75,961)	750	850	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	15	84 (2,133)	30 (762)	46 5/8 (1,184)
Drawers	4	19 5/8 (498)	26 7/8 (682)	1 11/16 (42.9)
	6	19 5/8 (498)	27 15/16 (709)	3 15/16 (100)
	2	30 1/16 (764)	26 7/8 (682)	1 11/16 (42.9)
	3	30 1/16 (764)	27 15/16 (709)	3 15/16 (100)
Top Compartment	1	80 (2,032)	27 15/16 (709)	4 7/8 (124)



KECN843A0PDG



WARNING



- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

EPIQ SERIES

Drawer Sections



KESN602A0PBO

KESN602A0 Series Drawer Sections

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
26,387 (432,405)	8,228 (53,803)	525	605	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	12	60 (1,524)	30 (762)	46 5/8 (1,184)
Drawers	2	19 5/8 (498)	26 7/8 (682)	1 11/16 (42.9)
	4	19 5/8 (498)	27 15/16 (709)	3 15/16 (100)
	2	30 1/16 (764)	26 7/8 (682)	1 11/16 (42.9)
	4	30 1/16 (764)	27 15/16 (709)	3 15/16 (100)



KESN682A0PC

KESN682A0 Series Drawer Sections

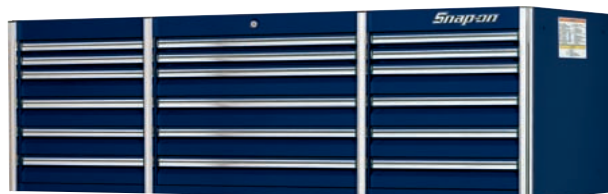
Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
30,632 (501,968)	9,552 (61,625)	600	685	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	12	68 (1,727)	30 (762)	46 5/8 (1,184)
Drawers	4	19 5/8 (498)	27 15/16 (709)	3 15/16 (100)
	2	38 1/16 (967)	26 7/8 (682)	1 11/16 (42.9)
	4	38 1/16 (967)	27 15/16 (709)	3 15/16 (100)
Top Compartment	2	19 5/8 (498)	26 7/8 (682)	1 11/16 (42.9)



KESN842A0PU

KESN842A0 Series Drawer Sections

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
38,368 (628,738)	12,200 (78,709)	750	850	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	12	84 (2,032)	30 (762)	46 5/8 (1,184)
Drawers	2	54 1/16 (1,374)	26 7/8 (682)	1 11/16 (42.9)
	4	54 1/16 (1,374)	27 15/16 (709)	3 15/16 (100)
	2	19 5/8 (498)	26 7/8 (682)	1 11/16 (42.9)
	4	19 5/8 (498)	27 15/16 (709)	3 15/16 (100)



KESN843A0PDG

KESN843A0 Series Drawer Sections

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
36,802 (603,076)	11,476 (74,038)	750	850	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	18	84 (2,032)	30 (762)	46 5/8 (1,184)
Drawers	4	19 5/8 (498)	26 7/8 (682)	1 11/16 (42.9)
	8	19 5/8 (498)	27 15/16 (709)	3 15/16 (100)
	2	30 1/16 (764)	26 7/8 (682)	1 11/16 (42.9)
	4	30 1/16 (764)	27 15/16 (709)	3 15/16 (100)

Colors Available



All EPIQ Series units are available in 13 standard colors. Add suffix to base stock number for special colors.

Workcenters

	Overall			Inside			Square Inches (cm ²)	Cubic Inches (cm ³)	Net/Ship
	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)			
KEWN840AO	84 (2,032)	30 (762)	25 1/2 (647)	80 9/16 (2,046)	25 (635)	26 5/8 (676)	5,130	38,924	355/405
KEWN760AO	76 (1,930)	30 (762)	25 1/2 (647)	72 9/16 (1,843)	25 (635)	26 5/8 (676)	4,717	35,060	325/375
KEWN680AO	68 (1,727)	30 (762)	25 1/2 (647)	64 9/16 (1,639)	25 (635)	26 5/8 (676)	4,303	31,196	300/385
KEWN600AO	60 (1,524)	30 (762)	25 1/2 (647)	56 9/16 (1,436)	25 (635)	26 5/8 (676)	3,890	27,332	275/315



KEWN840A0PBO

EPIQ Series Overhead Cabinets

Bulk Overhead Cabinets

	Overall			Inside			Square Inches (cm ²)	Cubic Inches (cm ³)	Net/Ship
	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)			
KEHN840AO	84 (2,032)	30 (762)	21 7/8 (556)	80 1/4 (2,038)	13 5/8 (346)	28 3/16 (716)	2,263 (14,559)	30,888 (506,163)	320/368
KEHN760AO	76 (1,930)	30 (762)	21 7/8 (556)	72 1/4 (1,835)	13 5/8 (346)	28 3/16 (716)	2,037 (13,141)	27,811 (455,740)	300/348
KEHN680AO	68 (1,727)	30 (762)	21 7/8 (556)	64 1/4 (1,632)	13 5/8 (346)	28 3/16 (716)	1,812 (11,690)	24,733 (405,301)	275/318
KEHN600AO	60 (1,524)	30 (762)	21 7/8 (556)	56 1/4 (1,429)	13 5/8 (346)	28 3/16 (716)	1,587 (10,238)	21,656 (354,878)	260/298



KEHN840A0PBO

EPIQ Series Lockers

KELN301A Series Lockers

Cubic inches (cm ³)	Square inches (cm ²)	Load Capacity, lbs. (kg)	Net Weight, lbs. (kg)	
32,835 (538,069)	4,310 (27,806)	4,000 (1,814)	467 (211)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	6/1	30 (762)	30 (762)	74 (1,879)
Pull Out Bin	4	24 1/8 (613)	26 5/8 (676)	4 (102)
Pull Out Bin	2	24 1/8 (613)	23 3/8 (594)	4 (102)
Stationary Shelf	1	25 1/2 (648)	24 (610)	—
Can Racks	2	17 7/8 (454)	3 3/16 (81)	4 (102)

KELN301AL - Left side locker
KELN301AR - Right side locker



KELN301ALPBO



WARNING



- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

MASTERS SERIES

Built To Exceed The Highest Standards. Yours.

When you're the go-to-guy in the shop, you need superior organization to help meet all the demands. With the Masters Series, every component is precision engineered to the most exacting standards—from ball-bearing drawer slides to the strongest mar-resistant powder-coat paint in the industry.

The Snap-on® Difference.

Masters Series tool storage units are engineered and built for superior durability.

- Breadth—The widest variety of configuration options, from single to quad cab to the amazing 12' long Mr. Big to the race-inspired Tool Utility Vehicle—with all the add-on options you can imagine.



- Four stiffeners—For increased drawer weight capacity.
- ISO-Ride™ Casters—6" casters for unmatched strength and smoothness as you transport heavy loads.

There Are No Short-Cuts.

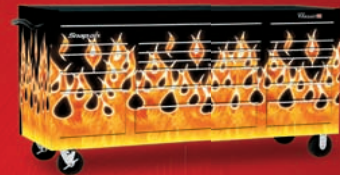


There is no quick way to achieve perfection. Snap-on has taken the time to precisely engineer each Masters Series box with features that help you work more productively.

- PowerCab™—Bolt on to any Masters Series roll cab for a secure way to power your cordless tools.



- Extra-wide drawers—With premium non-slip liners for maximum organizational power.
- Premium, cushioned handles—To help you transport heavy loads with ease.
- Security—Round key interchangeable core and lifetime warranty on all components for peace of mind.
- 11 color options—Add skins and make a statement.



MASTERS SERIES

Quick Reference Chart

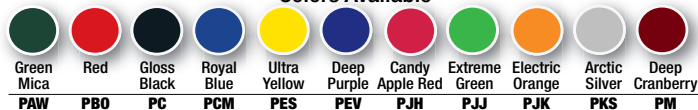


Roll Cabs	Specifications	KRL1065B	KRL1043B	KRL1024B	KRL1033B	KRL1032D
Capacity	Approx. Cubic Inches	89,960	68,377	66,907	44,761	46,425
	Approx. Square Inches	24,741	18,835	19,116	12,925	12,251
	Load Capacity, lbs.	13,600	13,600	13,600	6,800	6,800
Footprint	Width, inches	145 ³ / ₄	108 ¹ / ₂	108 ¹ / ₂	72 ⁷ / ₈	72 ⁷ / ₈
	Depth, inches	29 ¹ / ₈	29 ¹ / ₈	29 ¹ / ₈	29 ¹ / ₈	29 ¹ / ₈
	Height, inches	45 ⁷ / ₈ [†]	45 ⁷ / ₈	45 ⁷ / ₈	45 ⁷ / ₈	45 ⁷ / ₈
Drawers	Drawer Banks	5	3	4	3	2
	Drawer Count	35	20	26	19	16
	Widest Drawer, inches (Qty.)	50 (9)	50 (9)	50 (4)	69 (2)	69 (2)
	Slides, lbs. (Ball Bearing)	227	227	227	227	227
	Double Slide (included)	Yes (6)	Yes (6)	Yes (2)	Yes (2)	Yes (5)
Extras	Work Surface	Non-Directional Rubber	Non-Directional Rubber	Non-Directional Rubber	Non-Directional Rubber	Non-Directional Rubber
	Writing Surface (Qty.)	Yes (2)	Yes (1)	Yes (2)	Yes (1)	Yes (1)
	Third Caster Set Option	8 casters included	8 casters included	8 casters included	Yes	Yes
Weight	Net Weight, lbs.	2,340*	1,544*	1,544*	892	892
	Shipping Weight, lbs.	2,340*	1,544*	1,544*	1,006	1,006
Optional Add-ons Available	Top Chest	KRL1203B	KRL1201A KRL1202 KRL1221	KRL1201A KRL1202 KRL1221	KRL1203B	KRL1232
	Side Cab	KRL1011A KRL1015B	KRL1011A KRL1015B	KRL1011A KRL1015B	KRL1011A KRL1015B	KRL1011A KRL1015B
	Locker	KRL1012B KRL1018	KRL1012B KRL1018	KRL1012B KRL1018	KRL1012B KRL1018	KRL1012B KRL1018
	Workcenter/Riser with Door	KRL7972A	KRL7954A KRL7968A	KRL7954A KRL7968A	KRL7972A	KRL7972A
	Overhead	KRL7245	KRL5445 KRL6845	KRL5445 KRL6845	KRL7245	KRL7245
	Stainless Steel Top	KRL1065B###1 included KRSST1065 optional	KRL1043B###1 included KRSST1004A optional KRSST68A optional	KRL1024B###1 included KRSST1004A optional KRSST68A optional	KRSST7003B	KRSST7003B
	Hardwood Top	KRWT7065	KRWT1004A	KRWT1004A	KRWT7003B	KRWT7003B
	ArmorEdge Top	KRBLT1065	KRBLT1024	KRBLT1024	KRBLT1023	KRBLT1023

[†]Height does not reflect Stainless Steel Top which is included

*includes weight of optional Stainless Steel Top

Colors Available



All KRL Series units are available in 11 standard colors.
Add suffix to base stock number for special colors.



WARNING

• Read safety precautions on pages 594 to 597

MASTERS SERIES

Quick Reference Chart



Roll Cabs	Specifications	KRL1023B	KRL7023B	KRL1022B	KRL7022B	KRL722B	KRL1056C	KRL756C
Capacity	Approx. Cubic Inches	44,260	37,812	33,735	32,160	23,251	22,356	15,506
	Approx. Square Inches	13,111	11,499	9,563	8,341	6,770	6,585	4,677
	Load Capacity, lbs.	6,800	6,800	6,800	6,800	3,600	3,600	3,600
Footprint	Width, inches	72 7/8	72 7/8	54 1/4	54 1/4	54 1/4	35 5/8	35 5/8
	Depth, inches	29 1/8	29 1/8	29 1/8	29 1/8	24	29 1/8	24
	Height, inches	45 7/8	41 3/8	45 7/8	41 3/8	39 7/8	44 1/4	39 7/8
Drawers	Drawer Banks	3	3	2	2	2	1	1
	Drawer Count	22	19	13	11	11	8	7
	Widest Drawer, inches (Qty.)	50 (2)	50 (2)	50 (2)	50 (2)	50 (2)	34	34
	Slides, lbs. (Ball Bearing)	227	227	227	227	261	227	261
	Double Slide (included)	Yes (2)	Yes (2)	Yes (2)	Yes (2)	Yes (2)	Yes (1)	Yes (1)
Extras	Work Surface	Non-Directional Rubber	Non-Directional Rubber	Non-Directional Rubber	Non-Directional Rubber	Non-Directional Rubber	Non-Directional Rubber	Non-Directional Rubber
	Writing Surface (Qty.)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	No	No
	Third Caster Set Option	Yes	Yes	No	No	No	No	No
Weight	Net Weight, lbs.	892	785	632	562	489	396	306
	Shipping Weight, lbs.	1,006	893	720	645	548	450	361
Optional Add-ons Available	Top Chest	KRL1203B	KRL1203B	KRL1201A	KRL1201A	KRL791A	KRL1251	KRL751
	Side Cab	KRL1011A KRL1015B	KRL1011A KRL1015B	KRL1011A KRL1015B	KRL1011A KRL1015B	KRL711A KRL715B	KRL1011A KRL1015B	KRL711A KRL715B
	Locker	KRL1012B KRL1018	KRL1012B KRL1018	KRL1012B KRL1018	KRL1012B KRL1018	KRL712B	KRL1012B KRL1018	KRL712B
	Workcenter/Riser with Door	KRL7972A	KRL7972A	KRL7954A	KRL7954A	KRW7554A	—	—
	Overhead	KRL7245	KRL7245	KRL5445	KRL5445	KRWL5435	—	—
	Stainless Steel Top	KRSST7003B	KRSST7003B	KRSST1001B	KRSST1001B	KRSST761B	KRSST7001	KRSST756
	Hardwood Top	KRWT7003B	KRWT7003B	KRWT7002A	KRWT7002A	KRWT761B	KRWT7001A	KRWT756A
	ArmorEdge Top	KRBLT1023	KRBLT1023	KRBLT1022	KRBLT1022	KRBLT722	—	KRBLT756



All KRL Series units are available in 11 standard colors.
Add suffix to base stock number for special colors.

MASTERS SERIES

Roll Cab



KRL1065BPBO1
(Includes Optional Stainless Steel Top)



KRL1065B Series Roll Cab.

Some of the biggest thinking ever – from Snap-on®, of course. 8 casters, 35 drawers and 89,960 cubic inches of storage. 13 different drawer sizes for maximum flexibility. All 8 casters swivel for easy movement – or lock in place. Two integral handles for easy moves. And extra-wide stiffeners that deliver strength and support to the drawers. A box made to handle all your tools – and all the extra weight – for years of dependable service. Plus, attention to detail that will pass your toughest inspections.

MASTERS Series Roll Cab Drawer Sizes

Width		Depth		Height		KRL1065B	KRL1043B	KRL1024B
Inches	mm	Inches	mm	Inches	mm	Drawers	Drawers	Drawers
14 5/8	371.4	26 15/16	685.8	1 11/16	42.9	11	3	6
14 5/8	371.4	26 15/16	685.8	4	101.6	5	1	2
14 5/8	371.4	26 15/16	685.8	6 3/16	157.2	2	—	—
14 5/8	371.4	26 15/16	685.8	10 5/8	269.9	1	1	2
14 5/8	371.4	26 15/16	685.8	13 1/4	334.2	1	—	—
30 1/2	774.7	26 15/16	685.8	1 11/16	42.9	3	3	6
30 1/2	774.7	26 15/16	685.8	4	101.6	2	2	4
30 1/2	774.7	26 15/16	685.8	6 3/16	157.2	1	1	2
49 1/8	1,247.8	26 15/16	685.8	1 9/16	39.7	1	1	—
49 1/8	1,247.8	26 15/16	685.8	2 11/16	68.2	2	2	2
49 1/8	1,247.8	26 15/16	685.8	3 13/16	96.8	3	3	—
49 1/8	1,247.8	26 15/16	685.8	4 15/16	125.4	2	2	2
49 1/8	1,247.8	26 15/16	685.8	6	152	1	1	—
Total Drawer Count						35	20	26



WARNING



- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

MASTERS SERIES

Roll Cabs



KRL1043BPBO1
(Includes Optional Stainless Steel Top)

KRL1043B Series Roll Cab.

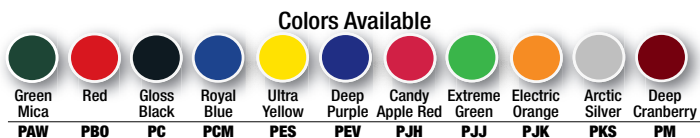
Configure this Elite Series Roll Cab into a workstation with the riser system, or outfit it conventionally with side cabs and top chest. Lots of space and features in a top of the line package.



KRL1024BPC1
(Includes Optional Stainless Steel Top)

KRL1024B Series Roll Cab.

The Quad Cab is the perfect solution for technicians who want to add a full-sized top chest on one side and still have a workspace. Lots of storage room, outstanding capacity.



All KRL Series units are available in 11 standard colors.
Add suffix to base stock number for special colors.

MASTERS SERIES

Roll Cabs

KRL1033B Series Roll Cab.

Cubic storage served up in one impressive roll cab. If you're looking for maximum storage, wide drawers and heavy duty capacity, look no further. Build the workstation of your dreams.



KRL1033BPJJ

KRL1032D Series Roll Cab.

What happens when you fill the bank of a roll cab with lots of wide drawers? If that's how you like to work, this is the perfect foundation.



KRL1032DPM

MASTERS Series Roll Cab Drawer Sizes

Width		Depth		Height		KRL1033B	KRL1032D
Inches	mm	Inches	mm	Inches	mm	Drawers	Drawers
14 5/8	371.4	26 15/16	685.8	1 11/16	42.9	6	3
14 5/8	371.4	26 15/16	685.8	4	101.6	3	1
14 5/8	371.4	26 15/16	685.8	6 3/16	157.2	1	—
14 5/8	371.4	26 15/16	685.8	10 5/8	269.9	1	1
30 1/2	774.7	26 15/16	685.8	1 11/16	42.9	3	—
30 1/2	774.7	26 15/16	685.8	4	101.6	2	—
30 1/2	774.7	26 15/16	685.8	6 3/16	157.2	1	—
49 1/8	1,247.8	26 15/16	685.8	1 9/16	39.7	—	1
49 1/8	1,247.8	26 15/16	685.8	3 13/16	96.8	—	3
49 1/8	1,247.8	26 15/16	685.8	6	152	—	1
67 1/8	1,705	26 15/16	685.8	2 11/16	68.2	1	1
67 1/8	1,705	26 15/16	685.8	4 7/8	123.8	1	1
Total Drawer Count						19	12



WARNING



- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

MASTERS SERIES

Roll Cabs



KRL1023BPKS

KRL1023B Series Roll Cab.

A perennial favorite among technicians with lots of tools who want options to make their tool storage perform better. No compromise on features or accessories.



KRL7023BPJH

KRL7023B Series Roll Cab.

An elite, triple bank roll cab in a low profile footprint. This is the most popular choice among technicians who want to build a workcenter.

MASTERS Series Roll Cab Drawer Sizes

Width		Depth		Height		KRL1023B	KRL7023B
Inches	mm	Inches	mm	Inches	mm	Drawers	Drawers
14 5/8	371.4	26 15/16	685.8	1 11/16	42.9	8	8
14 5/8	371.4	26 15/16	685.8	4	101.6	4	2
14 5/8	371.4	26 15/16	685.8	6 3/16	157.2	1	1
14 5/8	371.4	26 15/16	685.8	10 5/8	269.9	1	1
30 1/2	774.7	26 15/16	685.8	1 11/16	42.9	3	3
30 1/2	774.7	26 15/16	685.8	4	101.6	2	1
30 1/2	774.7	26 15/16	685.8	6 3/16	157.2	1	1
49 1/8	1,247.8	26 15/16	685.8	2 11/16	68.2	1	1
49 1/8	1,247.8	26 15/16	685.8	4 7/8	123.8	1	1
Total Drawer Count						22	19

Colors Available



All KRL Series units are available in 11 standard colors. Add suffix to base stock number for special colors.

MASTERS SERIES

Roll Cabs

KRL1022B Series Roll Cab.

It looks traditional until you notice the extended cab system featuring 2 extra wide drawers (3" and 5" drawer depth) that span the full width of the roll cab. This unit is the one we put the Peterbilt dump truck on. Even under that load, those unrestricted drawers work fine.



KRL1022BPES

KRL7022B Series Roll Cab.

A low profile footprint but lots of features, starting with those full-width top drawers.



KRL7022BPCM

MASTERS Series Roll Cab Drawer Sizes

Width		Depth		Height		KRL1022B	KRL7022B
Inches	mm	Inches	mm	Inches	mm	Drawers	Drawers
14 5/8	371.4	26 15/16	685.8	1 11/16	42.9	3	3
14 5/8	371.4	26 15/16	685.8	4	101.6	2	—
14 5/8	371.4	26 15/16	685.8	10 5/8	269.9	1	1
30 1/2	774.7	26 15/16	685.8	1 11/16	42.9	3	3
30 1/2	774.7	26 15/16	685.8	4	101.6	1	1
30 1/2	774.7	26 15/16	685.8	6 3/16	157.2	1	1
49 1/8	1,247.8	26 15/16	685.8	2 11/16	68.2	1	1
49 1/8	1,247.8	26 15/16	685.8	4 7/8	123.8	1	1
Total Drawer Count						13	11



WARNING



- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

MASTERS SERIES

Roll Cabs



KRL722BPAW

KRL722B Series Roll Cab.

Custom performance in the signature tool storage unit designed for professional technicians. Full-width top drawers handle the longest prybars and extensions you have.



KRL1056BPJK

KRL1056B Series Roll Cab.

A deep single bank roll cab provides extra storage capacity. Premium components throughout.



KRL756BPC

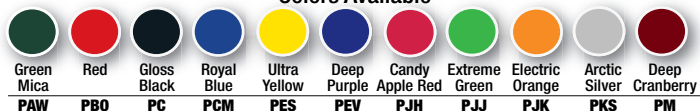
KRL756B Series Roll Cab.

Premium components, with many choices for side cabinets and tops. Here's a low profile unit that helps define the master technician.

MASTERS Series Roll Cab Drawer Sizes

Width		Depth		Height		KRL1056B	KRL722B	KRL756B
Inches	mm	Inches	mm	Inches	mm	Drawers	Drawers	Drawers
14 5/8	371.4	21 7/8	555.6	1 11/16	42.9	—	3	—
14 5/8	371.4	21 7/8	555.6	4	101.6	—	—	—
14 5/8	371.4	21 7/8	555.6	10 5/8	269.9	—	1	—
30 1/2	774.7	21 7/8	555.6	1 11/16	42.9	—	3	3
30 1/2	774.7	21 7/8	555.6	4	101.6	—	1	3
30 1/2	774.7	21 7/8	555.6	6 3/16	157.2	—	1	1
49 1/8	1,247.8	21 7/8	555.6	2 11/16	68.2	—	1	—
49 1/8	1,247.8	21 7/8	555.6	4 7/8	123.8	—	1	—
30 1/2	774.7	26 15/16	685.8	1 11/16	42.9	3	—	—
30 1/2	774.7	26 15/16	685.8	4	101.6	4	—	—
30 1/2	774.7	26 15/16	685.8	6 3/16	157.2	1	—	—
Total Drawer Count						8	11	7

Colors Available



All KRL Series units are available in 11 standard colors. Add suffix to base stock number for special colors.

KRL1232 Series Top Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
33,193 (543,935)	10,524 (67,896)	590 (268)	668 (303)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	10	72 7/8 (1,851.0)	29 1/16 (739.0)	25 3/8 (644.5)
Drawers	2	49 1/8 (1,247.7)	26 15/16 (685.0)	1 11/16 (42.8)
	3	49 1/8 (1,247.7)	26 15/16 (685.0)	4 (101.6)
	2	14 5/8 (371.5)	26 15/16 (685.0)	1 11/16 (42.8)
	3	14 5/8 (371.5)	26 15/16 (685.0)	4 (101.6)



KRL1232PM

KRL1203B Series Top Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
32,607 (534,330)	9,982 (64,400)	590 (268)	668 (303)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	15	72 7/8 (1,851.0)	29 1/16 (739.0)	25 3/8 (644.5)
Drawers	4	14 5/8 (371.5)	26 15/16 (685.0)	1 3/4 (44.5)
	6	14 5/8 (371.5)	26 15/16 (685.0)	4 (100.8)
	2	30 1/2 (775.5)	26 15/16 (685.0)	1 3/4 (44.5)
	3	30 1/2 (775.5)	26 15/16 (685.0)	4 (100.8)
Top Compartment	Narrow	18 9/16 (471.5)	26 15/16 (684.2)	4 1/8 (104.8)
	Wide	53 1/8 (1,349.4)	26 15/16 (684.2)	4 1/8 (104.8)



KRL1203BPBO

KRL1201A/KRL1202 Series Top Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
24,622 (403,480)	7,539 (48,639)	424 (192)	490 (222)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	10	54 1/4 (1,378.0)	29 1/16 (739.0)	25 3/8 (644.5)
Drawers	2	14 5/8 (371.5)	26 15/16 (685.0)	1 3/4 (44.5)
	3	14 5/8 (371.5)	26 15/16 (685.0)	4 (100.8)
	2	30 1/2 (775.5)	26 15/16 (685.0)	1 3/4 (44.5)
	3	30 1/2 (775.5)	26 15/16 (685.0)	4 (100.8)
Top Compartment	—	54 1/4 (1,378.0)	26 9/16 (683.4)	4 1/8 (104.8)



KRL1201APES



KRL1202PBO

KRL1251 Series Top Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
16,528 (270,850)	5,069 (32,703)	267 (121)	306 (139)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	5	35 5/8 (904.9)	29 1/16 (739.0)	25 3/8 (644.5)
Drawers	2	30 1/2 (775.5)	26 15/16 (685.0)	1 3/4 (44.5)
	3	30 1/2 (775.5)	26 15/16 (685.0)	4 (100.8)
Top Compartment	—	35 3/8 (899.3)	26 15/16 (684.2)	4 1/8 (104.8)



KRL1251PJK



WARNING



- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

MASTERS SERIES

Top Chests



KRL791APAW



KRL751PC

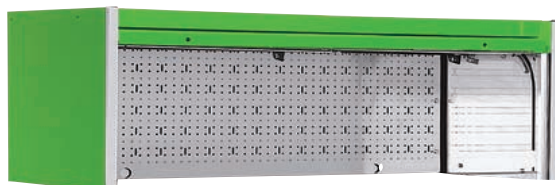
KRL791A Series Top Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
16,101 (263,850)	5,135 (33,129)	302 (132)	354 (161)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	8	54 1/4 (1,378)	24 (609.6)	21 (533.4)
Drawers	2	14 3/4 (374.4)	21 29/32 (556.4)	1 3/4 (44.5)
	2	14 3/4 (374.4)	21 29/32 (556.4)	4 (100.8)
	2	30 17/32 (775.5)	21 29/32 (556.4)	1 3/4 (44.5)
	2	30 17/32 (775.5)	21 29/32 (556.4)	4 (100.8)
Top Compartment	—	54 1/32 (1,372.4)	21 15/16 (557.2)	4 1/8 (104.8)

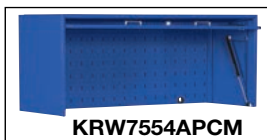
KRL751 Series Top Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
10,788 (176,780)	3,449 (22,252)	194 (88)	235 (107)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	4	35 5/8 (904.9)	24 (609.6)	21 (533.4)
Drawers	2	30 31/32 (786.6)	21 29/32 (556.4)	1 3/4 (44.5)
	2	30 31/32 (786.6)	21 29/32 (556.4)	4 (100.8)
Top Compartment	—	35 13/32 (899.3)	21 15/16 (557.2)	4 1/8 (104.8)

Workstation Risers & Bulk Overhead Cabinets



KRL7972APJJ



KRW7554APCM



KRL7245PKS



KRWL5435PBO

Workstation Risers

- Factory assembled unit complete with door
- Work surface required

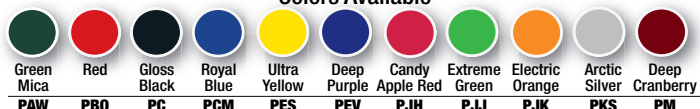
Specifications	KRL7972A	KRL7968A	KRL7954A	KRW7554A	KRW7572A
Cubic Inches (cm³)	32,156 (526,942)	30,424 (498,560)	23,768 (389,488)	16,945 (277,678)	22,500 (368,708)
Square Inches (cm²)	4,243 (27,374)	4,063 (26,213)	3,371 (21,748)	2,884 (18,606)	3,625 (23,387)
Width, inches (mm)	72 7/8 (1,851)	68 (1,727)	54 1/4 (1,378)	54 1/4 (1,378)	72 (1,829)
Height, inches (mm)	23 1/2 (597)	23 1/2 (597)	23 1/2 (597)	23 1/2 (597)	23 1/2 (597)
Depth, inches (mm)	27 1/2 (698)	27 1/2 (698)	27 1/2 (698)	21 (533)	21 (533)

KRL Workcenters includes (1) KAT12PV and (1) KAS12PV. All include 63A5000 clip kit.

Bulk Overhead Cabinets

Specifications	KRL7245	KRL6845	KRL5445	KRWL5435	KRWL3635
Cubic Inches (cm³)	26,814 (439,402)	25,323 (414,969)	19,629 (321,661)	15,076 (247,051)	9,888 (162,035)
Square Inches (cm²)	1,740 (11,225)	1,643 (10,600)	1,274 (8,219)	1,042 (6,722)	683 (4,406)
Width, inches (mm)	72 7/8 (1,851)	68 (1,727)	54 1/4 (1,378)	54 1/4 (1,378)	36 (914)
Height, inches (mm)	18 1/8 (460)	18 1/8 (460)	18 1/8 (460)	16 (406)	16 (406)
Depth, inches (mm)	27 1/2 (698)	27 1/2 (698)	27 1/2 (698)	21 (533)	21 (533)

Colors Available



All KRL Series units are available in 11 standard colors. Add suffix to base stock number for special colors.

MASTERS SERIES

Drawer End Cabinets

KRL1221 Series End Cabinet

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
8,189 (134,194)	2,494 (16,090)	170 (77.1)	170 (77.1)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	5	19 3/4 (501.4)	29 1/16 (738.9)	25 3/8 (644.5)
Drawers	2	14 5/8 (371.5)	26 15/16 (685)	1 3/4 (44.5)
	3	14 5/8 (371.5)	26 15/16 (685)	4 (100.8)
Top Compartment	—	19 1/2 (495.3)	26 15/16 (685)	4 1/8 (104.8)



KRL1221PC

KRL1011A Series End Cabinet

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
10,695 (175,260)	3,150 (20,323)	267 (121)	295 (134)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	8	19 3/4 (500.9)	29 1/16 (739)	37 5/16 (947.7)
Drawers	3	14 5/8 (371.5)	26 15/16 (685)	1 3/4 (44.5)
	4	14 5/8 (371.5)	26 15/16 (685)	4 (100.8)
	1	14 5/8 (371.5)	26 15/16 (685)	6 1/4 (158.8)



KRL1011APJJ

KRL7011A Series End Cabinet

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
9,139 (85,098)	2,756 (17,781)	230 (104)	267 (121)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	7	19 3/4 (500.9)	29 1/16 (739)	32 15/16 (835.8)
Drawers	3	14 5/8 (371.5)	26 15/16 (685)	1 3/4 (44.5)
	3	14 5/8 (371.5)	26 15/16 (685)	4 (100.8)
	1	14 5/8 (371.5)	26 15/16 (685)	6 3/16 (157.2)



KRL7011APCM

KRL711A Series End Cabinet

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
7,418 (121,560)	2,237 (14,432)	193 (88)	225 (102)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	7	19 3/4 (500.9)	24 (609.6)	32 15/16 (835.8)
Drawers	3	14 5/8 (371.5)	21 7/8 (556.4)	4 1/8 (104.8)
	3	14 5/8 (371.5)	21 7/8 (556.4)	4 (100.8)
	1	14 5/8 (371.5)	21 7/8 (556.4)	6 1/4 (158.8)



KRL711APAW



WARNING



- Secure end cabinet to roll cabinet per instructions
- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

MASTERS SERIES

PowerCab™ End Cabinets



KRL1099PBO Tools not included

KRL1099 Series PowerCab End Cabinet

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
11,375 (219,177)	1,584 (10,219)	—	—	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	1	19 3/4 (500.9)	29 1/16 (739)	37 5/16 (947.7)

- Includes 2 adjustable shelves
- Includes integrated power strip

Bulk End Cabinets



KRL1015BPBO

KRL1015B Series Bulk End Cabinet

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
11,608 (190,220)	1,094 (7,058)	152 (69)	190 (86)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	2	19 3/4 (500.9)	29 1/16 (739)	37 5/16 (947.7)
Drawers	2	13 1/4 (336.6)	24 3/4 (628.7)	4 (100.8)
Shelves	1	16 1/4 (412.8)	25 3/8 (644.5)	Adjustable

KRL7015B Series Bulk End Cabinet

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
9,770 (160,100)	1,094 (7,058)	142 (64)	181 (82)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	2	19 3/4 (500.9)	29 1/16 (739)	32 15/16 (835.8)
Drawers	2	13 1/4 (336.6)	24 3/4 (628.7)	4 (100.8)
Shelves	1	16 1/4 (412.8)	25 3/8 (644.5)	Adjustable

KRL715B Series Bulk End Cabinet

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
7,984 (130,830)	894 (5,768)	122 (55)	159 (72)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	2	19 3/4 (500.9)	24 (609.6)	32 15/16 (835.8)
Drawers	2	13 1/4 (336.6)	20 1/8 (512)	4 (100.8)
Shelves	1	16 1/4 (412.8)	20 11/16 (526.3)	Adjustable

Colors Available



All KRL Series units are available in 11 standard colors.
Add suffix to base stock number for special colors.

KRL1012B Series Locker

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
28,446 (466,146)	3,564 (22,990)	306 (139)	358 (162)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	4	24 1/16 (611.2)	29 1/16 (739)	62 (1,583.5)
Drawers	4	19 1/2 (494.5)	25 1/8 (638.2)	4 (100.8)
Shelves	3	21 1/16 (535)	22 3/4 (577.9)	Adjustable
Trays	2	17 7/8 (454)	3 3/16 (80.2)	4 (100.8)



KRL1012BPBO

KRL7012A Series Locker

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
26,085 (427,456)	3,564 (22,994)	285 (129)	336 (152)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	4	24 1/16 (611.2)	29 1/16 (739)	57 7/16 (1,470.8)
Drawers	4	19 1/2 (494.5)	25 1/8 (638.2)	4 (100.8)
Shelves	3	21 1/16 (535)	22 3/4 (577.9)	Adjustable
Trays	2	17 7/8 (454)	3 3/16 (80.2)	4 (100.8)

KRL712B Series Locker

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
20,568 (337,050)	2,831 (18,264)	238 (108)	254 (115)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	4	24 1/16 (611.2)	24 (607.2)	57 7/16 (1,357.3)
Drawers	4	19 1/2 (494.5)	20 (507.2)	4 (100.8)
Shelves	3	21 1/16 (535)	17 9/16 (446.1)	Adjustable
Trays	3	17 7/8 (454)	3 3/16 (80.6)	4 (100.8)

Vertical Storage Modules

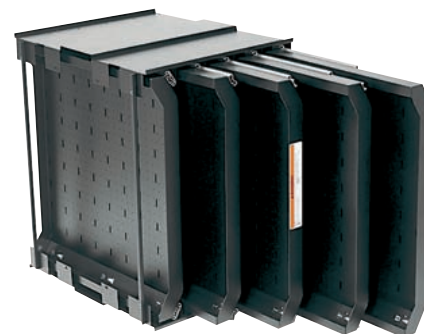
Vertical Storage Modules

Easy visual upright storage and tool organization for puller sets, pliers, screwdrivers and wrenches.

1012AVSMPV: For KRL1012B/KRL7012A Series lockers and TUVs. 5 slide-out panels.

712AVSMPV: For KRL712B Series lockers. 5 slide-out panels.

*Not for use with Docker Locker®



1012AVSMPV



WARNING



- Secure end cabinet to roll cabinet per instructions
- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

MASTERS SERIES

Docker Lockers®



KRL1018PBO

KRL7018 Series similar in appearance.

Docker Lockers

Provides a quick way to secure your tools and gives additional bulk storage. Includes a roll cart designed to fit locker (not available separately), KAT18PV can rack and one adjustable shelf. Mounts on either side of KRL1000 Series roll cabs. Not designed for use with standard roll carts.

KRL1018 Series

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)
31,642 (518,519)	1,578 (10,181)	202 (91.63)	295 (134)
	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	24 1/16 (611.2)	29 1/16 (739.4)	63 3/8 (1,584.3)

KRL7018 Series

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)
29,139 (477,503)	1,578 (10,181)	190 (86.18)	287 (130)
	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	24 1/16 (611.2)	29 1/16 (739.4)	57 7/16 (1,470.8)

(U.S. Patent 6,719,384)

Colors Available



Green Mica PAW Red PBO Gloss Black PC Royal Blue PCM Ultra Yellow PES Deep Purple PEV Candy Apple Red PJH Extreme Green PJJ Electric Orange PJK Arctic Silver PKS Deep Cranberry PM

All KRL Series units are available in 11 standard colors. Add suffix to base stock number for special colors.

MASTERS SERIES

Tool Utility Vehicles (TUV)



KRLP1032 Series TUV

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Load Capacity, lbs. (kg)	
113,947 (1,867,256)	19,426 (125,328)	1,975 (895)	6,000 (2,777)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	16	124 (3149.6)	29 7/8 (758.8) (35" for tires)	70 (1,778)
Drawers in Roll Cab	1	67 1/8 (1,705)	26 15/16 (684.2)	4 7/8 (123.8)
	1	67 1/8 (1,705)	26 15/16 (684.2)	2 11/16 (68.2)
	1	49 1/8 (1,247.8)	26 15/16 (684.2)	1 9/16 (39.6)
	3	49 1/8 (1,247.8)	26 15/16 (684.2)	3 13/16 (96.8)
	1	49 1/8 (1,247.8)	26 15/16 (684.2)	6 (152.4)
	3	14 5/8 (371.4)	26 15/16 (684.2)	1 11/16 (42.8)
	1	14 5/8 (371.4)	26 15/16 (684.2)	4 (101.6)
	1	14 5/8 (371.4)	26 15/16 (684.2)	10 5/8 (269.9)
Locker Drawers	4	19 7/16 (493.7)	25 1/8 (638.2)	4 (101.6)
Locker Shelves	2	21 1/16 (535)	22 3/4 (577.9)	Adjustable
Can Tray	1	17 7/8 (454)	3 1/8 (79.3)	4 (101.6)

Optional Add-Ons Available

Top Chest	—
Side Cab	—
End Cab	—
Middle Drawer Section	—
Locker	2 Included
Workstation Riser	KRL7972A Included
Hardwood Top	KRWT7003A option
Stainless Top	Included KRSST7003B
Protective Cover (roll cab)	KACP1023
Third Caster Set Option	—
Verticle Storage Option	—
Overhead	KRL7245

Includes (1) KAS12PV, (1) KASR12PV and (1) writing surface

KRLT1032 Series TUV

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Load Capacity, lbs. (kg)	
120,528 (1,975,100)	26,709 (172,316)	2,350 (1,065)	6,000 (2,777)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	26	124 (3149.6)	29 7/8 (758.8) (35" for tires)	70 (1,778)
Drawers in Roll Cab/Top Chest	1	67 1/8 (1,705)	26 15/16 (684.2)	4 7/8 (123.8)
	1	67 1/8 (1,705)	26 15/16 (684.2)	2 11/16 (68.2)
	3	49 1/8 (1,247.8)	26 15/16 (684.2)	1 9/16 (39.6)
	6	49 1/8 (1,247.8)	26 15/16 (684.2)	3 13/16 (96.8)
	1	49 1/8 (1,247.8)	26 15/16 (684.2)	6 (152.4)
	5	14 5/8 (371.4)	26 15/16 (684.2)	1 11/16 (42.8)
	4	14 5/8 (371.4)	26 15/16 (684.2)	4 (101.6)
	1	14 5/8 (371.4)	26 15/16 (684.2)	10 5/8 (269.9)
Locker Drawers	4	19 7/16 (493.7)	25 1/8 (638.2)	4 (101.6)
Locker Shelves	2	21 1/16 (535)	22 3/4 (577.9)	Adjustable
Can Tray	1	17 7/8 (454)	3 1/8 (79.3)	4 (101.6)
Top Chest Compartment	Narrow	18 9/16 (471.5)	26 15/16 (684.2)	4 1/8 (104.8)
	Wide	53 1/8 (1,349.4)	26 15/16 (684.2)	4 1/8 (104.8)

Optional Add-Ons Available

Top Chest	KRL1203B included
Side Cab	—
End Cab	—
Middle Drawer Section	—
Locker	2 Included
Workstation Riser	—
Hardwood Top	—
Stainless Top	—
Protective Cover (roll cab)	KACP1023
Third Caster Set Option	—
Verticle Storage Option	—
Overhead	—

Includes (1) KASR12PV and (1) writing surface



WARNING



- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

MASTERS SERIES

Tool Utility Vehicles (TUV)



KRLP1023 Series TUV

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Load Capacity, lbs. (kg)	
111,477 (1,826,773)	20,277 (130,819)	1,975 (895)	6,000 (2,777)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	26	124 (3,149.6)	29 7/8 (758.8) (35" for tires)	70 (1,778)
Drawers in Roll Cab	1	49 1/8 (1,247.8)	26 15/16 (684.2)	4 7/8 (123.8)
	1	49 1/8 (1,247.8)	26 15/16 (684.2)	2 11/16 (68.2)
	8	14 5/8 (371.4)	26 15/16 (684.2)	1 11/16 (42.8)
	4	14 5/8 (371.4)	26 15/16 (684.2)	4 (101.6)
	1	14 5/8 (371.4)	26 15/16 (684.2)	6 3/16 (157.1)
	1	14 5/8 (371.4)	26 15/16 (684.2)	10 5/8 (269.9)
	3	30 1/2 (774.7)	26 15/16 (684.2)	1 11/16 (42.8)
	2	30 1/2 (774.7)	26 15/16 (684.2)	4 (101.6)
	1	30 1/2 (774.7)	26 15/16 (684.2)	6 3/16 (157.1)
	Locker Drawers	4	19 7/16 (493.7)	25 1/8 (638.2)
Locker Shelves	2	21 1/16 (535.0)	22 3/4 (577.9)	Adjustable
Can Tray	1	17 7/8 (454)	3 1/8 (79.3)	4 (101.6)

Includes (1) KAS12PV shelf, (1) KASR12PV screwdriver rack and (1) writing surface

Optional Add-Ons Available

Top Chest	—
Side Cab	—
End Cab	—
Middle Drawer Section	—
Locker	2 Included
Workstation Riser	KRL7972A Included
Hardwood Top	KRWT7003A option
Stainless Top	Included KRSST7003B
Protective Cover (roll cab)	KACP1023
Third Caster Set Option	—
Verticle Storage Option	—
Overhead	KRL7245



KRLT1023 Series TUV

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Load Capacity, lbs. (kg)	
117,472 (1,925,021)	27,018 (129,148)	2,350 (1,065)	6,000 (2,777)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	41	124 (3,149.6)	29 7/8 (758.8) (35" for tires)	70 (1,778)
Drawers in Roll Cab /Top Chest	1	49 1/8 (1,247.8)	26 15/16 (684.2)	4 7/8 (123.8)
	1	49 1/8 (1,247.8)	26 15/16 (684.2)	2 11/16 (68.2)
	12	14 5/8 (371.4)	26 15/16 (684.2)	1 11/16 (42.8)
	10	14 5/8 (371.4)	26 15/16 (684.2)	4 (101.6)
	1	14 5/8 (371.4)	26 15/16 (684.2)	6 3/16 (157.1)
	1	14 5/8 (371.4)	26 15/16 (684.2)	10 5/8 (269.9)
	5	30 1/2 (774.7)	26 15/16 (684.2)	1 11/16 (42.8)
	5	30 1/2 (774.7)	26 15/16 (684.2)	4 (101.6)
	1	30 1/2 (774.7)	26 15/16 (684.2)	6 3/16 (157.1)
	Locker Drawers	4	19 7/16 (493.7)	25 1/8 (638.2)
Locker Shelves	2	21 1/16 (535)	22 3/4 (577.9)	Adjustable
Can Tray	1	17 7/8 (454)	3 1/8 (79.3)	4 (101.6)
Top Chest Compartment	Narrow	18 9/16 (471.5)	26 15/16 (684.2)	4 1/8 (104.8)
	Wide	53 1/8 (1,349.4)	26 15/16 (684.2)	4 1/8 (104.8)

Includes (1) KASR12PV screwdriver rack and (1) writing surface

Optional Add-Ons Available

Top Chest	KRL1203B Included
Side Cab	—
End Cab	—
Middle Drawer Section	—
Locker	2 Included
Workstation Riser	—
Hardwood Top	—
Stainless Top	—
Protective Cover (roll cab)	KACP1023
Third Caster Set Option	—
Verticle Storage Option	—
Overhead	—

Colors Available



All KRL Series units are available in 11 standard colors. Add suffix to base stock number for special colors.

MASTERS SERIES

Tool Utility Vehicles (TUV)



KRLP1022 Series TUV

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Load Capacity, lbs. (kg)	
98,413 (1,612,700)	16,868 (108,825)	1,582 (717)	6,000 (2,777)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	17	106 (2,692.4)	29 7/8 (758.8) (35" for tires)	70 (1,778)
Drawers in Roll Cab	1	49 1/8 (1,247.8)	26 15/16 (684.2)	4 7/8 (123.8)
	1	49 1/8 (1,247.8)	26 15/16 (684.2)	2 11/16 (68.2)
	3	14 5/8 (371.4)	26 15/16 (684.2)	1 11/16 (42.8)
	1	14 5/8 (371.4)	26 15/16 (684.2)	4 (101.6)
	1	14 5/8 (371.4)	26 15/16 (684.2)	10 5/8 (269.9)
	3	30 1/2 (774.74)	26 15/16 (684.2)	1 11/16 (42.8)
	2	30 1/2 (774.74)	26 15/16 (684.2)	4 (101.6)
	1	30 1/2 (774.74)	26 15/16 (684.2)	6 3/16 (157.1)
Locker Drawers	4	19 7/16 (493.7)	25 1/8 (638.2)	4 (101.6)
Locker Shelves	2	21 1/16 (535)	22 3/4 (577.9)	Adjustable
Can Tray	1	11 7/8 (454)	3 1/8 (79.3)	4 (101.6)

Optional Add-Ons Available

Top Chest	—
Side Cab	—
End Cab	—
Middle Drawer Section	—
Locker	2 Included
Workstation Riser	KRL7954A Included
Hardwood Top	KRWT7002A option
Stainless Top	Included KRSST1001B
Protective Cover (roll cab)	KACP1022
Third Caster Set Option	—
Verticle Storage Option	—
Overhead	KRL5445

Includes (1) KAS12PV shelf, (1) 7065JL719 writing surface and (1) KASR12PV screwdriver rack

KRLT1022 Series TUV

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Load Capacity, lbs. (kg)		
99,267 (1,626,688)	21,036 (135,715)	1,786 (810)	6,000 (2,777)		
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)	
Specifications	27	106 (2,692.4)	29 7/8 (758.8) (35" for tires)	70 (1,778)	
Drawers in Roll Cab/Top Chest	1	49 1/8 (1,247.8)	26 15/16 (684.2)	4 7/8 (123.8)	
	1	49 1/8 (1,247.8)	26 15/16 (684.2)	2 11/16 (68.2)	
	5	14 5/8 (371.4)	26 15/16 (684.2)	1 11/16 (42.8)	
	4	14 5/8 (371.4)	26 15/16 (684.2)	4 (101.6)	
	1	14 5/8 (371.4)	26 15/16 (684.2)	10 5/8 (269.9)	
	5	30 1/2 (774.74)	26 15/16 (684.2)	1 11/16 (42.8)	
	5	30 1/2 (774.74)	26 15/16 (684.2)	4 (101.6)	
	1	30 1/2 (774.74)	26 15/16 (684.2)	6 3/16 (157.1)	
	Locker Drawers	4	19 15/32 (494.5)	25 1/8 (638.2)	4 (101.6)
	Locker Shelves	2	21 1/16 (535)	22 3/4 (577.9)	Adjustable
Can Tray	1	17 7/8 (454)	3 1/8 (79.3)	4 (101.6)	
Top Chest Compartment	Narrow	18 9/16 (471.4)	26 15/16 (684.2)	4 1/8 (104.8)	
	Wide	53 1/8 (1,349.4)	26 15/16 (684.2)	4 1/8 (104.8)	

Optional Add-Ons Available

Top Chest	—
Side Cab	—
End Cab	—
Middle Drawer Section	—
Locker	2 Included
Workstation Riser	—
Hardwood Top	—
Stainless Top	—
Protective Cover (roll cab)	KACP1022
Third Caster Set Option	—
Verticle Storage Option	—
Overhead	—

Includes (1) KAS12PV shelf, (1) writing surface



WARNING



- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

MASTERS SERIES

Tool Utility Vehicles (TUV)



KRLR1022 "IRONHEAD" Series TUV

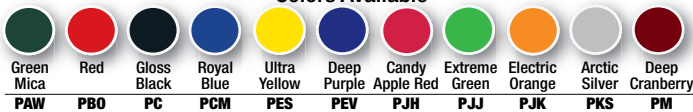
Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Load Capacity, lbs. (kg)	
117,472 (1,925,021)	27,018 (174,309)	2,350 (612)	6,000 (2,777)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	17	124 (3,149.6)	29 ⁷ / ₈ (758.8) (35" for tires)	70 (1,778)
Drawers in Roll Cab/Top Chest	1	49 ¹ / ₈ (1,247.8)	26 ¹⁵ / ₁₆ (684.2)	4 ⁷ / ₈ (123.8)
	1	49 ¹ / ₈ (1,247.8)	26 ¹⁵ / ₁₆ (684.2)	2 ¹¹ / ₁₆ (68.2)
	3	14 ⁵ / ₈ (371.4)	26 ¹⁵ / ₁₆ (684.2)	1 ¹¹ / ₁₆ (42.8)
	1	14 ⁵ / ₈ (371.4)	26 ¹⁵ / ₁₆ (684.2)	4 (101.6)
	1	14 ⁵ / ₈ (371.4)	26 ¹⁵ / ₁₆ (684.2)	10 ⁵ / ₈ (269.9)
	3	30 ¹ / ₂ (774.74)	26 ¹⁵ / ₁₆ (684.2)	1 ¹¹ / ₁₆ (42.8)
	2	30 ¹ / ₂ (774.74)	26 ¹⁵ / ₁₆ (684.2)	4 (101.6)
	1	30 ¹ / ₂ (774.74)	26 ¹⁵ / ₁₆ (684.2)	6 ³ / ₁₆ (157.1)
	Locker Drawers	4	19 ⁷ / ₁₆ (493.7)	25 ¹ / ₈ (638.2)
Locker Shelves	2	21 ¹ / ₁₆ (535.0)	22 ³ / ₄ (577.9)	Adjustable
Top Chest Compartment	Narrow	18 ⁹ / ₁₆ (471.5)	26 ¹⁵ / ₁₆ (684.2)	4 ¹ / ₈ (104.7)
	Wide	53 ¹ / ₈ (1,349.4)	26 ¹⁵ / ₁₆ (684.2)	4 ¹ / ₈ (104.7)

Includes (1) writing surface.

Optional Add-Ons Available

Top Chest	
Side Cab	—
End Cab	—
Middle Drawer Section	—
Locker	—
Workstation Riser	—
Hardwood Top	—
Stainless Top	Included
Protective Cover (roll cab)	—
Third Caster Set Option	—
Verticle Storage Option	—
Overhead	—

Colors Available



All KRL Series units are available in 11 standard colors.
Add suffix to base stock number for special colors.

Tool Utility Vehicle (TUV) Accessories

KRLP/KRLT Series Covers

Cover Description	Red Stock No.	Black Stock No.	Royal Blue Stock No.
Cover for KRLP1022/KRLT1022 TUV units	KACP1022	KACP1022PC	KACP1022PCM
Cover for KRLP1023/KRLT1023 TUV units	KACP1023	KACP1023PC	KACP1023PCM

MASTERS SERIES

Tool Utility Vehicles (TUV) Accessories



KATUVBRAKE54



KATUVBAR72 Stainless Steel Side Bar. 72" step bar fits KRLP1023/KRLT1023 and KRLP1032/KRLT1032 series of TUV units.

KATUVGRILL Stainless Steel Front Grill. Front grill fits all Snap-on® TUV units.

KATUVFENDER Stainless Steel Fender. Stainless steel fender fits all Snap-on TUV units.

KATUVBUMPER Stainless Steel Back Bumper. Stainless steel bumper fits all Snap-on TUV units.

KP1023JS Jack Stand. Jack stand fits all Snap-on TUV units.

KATUVBAR54 Stainless Steel Side Bar. 54" step bar fits KRLP1022/KRLT1022 and KRLR1022 series of TUV units.

KATUVBRAKE54 Brake Kit. Hydraulic brake kit fits KRLP1022/ KRLT1022 and KRLR1022 series of TUV units.

KATUVBRAKE72 Brake Kit. Hydraulic brake kit fits KRLP1023/ KRLT1023 and KRLP1032/KRLT1032 series of TUV units.



KRLP/KRLT Series Body Guards

Stock No.	Description	Application
KABGBB54	Back bottom body guard for roll cab (54" TUV)	KRLP1022/KRLT1022
KABGBB72	Back bottom body guard for roll cab (72" TUV)	KRLP1023/KRLT1023, KRLP1032/KRLT1032
KABGFB17	Left/Right front bottom body guard for roll cab (17.55")	KRLP1022/KRLT1022, KRLP1023/KRLT1023, KRLP1032/KRLT1032
KABGFB33	Center front bottom body guard for roll cab (33.51")	KRLP1022/KRLT1022, KRLP1023/KRLT1023
KABGFB52	Front bottom body guard for roll cab (52.25")	KRLP1032/KRLT1032
KABGFT17	Left/right front top body guard for roll cab (17.55")	KRLP1023/KRLT1023, KRLP1032/KRLT1032
KABGFT51	Front top body guard for roll cab (52.12")	KRLP1022/KRLT1022
KABGFT52A	Front top body guard for roll cab (52.125")	KRLP1023/KRLT1023, KRLP1032/KRLT1032
KABGFF17	Front face body guard for tool chest (5.06" x 17.2")	KRLT1023/KRLT1032
KABGFF51	Front face body guard for tool chest (5.06" x 51.0")	KRLT1022/KRLT1023/KRLT1032
KABGFF52	Front face body guard for workcenter (2.438" x 52.69")	KRLP1022
KABGFF71	Front face body guard for workcenter (2.438" x 71.25")	KRLP1023/KRLP1032
7516X70R	Locker Door Inlay (3.88" x 46.91")	KRLP1022/KRLT1022, KRLP1023/KRLT1023, KRLP1032/KRLT1032

KRLP/KRLT Series Diamond Plate Top Mats

Description	Silver Stock No.	Black Stock No.
Diamond plate top mat set for KRLP1022 Series TUV units	KPP1022DP	KPP1022RP
Diamond plate top mat set for KRLP1023/KRLP1032 Series TUV units	KPP1023DP	KPP1023RP
Diamond plate top mat set for locker tops on KRLT1022/ KRLT1023/KRLT1032 Series TUV units	KPT1023DP	KPT1023RP



WARNING



- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

CLASSIC SERIES

Classic For A Reason.

Tool storage with a future. Built on a solid past.

More Options. More Opportunities.

Snap-on® Classic Series delivers more than just the basics. Add lockers, end cabs, a workstation riser and overhead storage to create what fits your needs.

- Customizable—Choose your color from seven standard options, your work surface, your lighting and your protection package. Add skins and other options to make your piece unique.

- Affordable—Solid value for your investment. Classic tool storage can grow with you with the addition of top boxes and other storage add-ons. Value is engineered and built into every Classic Series Snap-on makes.
- Lock 'n Roll® Drawers—Retention system keeps drawers in place for safety and security.
- Reinforced corner gussets—For strength and durability.
- Double wall construction—Full-height inner wall is welded in place to ensure durable, consistent performance.



CLASSIC SERIES

Quick Reference Chart



Roll Cabs		KRA2496	KRA2432	KRA2418	KRA2411	KRA2407
Capacity	Approx. Cubic Inches	33,000	33,000	33,000	25,000	16,000
	Approx. Square Inches	8,000	8,500	8,500	6,300	4,700
	Load Capacity	2,400	2,400	2,400	2,400	2,400
Footprint	Width, inches	73	73	73	55	36
	Depth, inches	24	24	24	24	24
	Height, inches	39	39	39	39	39
Drawers	Drawer Banks	2	2	3	2	1
	Drawer Count	12	12	18	11	7
	Widest Drawer, inches	50	50	50	50	32
	Slides, lbs. (ball bearing)	120	120	120	120	120
	Double Slides	Yes (2 drawers)	Yes (5 drawers)	Yes (2 drawers)	Yes (2 drawers)	No
Extras	Top Mat	Uni-Directional Rubber	Uni-Directional Rubber	Uni-Directional Rubber	Uni-Directional Rubber	Uni-Directional Rubber
	Writing Surface	Optional	Optional	Optional	Optional	Optional
Weight	Net Weight	555	547	547	412	350
	Shipping Weight	637	643	643	480	643
Optional Add-ons Available	Top Chest	KRA2412	KRA2412	KRA2412	KRA2408	KRA2404
	Side Cab	KRA2406	KRA2406	KRA2406	KRA2406	KRA2406
	Locker	KRA2403	KRA2403	KRA2403	KRA2403	KRA2403
	Workstation Riser w/Door	KRW7572A	KRW7572A	KRW7572A	KRW7554A	No
	Overhead	KRWL3635 (2)	KRWL3635 (2)	KRWL3635 (2)	KRWL5435	No
	Hardwood Top	KRWT2418	KRWT2418	KRWT2418	KRWT2411	KRWT2407
	Stainless Top	KRSST2418	KRSST2418	KRSST2418	KRSST2411	KRSST2407
	Armor Edge Top	KRBLT2418	KRBLT2418	KRBLT2418	KRBLT2411	No
Third Caster Set Option	No	No	No	No	No	

CUSTOM SKINS



Talk to your Snap-on® representative about uniquely wrapped tool storage that reflects your personal style.

(Skins shown may not be available for purchase)



WARNING



- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

CLASSIC SERIES

Roll Cabs



KRA2496PBO

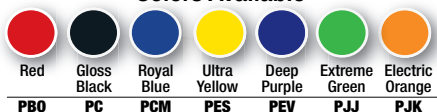


KRA2432PC
(Optional Stainless Steel Top Shown)

CLASSIC Series Roll Cab Drawer Sizes

Specifications	Width		Depth		Height		KRA2496	KRA2432
	Inches	mm	Inches	mm	Inches	mm	Drawers	Drawers
2" Narrow	14 5/8	371	21 7/8	556	1 3/4	45	1	3
4" Narrow	14 5/8	371	21 7/8	556	4	100	3	2
6" Narrow	14 5/8	371	21 7/8	556	6 3/16	157	1	—
10" Narrow	14 5/8	371	21 7/8	556	10 9/16	268	—	1
2" Wide	30 9/16	775	21 7/8	556	1 3/4	45	3	—
4" Wide	30 9/16	775	21 7/8	556	4	100	2	—
6" Wide	30 9/16	775	21 7/8	556	6 3/16	157	1	—
2" Extra Wide	49 1/4	1,248	21 7/8	556	1 3/4	45	—	1
4" Extra Wide	49 1/4	1,248	21 7/8	556	3 3/16	97	1	—
4" Extra Wide	49 1/4	1,248	21 7/8	556	4	100	—	4
6" Extra Wide	49 1/4	1,248	21 7/8	556	6 3/16	157	—	1
Total Drawer Count							12	12

Colors Available



All CLASSIC Series units are available in 7 standard colors.
Add suffix to base stock number for special colors.

CLASSIC SERIES

Roll Cabs



KRA2418PBO



KRA2407PBO



KRA2411PCM

CLASSIC Series Roll Cab Drawer Sizes

Specifications	Width		Depth		Height		KRA2418	KRA2411	KRA2407
	Inches	mm	Inches	mm	Inches	mm	Drawers	Drawers	Drawers
2" Narrow	14 5/8	371	21 7/8	556	1 3/4	45	4	1	—
4" Narrow	14 5/8	371	21 7/8	556	4	100	5	2	—
6" Narrow	14 5/8	371	21 7/8	556	6 3/16	157	1	—	—
10" Narrow	14 5/8	371	21 7/8	556	10 9/16	268	1	1	—
2" Wide	30 9/16	775	21 7/8	556	1 3/4	45	3	3	3
4" Wide	30 9/16	775	21 7/8	556	4	100	2	2	3
6" Wide	30 9/16	775	21 7/8	556	6 3/16	157	1	1	1
4" Extra Wide	49 1/4	1,248	21 7/8	556	3 3/16	97	1	1	—
Total Drawer Count							18	11	7



WARNING



- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

CLASSIC SERIES

Top Chests



KRA2412PBO

KRA2412 Series Top Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
17,753 (290,920)	5,229 (33,735)	405 (184)	455 (206)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	12	73 ³ / ₈ (1,864.0)	24 (609.0)	22 (559.0)
Drawers	2	14 ⁵ / ₈ (370.8)	21 ⁷ / ₈ (556.0)	1 ³ / ₄ (44.4)
	6	14 ⁵ / ₈ (370.8)	21 ⁷ / ₈ (556.0)	4 (100.3)
	1	30 ⁹ / ₁₆ (775.2)	21 ⁷ / ₈ (556.0)	1 ³ / ₄ (44.4)
	3	30 ⁹ / ₁₆ (775.2)	21 ⁷ / ₈ (556.0)	4 (100.3)



KRA2408PCM

KRA2408 Series Top Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
13,531 (221,700)	3,951 (25,490)	310 (140)	361 (140)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	8	54 1/2 (1,384.0)	24.0 (609.0)	21 (533.4)
Drawers	1	14 ⁵ / ₈ (370.8)	21 ⁷ / ₈ (556.0)	1 ³ / ₄ (44.4)
	3	14 ⁵ / ₈ (370.8)	21 ⁷ / ₈ (556.0)	4 (100.3)
	1	30 ⁹ / ₁₆ (775.2)	21 ⁷ / ₈ (556.0)	1 ³ / ₄ (44.4)
	3	30 ⁹ / ₁₆ (775.2)	21 ⁷ / ₈ (556.0)	4 (100.3)

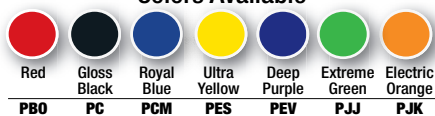


KRA2404PBO

KRA2404 Series Top Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
9,086 (148,893)	2,672 (17,238)	200 (91)	254 (115)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	4	36 ³ / ₈ (923.9)	24 (609.0)	21 (533.4)
Drawers	1	30 ⁹ / ₁₆ (775.2)	21 (556.0)	1 ³ / ₄ (44.4)
	3	30 ⁹ / ₁₆ (775.2)	21 (556.0)	4 (100.3)

Colors Available



All CLASSIC Series units are available in 7 standard colors.
Add suffix to base stock number for special colors.

CLASSIC SERIES

Workstation Risers

Workstation Risers and Overheads

- Factory assembled unit complete with door
- Work surface required

Stock Number	KRW7572A Riser	KRW7554A Riser	KRWL7572A Overhead	KRWL5435 Overhead	KRWL3635 Overhead
Cubic inches (cm³)	30,520 (500,133)	22,672 (646,765)	20,400 (330,000)	15,076 (247,051)	9,888 (162,035)
Square inches (cm²)	1,512 (9,755)	1,134 (7,316)	1,440 (9,290)	1,042 (6,722)	683 (4,406)
Width, inches (mm)	72 (1,829.0)	54 1/4 (1,378)	72 (1,829)	54 1/4 (1,378)	36 (914)
Depth, inches (mm)	21 (533.0)	21 (533.0)	21 (533)	21 (533)	21 (533)
Height, inches (mm)	23 1/2 (597.0)	23 1/2 (597.0)	16 (406)	16 (406)	16 (406)



KRW7554APCM Riser



KRWL5435PBO Bulk Overhead

Lockers

KRA2403 Series Lockers

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
17,035 (279,154)	2,509 (16,188)	375 (170.0)	—	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	3	24 3/4 (635.0)	24 (610.0)	61 (1,549.4) w/casters 54 (1,372.0) w/out casters
Drawers	3	20 3/8 (518.3)	19 1/2 (495.3)	3 13/16 (96.8)
Shelves/Trays	3	20 3/8 (518.3)	21 1/2 (546.1)	9 1/2 (241.3)

Ball slide capacity 125 lbs. per drawer.



KRA2403PJK

End Cabinets

KRA2406 Series End Cabinets

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
7,574 (124,115)	1,918 (12,374)	220 (99.79)	—	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	6	20 1/4 (514.3)	24 (609)	39 1/4 (996.9)
Drawers	3	14 5/8 (371.0)	21 7/8 (556.0)	1 3/4 (44.4)
	2	14 5/8 (371.0)	21 7/8 (556.0)	3 15/16 (100.4)
	1	14 5/8 (371.0)	21 7/8 (556.0)	10 9/16 (267.8)

Ball slide capacity 125 lbs. per drawer.



KRA2406PJK



WARNING



- Secure end cab to roll cab per instructions
- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

HERITAGE SERIES

Snap-on® Doesn't Cut Corners. It Reinforces Them.

The Snap-on Heritage Series delivers exceptional quality at a superior value. For technicians who are just starting out, the Heritage line offers a surprising array of high-end construction elements, allowing you to own a professional-quality cab with proven design. Add components at your own pace and build for the future.



Every Detail Adds Up To Value.

- Lock 'n Roll® Drawers—Premium-quality drawers that won't drift open.
- Double wall construction—Ensures an outer dent will not affect drawer performance.
- Gas-assisted lifts on top chests—Quality hydraulic lifts for safety and performance.
- Flexible storage options—Interchangeable drawers adjust to the way you work.
- Medium-duty casters—Impact absorbing wheels with smooth performance.
- Four color options—Add a range of optional accessories to personalize your tool storage.



HERITAGE SERIES

Roll Cabs



Roll Cabs	Specifications	KRA5311	KRA4813D	KRA4107D	KRA4008E
Capacity	Approx. Cubic Inches	20,000	14,000	15,000	10,000
	Approx. Square Inches	5,000	4,000	4,250	3,000
	Load Capacity, lbs.	2,400	2,400	2,400	1,300
Footprint	Width, inches	53	40	40	26
	Depth, inches	20	20	20	20
	Height, inches	38 1/2	38 1/2	38 1/2	37
Drawers	Drawer Banks	2	2	1	1
	Drawer Count	11	13	7	8
	Widest Drawer	48	36	36	23
	Slides, lbs. (ball bearing)	120	120	120	120
	Double Slides	Yes (1 drawer)	Yes (1 drawer)	Yes (1 drawer)	Optional
Extras	Top Mat	Uni-Directional Rubber	Uni-Directional Rubber	Uni-Directional Rubber	Uni-Directional Rubber
Weight	Net Weight, lbs.	349	297	275	183
	Shipping Weight, lbs.	400	327	305	213
Optional Add-ons Available	Top Chest	KRA5308	KRA4114D, KRA4810D	KRA4114D, KRA4810D	KRA4014E
	Side Cab	KRA4820D, KRA4830	KRA4820D, KRA4830	KRA4820D, KRA4830	—
	Locker	KRA5012D	KRA5012D	KRA5012D	—
	Middle Drawer Section	—	KRA4860D	KRA4860D	KRA2063
	Hardwood Top	KRWT5300	KRWT4800B	KRWT4800B	KRWT4008B
	Stainless Top	KRSST5300	KRSST4107	KRSST4107	—

Customize your Heritage Series tool storage with options like real carbon fiber drawer guards and wrench wheel cover sets. Talk to your Snap-on® franchisee or representative about limited edition colors like the flat black KRA5311POT roll cab (shown with carbon fiber and red wrench wheel covers).



WARNING



- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

HERITAGE SERIES

Roll Cabs



KRA5311



KRA4813DPJK



KRA4107DPCM

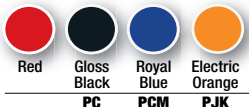


KRA4008EPC

HERITAGE Series Roll Cab Drawer Sizes

Specifications	Width		Depth		Height		KRA5311	KRA4813D	KRA4107D	KRA4008E
	Inches	mm	Inches	mm	Inches	mm	Drawers	Drawers	Drawers	Drawers
2" Narrow	11 3/16	285	17 1/2	445	1 5/8	41	3	4	—	—
4" Narrow	11 3/16	285	17 1/2	445	3 5/8	92	1	1	—	—
12" Narrow	11 3/16	285	17 1/2	445	11 5/8	295	1	1	—	—
2" Wide	21 7/16	544	17 1/2	445	1 5/8	41	—	2	—	4
2" Extra Wide	34 3/4	881	17 1/2	445	1 5/8	41	1	—	2	—
4" Wide	21 7/16	544	17 1/2	445	3 5/8	92	—	3	—	3
4" Extra Wide	34 3/4	881	17 1/2	445	3 5/8	92	3	1	4	—
8" Wide	21 7/16	544	17 1/2	445	7 5/8	193	—	1	—	1
8" Extra Wide	34 3/4	881	17 1/2	445	7 5/8	193	1	—	1	—
6" Wide	47 3/4	1,214	17 1/2	445	5 9/16	141	1	—	—	—
Total Drawer Count							11	13	7	8

Colors Available



All KRA5000 and KRA4000 Series units are available in 4 standard colors. Use base stock number for red. **Add suffix to base stock number for special colors.**

HERITAGE STANDARD SERIES

Roll Cabs

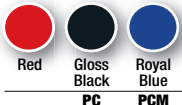


Roll Cabs	Specifications	KRA2318	KRA2312	KRA2306	KRA2212A	KRA2106	KRA2007	KRA2005
Capacity	Approx. Cubic Inches	19,200	20,400	24,000	14,700	15,500	10,000	10,000
	Approx. Square Inches	5,000	5,200	4,200	4,000	4,000	2,800	2,400
	Load Capacity, lbs.	1,300	1,300	1,300	1,300	1,300	1,100	1,100
Footprint	Width, inches	53	53	53	40	40	26	26
	Depth, inches	20	20	20	20	20	20	20
	Height, inches	38	38	38	38	38	37	37
Drawers	Drawer Banks	3	2	1	2	1	1	1
	Drawer Count	18	12	6	12	6	7	5
	Widest Drawer, inches	36	36	36	36	36	23	23
	Slides, lbs. (ball bearing)	100	100	100	100	100	100	100
	Double Slides	Option	Option	Option	Option	Option	Option	Option
Extras	Top Mat	Uni-Directional Rubber	Uni-Directional Rubber	Uni-Directional Rubber	Uni-Directional Rubber	Uni-Directional Rubber	Uni-Directional Rubber	Uni-Directional Rubber
	Weight							
Weight	Net Weight, lbs.	371	351	331	279	265	170	162
	Shipping Weight, lbs.	454	434	414	360	344	239	231
Optional Add-ons Available	Top Chest	KRA2308	KRA2308	KRA2308	KRA2104A, KRA2208A	KRA2104A, KRA2208A	KRA2055, KRA4014E	KRA2055, KRA4014E
	Side Cab	KRA4820D, KRA4830	KRA4820D, KRA4830	KRA4820D, KRA4830	KRA4820D, KRA4830	KRA4820D, KRA4830	—	—
	Locker	KRA5012D	KRA5012D	KRA5012D	KRA5012D	KRA5012D		
	Middle Drawer Section	—	—	—	KRA4860D	KRA4860D	KRA2063	KRA2063
	Hardwood Top	KRWT5000A	KRWT5000A	KRWT5000A	KRWT4800B	KRWT4800B	KRWT4008	KRWT4008
	Stainless Top	KRSST5000	KRSST5000	KRSST5000	KRSST4107	KRSST4107	—	—



KRA2318

Colors Available



All KRA2000 Series units are available in 3 standard colors. Use base stock number for red. Add suffix to base stock number for special colors.



WARNING



- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

HERITAGE STANDARD SERIES

Roll Cabs



KRA2318



KRA2312



KRA2306

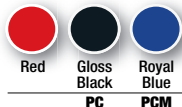


KRA2212APCM

HERITAGE Standard Series Roll Cab Drawer Sizes

Specifications	Width		Depth		Height		KRA2318	KRA2312	KRA2306	KRA2212A
	Inches	mm	Inches	mm	Inches	mm	Drawers	Drawers	Drawers	Drawers
2" Narrow	11 3/16	285	17 1/2	445	1 5/8	41	3	—	—	2
4" Narrow	11 3/16	285	17 1/2	445	3 5/8	92	6	4	—	2
8" Narrow	11 3/16	285	17 1/2	445	7 5/8	193	1	—	—	—
12" Narrow	11 3/16	285	17 1/2	445	11 5/8	295	1	1	—	1
2" Wide	21 7/16	544	17 1/2	445	1 5/8	41	2	—	—	2
2" Extra Wide	34 3/4	881	17 1/2	445	1 5/8	41	—	2	—	—
4" Wide	21 7/16	544	17 1/2	445	3 5/8	92	3	—	—	3
4" Extra Wide	34 3/4	881	17 1/2	445	3 5/8	92	1	4	5	1
8" Wide	21 7/16	544	17 1/2	445	7 5/8	193	1	—	—	1
8" Extra Wide	34 3/4	881	17 1/2	445	7 5/8	193	—	1	1	—
Total Drawer Count							18	12	6	12

Colors Available



Red

Gloss Black

Royal Blue

PC

PCM

Use base stock number for red.
Add suffix to base stock number for special colors.

HERITAGE STANDARD SERIES

Roll Cabs



KRA2106APC



KRA2007

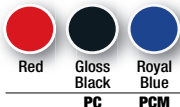


KRA2005PCM

HERITAGE Standard Series Roll Cab Drawer Sizes

Specifications	Width		Depth		Height		KRA2106A	KRA2007	KRA2005
	Inches	mm	Inches	mm	Inches	mm	Drawers	Drawers	Drawers
2" Wide	21 7/16	544	17 1/2	445	1 5/8	41	—	2	—
4" Wide	21 7/16	544	17 1/2	445	3 5/8	92	—	4	4
4" Extra Wide	34 3/4	881	17 1/2	445	3 5/8	92	5	—	—
8" Wide	21 7/16	544	17 1/2	445	7 5/8	193	—	1	—
8" Extra Wide	34 3/4	881	17 1/2	445	7 5/8	193	1	—	—
12" Wide	21 7/16	544	17 1/2	445	11 5/8	295	—	—	1
Total Drawer Count							6	7	5

Colors Available



Use base stock number for red.
Add suffix to base stock number for special colors.



WARNING



- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

HERITAGE SERIES

Top Chests



KRA5208D



KRA5308

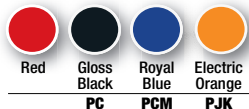


KRA5315PCM



KRA4810DPJK

Colors Available



All KRA5000 and KRA4000 Series units are available in 4 standard colors. Use base stock number for red. Add suffix to base stock number for special colors.

KRA5208D Series Top Chest (Rounded Corner)

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
12,970 (212,540)	4,191 (27,040)	224 (102)	269 (122)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	8	53 ³ / ₈ (1,356.5)	19 ¹³ / ₁₆ (503.2)	19 ³ / ₈ (492.9)
Drawers	2	11 ³ / ₁₆ (288.1)	17 ¹ / ₂ (444.5)	1 ⁵ / ₈ (41.3)
	2	11 ³ / ₁₆ (288.1)	17 ¹ / ₂ (444.5)	3 ⁵ / ₈ (92.1)
	2	34 ³ / ₄ (881.9)	17 ¹ / ₂ (444.5)	1 ⁵ / ₈ (41.3)
	2	34 ³ / ₄ (881.9)	17 ¹ / ₂ (444.5)	3 ⁵ / ₈ (92.1)
Top Compartment	—	52 ⁵ / ₁₆ (1,328.7)	18 ³ / ₁₆ (462.8)	4 ³ / ₄ (119.9)

KRA5308 Series Top Chest (Squared Corner)

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
12,970 (212,540)	4,191 (27,039)	224 (102)	269 (122)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	8	53 ³ / ₈ (1,356)	19 ¹³ / ₁₆ (503)	19 ¹⁷ / ₁₆ (493)
Drawers	2	11 ³ / ₁₆ (285)	17 ¹ / ₂ (445)	1 ⁵ / ₈ (41)
	2	11 ³ / ₁₆ (285)	17 ¹ / ₂ (445)	3 ⁵ / ₈ (92)
	2	34 ³ / ₄ (881)	17 ¹ / ₂ (445)	1 ⁵ / ₈ (41)
	2	34 ³ / ₄ (881)	17 ¹ / ₂ (445)	3 ⁵ / ₈ (92)
Top Compartment	—	52 ³ / ₈ (1,328)	18 ³ / ₄ (475)	4 ⁵ / ₈ (118)

KRA5315D Series Top Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
10,758 (176,324)	4,065 (26,227)	224 (101.6)	298 (135)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	15	53 ³ / ₈ (1,355.7)	19 ¹³ / ₁₆ (503.2)	20 (508.0)
Drawers	6	11 ³ / ₁₆ (284.1)	17 ¹ / ₂ (444.5)	1 ⁵ / ₈ (40.6)
	4	11 ³ / ₁₆ (284.1)	17 ¹ / ₂ (444.5)	3 ⁵ / ₈ (91.4)
	2	21 ³ / ₈ (542.9)	17 ¹ / ₂ (444.5)	1 ⁵ / ₈ (40.6)
	2	21 ³ / ₈ (542.9)	17 ¹ / ₂ (444.5)	3 ⁵ / ₈ (91.4)
	1	34 ¹¹ / ₁₆ (881.0)	17 ¹ / ₂ (444.5)	3 ⁵ / ₈ (91.4)

KRA4810D Series Top Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
9,359 (153,370)	3,026 (19,520)	196 (89)	226 (103)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	8	40 (1,016.0)	19 ¹³ / ₁₆ (501.7)	19 ⁷ / ₁₆ (493.7)
Drawers	2	11 ¹ / ₈ (283.4)	17 ⁹ / ₁₆ (445.3)	1 ⁹ / ₁₆ (38.9)
	2	11 ¹ / ₈ (283.4)	17 ⁹ / ₁₆ (445.3)	3 ⁵ / ₈ (91.3)
	2	21 ³ / ₈ (283.4)	17 ⁹ / ₁₆ (445.3)	1 ⁹ / ₁₆ (38.9)
	2	21 ³ / ₈ (283.4)	17 ⁹ / ₁₆ (445.3)	3 ⁵ / ₈ (91.3)
Top Compartment	—	39 ⁷ / ₈ (1,013.6)	18 ³ / ₄ (475.5)	4 ³ / ₄ (119.9)

HERITAGE SERIES

Top Chests

KRA4114D Series Top Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
9,746 (159,710)	3,178 (20,500)	183 (83)	213 (97)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	4	40 1/16 (1,016.8)	19 13/16 (503.2)	19 7/16 (493.7)
Drawers	2	34 11/16 (881.1)	17 9/16 (445.3)	1 3/8 (38.9)
	2	34 11/16 (881.1)	17 9/16 (445.3)	3 5/8 (91.3)
Top Compartment	—	39 7/8 (1,013.6)	18 3/4 (475.5)	4 3/4 (119.9)



KRA4114DPCM

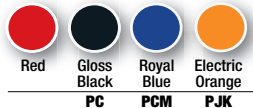
KRA4014E Series Top Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
6,180 (101,270)	1,995 (12,870)	119 (54)	142 (64)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	4	26 3/4 (678.7)	19 13/16 (503.2)	19 3/8 (492.9)
Drawers	2	21 3/8 (542.9)	17 17/32 (445.3)	1 3/8 (38.9)
	2	21 3/8 (542.9)	17 17/32 (445.3)	3 5/8 (91.3)
Top Compartment	—	26 5/8 (675.5)	18 3/4 (475.5)	4 3/4 (119.9)



KRA4014EPC

Colors Available



All KRA5000 and KRA4000 Series units are available in 4 standard colors. Use base stock number for red. Add suffix to base stock number for special colors.

HERITAGE Standard Series Top Chests

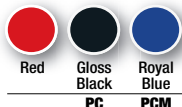
KRA2308 Standard Series Top Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
12,970 (212,343)	4,191 (27,135)	224 (101)	269 (122)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	8	53 3/8 (1,356.0)	19 13/16 (502.9)	19 3/8 (492.7)
Drawers	2	11 3/16 (284.4)	17 1/2 (444.5)	1 5/8 (40.6)
	2	11 3/16 (284.4)	17 1/2 (444.5)	3 5/8 (91.4)
	2	34 11/16 (881.3)	17 1/2 (444.5)	1 5/8 (40.6)
	2	34 11/16 (881.3)	17 1/2 (444.5)	3 5/8 (91.4)
Top Compartment	—	52 5/16 (1,328.4)	18 11/16 (474.9)	4 3/4 (119.9)



KRA2308

Colors Available



Use base stock number for red.

Add suffix to base stock number for special colors.



WARNING



- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

HERITAGE STANDARD SERIES

Top Chests

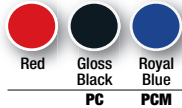


KRA2208APCM



KRA2104A

Colors Available



Red

Gloss Black

Royal Blue

PC

PCM

Use base stock number for red.

Add suffix to base stock number for special colors.

KRA2208A Series Top Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
9,411 (154,218)	3,030 (19,548)	196 (88)	226 (102)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	8	40 (1,016.0)	19 13/16 (502.9)	19 3/8 (492.7)
Drawers	2	11 3/16 (284.4)	17 1/2 (444.5)	1 1/2 (38.1)
	2	11 3/16 (284.4)	17 1/2 (444.5)	3 5/8 (91.3)
	2	21 3/8 (543.5)	17 1/2 (444.5)	1 1/2 (38.1)
	2	21 3/8 (543.5)	17 1/2 (444.5)	3 5/8 (91.3)
Top Compartment	—	39 13/16 (1,010.9)	18 13/16 (477.5)	4 13/16 (121.9)

KRA2104A Series Top Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
9,746 (159,708)	3,178 (20,503)	183 (83)	213 (96)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	4	40 (1,016.0)	19 13/16 (502.9)	19 3/8 (492.7)
Drawers	2	34 11/16 (881.3)	17 1/2 (444.5)	1 1/2 (38.1)
	2	34 11/16 (881.3)	17 1/2 (444.5)	3 5/8 (91.3)
Top Compartment	—	39 13/16 (1,010.9)	18 13/16 (477.5)	4 13/16 (121.9)

KRA Tool Chests



KRA2055A

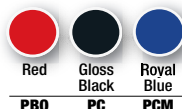


KRA4059APC

KRA2055A Top Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
4,452 (72,955)	1,814 (11,703)	100 (45.4)	120 (54.4)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	5	26 (660.4)	14 3/4 (373.9)	17 1/4 (437.4)
Drawers	4	21 7/16 (543.6)	13 1/8 (332.5)	1 7/8 (47.6)
	1	21 7/16 (543.6)	13 1/8 (332.5)	3 1/8 (79.3)

Colors Available



Red

Gloss Black

Royal Blue

PBO

PC

PCM

KRA4059A Series Top Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
4,288 (70,268)	1,753 (11,309)	92 (41.7)	117 (53.1)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	9	26 (660.4)	14 3/4 (373.8)	17 3/16 (436.5)
Drawers	6	6 11/16 (169.0)	13 1/8 (332.5)	1 3/4 (44.4)
	2	22 1/8 (559.5)	13 1/8 (332.5)	1 7/8 (47.6)
	1	22 1/8 (559.5)	13 1/8 (332.5)	3 1/8 (79.3)
Top Compartment	—	25 13/16 (655.6)	13 3/4 (348.4)	3 7/8 (97.6)

Colors Available



Red

Gloss Black

Royal Blue

Electric Orange

PBO

PC

PCM

PJK

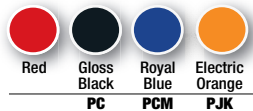
KRA Series Drawer Sections

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
3,112 (50,997)	1,216 (7,845)	115 (52)	145 (66)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	2	40 (1,016.0)	19 ¹³ / ₁₆ (503.2)	9 ¹³ / ₁₆ (249.2)
Drawers	1	34 ¹¹ / ₁₆ (881.1)	17 ⁹ / ₁₆ (445.3)	1 ³ / ₈ (35.7)
	1	34 ¹¹ / ₁₆ (881.1)	17 ⁹ / ₁₆ (445.3)	3 ¹ / ₂ (88.9)



KRA4860DPCM

Colors Available



All KRA5000 and KRA4000 Series units are available in 4 standard colors. Use base stock number for red. **Add suffix to base stock number for special colors.**

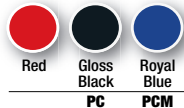
KRA2063 Series Drawer Sections

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
1,792 (29,365)	1,124 (7,252)	70 (21.78)	94 (42.64)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	3	26 (678.7)	19 ³ / ₈ (503.2)	9 ¹¹ / ₁₆ (246)
Drawers	3	21 ³ / ₈ (543.7)	17 ¹ / ₂ (444.5)	2 (50.8)



KRA2063

Colors Available



Use base stock number for red. **Add suffix to base stock number for special colors.**

Lockers

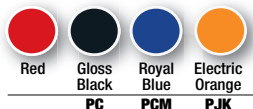
KRA5012D Series Lockers

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
10,177 (166,770)	1,480 (9,548)	115 (52)	145 (66)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	4	16 ¹ / ₂ (419.1)	19 ¹³ / ₁₆ (503.2)	51 ¹ / ₂ (1,308.1)
Drawers	2	11 ³ / ₁₆ (288.1)	17 ¹ / ₂ (444.5)	1 ⁵ / ₈ (41.3)
	2	11 ³ / ₁₆ (288.1)	17 ¹ / ₂ (444.5)	3 ⁵ / ₈ (92.1)
Shelves	3	12 ³ / ₈ (315.1)	18 ³ / ₄ (475.5)	11 ³ / ₄ (297.7)



KRA5012D

Colors Available



All KRA5000 and KRA4000 Series units are available in 4 standard colors. Use base stock number for red. **Add suffix to base stock number for special colors.**



- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

TOOL STORAGE

End Cabinets



KRA4830PJK



KRA4820DPC



All KRA5000 and KRA4000 Series units are available in 4 standard colors. Use base stock number for red. Add suffix to base stock number for special colors.

KRA4820D Series End Cabinets

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
5,094 (83,476)	1,174 (7,574)	117 (53)	147 (67)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	6	16 1/2 (419.1)	19 13/16 (501.7)	32 1/8 (815.2)
Drawers	2	11 1/8 (283.4)	17 9/16 (445.3)	1 9/16 (39.7)
	3	11 1/8 (283.4)	17 9/16 (445.3)	3 1/2 (88.9)
	1	11 1/8 (283.4)	17 9/16 (445.3)	11 3/4 (297.7)

KRA4830 Series End Cabinets

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)
8,426 (138,080)	843 (5,439)	76 (35)	97 (44)
	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	16 1/2 (419.1)	19 3/8 (503.2)	32 5/16 (820.7)
Shelves 2	15 1/16 (381.8)	18 5/8 (473.1)	—
Lower Compartment 1	15 1/16 (381.8)	18 5/8 (473.1)	—

Tool Storage—Blue-Point®



KRB2055PQP



KRB2006PQR



KRB2055 Series Top Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
4,444 (72,824)	1,818 (11,729)	84 (38)	96 (44)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	5	26 (660.4)	14 3/4 (373.8)	17 7/16 (436.8)
Drawers	4	22 5/16 (566.3)	13 5/16 (333.7)	1 7/8 (47.2)
	1	22 5/16 (566.3)	13 5/16 (333.7)	3 1/8 (79.3)
Top Compartment	—	25 13/16 (655.6)	13 11/16 (347.2)	3 7/8 (98.0)

KRB2006 Series Roll Cab

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
9,568 (156,791)	2,247 (14,496)	165 (75)	210 (95)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	6	26 (660.4)	19 13/16 (502.9)	38 (965.2)
Drawers	5	21 3/8 (543.7)	17 1/2 (444.5)	3 5/8 (91.2)
	1	21 3/8 (543.7)	17 1/2 (444.5)	7 5/8 (193.2)

Where Mobility Meets Durability.

You've been there before, stranded with a lightweight roll cart. That's not something you have to worry about with Snap-on®. With over a dozen options, this family of carts is designed and built to get you where you're going.

- **Mobility**—Heavy Duty Mobile Workstation has 8" x 2" high-strength casters to navigate rough floors and gravel. 40" carts use 6" x 2" monoprene soft vibration-resistant casters to overcome small obstacles.
- **Safety**—Lockable wheels, bumpers, rolled drawer edges, radiused corners and fully welded designs keep you and your surroundings safe from damage.

The Capacity You Need.

From the basic two-tray cart to the Heavy Duty Mobile Workstation, your needs are met with Snap-on and Blue-Point® carts.

- **Heavy Duty Mobile Workstation**—The ultimate high-capacity cart has a work surface that holds up to 1,000 lbs., yet is still smooth enough to write on.
- **Lock 'n Roll® or InPulse™ Drawers**—High capacity drawers hold more tools and won't drift open. Drawer slides can be added to double drawer capacity.
- **Lid selection**—Choose from traditional, sliding stainless or permanent reinforced stainless lids to meet your specific needs.



MOBILE SOLUTIONS

Mobile Workstations



KRSC100APBO



KRSC101PCM



KRSC100A/KRSC101 Series Mobile Workstations

- 8" semi-soft casters, extra heavy duty weight capacity will go over obstacles that stop ordinary carts
- All 4 casters swivel lock
- Convenience drawer (optional on KRSC100A, standard on KRSC101) large enough for short term storage of work-in-progress parts
- 1,000 lb. capacity, 38" x 26" top work surface (stainless steel) has raised edge all the way around
- 6" and 4" InPulse™ drawers retain up to 20 times the weight of standard detents without drifting open
- Vertical bumper system with soft edges
- Large diameter handle
- Stainless steel grip for more leverage

KRSC100A Series Mobile Workstations

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Load Capacity, lbs. (kg)	
7,943 (130,162)	2,362 (15,238)	320 (145.1)	2,000 (907)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	2	38 (965.2)	26 (660.4)	43 ⁵ / ₁₆ (1,100)
Drawers	1	30 ¹ / ₄ (768.3)	24 (609.6)	6 (152.4)
	1	30 ¹ / ₄ (768.3)	24 (609.6)	4 (101.6)
Bottom Tray	1	35 (889)	26 (660.4)	³ / ₄ (19.0)

KRSC101 Series Mobile Workstations

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Load Capacity, lbs. (kg)	
12,102 (198,316)	3,118 (10,116)	360 (163.3)	2,000 (907)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	3	38 (965.2)	26 (660.4)	43 ⁵ / ₁₆ (1,100)
Drawers	1	30 ¹ / ₄ (768.3)	24 (609.6)	6 (152.4)
	1	30 ¹ / ₄ (768.3)	24 (609.6)	4 (101.6)
100W16S Drawer	1	30 ¹ / ₄ (768.3)	24 (609.6)	6 (152.4)
Bottom Tray	1	35 (889)	26 (660.4)	³ / ₄ (19.0)

KRSC100A/KRSC101 Optional Accessories

Stock No.	Description
KAPS4	Four outlet power strip
100W16S	6" optional (non-locking) bottom convenience drawer for KRSC100A (Add proper color suffix)
KAS12PV	12" x 12" shelf
KASR12PV	Screwdriver rack
KAT18PV	Can holder
6007K0120PV	Manual cord wrap
KAPR24PV	Pry bar rack
KAPWR12	Power tool rack (Holds 3 power tools)
KEWLEDFLEXL	Workstation light, LED, flexible neck, rechargeable

KRSC46 Series Roll Carts.

- The one-piece, fully welded body is designed for maximum strength
- Inherent strength for storage capacity found only in the best tool storage cabinets
- 7" top compartment uses non-slip liner internally to accommodate heavy tools and parts
- Drawers are 36" wide. Drawer capacity: 100 lbs. per drawer; up to 200 lbs. with double slide
- Accessory panels can be added to both sides providing slot pattern for accessories, and accommodates KAPS4 power strip and 6007K0120PV cord wrap with no extra drilling
- Also accommodates the KRA4830 end cab (KRSC404PV adaptor panel required)
- Snap-on® KRA-style drawers with Lock 'N Roll® so drawers will not drift open
- Optional JKRR40W55—rubber top mat (not included)

KRSC46 Series Roll Cart

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Load Capacity, lbs. (kg)	
20,783 (340,572)	4,392 (28,3356)	265 (120.2)	—	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	6	40 1/2 (1,029)	20 (508)	46 (1,168)
Drawers	5	34 3/4 (882.6)	17 1/2 (444.5)	3 5/8 (92.0)
	1	34 3/4 (882.6)	17 1/2 (444.5)	7 5/8 (193.6)
Top Compartment	—	39 13/16 (1,011)	18 13/16 (478)	7 (178)



KRSC46PEV

Colors Available



KRSC40A Series Roll Carts.

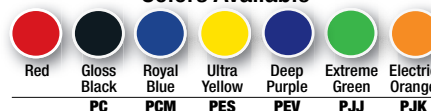
- 4 vertical bumpers
- Thick cover mat for top work surface
- A structurally stiffened bottom panel welded to case along the bottom
- Round key lock
- 6" x 2" soft monprene casters

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Load Capacity, lbs. (kg)	
20,895 (342,407)	3,177 (20,496)	265 (120.2)	—	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	4	40 (1,016.0)	19 13/16 (502.9)	39 1/8 (993.1)
Drawers	2	34 3/4 (881.3)	17 1/2 (444.5)	3 5/8 (91.3)
	1	34 3/4 (881.3)	17 1/2 (444.5)	7 5/8 (193.0)
	1	34 3/4 (881.3)	17 1/2 (444.5)	11 5/8 (294.6)
Top Compartment	—	39 13/16 (1,010.9)	18 13/16 (477.5)	7 (177.8)



KRSC40A

Colors Available



KRSC40A & KRSC41 Series Roll Cart Accessories.

- Create the ultimate shop cart
- Easier to customize than any shop cart in the industry

Stock No.	Description
KRA412D*	Folding side shelf
KRA4830*	End cab. Comes equipped with adjustable shelves; optional drawers can also be added.
KACSC40PC	Protective nylon cover (black 200 Denier® nylon)
KRSC404PV	Accessory mounting/adaptor panel; also used to mount end cab
6007K0120PV*	Cord wrap
KAS12PV*	12" flat shelf
KALR12PV*	Literature rack: 12" wide, 3" deep
KAT12PV*	12" can rack: 12" wide, 3" deep
KAPS4	Four outlet power strip
KEWLEDFLEXL	Rechargeable LED flexible long-neck work light (magnetic base)

*Requires KRSC404PV adaptor panel



WARNING



- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

MOBILE SOLUTIONS

Roll Carts

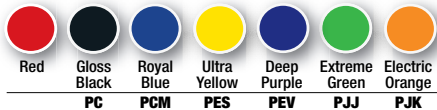


KRSC41



KRSC31A

Colors Available



KRSC41 Series Roll Carts.

- 4 vertical bumpers
- Extra deep 7" top compartment
- Sliding stainless steel lid
- Round key lock
- 6" x 2" soft monoprene casters
- 12" deep bottom hopper drawer with double slides
- 6 drawer version available-KRSC416

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Load Capacity, lbs. (kg)	
21,269 (348,536)	3,177 (20,497)	289 (131)	2,400 (1,089)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	4	40 (1,016)	19 13/16 (502.9)	39 1/8 (993.1)
Drawers	2	34 11/16 (881.3)	17 1/2 (444.5)	3 5/8 (91.3)
	1	34 11/16 (881.3)	17 1/2 (444.5)	7 5/8 (193)
	1	34 11/16 (881.3)	17 1/2 (444.5)	11 5/8 (294.6)
Top Compartment	—	39 13/16 (1,010.9)	18 13/16 (477.5)	6 1/2 (165.1)

KRSC31A Series Roll Carts.

- Snap-on designed and manufactured for durability
- Standard three, 4" deep drawers may be refitted with optional 2" or 6" drawers on bottom
- Lock 'n Roll® feature keep drawers from accidentally opening
- Round key lock can be keyed alike with other Snap-on storage units
- 5" x 2" soft riding casters for smoother rolling

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Load Capacity, lbs. (kg)	
9,591 (157,168)	2,110 (13,613)	157 (71.2)	1,300 (590)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	3	32 9/16 (827.1)	20 1/2 (520.7)	43 5/16 (1,100)
Drawers	3	27 1/8 (688.5)	17 1/2 (444.5)	3 5/8 (92)
Top Compartment	—	26 (660.4)	19 1/8 (485.8)	6 1/2 (165.1)
Prybar/Screwdriver	2	5 (127)	19 7/64 (485.3)	6 1/2 (165.1)

Road Chests



KRA6200PCM



KRA6210

Colors Available



KRA6200 Series Road Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
11,937 (195,612)	3,460 (22,323)	232 (105)	267 (121)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	4	39 3/4 (1,011)	28 (711)	30.1 (764)
Top Compartment	—	34 7/8 (885)	22 1/2 (571.5)	5 1/2 (139.7)

KRA6210 Series Road Chest

Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Shipping Weight, lbs. (kg)	
11,937 (195,612)	3,460 (22,323)	206 (93)	246 (111.5)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	4	35 (889)	24 (609.6)	23.9 (607)
Top Compartment	—	34 7/8 (885)	22 1/2 (571.5)	5 1/2 (139.7)

Optional Waterproof Covers

KRA6200	KAC6200 (Red)	KAC6200PC (Black)
KRA6210	KAC6210 (Red)	KAC6210PC (Black)

Optional 2" steel drawer divider set - KADDS2402

MOBILE SOLUTIONS

Roll Carts—Blue-Point®

KRBC10TA Series Roll Carts.

- Plated fasteners resist corrosion and self locking nuts assure a rigid, secure assembly
- Locking support tabs add strength, increase load capacity and facilitate quick assembly
- Made from heavy gauge steel for superior strength
- Retractable side work table
- Protective rubber bumpers

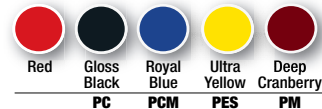
	Cubic inches (cm ³)	Square inches (cm ²)	Load Capacity, lbs. (kg)	
	7,428 (121,700)	2,400 (15,480)	540 (245)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	4	30 1/2 (775)	20 1/2 (520)	41 1/4 (1,048)
Drawers	2	11 1/2 (292.1)	17 1/2 (444.5)	2 1/2 (63.5)
	1	24 1/2 (622.3)	17 1/2 (444.5)	2 1/2 (63.5)
	1	24 1/2 (622.3)	17 1/2 (444.5)	2 1/2 (63.5)
Bottom Shelf	2	30 (762)	19 (482.6)	3 1/2 (88.9)
Top Compartment	—	30 (762)	19 (482.6)	2 1/2 (63.5)
External Tray (rear)	—	15 3/8 (390.7)	4 (101.6)	3 3/8 (85.9)
External Tray (front)	—	15 3/8 (390.7)	4 (101.6)	2 (50.8)

BPNCVR10T Roll Cart Cover. Fits all KRBC10T and KRBC9T series roll carts. Protects cart from dirty shop conditions. High quality 210 Denier® nylon. Sturdy zipper makes using the cover quick and easy. Waterproof and durable.



KRBC10TAPC

Colors Available



KRBCSST Series Roll Carts.

- Padded lid protects finish and provides additional work surface
- Roller bearing slide drawers, locking slide top, internal pry bar holder
- Dual locking casters keep cart in place during use
- Convenient storage trays on both sides

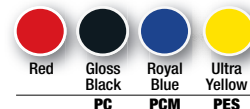
	Cubic inches (cm ³)	Square inches (cm ²)	Net Weight, lbs. (kg)	Load Capacity, lbs. (kg)
	15,931 (261,062)	1,618 (26,514)	23.5 (56)	300 (136)
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	2	29 7/16 (747)	20 5/8 (524)	38 11/16 (982)
Top Compartment	—	29 7/16 (747)	20 5/8 (524)	6 13/16 (171.9)
Drawers	2	29 5/16 (744.2)	17 1/2 (444.5)	2 3/4 (69)
Bottom Compartment	—	29 5/16 (744.2)	17 1/2 (444.5)	3 (75.9)

BPNCVRSST Roll Cart Cover. Fits all KRBCSST series roll carts. Protects cart from dirty shop conditions. High quality 210 Denier nylon. Sturdy zipper makes using the cover quick and easy. Waterproof and durable.



KRBCSST

Colors Available



KRBC15T Series Roll Carts.

- Padded lid protects finish and provides additional work surface
- Gas shock for safe closure
- Removable top chest locks to cart
- Two roller bearing slide drawers on both the top chest and cart
- Dual locking casters keep cart in place during use

	Net Weight, lbs. (kg)		Load Capacity, lbs. (kg)	
	88.2 (40)		300 (136)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	4	26.4 (670.5)	18.3 (464.8)	42.4 (1,076.9)
Top Compartment	—	26 (660)	11 13/16 (300)	4 7/16 (112)
Drawers	2	22 1/2 (571.5)	15 3/216 (386)	3 13/16 (96.5)
Bottom Shelf	1	26 1/4 (667)	17 15/16 (456)	13 (331)

KRBC15TTC Series Removable Top Chest

	Cubic inches (cm ³)		Shipping Weight, lbs. (kg)	
	2,479 (40,624)		53 (24)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	2	26 (660)	12 (304)	211 (280)
Top Compartment	—	26 (660)	11 13/16 (300)	4 7/16 (112)
Drawers	2	2 7/16 (61)	22 7/16 (569)	10 1/2 (267)



KRBC15TPCM



WARNING



- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

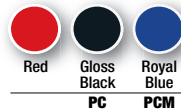
MOBILE SOLUTIONS

Roll Carts—Blue-Point®



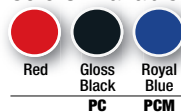
KRBC7TBPCM

Colors Available



KRBC2TC

Colors Available



KRBC3TC



KRBC7TB Series Roll Carts.

- 4" zinc-plated casters (2 locking, 2 swivel)
- 6 liners on drawer and tray, and 1 rubber mat on side work shelf
- Latch system to unlock all 4 drawers once the top lid has been opened with a key
- Gas Springs on lid for greater control
- Folding side work shelf provides extra work space
- Provides secure, mobile tool storage
- Tubular locks on lid and prybar compartment
- Padded lid provides an additional work surface
- Locking flip top lid with full length piano hinge
- Locking prybar compartment securely holds all length prybars and screwdrivers

	Net Weight, lbs. (kg)		Load Capacity, lbs. (kg)	
	112.2 (50.8)		—	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	4	35 (889)	17 (431)	41 (1,041)
Drawers	2	13 13/16 (350)	15 3/8 (398.8)	2 (50.8)
	1	27 9/16 (700.2)	15 7/16 (391.4)	2 (50.8)
	1	27 9/16 (700.2)	15 7/16 (391.4)	4 (101.6)
Bottom Shelf	1	27 9/16 (700.2)	15 7/16 (391.4)	3 (76.2)

BPNCVR7TB Roll Cart Cover. Fits all KRBC7TB series roll carts. Protects cart from dirty shop conditions. High quality 210 Denier® nylon. Sturdy zipper makes using the cover quick and easy. Waterproof and durable.

KRBC2TC Series Roll Cart.

- Rugged, general duty dual shelf roll cart
- Trays feature rolled edges for improved strength and rigidity. Trays measure 30" long x 17" wide x 3" deep
- Maximum load capacity 150 lbs. (68 kg.) per tray
- Welded post holders
- Casters are 4" x 1 1/8" (two locking, two standard)

	Net Weight, lbs. (kg)		Load Capacity, lbs. (kg)	
	38		350 (159)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	—	30 (756)	17 (428)	36 7/32 (920)
Trays	—	30 (756)	17 (428)	3 (75)

KRBC3T-1 Locking Drawer. Optional add-on locking drawer for KRBC2TA.

KRBC1T Replacement Tray. For KRBC2TA/KRBC3TB.

KRBC3TC Roll Cart.

- KRBC3TC red roll cart with 2 shelves and a locking drawer
- Features locking drawer with tubular lock for added tool security
- 2 sturdy, 3" deep trays are positioned for convenience
- 150 lb. (68 kg.) load capacity per tray
- Made of heavy gauge steel
- 4" x 1 1/8" casters (2 locking, 2 standard)

	Net Weight, lbs. (kg)		Load Capacity, lbs. (kg)	
	65		300 (136)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	1	32 (813)	17 13/16 (452)	36 1/4 (920)
Trays	—	15 1/2 (762)	27 (685.8)	4 (101.6)
Drawer	1	14 1/2 (368.3)	27 (685.8)	4 (101.6)

KR5000B Heavy Duty Roll Cart.

- Heavy gauge steel shelves/frame
- Solid rubber 4" x 1 1/2" casters (2 rigid, 2 swivel with brakes)
- Top shelf has a drain hole with a neoprene plug
- Mounting holes for optional center shelf

	Net Weight, lbs. (kg)		Load Capacity, lbs. (kg)	
	53 (24)		500 (227)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	—	36 (914.4)	24 (609.6)	38 1/4 (971.5)

5000W0860 Red Shelf. Optional kit becomes a center shelf for KR5000B.



KR5000B



Red

KRP1HD Polymer Roll Cart.

- Heavy duty polymer construction will not scratch painted surfaces, will not corrode and is non-conductive
- Top slides in either direction to reveal storage compartment and work surface underneath
- Built-in tool holders in handles accept wide variety of screwdrivers, small prybars, pliers and other small to medium hand tools
- Drain plugs in both upper and lower trays facilitate cleanup
- Red trays with grey lid and legs
- Locking swivel casters
- Each tray has 160 lb. (73 kg.) load capacity

	Net Weight, lbs. (kg)		Load Capacity, lbs. (kg)	
	37 (16.8)		320 (145)	
	Drawers	Width, inches (mm)	Depth, inches (mm)	Height, inches (mm)
Specifications	1	43 (1,092.2)	21 3/4 (552.4)	38 1/2 (977.9)
Top Tray	1	43 (1,092.2)	21 3/4 (552.4)	3 3/16 (80.9)
Bottom Tray	1	43 (1,092.2)	21 3/4 (552.4)	2 13/16 (71.4)



KRP1HD

Under Hood Rolling Service Tray

BLPUHST Under Hood Service Tray.

- Convenience with less user motion and fatigue
- 24" leg clearance allows the service tray to slide under the hood from the front or the side of vehicle
- Parts dividers and screwdriver holders built in the tray
- Protective bumpers included for top tray and support post
- 3" heavy duty swivel casters
- Height adjustable support post adjusts from 35.8" to 48.4" for the tray to clear the fender or front end of most vehicles
- EVA pads in all tray compartments
- Dimensions (fully assembled): 29.5" L x 26.0" W x 48.4" H
- Maximum load capacity: 75 lbs. (34 kg)



BLPUHST



WARNING



- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

ACCESSORIES

**We Made It Snap-on.[®]
You Make It Yours.**

Whether you're looking for something personalized or something practical, Snap-on has plenty of ways for you to customize your Snap-on tool storage unit.

- Corner guards—Protect your box's resale value and add a sharp-looking stainless steel design accent.
- Drawer fronts—Stainless steel fronts with a precision cut Snap-on logo.
- LED light kits—Can be installed in workstations and lockers.



TOOL STORAGE ACCESSORIES

Boxes and Tote Trays

Plastic Boxes

Ideal for a wide range of storage needs. YA481 through YA486 are made of tough, injection molded plastic to ensure a precise fitting lid and durability. Top carrying handle, tension latches, tote tray and padlock provision are also featured.

YA481 Plastic Box. 14 1/2" x 7 1/4" x 4 1/2".

YA482 Plastic Box. 16 1/2" x 8 1/4" x 6 1/2".

YA483 Plastic Box. 20 1/4" x 9" x 7 3/4".

YA484 Plastic Box. 23 1/8" x 10 1/4" x 10 1/2".

YA486 Plastic Box. 27 1/2" x 13 3/8" x 14".



YA481



YA483



YA486

Parts Storage Cases

KRP5CAB Five Drawer Storage Cabinet. Use to store or inventory small tools and parts. Black, heavy duty polypropylene cabinet with 5 removable drawers (KRP5PB). Each drawer features a translucent plastic divider system that allows full customization for individual needs. Drawers are easily removable for transport to job location. Units can be stacked or wall mounted. Resistant to common solvents. Cabinet dimensions are 15 1/2" W x 14 1/2" D x 16" H.

YA402 Parts Storage Case. Interchangeable partitions allow customizing from 9 to 24 compartments. Rugged polypropylene construction. 14 5/8" x 10 3/4" x 2 5/16".

YA485 Parts Storage Case. Similar to YA402 except interchangeable partitions can form 8 to 32 compartments. 18" x 12" x 3".

KRP5PB Storage Drawer. Plastic storage drawer for KRP5CAB parts storage cabinet. Each drawer features 16 translucent section dividers for unlimited customizing options. Drawer measures 13 5/8" W x 9 5/8" D x 2 1/4" H.



KRP5CAB



YA402



KRP5PB

Tool Organizers

Tool organizers feature compartmented top trays for hand tools and part storage, V-groove in lid to hold pipes and dowels for sawing, and positive locking latches.

KRW200A Organizer. Will hold most rechargeable drills and other small power tools. 16 1/4" x 10" x 12 1/2", 1,165 cu. in. capacity.

KRW200GA Green version of KRW200A.

KRW200OA Orange version of KRW200A.

KRW300A Organizer. Will hold drills, extension cords, circular saws and other large bulky items. Adjustable shoulder strap. 20 3/4" x 13 1/2" x 16 3/4", 4,095 cu. in. capacity.

KRW300GA Green version of KRW300A.

KRW300OA Orange version of KRW300A.



KRW200A



KRW300GA



WARNING

• Read safety precautions on pages 594 to 597

TOOL STORAGE ACCESSORIES

Boxes and Tote Trays



KRP825PCA



KRP825PCC

Plastic Boxes with Steel Drawers (F.O.D. Design)

Portable tool chest designed specifically for Foreign Object Damage (F.O.D.) applications. Accepts both magnetic and foam tool control systems for tool accountability. 22 gauge steel drawers are interchangeable for custom configurations. Standard drawer configuration includes (4) drawers measuring 7 7/8" x 19 9/32" x 1 7/8" and (1) drawer measuring 7 7/8" x 19 9/32" x 4".

Molded polymer one piece design (handle, latches, strap pins, hinges, and lock clasp) minimizes potential loose pieces that could cause F.O.D. Molded recesses in outer case allow vertical and horizontal stacking. Padded carrying strap for extra comfort. Capacity specifications listed are based on standard drawer configuration. 17 13/32" high, 24" wide, 10 5/32" deep; with capacities of 759 sq. in. and 1,760 cu. in. Weight 33 lbs.

KRP825PCA Grey case/red drawers

KRP825PCB Olive case/red drawers

KRP825PCC Red case/red drawers



KTA3A



KTA8PV



KRP1001A

Tote Trays

KTA3A Metal Tote Tray. Tubular pull-up handle lifts 1 5/8". Measures 20 1/4" x 8" x 3 1/4" with handle down.

KTA8PV Metal Tote Tray. Drops in any 14" wide (4" deep) drawers on KRL1000 and KRL700 series tool storage units.

4 non-skid rubber feet protect finished surfaces from scratching. Raised lips hold tray securely in drawer. Tubular pull-up handle lifts 1 3/4". Measures 10" W x 14 13/16" L x 3 13/16" H with handle down. Black textured finish.

KRP1001A Plastic Tote Tray. Made of tough, rustproof, nonconductive, chemical resistant polymer. Includes 2 deep end pockets. Bottom drawer is divided into 12 compartments and can be opened from either side. 16 5/8" x 10 1/4" x 6 7/8".

Wall Cabinets

Snap-on® wall cabinets provide both security and inventory control. Wall cabinets can be mounted to wall, stationary bench, or roll cab. Ruggedly built of heavy gauge steel for durability. Theft-resistant cylinder locks and a 2 point locking system provide protection for your tools. See your Snap-on franchisee for more information on our wide selection of tool control boards.

KRA276D Wall Cabinet. Features PLEXIGLAS® door panels to permit checking tool inventory without opening doors. Cabinet measures 33 7/8" x 24 3/4" x 6".

KRA2706KIT Tool Mounting Board Kit. Modifies Snap-on KRA276D wall cabinet into a versatile, secure tool control system. The 24" x 34" sheet metal tool control panel features the Slots-N-Dots™ configuration to deliver a wide variety of tool mounting options. Includes 48 assorted mounting clips for mounting ratchets, extensions, pliers, hammers and other hand tools. Other tool organization components from the Slots-N-Dots system like the KASR12PV screwdriver holder and KAT12PV/KAT18PV spray can racks can also be used. Panel is pre-drilled for quick installation with included sheet metal screws.



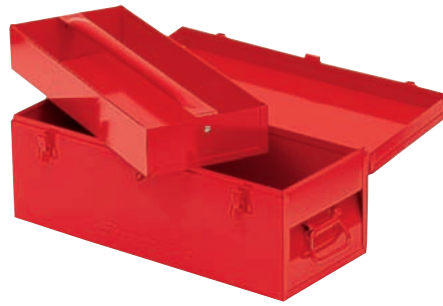
KRA276D

TOOL STORAGE ACCESSORIES

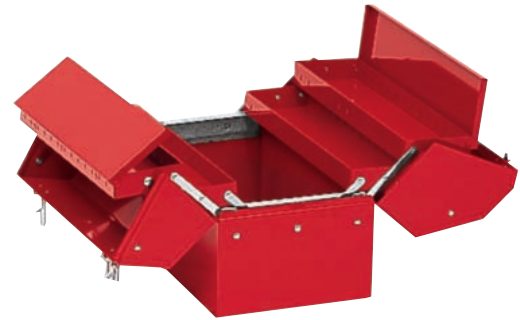
Metal Boxes



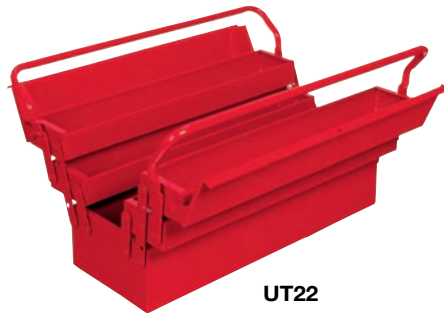
KRW184A



KRA25D



KRW48B



UT22



KRA21G



KRW182A



KRW183B



KRU24B



KRA24



KRU24GB

Stock No.	Cubic Inches (cm)	Square Inches (cm)	Dimensions, inches	Description/Features
KRW184A	1,851 (30,330)	684 (4,413)	20 ¹⁹ / ₃₂ x 8 ¹ / ₂ x 14 ¹ / ₄ Each Drawer: 17 ¹³ / ₁₆ x 7 ³ / ₁₆ x 2 ¹ / ₂	Four drawers lock when lid is closed. Tote tray not included. Net weight: 25 lbs.
KRA25D	1,568 (25,690)	180 (1,161)	20 ⁷ / ₈ x 8 ³ / ₄ x 8 ³ / ₄ "	Includes KTA3A Partitioned Tote Tray.
KRW48B	1,530 (25,070)	476 (3,071)	18 x 10 x 13 ¹ / ₄	Split top opening for tool access. Cantilever trays on either side of cover, carrying handle.
UT22	1,444 (23,660)	525 (3,837)	Overall: 22 x 8 x 9 4 Small Trays: 22 x 4 x 2	Opens up to expose 5 storage trays; no trays lift out, no drawers to open. 1 Large Tray: 22 x 8 x 9
KRA21G	996 (16,320)	486 (3,135)	Overall: 20 ³ / ₄ x 8 ⁹ / ₁₆ x 11 ¹ / ₄ Top Drawer: 19 ³ / ₄ x 7 ³ / ₄ x 1 ¹⁵ / ₁₆ Bottom Drawer: 19 ³ / ₄ x 7 ³ / ₄ x 2 ¹³ / ₁₆ Compartment: 20 ³ / ₄ x 8 ⁹ / ₁₆ x 1 ¹⁵ / ₁₆	Includes KTA3A portioned tote tray. Net weight: 28 lbs.
KRW182A	1,137 (18,630)	—	18 ¹ / ₂ x 8 ¹ / ₂ x 9 ¹ / ₂	Net weight 12.5 lbs. Shipping weight: 14.5 lbs.
KRW183B	1,637 (26,830)	—	Overall: 20 ¹⁹ / ₃₂ x 8 ¹ / ₂ x 12 Each Drawer: 17 ¹³ / ₁₆ x 7 ³ / ₁₆ x 2 ¹ / ₂	Drawers lock when lid is closed. Net weight: 20 lbs.
KRU24B	2,540 (41,623)	670 (4,322)	Trays: 21 ¹ / ₂ x 4 ³ / ₈ x 1 ¹ / ₈ Bottom Section: 23 ³ / ₈ x 11 ³ / ₈ x 7 ¹ / ₄ Overall: 24 x 12 x 12	Lightweight, only 27 lbs. (12.3 kg). 4 trays allow organization of smaller items.
KRA24	1,155 (18,930)	154 (994)	19 ⁷ / ₈ x 7 ³ / ₄ x 7 ¹ / ₂	Includes portioned tote tray.
KRU24GB	2,540 (41,623)	670 (4,322)	Trays: 21 ¹ / ₂ x 4 ³ / ₈ x 1 ¹ / ₈ Bottom Section: 23 ³ / ₈ x 11 ³ / ₈ x 7 ¹ / ₄ Overall: 24 x 12 x 12	Lightweight, only 27 lbs. (12.3 kg). 4 trays allow organization of smaller items.



WARNING



- Do not open multiple drawers
- Read safety precautions on pages 594 to 597

TOOL STORAGE ACCESSORIES

Work Surfaces



KRST761B

Stainless Steel Work Surfaces

Stainless steel tops turn roll cabs into moveable work benches. Constructed from high grade, 16 gauge 304 stainless steel. Raised front lip keeps sockets and parts from rolling off. Tops are 1 7/8" thick.

Stock No.	Applications	Width, inches	Depth, inches
KWSN3060BST	EPIQ Series Roll Cabs	60	30
KWSN3068BST	EPIQ Series Roll Cabs	68	30
KWSN3076BST	EPIQ Series Roll Cabs	76	30
KWSN3084BST	EPIQ Series Roll Cabs	84	30
KWSP3060BST	Power Top for EPIQ Series Roll Cabs	60	30
KWSP3068BST	Power Top for EPIQ Series Roll Cabs	68	30
KWSP3076BST	Power Top for EPIQ Series Roll Cabs	76	30
KWSP3084BST	Power Top for EPIQ Series Roll Cabs	84	30
KWSH3076BST	PowerHouse Top for EPIQ Series Roll Cabs	76	30
KWSH3084BST	PowerHouse Top for EPIQ Series Roll Cabs	84	30
KRSST7065	KRL7065/KRL1065 Roll Cabs	145 3/4	29
KRSST68A	KRL1024/KRL1043 Roll Cabs	68	29 1/16
KRSST1004A	KRL1004/KRL1024 Series Roll Cabs	108 3/8	28 15/16
KRSST1001B	KRL1022/KRL7022 Roll Cabs	54 3/16	28 15/16
KRSST7003B	KRL1023/KRL1032/ KRL1033/KRL7023 Roll Cabs	72 13/16	28 15/16
KRSST7001	KRL1056 Roll Cabs	35 9/16	28 15/16
KRSST761B	KRL722 Roll Cabs	54 3/16	23 7/8
KRSST756	KRL756 Roll Cabs	35 9/16	23 7/8
KRSST7011	KRL7011/KRL7015/KRL1011/KRL1015 End Cabs	19 7/8	28 15/16
KRSST711	KRL711/KRL715 End Cabs	19 7/8	23 7/8
KRSST5000	KRA5000 Series/KRA2306/KRA2300 Series Roll Cabs	53 1/16	19 1/2
KRSST4107	KRA4107/KRA4813/KRA2107/KRA2212 Roll Cabs	39 3/4	19 1/2
KRSST2418	KRA2418/KRA2432/KRA2496 Roll Cabs	73 3/8	23 11/16
KRSST2411	KRA2411 Roll Cabs	54 3/4	23 11/16
KRSST2407	KRA2407 Roll Cabs	35 7/8	23 11/16
KRSST5300	KRA5311 Roll Cabs	53 1/16	19 1/2
KRSST4008	KRA4008, KRA2007	26	19 1/2



JKRR711CR

Non-Directional Rubber Mats

Non-directional rubber top mats protect tool storage units from damage. Light weight, fine textured, all rubber construction. Will not shrink, curl or separate. Cleans easily and quickly. Impervious to most oil and chemicals.

Stock No.	Application
JKRR7065CR	KRL7065/KRL7065 Series Roll Cabs
JKRR1024CR	KRL1024/KRL1043 Series Roll Cabs
JKRR10011CR	KRL1022/KRL7022 Series Roll Cabs
JKRR1003CR	KRL1023/KRL1032/KRL7023/KRL1033 Series Roll Cabs
JKRR1056CR	KRL1056 Series Roll Cabs
JKRR761CR	KRL722 Series Roll Cabs
JKRR756CR	KRL756 Series Roll Cabs
JKRR1010CR	KRL1011/KRL7011/KRL7015/KRL1015 Series End Cabs
JKRR7012CR	KRL1012/KRL7012/KRLV7012 Series Lockers
JKRR711CR	KRL711 Series End Cabs
JKRR712CR	KRL712 Series Lockers
JKRR3800CR	KRA4107/KRA4800/KRA2107/KRA2212 Series Roll Cabs
JKRR379ACR	KRA4008/KRA2007 Series Roll Cabs
JKRR2411CR	KRA2411 Series Roll Cabs
JKRR2418CR	KRA2418/KRA2432/KRA2496 Series Roll Cabs
JKRR3820CR	KRA4820/KRA4833 End Cabs, KRA5012 Locker
JKRR488ACR	KR488B Roll Carts
JKRR40W55	KRSC40/KRSC46 Roll Carts



KRWT7002A

Hardwood Tops

Northern hard maple butcher block tops allow roll cabs to double as full length workbenches. Tops are 1 3/4" thick.

Stock No.	Applications	Width, inches	Depth, inches
KRWT7065	KRL7065/KRL1065 Roll Cabs	144	29
KRWT1004A	KRL1024/KRL1043 Roll Cabs	107 15/16	27 5/8
KRWT7002A	RL1022/KRL7022 Roll Cabs	53 11/16	27 5/8
KRWT7003A	KRL1023/KRL1032/ KRL1033/KRL7023 Roll Cabs	72 5/16	27 5/8
KRWT7001A	KRL1056 Roll Cabs	35 1/8	27 5/8
KRWT761B	KRL722 Roll Cabs	53 3/4	22 9/16
KRWT756A	KRL756 Roll Cabs	35 1/8	22 9/16
KRWT7011A	KRL7011/KRL7015/KRL1011/KRL1015 End Cabs	19 5/16	27 5/8
KRWT711A	KRL711/KRL715 End Cabs	19 5/16	22 5/8
KRWT5000A	KRA5213/KRA5319/KRA2306/KRA2300 Series Roll Cabs	53 1/16	19 7/16
KRWT4800B	KRA4109/KRA4800/KRA4107/KRA4813/ KRA2107/KRA2212 Roll Cabs	39 3/4	19 7/16
KRWT2411	KRA2411 Roll Cabs	54 3/4	23 11/16
KRWT2418	KRA2418/KRA2432/KRA2496 Roll Cabs	73 3/8	23 11/16
KRWT2407	KRA2407 Roll Cabs	35 7/8	23 11/16
KRWT5300	KRA5311 Roll Cabs	53 1/16	19 7/16
KRWT4008	KRA4008E/KRA2007 Roll Cabs	26	19 7/16



KRBLT1023

Armour Edge Steel Work Surfaces

Steel work surface is coated with Armour Edge liner, a substance similar to that used in truck bed liners. Armour Edge is extremely durable, easy to clean, chemical and abrasion resistant, and won't crack or peel. Installation hardware included.

Stock No.	Applications	Width, inches	Depth, inches
KRBLT1065	KRL1065, KRL7065	145 3/4	29
KRBLT1024	KRL1024, KRL1043	108 3/8	29
KRBLT1023	KRL1023, KRL1032, KRL7023, KRL1033	72 13/16	29
KRBLT1022	KRL1022, KRL7022	54 3/16	29
KRBLT722	KRL722	54 3/16	24
KRBLT1011	KRL1011, KRL7011, KRL1015, KRL7015	19 7/8	29
KRBLT711	KRL711, KRL715	19 7/8	24
KRBLT2418	KRA2418, KRA2432, KRA2496	73 3/8	24
KRBLT756	KRL756	36	24
KRBLT2418	KRA2418/KRA2432/KRA2496	73 3/8	23 11/16
KRBLT2411	KRA2411	54 3/4	23 11/16



KRSTW24

Stainless Steel Side Shelves

Extends existing stainless steel work area 21" on either side. Mounts on either side of selected Snap-on® roll cabs. Appearance matches optional KRST series stainless steel work surfaces. Constructed from 16 gauge welded stainless steel. 150 lb. capacity. Includes instructions and mounting hardware.

Stock No.	Use on	Width, inches	Depth, inches (mm)
KRSTW24	KRL700/KRL2411 Series	21	24
KRSTW29	KRL7000/KRL1000 Series	21	29

TOOL STORAGE ACCESSORIES

Covers

The KAC series of storage unit covers can be used individually per unit or zipped together with the heavy duty nylon zipper to form a cover combination to match your tool storage combination. Magnets on the locker and end cab covers hold the door flap open to allow entry to the unit without removing the cover itself. Covers are available for roll cabs, roll cabs with top chests, roll cabs with workstation risers/overheads, left and right side end cabs and left and right side lockers.

EPIQ Roll Cab Series Covers

Cover Description	Black Stock No.
KERN60 Cover	KAC304860BK
KERN68 Cover	KAC304868BK
KERN76/KERP76 Cover	KAC304876BK
KERN84/KERP84 Cover	KAC304884BK
60" EPIQ Roll Cab, Workcenter, 1 Locker	KAC307690BK
68" EPIQ Roll Cab, Workcenter, 1 Locker	KAC307698BK
76" EPIQ Roll Cab, Workcenter, 1 Locker	KAC3076106BK
84" EPIQ Roll Cab, Workcenter, 1 Locker	KAC3076114BK
60" EPIQ Roll Cab, Workcenter, 2 Lockers	KAC3076120BK
68" EPIQ Roll Cab, Workcenter, 2 Lockers	KAC3076128BK
76" EPIQ Roll Cab, Workcenter, 2 Lockers	KAC3076136BK
84" EPIQ Roll Cab, Workcenter, 2 Lockers	KAC3076144BK
60" EPIQ Roll Cab, Workcenter, 4 Lockers	KAC3076180BK
68" EPIQ Roll Cab, Workcenter, 4 Lockers	KAC3076188BK
76" EPIQ Roll Cab, Workcenter, 4 Lockers	KAC3076196BK
84" EPIQ Roll Cab, Workcenter, 4 Lockers	KAC3076204BK
60" EPIQ Roll Cab and Workcenter	KAC307660BK
68" EPIQ Roll Cab and Workcenter	KAC307668BK
76" EPIQ Roll Cab and Workcenter	KAC307676BK
84" EPIQ Roll Cab and Workcenter	KAC307684BK
60" EPIQ Roll Cab, Workcenter, Overheads, 2 Lockers	KAC3097120BK
68" EPIQ Roll Cab, Workcenter, Overheads, 2 Lockers	KAC3097128BK
76" EPIQ Roll Cab, Workcenter, Overheads, 2 Lockers	KAC3097136BK
84" EPIQ Roll Cab, Workcenter, Overheads, 2 Lockers	KAC3097144BK
60" EPIQ Roll Cab, Workcenter, Overheads, 4 Lockers	KAC3097180BK
68" EPIQ Roll Cab, Workcenter, Overheads, 4 Lockers	KAC3097188BK
76" EPIQ Roll Cab, Workcenter, Overheads, 4 Lockers	KAC3097196BK
84" EPIQ Roll Cab, Workcenter, Overheads, 4 Lockers	KAC3097204BK
60" EPIQ Roll Cab, Workcenter, Overhead	KAC309760BK
68" EPIQ Roll Cab, Workcenter, Overhead	KAC309768BK
76" EPIQ Roll Cab, Workcenter, Overhead	KAC309776BK
84" EPIQ Roll Cab, Workcenter, Overhead	KAC309784BK

- Heavy duty nylon zippers
- High quality 200 Denier® nylon
- Bright silver Snap-on® logo



KAC1003PC

KRL700 Series Storage Unit Covers

Cover Description	Red Stock No.	Black Stock No.
KRL722/KRA2411 Cover	KAC761	KAC761PC
KRL722/KRL791A or KRA2411/KRA2408 Combination Cover	KAC761791	KAC761791PC
KRL722/KRA2411/KRW7554/KRWL5435 Cover	KAC761WD	KAC761WDPC
KRL722/KRL791A/KRL712 Combination Cover	KAC761TL	KAC761TLPC
KRL756 or KRA2407 Cover	KAC756	KAC756PC
KRL756/KRL751 or KRA2407/KRA2404 Combination Cover	KAC756731	KAC756731PC
KRL756 with 36" Riser/Overhead Cover	KAC756WD	KAC756WDPC
KRL711/KRL715 Cover (Left Side)	KAC711L	KAC711LPC
KRL711/KRL715 Cover (Right Side)	KAC711R	KAC711RPC
KRL712 Cover (Left Side)	KAC712L	KAC712LPC
KRL712 Cover (Right Side)	KAC712R	KAC712RPC
KRA2418 Cover	KAC773	KAC773PC
KRA2418/KRA2412 Cover	KAC773793	KAC773793PC

KRL7000 Series Covers

Cover Description	Red Stock No.	Black Stock No.
KRL7022 Cover	KAC7002	KAC7002PC
KRL7022/KRL1201 Combination Cover	KAC72121	KAC72121PC
KRL7022 with KRL7954/KRL5445 Cover	—	KAC702245PC
KRL7023A Cover	KAC7003	KAC7003PC
KRL7023A/KRL1203A Combination Cover	KAC73123	KAC73123PC
KRL7023A with KRL7972/KRL7245 (2) Cover	—	KAC702345PC
KRL7011A/KRL7015A/KRLV7015 Cover (Left Side)	KAC7011L	KAC7011LPC
KRL7011A/KRL7015A/KRLV7015 Cover (Right Side)	KAC7011R	KAC7011RPC
KRL7012/KRLV7012 Cover (Left Side)	KAC7012L	KAC7012LPC
KRL7012/KRLV7012 Cover (Right Side)	KAC7012R	KAC7012RPC

KRL1000 Series Covers

Cover Description	Red Stock No.	Black Stock No.
KRL1065 Cover	KAC1065	KAC1065PC
KRL1024/KRL1043 Cover	KAC1024	KAC1024PC
KRL1022 Cover	KAC1001	KAC1001PC
KRL1022/KRL1201A Combination Cover	KAC100112	KAC100112PC
KRL1022/KRL1201A/KRL1012A Combination Cover	KAC1001TL	KAC1001TLPC
KRL1022/KRL7954/KRL5445 Cover	KAC1001WD	KAC1001WDPC
KRL1022/KRL7954/KRL5445 Cover	—	KAC102245PC
KRL1023/KRL1032/KRL1033 Cover	KAC1003	KAC1003PC
KRL1023 or KRL1032/KRL1203A Combination Cover	KAC13123	KAC13123PC
KRL1023 or KRL1032 with KRL7972/KRL7245 Cover	KAC1003WD	KAC1003WDPC
KRL1023/KRL7954/KRL5445 Cover	—	KAC102345PC
KRL1056 Cover	KAC1056	KAC1056PC
KRL1056/KRL1251 Combination Cover	KAC161251	KAC161251PC
KRL1011A/KRL1015A Cover (Left Side)	KAC1011L	KAC1011LPC
KRL1011A/KRL1015A Cover (Right Side)	KAC1011R	KAC1011RPC
KRL1012A Cover (Left Side)	KAC1012L	KAC1012LPC
KRL1012A Cover (Right Side)	KAC1012R	KAC1012RPC

KRA5000 Series Covers

Cover Description	Red Stock No.	Black Stock No.
KRA5000 Series/KRA2300 Series Roll Cab Cover	KAC5000	KAC5000PC
KRA5000/KRA2300 Series Roll Cab/Top Chest Cover	KAC530015	KAC530015PC
KRA5012 Locker Cover, Left Side	KAC5012L	KAC5012LPC
KRA5012 Locker Cover, Right Side	KAC5012R	KAC5012RPC

KRA4000 Series Covers

Cover Description	Red Stock No.	Black Stock No.
KRA4000/2000 Series 40" Roll Cab Cover	KAC4800	KAC4800PC
KRA4000/KRA2000 Series 40" Roll Cab/Top Chest Combination Cover	KAC48004810	KAC480010PC
KRA4000 Series 40" Roll Cab/Drawer Section/Top Chest Combinations	KAC48006010	KAC486010PC
KRA Series End Cabs Cover, Left Side	KAC4820L	KAC4820LPC
KRA Series End Cabs Cover, Right Side	KAC4820R	KAC4820RPC
KRA4008/KRA2007 Roll Cab Cover	KAC4007	KAC4007PC
KRA4000 Series 26" Roll Cab/Top Chest Combination Cover	KAC40074014	KAC40074014PC
KRA4055/KRA4059 Series, KRA59K Series Top Chest Cover, KRA2055, KRB2055	KAC59	—

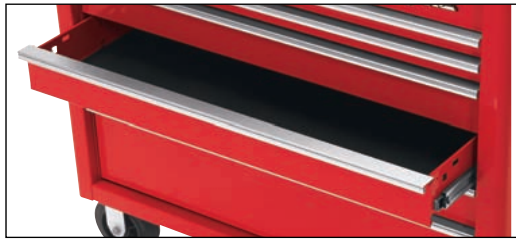


WARNING

• Read safety precautions on pages 594 to 597

TOOL STORAGE ACCESSORIES

Drawer Guards/KRL Series



KADG4107

Protects drawers from dings and scratches. Adds a custom, personalized look to tool storage units. Installs easily. No trimming or fasteners required. Simply remove tape from underside of guard, align guard with drawer, snap in place and press firmly. Constructed from stainless steel with brushed or polished finish. Some sets are available in carbon fiber. Individual replacement guards are available.

Drawer Guards/KRL Roll Cabs

Brushed Stock No.	Polished Stock No.	Application
KADG1003A	KADGP1003A	KRL1003A, KRL1003B
KADG1022	KADGP1022	KRL1022(A)
KADG1023	KADGP1023	KRL1023(A)
KADG1024	KADGP1024	KRL1024(A) Series Roll Cabs
KADG1056	KADGP1056	KRL1056(A), KRL1056B
KADG7002	KADGP7002	KRL7002, KRL7002A, KRLP7002A
KADG7003	KADGP7003	KRL7003, KRL7003A, KRL7003B
KADG7022	KADGP7022	KRL7022, KRLP7022A, KRL722
KADG7023	KADGP7023	KRL7023(A)
KADG756	KADGP756	KRL756(A), KRL756B

Drawer Guards/KRL Top Chests and End Cabs

Brushed Stock No.	Polished Stock No.	Application
KADG1011A	KADGP1011A	KRL1011A
KADG1201A	KADGP1201A	KRL1201, KRL1201A, KRL1202
KADG1203	KADGP1203	KRL1203, KRL1203A, KRL1203B
KADG1221	KADGP1221	KRL1221
KADG1232	KADGP1232	KRL1232
KADG1251	KADGP1251	KRL1251
KADG7011A	KADGP7011A	KRL711, KRL711A, KRL7011A
KADG731	KADGP731	KRL731, KRL751
KADG791A	KADGP791A	KRL791, KRL791A

Drawer Guards/KRA Series



KADGSHORT



Drawer Guards/Individual Replacements

Brushed Stock No.	Polished Stock No.	Application	Length, inches
KADGNARROW	KADGPNARROW	KRL/Classic Narrow Drawer Guard	16
KADGWIDE	KADGPWIDE	KRL/Classic Wide Drawer Guard	32
KADGXWIDE	KADGPXWIDE	KRL/Classic Extra Wide Drawer Guard	50 1/2
KADGSWIDE	KADGPSWIDE	KRL/Heritage Super Wide Drawer Guard	69 3/16
KADGSHORT	KADGSHORT	Heritage Short Drawer Guard	12 1/16
KADGMEDIUM	KADGPMEDIUM	Heritage Medium Drawer Guard	22
KADGLONG	KADGPLONG	Heritage Long Drawer Guard	35 9/16

Carbon Fiber Drawer Guards

	Stock No.	Description
Sets	KACF2411	Carbon Fiber Drawer Guard Set KRA2411
	KACF2418	Carbon Fiber Drawer Guard Set KRA2418
	KACF5311	Carbon Fiber Drawer Guard Set KRA5311
	KACF646	6 Piece Carbon Fiber Set for 35" Drawer, KRA Heritage Series, KRSC46, KRSC416
Individual Replacements	KACFHWIDE	35" Heritage Drawer 1 Piece
	KACFHXWIDE	49" Heritage Drawer 1 Piece
	KACFHMED	22" Heritage Drawer 1 Piece
	KACFHRNW	11" Heritage Drawer 1 Piece
	KACFCMED	32" Classic Drawer 1 Piece
	KACFCXWIDE	50" Classic Drawer 1 Piece
	KACFCNRW	16" Classic Drawer 1 Piece

Drawer Guards/KRA Roll Cabs

Brushed Stock No.	Polished Stock No.	Application
—	KADGP5319	KRA5319 Series Roll Cabs
KADG5213	KADGP5213	KRA5213 Series Roll Cabs
KADG5311	KADGP5311	KRA5311 Series Roll Cabs
KADG4008	KADGP4008	KRA4008 Series Roll Cabs
KADG4107	KADGP4107	KRA2306/KRA4107 Series Roll Cabs
KADG4813	KADGP4813	KRA4813 Series Roll Cabs
KADG4007	KADGP4007	KRA2007/KRA4007 Series Roll Cabs
KADG2432	KADGP2432	KRA2432 Series Roll Cabs
KADG2418	KADGP2418	KRA2418 Series Roll Cabs
KADG2411	KADGP2411	KRA2411 Series Roll Cabs
KADG2496	KADGP2496	KRA2496/KRL1001(A) Series Roll Cabs

KRA Top Chests and End Cabs

Brushed Stock No.	Polished Stock No.	Application
KADG5315	KADGP5315	KRA5315 Series Top Chests
KADG5208	KADGP5208	KRA5208 Series Top Chests
KADG4114	KADGP4114	KRA4114 Series Top Chests
KADG4014	KADGP4014	KRA4014 Series Top Chests
KADG4810	KADGP4810	KRA4810 Series Top Chests
KADG4820	KADGP4820	KRA4820 Series End Cabs

TOOL STORAGE ACCESSORIES

Body Guards

Made of brushed stainless steel. Designed to protect the tool storage unit from solvents and floor cleaning solutions. Custom fit pieces are adhesively applied. Adds a fresh look to newer units. Also complements restoration of older units.

Body Guard Sets

Stock No.	Application
KABG1022	KRL1022, KRL1001B, KRL7022, KRL7002
KABG1023A	KRL1023, KRL1003B, KRL7023(A)(B), KRL7003
KABG1024	KRL1024(A)(B)
KABG1032A	KRL1032(A)
KABG1032B	KRL1032B(C)
KABG1033	KRL1033(A)(B)
KABG722	KRL722, KRL761B
KABG1065	KRL1065(A), KRL7065(A)



KABG series body guards shown installed on KRL7023A roll cab. Older style casters are shown on roll cab.

Customization



Masters Series Stainless Steel Drawer Fronts

Stock No.	Description
KADFRLSTD	Brushed Drawer Front Kit, 3 Pc.
KADFPKRLSTD	Polished Drawer Front Kit, 3 Pc.
KADFP50X5	Polished Drawer Guard for Top Drawer

Classic Stainless Steel Drawer Fronts

Brushed and polished stainless steel drawer fronts for all Classic series roll cabs and top chests. Fronts for 50" top drawers and 32" x 6" drawers feature a precision-stamped, cut out Snap-on logo in panel that allows the paint color to show through the logo. Fronts for 16" x 10" deep drawers feature a precision-stamped, cut out Snap-on logo "S" in panel that allows the paint color to show through the logo. Fronts for 32" x 4" and 16" x 4" drawers do not have any logo. All drawer fronts are applied with double sided 3M 300LSE tape with flanges and bending tabs to hold them in place.

Brushed Stock No.	Polished Stock No.	Application
KADF50X4	KADFP50X4	50" drawers on all Classic Series Roll Cabs
KADF32X6	KADFP32X6	32" x 6" drawers on all Masters and Classic Series Roll Cabs
KADF32X4	KADFP32X4	32" x 4" drawers on all Masters and Classic Series Roll Cabs and Top Chests
KADF16X4	KADFP16X4	16" x 4" drawers on all Classic Series Roll Cabs and Top Chests
KADF16X10	KADFP16X10	16" x 10" deep drawers on all Masters and Classic Series Roll Cabs

Drawer Guards, "S", Magnetic

Brushed Stock No.	Polished Stock No.	Application
KADFMBS	KADFMPS	Magnetic Snap-on® "S" logo 10" x 6" fits narrow bottom drawers on all KRA & KRL Roll Cabs



Stainless Steel Corner Guards, Classic Series

Corner guards fit all Classic series roll cabs and top chests. Guards are available in brushed and polished stainless steel plus black and white powder coated steel. Corner guards are designed to cover the Classic series front edges vertically (top to bottom). Custom wrench-S stamped into top and bottom. Each corner guard is applied with double-sided 3M® 300LSE tape and has a flange on top and bending tabs on the bottom to securely hold them in place.



Brushed Stock No.	Polished Stock No.	White Stock No.	Black Stock No.	Application
KACG24RC	KACGP24RC	KACGW24RC	KACGB24RC	Classic Series Roll Cabs
KACG24TC	KACGP24TC	KACGW24TC	KACGB24TC	Classic Series Top Chests



WARNING

• Read safety precautions on pages 594 to 597

TOOL STORAGE ACCESSORIES

Customization



KAFP35X4



KAF35X8

Stainless Steel Drawer Fronts, Heritage Series

- Drawer front guards are available in brushed stainless steel and polished stainless steel (polished units contain "P" in part number)
- Each drawer and corner guard is applied with double-sided 3M[®] 300LSE tape and with flanges and/or bending tabs to hold them in place

Brushed Stock No.	Polished Stock No.	Application
KADF35X8	KADFP35X8	Fits all KRA4107, 2107, 2106, 5213, KRSC40 & KRSC41
KADF35X4	KADFP35X4	Fits all KRA4107, 2107, 2106, 5213, KRSC40 & KRSC41 (fits all 35" x 4" drawer fronts), also top chests KRA4114 & 2104
KADF22X8	KADFP22X8	Fits all KRA2007, 4008, 4813, 5319 and 2318
KADF12X11	KADFP12X11	Fits 12" deep, narrow drawers on all Heritage series

Carbon Fiber Drawer Fronts

Stock No.	Description
KADFC12X11	12" x 11" Heritage Drawer Front
KADFC16X10	16" x 10" Classic Drawer Front
KADFC16X4	16" x 4" Classic Drawer Front
KADFC22X8	22" x 8" Heritage Drawer Front
KADFC32X6	32" x 6" Classic Drawer Front
KADFC35X4	35" x 4" Classic Drawer Front
KADFC35X8	35" x 8" Heritage Drawer Front
KADFC50X4	50" x 4" Classic Drawer Front
KADFC50X5	50" x 5" Masters Drawer Front
KADFC50X6	50" x 6" Heritage 5311 Drawer Front
KADFC8X11	8" x 11" Drawer Front

Tool Storage Lighting



KEWLED4

LED Light Bars

- Automatic on/off: durable and strong contacts provide positive engagement
- Magnetic installation of the light bar and the power switch provides easy installation and maneuverability
- Create a lighting experience that outshines anything in the shop
- Top quality materials and construction
- Low energy use
- Best heat dissipation
- High output LED system uses application specific LED technology with a 3 year unlimited warranty

Stock No.	Useful Light Output (lumen)	LED Input Power (W)	System Input Power (W)	System Efficacy (lumen/W)
KEWLED2	540	6.6	8	67
KEWLED4	1,733	21.7	25.5	68
KEWLED5	2,080	26	30.6	68

KEWLED Series Bars fit: EPIQ Series KEWN Work Centers, KEHN Overheads, KELN Lockers (KEWLED2). Masters Series KRL7972 (KEWLED5), KRL7968 and KRL7954 (KEWLED4).



KACGPHRC



KACGHRC

Stainless Steel Corner Guards, Heritage Series

- Corner guards are available in brushed and polished stainless steel
- Corner guards are designed to cover top to bottom vertically
- Custom wrench-S machined into top and bottom
- Each corner guard is applied with double-sided 3M 300LSE tape and has a flange on top and bending tabs on the bottom to hold them in place

Brushed Stock No.	Polished Stock No.	Application
KACGHRC	KACGPHRC	Fits all Heritage roll cabs with rounded corners (2 sides included)
KACGHRC	KACGPHRC	Fits all Heritage top chests with rounded corners (2 sides included)
KAHK02	KAHKP02	4 piece brushed set of (2) roll cab corner guards, (1) 35" x 8" front and (1) 35" x 4" front



Wrench Wheel Cover Sets, Heritage Series

Stock No.	Description
KAWCR-6	Red, 6 pc
KAWCB-6	Black, 6 pc
KAWC-6	Chrome, 6 pc



KALEDBLUE



KALEDRD

LED Light Kits

The 13" LED strips are lightweight and can be attached to any surface using 2-way soft tape. LED strips can be connected in a straight line. Connecting the LED strips with the included short connector cord allows the 13" LED strips to be placed around corners or at different levels from each other. Each kit has a white 6-way terminal to allow up to 5 additional LED add-on kits. Kit includes (3) 13" LED strips, (2) short connector cords, (1) 6-way terminal and 2-way soft tape. The add-on kits contain (3) 13" LED strips, (2) short connector cords, (1) 6 foot cord and 2-way soft tape.

Stock No.	Color	Stock No.	Color
KALEWHITE	White	KALEWHITE-1	White add-on kit
KALEBLUE	Blue	KALEBLUE-1	Blue add-on kit
KALEGREEN	Green	KALEGREEN-1	Green add-on kit
KALEDRD	Red	KALEDRD-1	Red add-on kit

KEWLEDFLEXL Flexible Shaft LED Workstation Desklight. 18" shaft, magnetic base, rechargeable 2600mAL lithium-ion battery; 110V AC charger. Great for carts.

TOOL STORAGE ACCESSORIES

Decals

Logo and Racing Decals *(Background is not a part of decal.)*

Logo and racing decals show customers that you use the best while supporting Snap-on® racing programs.

Stock No.	Description	Size, inches	Suggested Tool Storage Unit Color	Logo Color	Racing Color	Checker Color
SS2751	Snap-on Logo Decal	46 x 9	—	White	—	—
SS2752	Snap-on Logo Decal	46 x 9	—	Black	—	—
SS2753	Snap-on Logo Decal	46 x 9	—	Silver	—	—
SS2809	Snap-on Logo Decal	46 x 9	—	Red	—	—
8-7562	Snap-on Logo Decal	22 19/32 x 4 5/16	—	White	—	—
SS2231	Snap-on Logo Decal	22 19/32 x 4 5/16	—	Silver	—	—
SS2232	Snap-on Logo Decal	22 19/32 x 4 5/16	—	Black	—	—
SS2808	Snap-on Logo Decal	22 19/32 x 4 5/16	—	Red	—	—
SS2201	Snap-on "S" Decal	13 x 8 1/2	—	White	—	—
SS2240	Snap-on "S" Decal	13 x 8 1/2	—	Black	—	—
SS2241	Snap-on "S" Decal	13 x 8 1/2	—	Silver	—	—
SS2810	Snap-on "S" Decal	13 x 8 1/2	—	Red	—	—
SS2440	Snap-on Racing® Decal (Small)	18 x 7	Black/Silver	Red	Blue	White
SS2441	Snap-on Racing Decal (Small)	18 x 7	Red/Green	White	Blue	Black
SS2442	Snap-on Racing Decal (Small)	18 x 7	Blue	White	Red	Grey
SS2443	Snap-on Racing Decal (Small)	18 x 7	Yellow/Orange	Black	Black	Black
SSX2432	Snap-on Racing Decal (Large)	46 1/4 x 18	Black/Silver	Red	Blue	White
SSX2433	Snap-on Racing Decal (Large)	46 1/4 x 18	Red/Green	White	Blue	Black
SSX2434	Snap-on Racing Decal (Large)	46 1/4 x 18	Blue	White	Red	Grey
SSX2435	Snap-on Racing Decal (Large)	46 1/4 x 18	Yellow/Orange	Black	Black	Black



8-7562



SS2201



SS2440



SS2441



SS2442



SS2443

Hand Tool Organization



A269A



A264A



63A5000



LSR3812A



LSR1406

Socket Rails and Clips

A265A Socket Rail. 7 3/8".
A267A Socket Rail. 13 3/8".
A269A Socket Rail. 10 3/8".
A270A Socket Rail. 16 3/4".
A264A Socket Rail Hold Down Clip. Mounts to drawer, tote tray or wall board. Snaps open to release socket rail. Package of 10.
A271A Socket Clip. 1/4" square drive. Package of 25.
A272A Socket Clip. 3/8" square drive. Package of 25.
A273A Socket Clip. 1/2" square drive. Package of 25.
A274C Socket Clip. 3/4" square drive. Package of 25.
63A5000 Hardware Clips Package. Assorted socket rail clips in bag. Fits Slots-N-Dots™ system (included with workstation risers).
A278 Mounting Clips. Package of 10. 5/16" to 3/4". Screws into 1/8" holes.
A279 Mounting Clips. Package of 10. 5/8" to 1 1/4". Screws into 1/8" holes.

Socket Rails (with Quick Release Locking Clips)

Push button, spring loaded clips provide for quick, easy release of socket even with greasy hands. Extruded aluminum socket rail for light weight and durability. Detent ball at bottom of clip permits clip to be easily positioned on rail. Rail also features laser engraved Snap-on logo.

Stock No.	Square Drive, inches	Clips	Rail Color	Overall Length, inches
LSR1406	1/4	6	Black	7 3/8
LSR1412	1/4	12	Black	10
LSR3812A	3/8	12	Black	12
LSR1213	1/2	13	Black	14

Magnetic Socket Rail

MSR1 Magnetic Socket Rail. Holds all drive sizes and types. Super strong neodymium-iron-boron magnets organize all drive size sockets at your fingertips. Magnetic force holds loaded rack to any flat ferrous surface such as under hood of car, side or top of tool box or bottom of tool drawer. Plastic coated rail helps prevent scratches to painted or polished surfaces. Vinyl handle grip for comfort. Overall length of 16". Length of magnet area is 10".



MSR1

Movable Peg Socket Rails

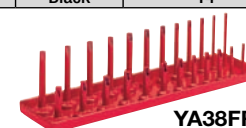
18" rails feature adjustable pegs to organize sockets. Pegs can be stacked for extra storage. Adhesive backed rail.
YA425B Socket Rail. 1/4" square drive (20 pegs).
YA438B Socket Rail. 3/8" square drive (18 pegs).
YA450B Socket Rail. 1/2" square drive (14 pegs).



YA438B

Socket Holders with Posts

All sockets are easily visible. Each post is marked for correct socket size. Sockets are easily removed with one hand. Use for hand, power and impact sockets. High impact plastic resists oil and grease. Socket must have a through hole. Some smaller Snap-on sockets manufactured before 1983 do not have through holes.



YA38FR

Stock No.	Color	Square Drive, inches	Stores Socket Sizes (deep and shallow)	Overall Dimensions, inches
YA12FR	Red	1/2	3/8" to 1 1/4" in 1/16" increments	18 x 4 x 3 3/4
YA12MET	Grey	1/2	10 to 27mm in 1mm increments	20 1/2 x 3 1/2 x 3 3/4
YA14FR	Red	1/4	1/8" to 5/8" in 1/16" increments	9 x 2 1/8 x 2 1/2
YA14MET	Grey	1/4	4 to 15mm in 1mm increments	9 x 2 1/8 x 2 1/2
YA38FR	Red	3/8	1/4" to 1" in 1/16" increments	11 3/4 x 3 x 3
YA38MET	Grey	3/8	6 to 20mm in 1mm increments	13 1/8 x 3 x 3



WARNING

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TOOL STORAGE ACCESSORIES

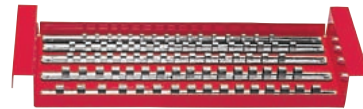
Hand Tool Organization



MR1426



MR3828BL



KTA500



A288A



A263A

Magnetic Socket Trays

Hold metric or fractional sockets in these molded ABS plastic trays. Handle for easy movement to job sites. For 1/4" drive sockets. 26 compartments. Storage for 13 standard, 13 deep sockets.

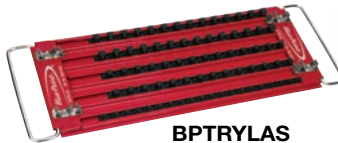
MR1426 Magnetic Socket Tray. Red.

MR1426BL. Black.

For 3/8" drive sockets. 28 compartments. Storage for 14 standard, 14 deep sockets.

MR3828 Magnetic Socket Tray. Red.

MR3828BL. Black.



BPTRYLAS



BPSSTRYLAS

Lock-A-Socket Trays

BPTRYLAS Lock-A-Socket Tray. Holds a variety of drive sizes on one tray. Tray measures 8 3/4" x 20". Sockets are locked by turning to the right 90°, unlocked by turning to the left 90°. 8 clips are included for ratchets and other attachments. Rubber pegs are located underneath for surface grip and protection. Swivel handles included for easy carrying. Manufactured from 16 gauge powder coated steel for extra strength. Lock-a-socket posts are available separately and are interchangeable for customization.

BPSSTRYLAS Lock-A-Socket Tray. Same features as BPTRYLAS, manufactured from 16 gauge stainless steel for extra strength.

MTSLAS50LP25 Lock-A-Socket Posts. 1/2" drive posts for BPTRYLAS. Pack of 25.

MTSLAS38LP25 Lock-A-Socket Posts. 3/8" drive posts for BPTRYLAS. Pack of 25.

MTSLAS25LP25 Lock-A-Socket Posts. 1/4" drive posts for BPTRYLAS. Pack of 25.



KMAGBIT37B



KMAGBIT37R

Magnetic Hex Bit Holders/Rubber Base

Magnetic base affixes to any ferrous metal without scratching surface. Bits will stay in holder even in upside down applications. Non-transferable magnetic material will not magnetize tools or damage onboard automotive computers or other related circuitry. Resists most shop chemicals. Rubber base won't mar finishes. Will hold 37 bits. Bits are not included.

KMAGBIT37B Magnetic Hex Bit Holder. Black.

KMAGBIT37O Magnetic Hex Bit Holder. Orange.

KMAGBIT37R Magnetic Hex Bit Holder. Red.

Multi-Row Socket Trays

Steel panel units have socket rails attached and a carrying handle.

A263A Socket Holder. Fits in top, below pallet. For square drive tools to 4" deep. Holds (4) 10 3/8" rows and (2) 3 1/2" rows of sockets. 5 row organizer measures 10 1/8" x 8 1/4" (U.S. Patent No. 5,284,245).

A286A Socket Holder. 7 row organizer measures 14 1/2" x 11 7/16" (U.S. Patent No. 5,284,245).

A288A Socket Holder. 10 row organizer measures 14 1/2" x 17 3/16". 2 handles (U.S. Patent No. 5,284,245).

KTA500 Multi-Row Socket Tray. Holds up to 80 sockets in 1/4", 3/8", and 1/2" drive sizes. Features 1 rail with (16) 1/4" drive clips, 2 rails with (16) 3/8" drive clips each and 2 rails with (16) 1/2" drive clips each. Aligns sockets for fast, easy selection. Use on roll carts and will fit into most roll cab/tool chest drawers. Overall length of 20". Tray length of 17 1/2" x 7 9/16" width x 2 1/2" depth. Made of heavy gauge steel.

YAURSET Socket Organizer. Accommodates up to 60 tools in 1/4", 3/8", and 1/2" drive sizes. Complete economical socket system organizes sockets in the tool box drawer or on peg board — individual rails lift out for easy portability. Includes ratchet extension storage.

YA38UR 3/8" Drive Socket Organizer. Holds 15 sockets. Economical socket organizer rail fully adjusts to fit a wide variety of socket configurations.

YAURCMH Horizontal Cart Mount Kit. Holds up to 30 sockets. Easily attaches to the side of mobile tool carts.

YAURCMV Vertical Cart Mount Kit. Holds up to 15 sockets or wrenches. Easily attaches to the side of mobile tool carts.



YA38HTD

Socket Driver Tray

YA38HTD Socket Driver Tray. Organizes the most commonly used 3/8" drive hex and TORX® socket drivers. Use only with chrome hand socket drivers. Sizes are clearly indicated on the holder. Stores fractional hex drivers in 1/8" to 3/8" range (1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16" and 3/8"), metric hex drivers in 4 to 10mm range (4, 5, 6, 7, 8, 9 and 10mm) and TORX® drivers from T27 to T60 sizes (T27, T30, T40, T45, T47, T50, T55 and T60). 3 open pockets for additional sockets. Overall dimensions of 9 1/4" x 3 5/16" x 1/16". Made of durable, lightweight ABS plastic.

TOOL STORAGE ACCESSORIES

Hand Tool Organization



KMAG14SD26B



KMAG38S12O



KMAG38D12R



KMAG38SD24B

Magnetic Socket Holders

Magnetic base affixes to any ferrous metal without scratching surface. Sockets will stay in holder even in upside down applications. Non-transferable magnetic material will not magnetize tools or damage onboard automotive computers or other related circuitry. Resists most shop chemicals. Rubber base won't mar finishes.

KMAG14SD26B Magnetic Socket Holder. Holds 13 shallow and 13 deep 1/4" drive sockets (1/4" thru 9/16" and 4 thru 14mm). Black.

KMAG14SD26O Magnetic Socket Holder. Holds 13 shallow and 13 deep 1/4" drive sockets (1/4" thru 9/16" and 4 thru 14mm). Orange.

KMAG14SD26R Magnetic Socket Holder. Holds 13 shallow and 13 deep 1/4" drive sockets (1/4" thru 9/16" and 4 thru 14mm). Red.

KMAG38S12B Magnetic Socket Holder. Holds 12 shallow 3/8" drive sockets (up to 1"). Black.

KMAG38S12O Magnetic Socket Holder. Holds 12 shallow 3/8" drive sockets (up to 1"). Orange.

KMAG38S12R Magnetic Socket Holder. Holds 12 shallow 3/8" drive sockets (up to 1"). Red.

KMAG38D12B Magnetic Socket Holder. Holds 12 deep 3/8" drive sockets (up to 1"). Black.

KMAG38D12O Magnetic Socket Holder. Holds 12 deep 3/8" drive sockets (up to 1"). Orange.

KMAG38D12R Magnetic Socket Holder. Holds 12 deep 3/8" drive sockets (up to 1"). Red.

KMAG38SD24B Magnetic Socket Holder. Holds 12 shallow and 12 deep 3/8" drive sockets (up to 1"). Black.

KMAG38SD24O Magnetic Socket Holder. Holds 12 shallow and 12 deep 3/8" drive sockets (up to 1"). Orange.

KMAG38SD24R Magnetic Socket Holder. Holds 12 shallow and 12 deep 3/8" drive sockets (up to 1"). Red.



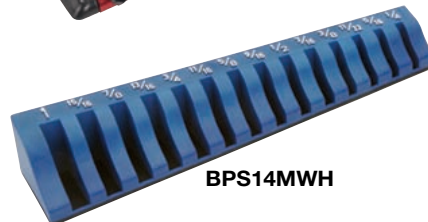
MAGRAK10



WRM10



WRM15-B



BPS14MWH



BPM14MWH

Magnetic Wrench Organizers

MAGRAK10 Magnetic Wrench Organizer. 10 angular slots provide storage for most wrenches. A ridge at the base prevents wrenches from contacting tool storage surfaces. Mount magnetically for instant wrench access. Black.

MAGRAK10R Magnetic Wrench Organizer. Red.

WRM10 Adjustable Wrench Organizer. Holds 10 wrenches. Adjusts to hold a variety of wrench sizes. Magnets secure individual wrenches to rack. Individual magnets hold each wrench securely at its center allowing easy one hand removal. Magnetic holders slide on aluminum rail to adjust wrench spacing. Base magnets secure the wrench rack to tool storage unit or other ferrous metal surfaces. Base is made of non-scratch, heavy duty anodized aluminum. Red.

WRM10-B Adjustable Wrench Organizer. Holds 10 wrenches. Blue.

WRM15 Adjustable Wrench Organizer. Holds 15 wrenches. Red.

WRM15-B Adjustable Wrench Organizer. Holds 15 wrenches. Blue.

BPS14MWH Magnetic Wrench Holder. Holds sizes 1/4" to 1" wrenches. Strong magnets secure wrenches in place during movement. Entire unit is magnetized to hold rack to drawer. Blue.

BPM14MWH Magnetic Wrench Holder. Same as BPS14MWH except it holds 8 to 21mm wrench sizes. Black.



WARNING

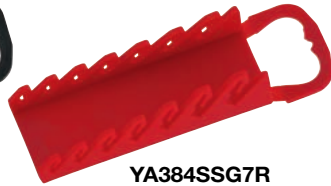
• Read safety precautions on pages 594 to 597

TOOL STORAGE ACCESSORIES

Hand Tool Organization



YA384SSG7B



YA384SSG7R



YA381SG12



YA389SG12

Soft Grip Stubby Wrench Racks

Easily stores and organizes wrenches. Fits all 2" deep drawers in Snap-on® tool storage units. Mounting holes align with the Slots-N-Dots™ system on Snap-on workstation riser units. Molded handle allows easy transport of loaded rack. Red and black color schemes allow user to easily differentiate fractional from metric sizes. Racks may be trimmed for use with smaller wrench sets. Flexible plastic material will not corrode or mar wrench finish.

YA384SSG7B Stubby Wrench Rack.

Holds 7 stubby wrenches. Black.

YA384SSG7R Stubby Wrench Rack.

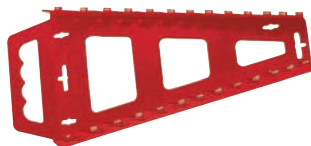
Holds 7 stubby wrenches. Red.

YA384SSG10B Stubby Wrench Rack.

Holds 10 stubby wrenches. Black.

YA384SSG10R Stubby Wrench Rack.

Holds 10 stubby wrenches. Red.



YA381FRA

Wrench Racks

Specifically designed to hold up to 13 Snap-on wrenches from 7 to 19mm sizes. Wrench size is clearly visible on rack. Fits 2" deep KRL drawers and most 2" deep KRA drawers. Retaining tabs for convenient vertical mounting or carrying.

YA381FRA Wrench Rack. Red, holds 1/4" to 1" sizes.

YA381MET Wrench Rack. Grey, holds 7 to 19mm sizes.



A277

Crowfoot Wrench Holder

A277 Crowfoot Holder. For 3/8" drive crowfoot wrenches. Conveniently organize and store your crowfoot wrenches on this holder. 2 pc. design snaps apart for access to desired size. 8 3/4" long.



YA207

Magnetic Nut Holder

YA207 Nut Holder. Flexible stainless steel body with pivoting magnetic head clips onto open end and box end wrenches. Holds nut on sizes 3/8" to 3/4" (10 to 19mm).

Soft Grip Wrench Racks

Design holds wrench securely yet provides quick and easy release. Easily stores and organizes wrenches. Fits all 2" deep drawers in Snap-on tool storage units. Mounting holes align with the Slots-N-Dots™ system on Snap-on workstation riser units. Molded handle allows easy transport of loaded rack. Red and grey color schemes allow user to easily differentiate fractional from metric sizes. Racks may be trimmed for use with smaller wrench sets. Flexible plastic material will not corrode or mar wrench finish. Available in standard and reverse styles for convenient side-by-side mounting in tool drawers (U.S. Patent 5,638,964 applies).

Standard configuration (Red):

YA381SG8 Soft Grip Wrench Organizer.

Holds up to 8 wrenches.

YA381SG12 Soft Grip Wrench Organizer.

Holds up to 12 wrenches.

YA381SG15 Soft Grip Wrench Organizer.

Holds up to 15 wrenches.

Reverse configuration (Grey):

YA389SG8 Soft Grip Wrench Organizer.

Holds up to 8 wrenches.

YA389SG12 Soft Grip Wrench Organizer.

Holds up to 12 wrenches.

YA389SG15 Soft Grip Wrench Organizer.

Holds up to 15 wrenches.



KRA15A

Wrench Organizers

Includes a pair of 24" long plastic organizers. Cut to desired length and attach to any drawer with foam backing.

KRA15A Wrench Organizer. For smaller wrenches.

KRA22A Wrench Organizer. For larger wrenches.



YAB381



YA389BL

Wrench Organizers

The wrench holding tabs on the YA389 series are the reverse of the YA381 series so two or more sets can be stored side by side with all wrenches facing forward. 6 1/4" x 2 1/2" x 9 1/2" long.

YA381 Wrench Organizer. Red, holds up to 12 wrenches.

YA381BL Wrench Organizer. Black, holds up to 12 wrenches.

YA389 Wrench Organizer. Red, holds up to 12 wrenches.

YA389BL Wrench Organizer. Black, holds up to 12 wrenches.

TOOL STORAGE ACCESSORIES

Hand Tool Organization



TCK1827BBR



TCK3627BUY

Tool Control Kits

Custom design and organize your tool drawers. Each kit contains 6-self adhesive sheets of top and base material, 1 cutting tool and 1 roll of tracing paper. Top is 1/2" thick, base is 1/8" thick.

Top is black, base is red.

TCK1827BBR Tool Control Kit. 18" x 27".

TCK3627BBR Tool Control Kit. 36" x 27".

TCK4020BBR Tool Control Kit. 40" x 20".

Top is blue, base is yellow.

TCK1827BUY Tool Control Kit. 18" x 27".

TCK3627BUY Tool Control Kit. 36" x 27".

TCK4020BUY Tool Control Kit. 40" x 20".

Drawer Liners/Adhesive Spray

JIKRL35F Drawer Liner. Foam drawer liner can be cut to size for lining drawers, roll cab tops, etc. 48" x 25" sheets. Pack of 10.

JIKRL35NS Drawer Liner. Non-slip drawer liner can be cut to size for lining drawers, roll cab tops, etc. 48" x 25" sheets. Pack of 10.

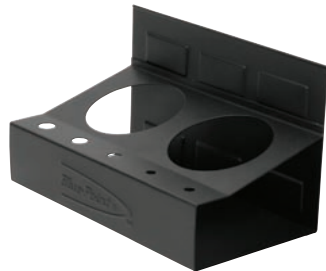
KRL1F Drawer Liner. 1/16" thick black polyethylene can be cut to size for lining drawers, roll cab tops, etc. 48" x 25" sheets (1 each)

AS6 Adhesive Spray. Ideal for securing KRL1 drawer liner.

12 oz. spray can. Also available in 6 pack containers (order 6).

Not included with sets.

Magnetic Accessories



BLP2CANHLDR



BLP3CANHLDR



BLPPTHDR



KACUPHOLDA

Magnetic Can / Bottle Holder

BLP2CANHLDR Magnetic Can/Screwdriver Holder. Ideal for use on side of tool box or service cart. Holds 2 spray cans and 5 screwdrivers. Spray can slot is 3" diameter. 6 powerful cushioned magnets resist surface scratching. Heavy gauge 0.80mm black powder coated steel construction. Weight: 1.92 lbs. Dimensions: 5"W x 8.5"L x 5.12"H.

BLP3CANHLDR Magnetic Can/Screwdriver Holder. Ideal for use on side of tool box or service cart. Holds 3 spray cans and 7 screwdrivers. Spray can slot is 3" diameter. Eight powerful cushioned magnets resist surface scratching. Heavy gauge 0.80mm black powder coated steel construction. Weight: 2.62 lbs. Dimensions: 5"W x 11.75"L x 5.12"H.

BLPPTHDR Magnetic Roll Towel Holder. Ideal for use on side of tool box or service cart. Holds roll of shop towels (set of 2 holders). Powerful cushioned magnet resists surface scratching. Heavy gauge 0.80mm black powder coated steel construction. Weight: 1.38 lbs. Dimensions: 4"W x 5 1/8"L x 3 1/4"H (each piece).

KACUPHOLDA Magnetic Adjustable Can/Bottle Holder. Magnetic adjustable can and bottle holder can be used with cleaners, lubricants, spray paint cans, beverages and more. Adjustable strap will fit oval or odd shaped bottles or cans from 2" to 3 5/8". Easily attaches to roll cabs, top chests, end cabs, carts or any other ferrous metal. Large 1 5/8" x 4 1/2" magnet grips securely. Minimum container height: 3 3/8". Available in red only.



KRSA30

Magnetic Tool Silhouettes

KRSA30 Magnetic Tool Silhouettes. (30) 1" x 1 1/2" magnetic tool silhouettes. Apply anywhere on tool storage unit to visually aid in tool organization. Magnetic: leaves no sticky adhesive.

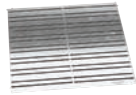


WARNING

• Read safety precautions on pages 594 to 597

TOOL STORAGE ACCESSORIES

Magnetic Accessories



KAMM1212



KAMM126



KAMM612



KAMM122



YA162



KAMR123



MRB5A



YA209



MRB10A



MRPB10MP5



MRB12A



MRB15A

Magnetic Trays and Dishes

MRB5A Magnetic Bowl. Round stainless steel dish features powerful mounting magnet. Securely holds small parts and tools. 5 3/8" ID.

MRB10A Magnetic Tray. Rectangular magnetic tray holds metal parts and small tools. Magnetically attaches to any flat iron or steel surface. Measures 9 1/2" x 5 1/2".

MRB12A Magnetic Tray. Rectangular magnetic tray holds metal parts and small tools. Magnetically attaches to any flat iron or steel surface. Features (3) 3 1/8" diameter magnets that are rubber coated to prevent scratching. Measures 6 5/16" x 14 7/32".

MRPB10MP5 Magnetic Dish (5 pack). Each tray measures 1 1/8" deep x 9 1/2" long x 5 1/2" wide. Molded plastic design coupled with rubber base helps prevent damage to vehicle finish. Fully magnetized to hold contents and adhere to ferrous surfaces. Use upside down or on the side of the vehicle. Each tray weighs 1.4 lbs. Package of 5 trays includes one tray each in the following high visibility colors: red, orange, green, yellow and blue.

MRB15A Magnetic Tool Tray. Keep tools or parts within easy reach with this magnetic tray. Stainless steel with 4 large rubber based magnets on the bottom to resist scratching. 11 5/8"L x 10 3/4"W x 1/2"D.

Magnetic Panels

Magnetic base attaches to riser, tool box, cart, creeper or any ferrous surface in seconds. Tools are easily positioned on the magnetic panel. Ideal for holding fasteners during removal and assembly operations. High strength magnets. Made from 16 gauge steel. 3/16" thick. Will not magnetize tools.

KAMM1212 Magnetic Panel. Measures 12" x 12".

KAMM126 Magnetic Panel. Measures 12" x 6".

KAMM612 Magnetic Panel. Measures 6" x 12".

KAMM122 Magnetic Panel. Measures 2" x 10 5/8".

Magnetic Bar Tool Holders

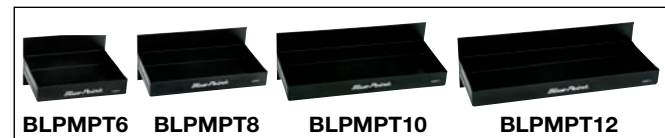
Magnet holds tools for easy access.

YA161 Magnetic Tool Bar Holder. Black finish, 24" long.

YA162 Magnetic Bar Tool Holder. Black finish, 13" long.

KAMR123 Magnetic Bar Tool Holder. Can magnetically mount to metal surface or can be screw mounted. Measures 2 1/4" wide x 11 3/4" long x 7/8" deep. Housing is black finish with chrome finished magnet plate.

YA209 Magnetic Bar Tool Holder. Chrome finish, 24" long.



BLPMPT6

BLPMPT8

BLPMPT10

BLPMPT12

BLPMPTSET

Magnetic Parts Trays. Tray attaches to a cart or box with full length magnets that cover the entire backside of tray. Holds nuts, bolts, sockets or a variety of other tools and hardware. Tray won't scratch paint and attaches to any flat metal surface. Corrosion resistant finish.

BLPMPT6 Magnetic Parts Tray. 6" long.

BLPMPT8 Magnetic Parts Tray. 8" long.

BLPMPT10 Magnetic Parts Tray. 10" long.

BLPMPT12 Magnetic Parts Tray. 12" long.

BLPMPTSET Set. 1 each of BLPMP6, BLPMP8, BLPMP10 and BLPMP12.



BPMST135

BPMST135 Storage Tray. Create additional workspace for your toolbox or roll cart. Strong magnetic panel inside tray holds a variety of metal objects like sockets, nuts, bolts, extensions and parts. Hangs easily on the side of a drawer or toolbox tray. Made of heavy duty powder coated steel. Measures 2" H x 2" D x 13-1/2" L.



KRDDMAG130

Flexible Magnetic Strip

KRDDMAG130 Flexible Magnetic Strip.

Magnetic, adhesive backed strip allows easy drawer divider attachment. 1" wide, 30' long.

TOOL STORAGE ACCESSORIES

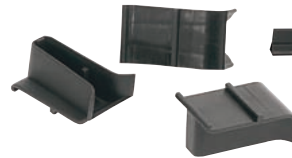
Drawer Organization



KDDU2



KDD2C-4



KDD4C-4



KDD54-6

Plastic Drawer Dividers/2" Drawer Height

- KDD52-6 Drawer Divider Rail.** 5" long. Pack of 6.
- KDD72-6 Drawer Divider Rail.** 7" long. Pack of 6.
- KDD122-6 Drawer Divider Rail.** 12" long. Pack of 6.
- KDD2-20 Drawer Divider Rail Clips.** Rail divider clips. Use to attach divider rails to perimeter rails or to other divider rails. Pack of 20.
- KDD2C-4 Perimeter Rail Corner Clips.** Perimeter rails and corner clips. Pack of 4.
- KDD2L-2 Drawer Divider Rail.** 35" long universal drawer divider rails. Can be cut to any length. Pack of 2.
- KDDU2 Drawer Divider Set.** Fits 1 drawer deeper than 1 1/2". Includes: perimeter rail set (4 pcs w/corner clips), 26" divider rails (3 each), 12" divider rails (3 each), 7" divider rails (3 each), 5" divider rails (3 each) and divider clips (14 each).
- KDDP2 Perimeter Rail Set.** 35" rails (4 each) and corner clips (4 each).

Stock No.	Drawer Style	Inside Drawer Dimensions, inches	Box Depth, inches
KDD402	KRA medium	1 19/32H x 21W x 17D	All KRA
KDD412	KRA wide	1 19/32H x 34 1/2W x 17D	All KRA
KDD702	KRL narrow	1 19/32H x 14 7/16W x 21 1/2D	24
KDD712	KRL narrow	1 19/32H x 14 7/16W x 26 1/2D	29
KDD722	KRL medium	1 19/32H x 30 3/16W x 21 1/2D	24
KDD732	KRL medium	1 19/32H x 30 3/16W x 26 1/2D	29

ALL SETS (except KDDU2) - Each set is designed to fit specific KRA and KRL drawers. Set includes 4 pre-cut perimeter rails that fit along the inside wall of drawers, 4 corner clips to attach perimeter rails to each other and an assortment of pre-cut adjustable divider rails and divider clips that match the size of the specified drawer. KDDU2 SET ONLY - Universal set that fits any Snap-on tool storage drawer. Rails can be cut to desired length.



KADDS2404
4" Drawer
KADDS2402
2" Drawer

Drawer Dividers, Steel

- Designed to be used in all KRL Masters Series (24" and 29" deep), Classic Series (24" deep) and KRA6200 Series road chests
- Simply place the side edges and front/back edges around the perimeter of the drawer and then locate middle dividers and divider tabs wherever they are needed (in 3", 5", 7", 10" and 15" width increments).
- Additional individual components for KRL1000 and KRL7000 Series (29" deep) available at www.snapon.com.
- KADDS2404 Drawer Divider Kit, 4".** Use on KRA2407, KRA2411, KRA2418, KRL722, KRL756 Series.
- KADDS2402 Drawer Divider Kit, 2".** Use on KRA2407, KRA2411, KRA2418, KRL722, KRL756, KRA6200 and KRA6210.

Plastic Drawer Dividers/4" Drawer Height

- KDD54-6 Drawer Divider Rail.** 5" long. Pack of 6.
- KDD74-6 Drawer Divider Rail.** 7" long. Pack of 6.
- KDD124-6 Drawer Divider Rail.** 12" long. Pack of 6.
- KDD4C-4 Perimeter Rail Corner Clips.** Perimeter rail corner clips. Pack of 4.
- KDD4-20 Drawer Divider Rail Clips.** Rail divider clips. Use to attach divider rails to perimeter rails or to other divider rails. Pack of 20.
- KDD4L-2 Drawer Divider Rail.** 35" long universal drawer divider rails. Can be cut to any length to fit any drawer storage need. Pack of 2.
- KDDU4 Drawer Divider Set.** Includes: perimeter rails that fit along the inside wall of drawers, 4 corner clips to attach perimeter rails to each other, and an assortment of adjustable divider rails and divider clips that fit any Snap-on tool storage drawer. All rails must be cut to desired length.
- KDDP4 Perimeter Rail Set.** 35" rails (4 each) and corner clips (4 each).

Stock No.	Drawer Style	Inside Drawer Dimensions, inches	Box Depth, inches
KDD404	KRA medium	3 19/32H x 21W x 17D	All KRA
KDD414	KRA wide	3 19/32H x 34 1/2W x 17D	All KRA
KDD704	KRL narrow	3 19/32H x 14 7/16W x 21 1/2D	24
KDD714	KRL narrow	3 19/32H x 14 7/16W x 26 1/2D	29
KDD724	KRL medium	3 19/32H x 30 3/16W x 21 1/2D	24
KDD734	KRL medium	3 19/32H x 30 3/16W x 26 1/2D	29

KDD404, KDD414, KDD704, KDD714, KDD724, KDD734 SETS ONLY - Each set includes four pre-cut perimeter rails that fit along the inside wall of drawers, four corner clips to attach perimeter rails to each other and an assortment of pre-cut adjustable divider rails and divider clips that match the size of the specified drawer. KDDU4 SET ONLY - Same as other sets except rails are not pre-cut. All rails must be cut to desired length. Fits any Snap-on tool storage drawer.



KRA17B

Plastic Drawer Dividers

- KRA17B Drawer Divider.** Partition drawers by cutting divider to desired length. Attach to drawer with foam backing. 24" long.
- KRA27B Drawer Divider.** Same as KRA17B. 31" long.

Plastic Parts Tray Drawer Inserts

- Lightweight but tough reinforced polymer construction. Each compartment has an area for labeling, if desired. Use in tool drawers or cart to organize fasteners, clips, etc. Fits into a 2" narrow drawer, such as on KRL722, KRA2411, KRA2418 models.
- SPP804-2 Parts Tray.** 35 compartments. 1 5/16" H x 14 9/16" W x 21 7/16" D.
- SPP804-1 Parts Tray.** 14 compartments. 1 5/16" H x 14 9/16" W x 21 7/16" D.



WARNING

• Read safety precautions on pages 594 to 597

TOOL STORAGE ACCESSORIES

Workcenter Accessories



Workcenter Accessories

Use these quality accessories to enhance the organization and storage capabilities of the KRL7000 workstation series. All accessories designed to work with the Slots-N-Dots™ mounting system.

Looped Tool Organizer. Loops hold screwdrivers, extensions, ratchets, pliers and other small hand tools.

YA3086A 6" long.

YA3089A 9" long.

YA3123A 12" long.

YA3182A 17 1/2" long.

KAT12PV Spray Can Rack (12"). Holds 3 to 4 spray cans. 12" long.

KAT18PV Spray Can Rack (18"). Holds 5 to 6 spray cans. 18" long.

KASR12PV Screwdriver Rack. Holds up to 7 screwdrivers or other tools. 12" long.

KALR12PV Literature Bin. Stores manuals, magazines, papers and other printed materials. 12" deep.

KAHR12PV Hammer Rack. Holds 3 hammers. 2 racks mounted end-to-end will hold 7 hammers total. Each rack is 12" long.

KAS12PWRPV Power Tool Rack. Holds 3 units. Fits all slotted walls found on carts and workstation.

KAMS18PV Shop Manual Stand. Shop manual stand with page holder. 18" wide.

KAS12PV Flat Utility Shelf. 12" wide shelf for miscellaneous items.

KAFL48 Workstation Light. Light fits the KRL7972 and KRL7954 series of personal workcenter risers. Light turns on when door opens and off when the door is closed.

KAFL148 Task Light. Screw mounts under the top riser/shelf of workstation. Uses standard 40 Watt fluorescent bulb (not included) and 6' cord.

ECU4250 (120VAC) 15 Watt Fluorescent. Resists grease, oil and vapors. Not immersible. Plug in ballast, light reflectors, hanging hook, and 3 conductor extension cord included. Floating, molded nylon sockets absorb shock for longer bulb life. UL/CUL Listed.

ECU44255A Magnetic Utility Light Clamp. Features an expandable clamp on a magnetic base. Can be used with any of our fluorescent utility lights (except ECU410).

ECU48181 One piece 23" Magnetic Light. 17" tube (blue).

ECU48182 One piece 23" Magnetic Light. 17" tube (red).

ECU48183 One piece 23" Magnetic Light.

17" tube (green).

ECU48201 Two piece 23" Magnetic Light.

(2) 17" tubes (blue).

ECU48202 Two piece 23" Magnetic Light.

(2) 17" tubes (red).

ECU48203 Two piece 23" Magnetic Light.

(2) 17" tubes (green).

KTA8PV Tote Tray. Drops in any 14" wide (4" deep) drawers on KRL1000 and KRL700 series tool storage units. 4 non-skid rubber feet protect finished surfaces from scratching. Raised lips hold tray securely in drawer. Tubular pull up handle lifts 1 3/4". Measures 10" W x 14 13/16" L x 3 13/16" H with handle down. Black textured finish.

KAPS4 Power Strip. Use in lockers or mount on carts. 4 outlets.

KAPR24PV Prybar Rack. Holds prybars up to 48". Mounts to all EPIQ, Masters, Classic and KRSC100 series. Black textured finish.

Shelves, Trays and Racks

KRA412D Folding Shelf. Fits all KRA tool storage units. Bracket slips over raised lip of roll cab. Shelf is hinged to bracket, which has drilled mounting holes. Full length piano hinge. Folds down when not in use. 18 1/4" x 18" x 1/4" rim. Red.

KRA412DPC Folding Shelf. Same as KRA412D except black.

KRA412DPCM Folding Shelf. Same as KRA412D except blue.

KRA412DPJK Folding Shelf. Same as KRA412D except electric orange.

JKRR412AR Rubber Mat. Fits KRA412D folding shelf.

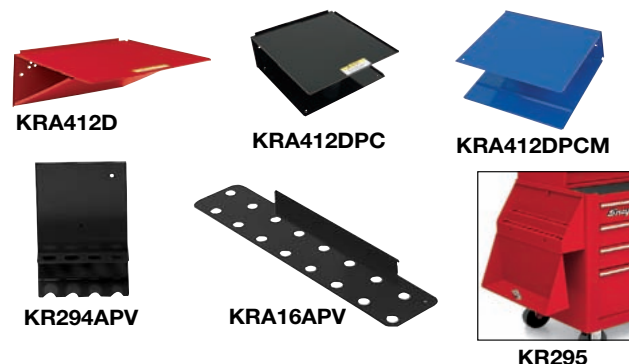
KRA16APV Valve Rack. (16) 11/16" holes provide easy access to valves. Hang on roll cab or tool chest with 1/4" or more lip. This handy unit hooks over the lip of any Snap-on® roll cab. Black textured finish.

KR294APV Prybar Rack. Hang up to 4 prybars or long tools with handles. Notched angle plate keeps tools from shifting. Suspend from roll cab or tool chest with 1/4" or more lip. Black textured finish. Requires pad lock for security.

KAPR24PV Prybar Rack. Prybar rack for use on KRSC100 and KRSC101 series mobile workstations. Black textured finish.

KR295 End Cab. End cabs offers 28 holes in various diameters for safe and secure storage of prybars and other long tools. Hole specifications; 8 holes (5/8"), 10 holes (3/4"), 4 holes (7/8"), 4 holes (1"), and 2 holes (1 1/4").

KR295PV End Cab. Same as KR295, black textured finish.



TOOL STORAGE ACCESSORIES

Shelves, Trays and Racks



KR14



KRJC23APV



KRA19



KA41X36



1003X36PV

Tools shown not included

KR14 Screwdriver Rack. Keeps frequently used screwdrivers accessible.

KRJC23APV Creeper Hanger. Secures creepers to roll cabs. Hanger hooks over lip of roll cab and screws down. Adjustable to 4 different creeper widths. 2 hook bolts and a lock rod are included so creeper can be padlocked (not included) (U.S. Patent 5,407,170). 16 13/16" length. Black textured finish.

KRA19 Hang-on Parts Tray. Organize small parts or spray cans. Hang on roll cabs or tool chest with 1/4" or more lip. Also for use in drawers as storage trays. Measures 15" x 3" x 2 1/4".

KRA20 Hang-on Parts Tray. Same as KRA19, measures 25" x 3" x 2 1/4".

Sliding Trays. Provide additional work or storage surface. **KA41X36 Sliding Tray.** Maximize your 36" drawer space. Fits all Heritage and KRSC series 36" drawers.

KA41X36-6 Tray Divider Set. Set includes 6 additional dividers for the KA41X36 sliding tray.

KA31X36 Sliding Tray. Maximize your 31" drawer space. Fits Masters and Classic series.

761XL36PV Sliding Tray. Fits KRL761A, KRL100A1 and KRL1003A. Measures 29 7/8" W x 6" D x 1 1/8" H.

1001XL36PV Sliding Tray. Fits KRL761A, KRL1001A and KRL1003A. Measures 14 1/8" W x 6" D x 1 1/8" H.

1003X36PV Sliding Tray. Fits KR761, KR1001 and KR1003. Measures 14 5/8" W x 6" D x 1 1/8" H.

3800K0800R Sliding Tray. Provides a flat work surface on top of storage unit drawer. Fits 22" wide KRA drawers.

Locking Bars/Padlocks



KRBL4



ML1A



ML3A



ML7A



ML1504DA

Locking Bars

Serve as a secondary locking system when ultimate protection is called for. Padlock must be purchased separately. Hardware included.

KRBL2 Lock Bar. 32" long. For use on KRL722, KRA2411, KRA2418.

KRBL4 Lock Bar. 36 13/32". For use on KRL1022 and KRL1023.

KRABL2 Lock Bar. 32" long. For use on all KRA Series Roll Cabs except KRA2400 series.

Padlocks

Master padlocks. Brass cylinders, nickel/silver pin tumblers and brass locking levers for maximum locking protection.

ML1A Padlock. 1 3/4" steel case, 5/16" diameter.

ML3A Padlock. 1 1/2" steel case, 9/32" diameter.

ML7A Padlock. 1 1/4" steel case, 3/16" diameter.

ML1504DA Combination Padlock. Case hardened 9/32" steel shackle offers protection against cutting and sawing. Secure 3 digit combination. Automatic locking lever.

Miscellaneous Accessories



TB10A



TB20A



CTTOTEA



BPTOTE

Tote Bags

Rugged, versatile tote bags are constructed from heavy duty 600 x 300D polyester. Water resistant PVC backing. Reinforced top hem. Wide top opening for easy access. Padded handles and shoulder strap. Embroidered logos.

TB10A Collapsible Tote Bag. Folds flat for convenient storage using Velcro® with metal snap corner closures. Multiple interior and exterior pockets. Fold down interior bin dividers. Molded plastic bottom for strength. Overall dimensions: 18" x 8" x 9".

TB20A Tote Bag. Multiple interior and exterior pockets. Removable plastic parts storage bin accessed via lower side storage pocket. Overall dimensions: 15" x 10.5" x 12".

CTTOTEA Tote Bag. Wide opening for easy access to tools. Extra padding to protect tools. Durable 600 Denier outside for strength. Interior pockets and compartments for tool organization. Padded handles for comfortable transport. Reinforced bottom for strength. Six external pockets for extra storage. Approximate inside bag dimensions, open: 18"L x 8"W x 11.5"D. EU - GB.

BPTOTE Tote Bag. Rugged and versatile. Constructed from heavy duty 600 x 300D polyester. Water resistant. Embroidered Blue-Point® logo. Wide top opening for easy access. Multiple interior and external pockets for tool organization. Overall dimensions: 16 1/2"L x 10 1/2"W x 12 1/4"H.



WARNING

• Read safety precautions on pages 594 to 597

TOOL STORAGE ACCESSORIES

Miscellaneous



KASS13

Step Stool

KASS13 Step Stool/Seat. Versatile step stool, seat and storage unit all in one. Holds up to 305 lbs. and has non-skid rubber grommets for stability. Large interior storage capacity with built in tote tray. Has a handle for mobility that folds flat when used as a stool. 13" H x 22" W x 15" D.



KRA444A

Accessory Box

KRA444A Accessory Box. Lockable box mounts inside roll cab or tool chest for protection of valuables. 8 1/4" x 4 3/4" x 1 1/4". Requires 2" minimum drawer depth.

KRA444APV Accessory Box. Same as KRA444A with black textured finish.

Floor Lock Kits

For roll cabs that require better roll cab immobilization.

KRFL6A Adjustable Floor Lock Kit. For KRL Masters series. 29" deep, 54" wide and larger.



KRFL6A

Leather Tool Pouches

YA869 Leather Tool Sheath.

One pocket sheath attaches to any work belt. 8 1/2" x 2".



YA869

Keychain

GA155A Keychain. Spring retractable, 24" chain. Clips onto belt or pocket.



GA155A

Floor and Kneeling Mats



JKAFM3672DP

Anti Fatigue Diamond Plate Floor Mats

Skid resistant chrome diamond plate mat surface. Flexible anti fatigue material with extra padding. Durable, easy to clean and damage resistant.

	Stock No.	Size, inches
Diamond Plate Anti-Fatigue Floor Mat	JKAFM3636DP	36 x 36
	JKAFM3648DP	36 x 48
	JKAFM3654DP	36 x 54
	JKAFM3660DP	36 x 60
	JKAFM3672DP	36 x 72
	JKAFM36102DP	36 x 102
	JKAFM36120DP	36 x 120



JKAFM2436BK



JKAFM2448BR

Cushioned Floor Mats

Exceptional anti-fatigue properties. Eases lower back stress and leg and foot discomforts from prolonged standing on hard surfaces. Under padding hugs the smoothest floor surfaces to prevent mat slippage. Skid resistant diamond plate mat surface provides sure footing. Mat resists most shop chemicals. Graphics are inlaid PVC for greater wear resistance.

	Stock No.	Size, inches
Black Mat with Red Snap-on® logo	JKAFM2436BK	24 x 36
	JKAFM2448BK	24 x 48
	JKAFM2460BK	24 x 60
	JKAFM2472BK	24 x 72
	JKAFM3636BK	36 x 36
	JKAFM3648BK	36 x 48
	JKAFM3660BK	36 x 60
	JKAFM3672BK	36 x 72
Black Mat with Red Border/Red Snap-on logo	JKAFM2436BR	24 x 36
	JKAFM2448BR	24 x 48
	JKAFM2460BR	24 x 60
	JKAFM2472BR	24 x 72
	JKAFM3636BR	36 x 36
	JKAFM3648BR	36 x 48
	JKAFM3660BR	36 x 60
	JKAFM3672BR	36 x 72

Kneeling Mats

MAT19PK Kneeling Mat. Kneeling mat is constructed from 3 layers of high density foam for comfort. Black with Snap-on logo. Handle for ease of carrying. Pack of 5. For individual mat, please see your Snap-on franchisee.

MAT13PK Kneeling Mat. Cushioned floor mat can help reduce fatigue, protect clothing and increase comfort. Multi-layered closed foam construction is durable and tear resistant. Resistant to most shop chemicals. Measures 8 1/2" x 13" x 1 1/8" thick. Pack of 5. For individual mat, please see your Snap-on franchisee.

MAT38PK Kneeling Mat. Cushioned creeper mat can be used on a creeper or on the floor. Multi-layered foam construction is durable and tear resistant. Resistant to most shop chemicals. Measures 15 3/4" x 38 1/2" x 1 1/8" thick. Pack of 5. For individual mat, please see your Snap-on franchisee.



MAT13PK

TOOL STORAGE ACCESSORIES

Drawer Maintenance



Detent Kits

Detent kits for ball bearing slides. Kits include standard detents for normal use or firmer retrofit detents to help prevent unlocked drawers from inadvertently rolling open.

- 8-88CWRK Detent Kit.** 2 pair of wide detents. Grey pair for increased stiffness. Off-white pair for standard stiffness.
- 8-88HBRK Detent Kit.** A pair of heavy duty standard cabinet member bumper kits for use with latch (black).
- 8-88HDRK Detent Kit.** A pair of heavy duty cabinet member detent kits for use without latch (grey).
- 8-88HSRK Detent Kit.** A pair of heavy duty intermediate member sequencing detent kits for use with/without latch (black).
- 8-88ANRK Detent Kit.** A pair of narrow, firm stiffness detent kits for drawers without latch (grey).
- 8-88RRK Detent Kit.** A pair of firm stiffness detent kits for over under slide used on KR Series Units (grey).
- 8-88ASNRK Detent Kit.** A pair of narrow, standard stiffness detent kits for drawers without latch (black) .
- 8-88SWRK Detent Kit.** A pair of wide, standard stiffness detent kits (black).
- 8-88WRK Detent Kit.** A pair of wide, firm stiffness detent kits (grey).

Drawer Latches

- 10-185B Lock 'n Roll Latch (Narrow Bank).** Drawer latch for narrow bank drawers on KRL700/KRL1000/KRL7000 series tool storage units.
- 10-285B Lock 'n Roll Latch (Wide Bank).** Drawer latch for wide bank drawers on KRL700/KRL1000/KRL7000 series tool storage units and KRA4000 series 40" wide drawers.
- 10-385B Lock 'n Roll Latch (Extra Wide Bank).** Drawer latch for extra wide bank drawers on KRL700/KRL1000/KRL7000 series tool storage units.
- 10-485B Lock 'n Roll Latch (Narrow Bank).** Drawer latch for narrow bank drawers on KRA4000 series tool storage units.
- 10-885B Lock 'n Roll Drawer Latch (Wide).** Drawer latch for narrow bank drawers on KRA4000 series 26" wide and wide bank of 40" wide units.
- 10-01085A Lock 'n Roll Drawer Latch (Super Wide).** Drawer latch for wide bank drawers on KRL1032B(C) and KRL1033(A) roll cabs.



Ball Bearing Drawer Slides

- 8-05088ALRS Drawer Slide Set.** Left/right slide kit with screws. For KRL700 series tool storage units.
- 8-05188ALRS Ball Bearing Slide Set.** Left/right slide kit for KRA2411, KRA2418, KRA2407, KRA2432, KRA2496 storage units.
- 8-05288ALRS Ball Bearing Slide Set.** Left/right slide kit with screws. For all narrow and wide drawers in KRA2000/KRA4000/ KRA5000 series units and KRSC40 series carts.
- 8-05388ALRS Drawer Slide Set.** Left/right slide kit with screws. For KRL1000/KRL7000 series tool storage units.
- 8-05588AS Ball Bearing Slide Set.** Includes two slides and screws. For KRL1012/KRL7012 lockers and KRL1015/KRL7015/ KRLV7015 end cabs.
- 8-05488AS Ball Bearing Slide Set.** Includes 2 slides and screws. For KRL712A lockers and KRL7015A end cabs.

KRL Series Drawer Control (Special Order)

Available for new KRL series roll cabs and top chests. Drawer control permits only 1 drawer per bank to be opened at a time, reducing the chance of the unit tipping. Existing units cannot be retrofitted. Special order.

Retrofit Drawer Latch Kits

Helps prevent drawers from drifting open on units without the exclusive Lock'n Roll drawer feature.

- LATCHKRC-04** For KR7100 Series.
- LATCHKRC-05** For KR290, KR1010.
- LATCHKRC-10** For KR655.
- LATCHKRC-11** For KR657, KR657B.
- LATCHKRC-12** For KR292.
- LATCHKTC-01** For KR670, KR1100.
- LATCHKTC-02** For KR680.
- LATCHKTC-03** For KR650.
- LATCHKTC-04** For KR1200.
- LATCHKTC-05** For KR690.
- LATCHKRC-01** For KR660, KR1000.

Tool Storage Unit Maintenance

Touch-up Paint

Color	1/2 oz. Bottle Stock No.	12 oz. Spray Can Stock No.	PPG® Power No.	PPG Ditzler Wet Spray No.
Red	PN283408	REP12A	AR320 Resin	73504
Black (High Gloss)	PN2-84208	PN12-84208	PCU-90200	9895 (9300)
Black (Textured)	PN2-84908	PN12-86908	PCU-90106	9817
Royal Blue	PN2-86308	PN12-86308	PCU-50134	19026
Cranberry	PN2-84508	PN12-84508	PCU-60139	51797
Ultra Yellow	PN2-87808	PN12-87808	PCU-30115	84199
Green Mica	PN2-86708	PN12-86708	PCU-43100	47767
Deep Purple	PN2-87408	PN12-87408	PCU-60122	52560
Candy Apple Red	PN2-809508A	PN12-809508A	PCU-60137	902979
Electric Orange	PN2-809908A	PN12-809908A	PCU-30132	90621
Arctic Silver	PN2-810208A	PN12-810208A	PCU-73120	910517
Extreme Green	PN2-809808	PN12-809808	PCU-40134	906120
Tractor Green	PN2-85308	PN12-85308	PCU-40400	47403
White	PN2-85208	PN12-85208	PCU-80103	91207
Midnight Blue	PN2-87308	PN12-87308	PCU-50117	191009
Flat Black	PN2-811308A	PN12-811308A	PCUP-90105	—



REP12A

PN12-86308

PN2-86308



WARNING

• Read safety precautions on pages 594 to 597

TOOL STORAGE ACCESSORIES

Tool Storage Unit Maintenance



Casters

Replacement casters for Snap-on® Tool Storage Roll Cabs.

Stock No.	Description	Capacity, lb	Size, inches	Material	Application
8-12039	Extra Heavy Duty, Spring Loaded (Swivel)	1,500	6 x 2	GLA/NYL	KRL1023, KRL1024, KRL1032, KRL1043, KRL1053, KRL1065, KRL7023, KRL7065
8-12139	Extra Heavy Duty, Spring Loaded (Rigid)	1,500	6 x 2	GLA/NYL	
8-10639A	Extra Heavy Duty, Spring Loaded (Swivel)	1,200	6 x 2	GLA/NYL	KRL1022, KRL7022
8-10739	Extra Heavy Duty, Spring Loaded (Rigid)	1,200	6 x 2	GLA/NYL	
8-20739	Heavy Duty (Swivel)	900	6 x 2	GLA-NYL	KRL1056A, KRL722, KRL756A
8-20839	Heavy Duty (Rigid)	900	6 x 2	GLA-NYL	
8-26939A	Extra Heavy Duty, ISO-Ride (Swivel)	1,700	6 x 2	GLA-Polymer	KRL1022A, KRL1033, KRL1024A, KRL1023A, KRL1043A, KRL1053A, KRL1065A, KRL7022A, KRL7023A, KRL7065A
8-27039A	Extra Heavy Duty, ISO-Ride (Rigid)	1,700	6 x 2	GLA-Polymer	
8-26939A-SL	Pivot Lock for 8-26939A Caster	-	-	-	
8-27980A	Heavy Duty (Rigid)	900	6 x 2	GLA-Polymer	KRL1056B, KRL722A, KRL756B
8-28039A	Heavy Duty (Swivel)	900	6 x 2	GLA-Polymer	
8-28139A	Medium Duty (Swivel)	600	6 x 2	Monoprene (Soft)	KRA2407, KRA2411, KRA2418, KRA2432, KRA4107D, KRA4813D, KRA5213D, KRA5214, KRA5319D, KRSC40A, KRSC41
8-28239A	Medium Duty (Rigid)	600	6 x 2	Monoprene (Soft)	
8-26139A	Medium Duty (Swivel)	330	5 x 2	Cast Iron w/Rubber	KRA2106A, KRA2107A, KRA2212, KRA2306, KRA2312, KRA4008E, KRSC31, KRSC40, KRA2005, KRA2007 (Replace all 4)
8-26439A	Medium Duty (Rigid)	330	5 x 2	Cast Iron w/Rubber	
8-30539AR	EPIQ Caster, Swivel with Pivot Lock	2,000	7 x 2	GLA/NYL	KERP763B, KERP843B, KERP762B, KERP842B, KERN842B, KERN843B, KERN602B, KERN682B
8-21839A	Donut Aluminum Hub Kingpinless (Swivel)	500	6 x 2	Aluminum w/Rubber	KRL756B, Classic, Heritage
8-21939A	Donut Aluminum Hub (Rigid)	500	6 x 2	Aluminum w/Rubber	KRL756B, Classic, Heritage
8-30439AR	Heavy Duty Swivel with Rigid Lock	900	8 x 2	Steel w/Polymer	KRSC100, KRSC40, KRSC41, KRSC46
8-31039A	Donut Aluminum Hub Standard (Swivel)	500	6 x 2	Aluminum w/Rubber	KRSC10, also fits Classic and Heritage
8-31139A	Soft Wheel, Black Horn (Rigid)	600	6 x 2	Monoprene (Soft)	Classic, Heritage, KRSC carts
8-31239A	Soft Wheel, Black Horn (Swivel)	600	6 x 2	Monoprene (Soft)	Classic, Heritage, KRSC carts

Heavy Duty Brass Replacement Locks

- Can be used to replace all Snap-on round key (K-Series) locks
- Replace standard locks subject to abnormal usage, exposure to shop fluids or extreme temperature and humidity fluctuations
- Ideal for multi-shift/user situations
- Hard brass cylinder plug for a longer life cycle
- Highly finished brass cylinder plug for smoother operation
- More secure retention in the tool storage unit
- Tested to operate smoothly over 25,000 cycles
- 200 different cylinder plugs available as replacement items

K1HLA 1 lock assembly with 2 keys.

K2HLA 2 keyed alike lock assemblies with 2 keys.

K3HLA 3 keyed alike lock assemblies with 2 keys.

K4HLA 4 keyed alike lock assemblies with 2 keys.

K5HLA 5 keyed alike lock assemblies with 2 keys.

K6HLA 6 keyed alike lock assemblies with 2 keys.

K7HLA 7 keyed alike lock assemblies with 2 keys.



K1LA

Tubular Lock Assemblies

High security tubular tool storage locks with rotating collars are harder to pick and are more resistant to vandalism. Key alike any number of Snap-on tool storage units. Older units can be converted to this new style lock. Each lock has an individual combination. Lock kits include mounting nut and lock washer.

K1LA 1 lock assembly with 2 keys.

K2LA 2 keyed alike lock assemblies with 2 keys.

K3LA 3 keyed alike lock assemblies with 2 keys.

K4LA 4 keyed alike lock assemblies with 2 keys.

K5LA 5 keyed alike lock assemblies with 2 keys.

K6LA 6 keyed alike lock assemblies with 2 keys.

K7LA 7 keyed alike lock assemblies with 2 keys.

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DIAGNOSTICS

YOU NEED ANSWERS. WE HAVE THEM.

Snap-on® diagnostic tools help you quickly get to the heart of complex problems.

Platforms

From scan tools and oscilloscopes to multifunction tools that help you manage the job and your business, Snap-on is a proud leader in the field of diagnostic tools.

- Scan tools—ETHOS® offers advanced scanning while the SOLUS PRO™ also includes an onboard Troubleshooter.
- Oscilloscope—Vantage PRO™ captures over 8 million data samples per second for pinpoint component testing.
- Multifunction tools—MODIS™ offers both scope and scanning capabilities, while VERUS® combines those functions with Wi-Fi and Windows® XP multitasking.



Software And Accessories

Once you have the right diagnostic tool, the next step is getting the most out of it with the right software and accessories.

- **Software upgrades**—Snap-on® offers regularly scheduled software upgrades with up-to-date information on today's vehicles.
- **European software**—Get the in-depth scanner information that is critical for servicing European makes.
- **Accessories**—From adaptors to cases to advanced fuel and electrical system tools, our comprehensive line of accessories will help you get the most out of your diagnostic tool.

ShopKey® And Ask-α-Tech

Your job doesn't end when you buy a diagnostic tool, and neither does ours. That's why we offer unparalleled support technology to help you get through the most complex problems.

- **ShopKey**—Subscribe to the most up-to-date database of repair information, TSBs and full-color wiring diagrams available online.
- **Ask-a-Tech**—Access the combined knowledge of the global technician community with this online forum.
- **Training Solutions®**—Get free training 24/7 online on any of our diagnostic platforms at: diagnostics.snapon.com/trainingsolutions



DIAGNOSTICS

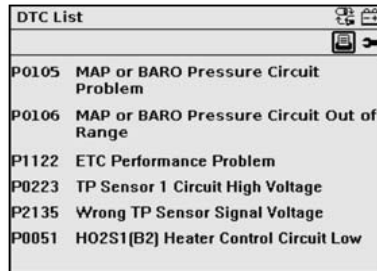
ETHOS® Scan Tool



EESC312 ETHOS gives VIN-specific coverage that goes way beyond generic. First time users will love it for its straightforward operation, complete trouble code definitions and attractive price. Veteran users will love it for its lightning fast boot-up and ability to quickly read and clear codes and graph live data.



VIN-specific codes and live data graphing for major vehicle systems.



Read and clear OEM-proprietary and generic codes in just seconds with easy operation and simple code definitions.



Switch between English and Spanish on the fly. Easy Y/N navigation saves time.

Features:

- 4.7" backlit monochrome display
- Fast 4 second boot up
- Easy year/make/model selection
- Bilingual (English and Español)
- Quick-release protective display shield
- Graphs 4 live data parameters; or 9 parameters in digital mode
- User-selectable hotkey for instant access to frequently used function
- Plug & play USB printing

Includes:

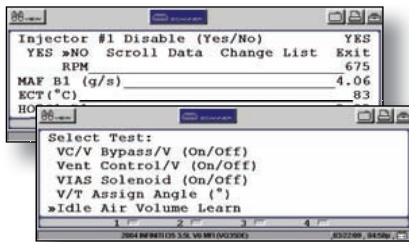
- Store codes, screenshots, and up to 230 frame movies for all data parameters
- Save and recall 20 previous vehicles
- 1983-later VIN-specific codes and data for 33 Domestic and Asian makes*
- Deep coverage for dozens of systems: engine, transmission, hybrid control, transfer case, ABS, airbag, body, HVAC, instruments, TPMS, anti theft, and more
- Optional software for Audi, BMW, Mercedes, MINI and Volkswagen

- VIN-specific US and Asian Software
- US and Asian adaptor set, 1996-current
- Hands-on training video and user guide
- AC and DC power adaptors
- USB cable for PC connection
- (6) AA batteries

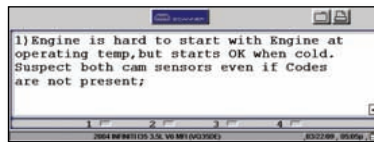
*Some pre-1996 applications require optional adaptors



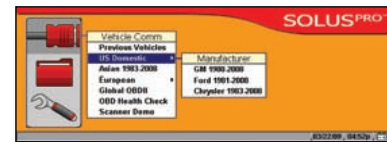
EESC316 SOLUS PRO - The tool for troubleshooting complex problems with the full range of scan tool functions. SOLUS PRO provides VIN-specific coverage for over 30 Domestic and Asian makes. Fast-Track® Troubleshooter offers over a million troubleshooting tips and timesavers. SOLUS PRO provides powerful adaptation and relearn functions required by many of today's vehicles. See results and confirm repairs with a full range of functional tests and bi-directional controls.



Bi-directional controls and functional tests allow activation of vehicle systems and components for confident diagnosis and repair validation.



Fast-Track Troubleshooter makes it easy to identify the source of the problem with experience-based code tips, normal data values, symptom tips and timesavers.



Intuitive interface and Windows® CE operating system make SOLUS PRO easy to use from the first time it is picked up.

Features:

- Large 6.2" backlit color display is easy to read in light or dark
- Fast 10 second boot up
- Intuitive navigation with genuine Windows CE operating system
- Removable high-power Ni-MH battery
- Custom data lists, freeze frame, PID sorting, pause, zoom, PID trigger, snapshot and cursor functions
- Record and save movies—buffer captures 2,000 frames of data
- Detailed trouble code definitions, live data readings, functional tests, and relearns/adaptations
- Graph up to 4 live data parameters or view up to 12 in digital mode

- Programmable hotkey for instant access to frequently used functions
- Bi-directional controls for operations such as injector balance, gauge sweep, misfire detection, brake bleed and EVAP tests
- USB ports for PC connectivity, printers, keyboard, and jump drives
- Fast-Track troubleshooter for US and Asian vehicles includes test procedures and code & symptom tips
- Domestic vehicle communications for models from 1980 and later*
- Asian vehicle communications for models from 1983 and later*
- Optional software for Audi, BMW, Mercedes, MINI and VW

Includes:

- VIN-specific US and Asian Software
- US and Asian adaptor set, 1996-current
- Hands-on training video and user guide
- Protective carrying case
- Rechargeable Ni-MH Battery Pack
- Battery charging station
- AC power adaptor
- PC USB cable

*Some pre-1996 applications require optional adaptors.



WARNING



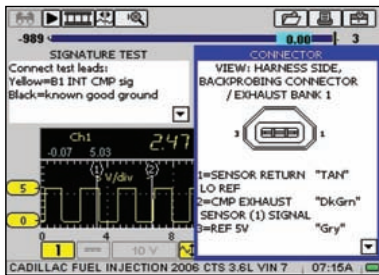
- Do not use in environment with explosive vapor
- Read safety precaution on pages 594 to 597

DIAGNOSTICS

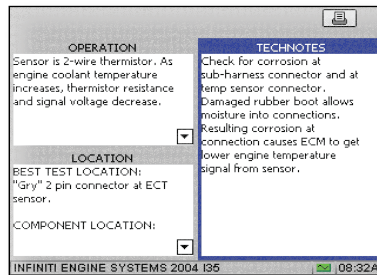
Vantage PRO™ Power Graphing Meter



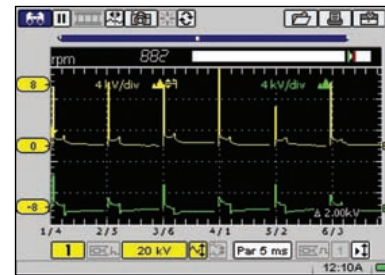
EETM303 Vantage PRO - Unparalleled component diagnostics with a high-speed scope and graphing multimeter. Get the answers needed for confident diagnosis including 2 million component tests, and 8 million samples per second of data. Compare live readings with known-good data and sample waveforms. Simply select the vehicle and component and Vantage PRO will configure the meter and guide user through the test.



Graphing meter and advanced scope-based test information for over 2 million components.



Guided test procedures include connector locations, component operations, meter presets, common faults, expected values.



Lab scope, ignition scope and graphing multimeter allow you to test everything from sensors to multicylinder ignition.

Features:

- Big 5.7" backlit color display is easy to read
- Removable high-power Ni-MH battery for over 5 hours continuous use
- Fast boot—ready to go in 10 seconds
- Store over 1,000 screens of data
- Up to 57 hours of continuous recording
- Peak detect clearly displays glitches and dropouts other scopes miss

Component Test Information:

- Component database for 40 US, Asian and European makes, 1979-current
- Navigate by year/make/model or select a specific component or system
- Coverage for sensors, solenoids, ignition, injectors and much more

- Tips and tutorials including component locator, test procedures, connection diagrams, presets and reference values
- Waveform Library—compare live data with known-good values

2-Channel Lab Scope and Ignition Scope:

- Sample rate 8 megasamples; Bandwidth 3 MHz; Scales 0-100 mV to 0-200 V, 50 KV secondary ignition; plus dedicated shunt amps channel
- Sweep rate 50 microseconds to 20 seconds
- Secondary ignition scope with single/multicylinder, raster, parade and superimposed views (multicylinder adaptors optional)

Digital/Graphing Volt-Ohm Meter:

- Auto scaling; 0-100mV to 0-400V scales, 0-100mA to 0-10A scales; 10 Megohm high-impedance, 50mS glitch capture, min/max capture
- DC Volts, AC Volts, Amps, Ohms, duty cycle, frequency, pulse-width
- Sweep rates from 1 sec. to 5 min.

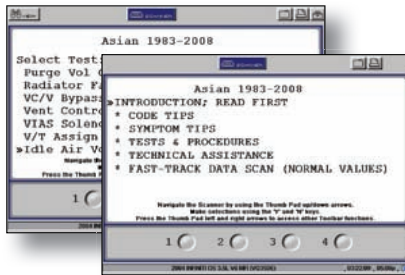
Includes:

- Component database for US, Asian, European makes
- 2 shielded scope leads, 2 insulated alligator clips and 2 probe tips
- Hands-on training video and user guide
- Protective carrying case
- Rechargeable Ni-MH battery pack
- Battery charging station
- AC power adaptor

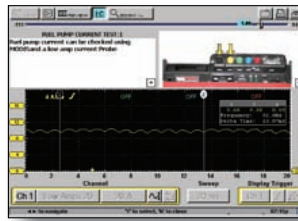
MODIS™ Modular Diagnostic & Information System



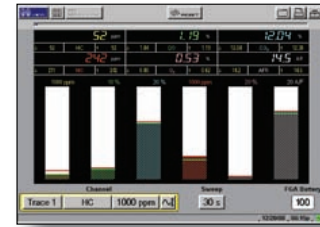
EEMS300 MODIS - This multifunction tool includes the trademark Snap-on® Scanner™, scope-based component testing and a graphing digital ohm/volt meter. Troubleshooter and Fast-Track® Reference information provide reliable assistance to the professional technician.



Codes, live data and functional tests along with relearns and adaptations, experience-based tips and timesavers.



High-speed, 4-channel component test meter/lab/ignition scope with glitch capture. Database covers 2 million component tests.



Optional 5-gas analyzer, secondary ignition adaptors, heavy duty truck software or European vehicle software.

Features:

- 7" full-VGA color display with quick release protective display shield
- Intuitive Windows® CE operating system
- Connectivity and expandable storage—VGA, aux, and USB ports
- Removable high-power Ni-MH battery
- Programmable hotkey for instant access to frequently used functions

Scanner:

- Custom data lists, freeze frame, PID sorting, pause, zoom, PID trigger, snapshot and cursor functions
- Graph 8 live data parameters; or view up to 16 in digital mode
- Detailed code definitions, live data, functional tests, and relearns/adaptations
- Record and save movies—buffer captures 2,000 frames of data
- Fast-Track troubleshooter includes test procedures and code & symptom tips
- VIN-specific vehicle communications for Domestic models from 1980 and later*
- VIN-specific vehicle communications for Asian models from 1983 and later*

- Optional software for Audi, BMW, Mercedes, MINI and Volkswagen

Component Test Information:

- Component database for 40 US, Asian and European makes, 1979-current
- Navigate by year/make/model, or select a specific component or system
- Tips and tutorials including component locator, test procedures, connection diagrams, presets and reference values
- Waveform Library—compare live data with known-good values

4-Channel Lab Scope and Ignition Scope:

- Automatic scaling, presets and custom configurations for easy setup
- Sweep rate 50 microseconds to 20 seconds
- Continuously saves up to 263 sweeps into buffer for review

- Sample rate 6 megasamples; Bandwidth 3 MHz; scales 0-100 mV to 0-400 V, 50 KV secondary ignition
- Secondary ignition scope

Digital/Graphing

Volt-Ohm Meter:

- Auto scaling; 0-100mV to 0-400V scales, 0-100mA to 0-10A scales; 10 Megohm high-impedance, 50mS glitch capture, min/max capture
- DC Volts, AC Volts, Amps, Ohms, duty cycle, frequency, pulse-width
- Sweep rates from 1 second to 5 minutes

Includes:

- VIN-specific US and Asian Software
- US and Asian adaptor set, 1996-current
- 4 shielded scope leads and clips
- Hands-on training video and user guide
- Rechargeable Ni-MH battery pack
- AC smart charger
- Protective carrying case

*Some pre-1996 applications require optional adaptors.



WARNING



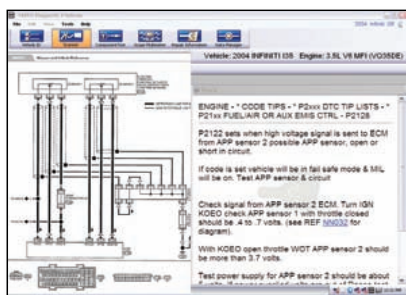
- Do not use in environment with explosive vapor
- Read safety precaution on pages 594 to 597

DIAGNOSTICS

VERUS® Integrated Diagnostic and Information System



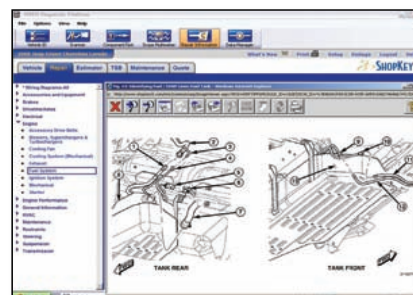
EEMS323 VERUS - The power to fix the car and manage the business, all in one palm-sized package. A truly integrated diagnostic and information tool. The power of Windows® XP brings you a Scanner™, oscilloscope, Fast-Track® reference database, Troubleshooter and shop management tools all in one system. A big hard drive to store service records, diagnostic results and software applications. Use the Internet browser and Wi-Fi to access the online repair information system, repair forums or parts suppliers.



Complete Fast-Track Troubleshooter and quick links to the onboard reference database.



Windows XP multitasking provides the flexibility to use and view several tools at once.



Direct links take you from the scan tool function to the integrated ShopKey® Repair Information System (ShopKey subscription optional).

Features:

- 10.4" high-resolution XGA 1024 x 768 touchscreen color display
- Replaceable Lithium-ion battery pack for up to 4 hours of continuous power
- 802.11b/g Wi-Fi and web browser
- Connectivity and expandable storage—VGA, LAN, AUX, audio and USB ports
- Compatible with J2534 devices for OEM-level vehicle reprogramming

Scanner:

- Custom data lists, freeze frame, PID sorting, pause, zoom, PID trigger, snapshot and cursor functions
- Graph 16 live data parameters; or view up to 50 in digital mode
- Detailed code definitions, live data, functional tests, and relearns/adaptations
- Record and save movies—buffer captures 2,000 frames of data
- VIN-specific vehicle communications for Domestic models from 1980 and later*
- VIN-specific vehicle communications for Asian models from 1983 and later*
- Optional software for Audi, BMW, Mercedes, MINI and Volkswagen

Component Test Information:

- Component database for 40 US, Asian and European makes, 1979-current
- Guided diagnostics including component locator, test procedures, connection diagrams, presets and reference values
- Coverage for sensors, solenoids, ignition, injectors and much more
- Waveform Library—compare live readings with known-good values

4-Channel Lab Scope and Ignition Scope:

- Automatic scaling, presets and custom configurations for easy setup
- Sample rate 6 megasamples; Bandwidth 3 MHz; scales 0-100 mV to 0-400 V, 50 KV secondary ignition
- Sweep rate 50 microseconds to 20 seconds
- Secondary ignition scope (multicylinder ignition adaptors optional)

Digital/Graphing Volt-Ohm Meter:

- Auto scaling; 0-100mV to 0-400V scales, 0-100mA to 0-10A scales; 10 Megohm high-impedance, 50mS glitch capture, min/max capture
- DC Volts, AC Volts, Amps, Ohms, duty cycle, frequency, pulse-width
- Amps, vacuum, pressure functions (probes optional)
- Sweep rates from 1 second to 5 minutes

Includes:

- VIN-specific US and Asian Software
- US and Asian adaptor set, 1996-current
- 4 shielded scope leads, clips
- Hands-on training video and user guide
- Protective carrying case
- Rechargeable Lithium-ion battery pack
- AC smart charger

*Some pre-1996 applications require optional adaptors.

DIAGNOSTICS

Quick Reference Chart

	ETHOS®	SOLUS PRO™	Vantage PRO™	MODIS™	VERUS®	
•	•		•	•		VIN-specific scanner coverage
•	•		•	•		Reads and clears codes & data
	•		•	•		Functional tests/ Bi-directional controls
	•		•	•		Relearns & adapts
		•				2-Channel high speed oscilloscope
			•	•		4-Channel high speed oscilloscope
		•	•	•		Digital/Graphing Volt/Ohm meter
	•	•	•	•		Full-color display
•						Bilingual (English/Spanish)
				•		High capacity internal hard drive
•	•	•	•	•		Removable flash drive storage port
				•		Wi-Fi® enabled and Internet browser
	•	•	•	•		Rechargeable battery
	•	•	•			Windows® CE
				•		Windows XP
	•		•	•		Fast-Track® Troubleshooter
		•	•	•		Fast-Track component tests (US, Asian, European)
•	•		•	•		1980-current US OEM-level scanner coverage
•	•		•	•		1983-current Asian OEM-level scanner coverage
•	•		•	•		Optional European OEM-level scanner coverage
4	4		8	16		Simultaneous live scan data graphs
•	•	•	•	•		Programmable Function Key
				•		Touchscreen



WARNING



- Do not use in environment with explosive vapor
- Read safety precaution on pages 594 to 597

DIAGNOSTICS

Accessories

VERUS®



EETA113B Pass-Thru Pro II J2534 Reprogramming Device. Reprogram vehicle control modules like the OEMs. Updates software/ firmware in vehicle electronic control units (ECU). For J2534-compliant 2004-later vehicles. Includes OEM approved programming interface, cables and software. Requires Internet access, OEM data subscription, and VERUS platform or a PC.



EAK0294B02A Charging Station with USB Hub. Secure benchtop workstation for VERUS. Charges VERUS battery when used with standard VERUS power adaptor. Internal USB hub joins up to 4 USB devices when connected to VERUS with standard USB cable (not included). (VERUS shown not included)



EAA0354L40A Velcro® Handgrip. Secure, adjustable Velcro strap makes it easy to hold VERUS with one hand. (VERUS shown not included)



Silicone Protective Skins. Personalize and protect your VERUS in choice of colors. Custom-fit, non-slip silicone rubber protective skin keeps VERUS clean and safe.
EAC0101L70A1 - Black
EAC0101L70A2 - Blue
EAC0101L70A3 - Red
 (VERUS shown not included)



Stylus (3 pack). Polished chrome stylus with etched Snap-on VERUS logo or durable black nylon stylus. Soft tip to protect touchscreen.
3-06206A01 - Nylon
3-07406A01 - Chrome



6-06321A AC cord for 110V Power Supply. Line cord for AC power adaptor.



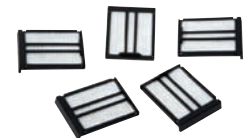
EAE0059L07A External Battery Charger. Smart charger for up to 2 VERUS battery packs. Automatic fast-charge and trickle mode. Includes 110V AC power supply.



EAA0354L12A VERUS Battery Pack. Keep a diagnostic tool on duty all day long with a spare high-energy Lithium-ion battery. Built-in LEDs show charge status.



2-02539A 110V AC Power Supply. Powers VERUS and quick-charges battery pack. Requires 6-06321A power cord.



EAK0253B02A Replacement Air Filters (5 pack). Help to keep VERUS electronic components cool and clean.



EAK0294B08A Maintenance Kit. Includes 3 screen protectors, 3 nylon touchscreen stylus and 5 air filters.



EAC0101L69A1 Screen Protector Film (3 pack). Crystal-clear sheets protect screen from scratches, solvents and dirt. Easy peel and stick application.



EEMS301A04 MODIS Heavy Duty Truck Diagnostic Kit. Expands capabilities with heavy duty standard coverage. SAE J1708 and J1587 compliant scanning on Class 4-8 trucks. Read and clear trouble codes, read live data parameters and trip data. Includes software activation and adaptors (LL adaptor, Serial cable, Deutsch 6 & 9 pin and HDS adaptor). Requires MODIS Bundle 4.1 or newer software.



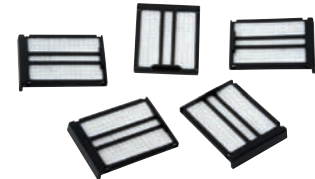
2-35466A 110V AC Power Supply. Adaptor powers MODIS and quick-charges battery pack (power cord sold separately).



6-06321A AC Cord for 110V Power Supply. Line cord for AC power adaptor.



EEMS301A01 MODIS Battery Pack. Keep a diagnostic tool on duty all day long with a spare high-energy Ni-MH battery charged and ready to go.



EAK0253B02A Replacement Air Filters (5 pack). Helps to keep MODIS electronic components cool and clean.



Screen Protector Film (5 pack) Crystal-clear sheets protect screen from scratches, solvents and dirt. Easy peel and stick application.
EAK0253B20A* - Pre-2006 MODIS
EAK0253L62A* - 2006-Later (with removable window)
 (Modis shown not included)



EAK0253L63A Replacement Display Window (5 pack). Keep the display looking new and easy to see. Easy snap fit replacement. (2006-later MODIS only)



EEMS301A02 External Battery Charger with 110V AC Converter. Faster, cooler charge for long battery life. Keep a spare battery on-charge, ready for action. Includes 110V AC power supply and cord.

SOLUS^{PRO}

EAA0352L35A Replacement Display Window. Keep the display looking new and easy to see. Easy snap fit replacement.



EAK0290L10A Screen Protector Film (5 pack). Crystal-clear sheets protect screen from scratches, solvents and dirt. Easy peel and stick application. (SOLUS PRO shown not included)



WARNING



- Do not use in environment with explosive vapor
- Read safety precaution on pages 594 to 597

DIAGNOSTICS

Accessories

ETHOS[®]



EAC0093L01A Replacement ETHOS Data Cable.
Replacement data cable for Global OBD-II applications.



EAC0089L07A Replacement ETHOS DB25/DB15 Adaptor Cable. Replacement data cable for OBD-I and OBD-II VIN-specific applications.



EAK0287L03A Replacement Display Window. Keep the display looking new and easy to see. Easy snap fit replacement.



EAK0287L04A Screen Protector Film (5 pack). Crystal-clear sheets protect screen from scratches, solvents and dirt. Easy peel and stick application. (ETHOS shown not included)



EAK0287L05D ETHOS Extended Adaptor Set. Optional OBDII connectors for VIN-specific domestic & Asian vehicle applications.

Vantage PRO[™]






EAK0276L10A Replacement Display Window. Keep the display looking new and easy to see. Easy snap fit replacement.



EAK0276L11A Screen Protector Film (5 pack). Crystal-clear sheets protect screen from scratches, solvents and dirt. Easy peel and stick application. (Vantage PRO shown not included)

Chargers

	Stock No.	Description	SOLUS PRO [™]	ETHOS	Vantage PRO
	EAK0276B03A	External Battery Charger Fast, cool, controlled charge for long battery life. Or keep a spare battery on-charge, ready for action. Uses standard EAK0276B02A AC power adaptor (not included).	•		•
	EAK0276B02A	110V AC Power Supply Provides power for tool. Quick-charges SOLUS PRO [™] and Vantage PRO [™] battery pack.	•	•	•
	EETM303A01	Spare Battery Pack Keep your diagnostic tool on duty all day long. Keep a spare battery charged and ready to go.	•		•

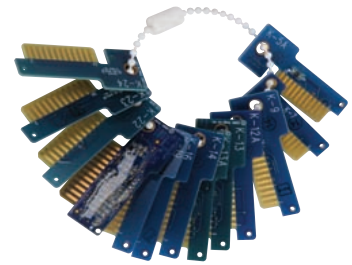
Scan Tool Accessories: VERUS®, MODIS™, SOLUS PRO™, ETHOS®



EAA0355L46C Replacement OBD-II Key Adaptor. For US Domestic and Asian vehicle applications. Accepts "K" personality keys.



EAX0066L50A Replacement Data Cable. For connection between scan tool and vehicle adaptors. For VERUS, MODIS, SOLUS PRO and SOLUS™ only.



EAK0253B01F Domestic/Asian Key Set. OBD-II personality keys. Complete replacement set for US Domestic and Asian vehicle applications.



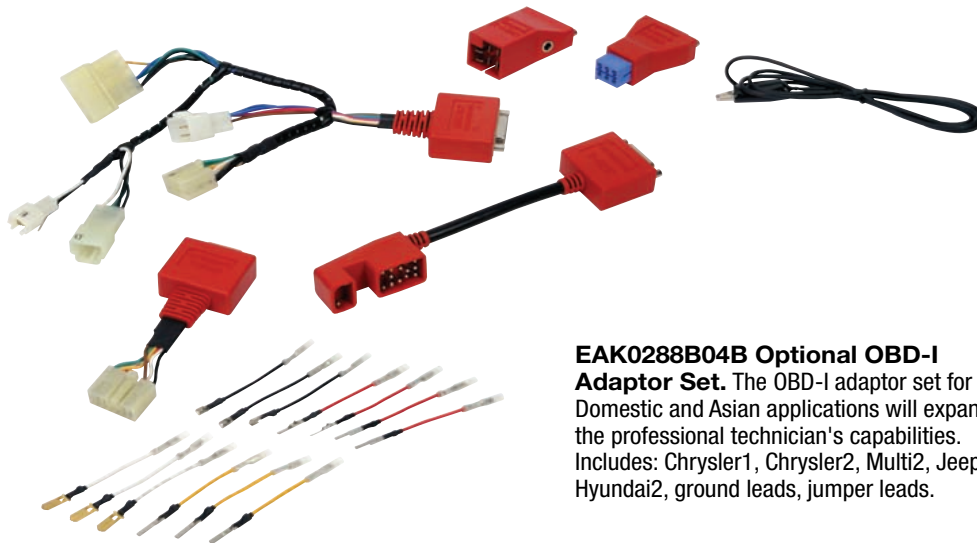
EAX0066L30A OBD Data Cable Extension. Extend scan tool reach by 6 feet. For connection between scan tool and vehicle adaptors.



EAA0355L68A DL-16 Key Adaptor-European Vehicles. Replacement adaptor for European vehicle applications. Accepts "S" personality keys.



EAK0267B01G European Vehicle Keys/Adaptor Kit. Complete set of adaptors and personality keys for European vehicle applications. Includes: MB1, MB2, BMW1, VW1, DL16.



EAK0288B04B Optional OBD-I Adaptor Set. The OBD-I adaptor set for US Domestic and Asian applications will expand the professional technician's capabilities. Includes: Chrysler1, Chrysler2, Multi2, Jeep1, Hyundai2, ground leads, jumper leads.



WARNING



- Do not use in environment with explosive vapor
- Read safety precaution on pages 594 to 597

DIAGNOSTICS

Scope & Meter Accessories: VERUS®, MODIS™, Vantage PRO™



Pressure Transducer Kits. Record, plot and monitor pressure in real-time. Typical applications include ABS, PS, transmissions, hydraulics and fuel systems. Requires split-lead adaptor EEMS301A05, sold separately.
EFPV302AL - 0-100 psi
EFPV302AT - 0-500 psi
EFPV302AH - 0-5000 psi



EAX0024B40A Transducer "Y" Adaptor Cable. Enables simultaneous use of two pressure transducers for multiple point comparison testing.



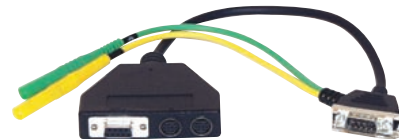
EAX0024B30A Extension Cable for Pressure Transducers. Flexible 6-foot long cable extends the reach of optional pressure transducers for convenient testing in hard-to-reach places.



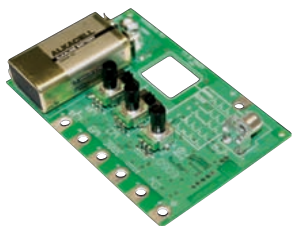
EETA108B Extra Long Scope Lead Set (2 pack). 10-foot leads extend the reach of scope/meter leads for testing hard to reach components.



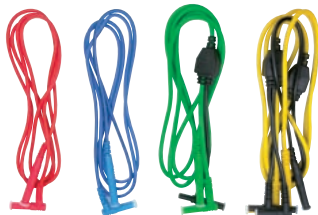
EETA308A Low AMP Probe. Hall-effect technology gives accurate non-intrusive circuit testing. Perform precision testing of parasitic draw, injectors, pumps, relays, and more. 20A/40A ranges.



EEMS301A05 Split Lead Adaptor. Enables simultaneous use of two pressure transducers and RPM pickup.



EESX306A Waveform Demonstration Tool. Versatile scope training/demo tool. Use with any scope. Simulates good waveforms, bad waveforms and glitches. Square wave, variable duty, FI pattern, AC signal, secondary ignition pattern. Adjustable frequency, voltage, RPM, amplitude.



Test Leads. Shielded, soft, flexible leads for meter and scope measurement. Stackable, right-angle ground plug attached.
6-03022A - Channel-1 (Yellow)
6-03122A - Channel-2 (Green)
6-03222A - Channel-3 (Blue)
6-03322A - Channel-4 (Red)



Alligator Clips. Spring-loaded clips provide secure, insulated connection for meter and scope measurements.
2-06433A1 - Black
2-06433A2 - Red
2-06433A3 - Blue
2-06433A4 - Yellow
2-06433A5 - Green



MT3000430ASR Backprobe Adaptors. Used for adapting wire harness terminals to alligator clip type test leads. Helps prevent accidental grounding.

Scope & Meter Accessories: VERUS®, MODIS™, Vantage PRO™



Multi-cylinder Secondary Ignition Scope Adaptors

Exclusive kV ignition adaptors make for easy connection and testing of secondary ignition on coil-on-plug (COP) and coil-in-cap (CIC) systems. Custom fit to vehicle ignition systems. Requires EAK0294B09A ignition scope lead kit.

EAC0056L00A General-purpose COP/CIC Single Flag Pick-up. Single cylinder pickup. Use with 3-flag pickup for V8 engines.

EAC0056L02A General-purpose COP/CIC Three Flag Pick-up. Three cylinder pickup. Use 2 for V6 engines or use 2 with single cylinder pickup for V8 engines.

EAC0056L03A General-purpose COP/CIC Stick Pick-up. For inline 4-cylinder engines.

EETM306A03 COP-1 Ford Ignition Pick-up.

EETM306A04 COP-2 Chrysler Ignition Pick-up.

EETM306A07 COP-3 VW/Audi Ignition Pick-up.

VERUS, MODIS & VANTAGE PRO

EETM306A08 COP-4 Acura/Honda/Isuzu Ignition Pick-up.

EETM306A09 COP-5 Volvo/BMW Ignition Pick-up.

EETM306A10 COP-6 Mercedes Ignition Pick-up.

EETM306A11 COP-7 Mercedes Ignition Pick-up.

EETM306A12 COP-8 BMW Ignition Pick-up.

EETM306A13 COP-9 Lexus Ignition Pick-up.

EETM306A14 COP-11 Chrysler/Jeep/Lexus/Toyota Ignition Pick-up.

EETM306A06 CIC-1 GM HEI Coil-in-Cap Pick-up.

EETM306A05 CIC-2 Toyota/Honda Coil-in-Cap Pick-up.



EAK0294B09A Ignition Scope Lead Kit.

For multi-cylinder secondary ignition testing. Includes inductive RPM pickup trigger, coil adaptor lead and secondary KV clip-on probe. Ideal for distributor systems, and for COP/CIC systems using optional COP/CIC adaptors.

EETA309A15 SIA 2000 Multi Ignition Adaptor.

Ideal for waste spark ignition systems up to 8 cylinders. Simply clamps directly to plug wires. Also for COP/CIC systems (COP/CIC adaptors sold separately).



WARNING

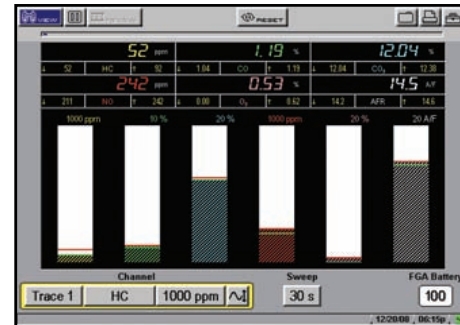
- Do not use in environment with explosive vapor
- Read safety precaution on pages 594 to 597

DIAGNOSTICS

5-Gas Analyzer: VERUS®, MODIST™ or PC



EEEE305A



EEEE305A FGA Flexible Gas Analyzer. Completely portable 5-Gas Analyzer with rechargeable internal battery. Exhaust gas analysis helps pinpoint engine, emissions, catalytic converter and related system problems. Live graphing and digital display of CO, O2, CO2, HC, NO, Air/Fuel ratio and Lambda. Heavy duty sensors with automatic water removal system. Includes probe, hose, power adaptors and RS-232 cable. Requires VERUS, MODIS or PC (sold separately).



EEEE305A-20

EEEE305A-20 RPM and Oil Temp Kit. Includes temperature probe with 20-foot cable, RPM probe with 15-foot cable, inductive pickup clamp, Tachometer box, RPM serial and power cable.



EEEE305ASW FGA Software. Software application provides interface between FGA and a PC or VERUS diagnostic platform. Required for PC and VERUS interface.



EAX0066L22A Serial to USB Adaptor Cable. Required for VERUS and USB PC applications. Connects FGA to USB port on a PC or VERUS diagnostic platform. Requires EEEA305ASW software (sold separately).

Custom Fit Foam Organizers

Turn a tool cart into a high-power mobile workstation. Set of drawer organizers holds diagnostic platform and all standard accessories, plus room for many optional accessories.

VERUS®

VERUSFOAM3

Fits the KRSC30/KRSC31

VERUSFOAM4

Fits the KRSC40/KRSC41 (shown)

MODIS™

MODISFOAM3

Fits the KRSC30/KRSC31

MODISFOAM4

Fits the KRSC40/KRSC41

SOLUS PRO™/Vantage PRO™

SOLUSVPMFOAM

Fits the KRSC30/KRSC31



VERUSFOAM4
KRSC40 cart sold separately.
Tools not included.



EAK0294B04A

EAK0294B04A - Leather Travel Case.

Padded leather case is the ultimate in portability and protection. Multiple zippered compartments to organize diagnostic platform and accessories. Handle and sturdy nylon shoulder strap for easy portability.

For VERUS, MODIS, SOLUS™, SOLUS PRO, Vantage PRO and ETHOS® (not included)



EAK0294B17A

EAK0294B17A - Low Profile Organizer Case.

- Protect and organize your diagnostic tool and accessories for easy storage and portability
- Includes foam inserts to fit VERUS, MODIS or SOLUS PRO (diagnostic tool not included)
- Custom fit foam organizer for standard accessories – adapters, cables, battery, charger, etc
- Textured fabric exterior with semi-rigid shell case
- Padded handle and shoulder strap included
- Low profile to fit in toolbox drawer 5.5D" x 14"W x 25"L



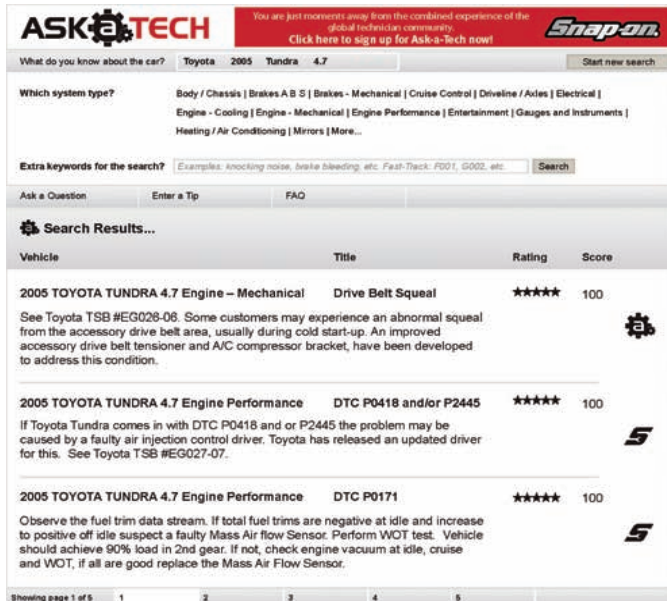
WARNING



• Read safety precaution on pages 594 to 597

DIAGNOSTICS

Software and Information Systems



Access the Combined Knowledge of the Global Technician Community at www.askatech.com

- Online access to the famous Fast-Track® Troubleshooter — the trusted source of 20 years of experience-based guidance validated by Snap-on®
- The unique Ask-a-Tech “Wiki” collaborative tool gives repair professionals the ability to combine their experience to solve tough repair issues
- Post your tough questions and access real world answers from Snap-on experts
- Over one million timesavers, code tips, symptom tips, fast-track test procedures

Diagnostic Software Upgrades - for VERUS®, MODIS™, SOLUS PRO™, Vantage PRO™ and ETHOS.®

With regularly scheduled software upgrades from Snap-on, diagnostic tools continue to grow. Features include updated coverage for new vehicles, expanded coverage for earlier models and the latest enhancements to add new capabilities. Enjoy thousands of new vehicle systems, trouble codes and live data parameters. Thousands of new experience-based Troubleshooter tips, functional tests, adaptations and component tests. Applies to platforms with appropriate features.

VERUS EESP323U1
MODIS EESP300U1
SOLUS PRO EESP316U1
SOLUS™ EESP310U1
ETHOS EESP312U1
Vantage PRO EESP303U1

Diagnostic Software Activation for European Vehicles - for VERUS, MODIS, SOLUS PRO, Vantage PRO and ETHOS.

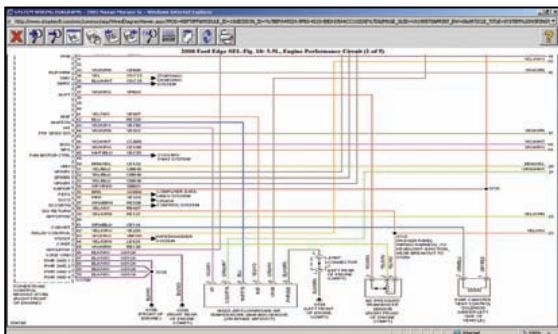
Access fault codes and data for dozens of vehicle systems. Functional tests, relearns and adaptations for platforms with those features. Coverage for Audi, BMW, Mercedes, MINI and Volkswagen as far back as 1992. Adaptors sold separately.

VERUS EESP323E
MODIS EESP300E
SOLUS PRO EESP316E
SOLUS EESP310E
ETHOS EESP312E

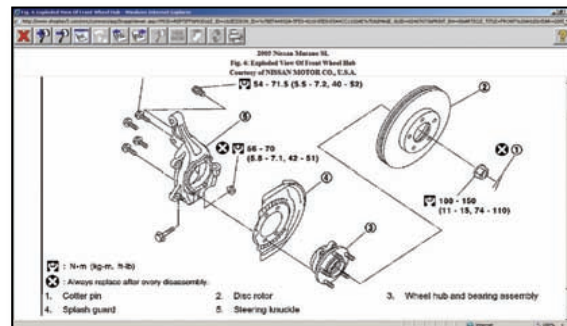


ShopKey5 Repair Information System ShopKey Medium Truck and Tractor - Trailer ShopKey Service Writer/Shop Management

Access the most trusted database of automotive repair information available—ShopKey®. You are always up to date on the latest vehicle coverage, late-breaking TSBs and the best wiring diagrams in the business. ShopKey is completely online, so the latest OEM information and enhancements are automatically added every month. Loaded with features that make your job easier. The ShopKey® Live™ feature lets technicians edit and share enhanced OEM service information with each other so they can take advantage of the latest time saving tips from top techs. Easily search repair article content for precise information with the Google® Search feature. Browse easy to follow, full-color wiring diagrams for vehicles dating back to 1985. Hotlink directly to relevant repair articles. Simply select a year, make and model, and one click takes you straight to vehicle repair, estimator with industry-standard parts and labor, TSBs or maintenance schedules.



Full-color OEM wiring diagrams simplify even the most difficult procedures.



Become an instant expert on millions of different repairs.



Training Solutions®

Make your diagnostic tool work harder for you. Professional training from Snap-on expert technicians. Diagnostic training is available online, 24 hours-a-day, seven days a week, at no charge. Enhance your diagnostic productivity and your value on the job. Go to diagnostics.snapon.com/trainingsolutions

Online Multimedia Training

Self-paced, narrated slide shows feature the latest diagnostic techniques using your Snap-on diagnostic tool. Multi-level training offers you a choice of modules from basic to advanced level. Available for ETHOS®, SOLUS PRO™, Vantage PRO™, MODIS™, VERUS® and FGA.

Online Video Training

Training videos run from 20-40 minutes in length and are divided into short chapters for easy viewing at your own pace. Learn complete tool operation and navigation, and see on-car demonstrations of diagnostic techniques. Available for ETHOS, SOLUS PRO, Vantage PRO, MODIS, and VERUS.



3-16828A00K1

3-16828A00K1

Brief hands-on training videos for all 5 platforms on 1 DVD. Expert Snap-on technicians use real-world case studies to show how to get the most out of diagnostic tools. In-depth, self-paced diagnostic tool training modules for all 5 platforms are also available at: diagnostics.snapon.com/trainingsolutions



EAZ0003B58B MODIS Banner



EAZ0060L17A SOLUS PRO Banner



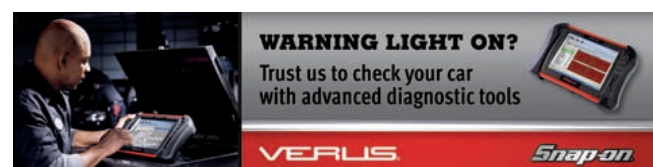
EAZ0003B66A MODIS Banner (Spanish)



EAZ0060L19A SOLUS PRO Banner (Spanish)



EAZ0042B17A ShopKey Banner



EAZ0042B18A VERUS Banner

Service Banners

2' high x 8' wide. Show your customers that the shop is well-equipped and qualified with these sturdy reinforced vinyl banners.



WARNING



• Read safety precautions on pages 594 to 597

DIAGNOSTICS

OBD-II Scan Tools

TECHNICAL SUPPORT

1-877-447-6276



YA3020

YA3020

- Works on all 1996 & newer vehicles
- Turns off the check engine light
- Comes with emission readiness warning lights



YA31000

YA31000

- Displays freeze frame data
- On screen definition in 3 languages
- Retrieves generic & manufacturer specific codes



YA3120

YA3120

- Diagnose codes on all OBD2 & most OBD1 vehicles
- Retrieve OEM enhanced engine and transmission codes
- Internet updateable & upgradeable



YA3140

YA3140

- Diagnose codes on all OBD2 & most OBD1 vehicles
- View enhanced OBD2 live data & DTC's
- Record and graph information



YA3160

YA3160

- Displays ABS codes on the most popular OBD2 vehicles
- View enhanced OBD2 live data
- Perform mode 1-9 testing

		YA3020 CanOBD-II CarReader	YA31000 CanOBD-II Diagnostic Tool	YA3120 CanOBD-II&I Tool Kit	YA3140 Scan Tool CanOBD-II&I Kit	YA3160 ABS & CanOBD-II Scan Tool
Application	Diagnostic Check Engine Lights on 1996 and Newer Vehicles	•	•	•	•	•
	Turns off Check Engine Light	•	•	•	•	•
	Works on Late Model Vehicles with CAN Protocol	•	•	•	•	•
Unique Features	Plug and Play Diagnostics with All in One Display	•	•	•	•	•
	Vehicle Health Status LED display OBD Emissions Readiness	•	•	•	•	•
	Hot Keys for Intuitive Navigation	•	•	•	•	•
	Complete Drive Cycles with Emissions Readiness Advisor	•	•	•	•	•
	Automatic Vehicle Identification	•	•	•	•	•
	Tri-Lingual Display	•	•	•	•	•
	Battery Backup for off Vehicle Review	•	•	•	•	•
On Board Diagnostic Features	Retrieves Manufacturer and Generic Codes	•	•	•	•	•
	Displays Enhanced Freeze Frame Data	•	•	•	•	•
	On Screen Code Definitions in English, French or Spanish	•	•	•	•	•
	OEM Enhanced Engine & Transmission DTCs	•	•	•	•	•
	Enhanced SAE Diagnostics (J1979 + J2190)	•	•	•	•	•
	OBD-II Scan Tool - View Enhanced Live Data	•	•	•	•	•
	View OBD-II Modes 1-9 - O2 Sensor Tests and VIN# ID	•	•	•	•	•
	Graph, Read and Record Live Data Values	•	•	•	•	•
	OBD-I Coverage for GM, Ford & Chrysler	•	•	•	•	•
	OBD-I Import Coverage for Toyota & Lexus	•	•	•	•	•
	Anti-Lock Bracking System Diagnostics	•	•	•	•	•
Erase ABS Diagnostic Faults	•	•	•	•	•	
Bonus Features	Product Support Monday - Saturday 6 am - 6 pm PST 877-447-6276	•	•	•	•	•
	Create Vehicle Diagnostic Reports	•	•	•	•	•
	Internet Updateable, Software and Cable included	•	•	•	•	•



WARNING



• Read safety precautions on pages 594 to 597

SHOP AND TECHNICIAN TOOLS

Overview	400
Specialty Meters And Analyzers	402
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Air Conditioning And Cooling	437
Under Car Service	452
Welding	483
Lighting	495
Shop Equipment	501
Cleaning And Safety	569



SHOP AND TECHNICIAN TOOLS

SNAP-ON HAS TWO WORDS FOR YOU: TIME. MONEY.

Whether you are a shop owner or a technician, Snap-on has productivity solutions to save time and to help increase revenue.

Equipment For The Shop.

Owning Snap-on® shop equipment means your shop will be more productive—which helps make you more profitable. Expand your shop's current capabilities and keep business where it belongs—with you.

- Return on investment—Snap-on shop equipment pays for itself and then some. From welders built to withstand tough shop environments to battery chargers that perform a variety of functions, Snap-on stands above the rest.
- Innovation—Keep customers loyal to your shop by servicing the cars and heavy duty vehicles of yesterday, today and tomorrow with the most up-to-date equipment available.
- Breadth—The more diverse the resources, the more jobs your shop can handle. Expanding your services attracts business. Choose products to meet your needs—and your vision— from 22 shop equipment product categories.



SHOP AND TECHNICIAN TOOLS

Essentials For The Technician.

Make the move to Master Tech as you grow your potential and enhance your productivity.

- Work smarter—Expand your capabilities with complete system coverage. Whether you need a multimeter, a video inspection scope or a noise-detection device, Snap-on® has you covered.
- Work faster—Snap-on Shop & Tech tools and equipment cut prep and labor time, providing the opportunity to earn more.
- Work safer—Stay on the job with time-saving safety equipment. From goggles to gloves, welding helmets to masks, protect yourself and your profitability.



SPECIALTY METERS AND ANALYZERS

Enhance Your Senses.

Whether it's getting a closer look at a problem with a videoscope, detecting the slightest engine noise with a listening device or diagnosing a complex electrical problem with a multimeter, Snap-on® gives you capabilities to see, hear and analyze. They deliver pinpoint accuracy and results you can take to your customers with confidence.

Measure And Detect.

Problems come in many forms. Snap-on helps reduce the time and effort it takes to find the source, whether it's related to amps, volts, HC, CO₂, CO, O₂, NO_x, degrees, grounds, short or open circuits, watts, rpm, decibels, compression, cylinder leakage or vacuum.



HYBRID
INNOVATION



BK6000

BK6000 Video/Still Recording Digital Borescope.

- Records and plays back still images and video clips
- 3 1/2" inch display offers large viewing screen and 2x digital zoom
- Removable, rechargeable Lithium-ion battery pack
- Can operate BK6000 while charging the battery
- Easy-to-use, multi-language interface
- Mini USB connector for uploading images and video
- External SDHC card slot
- Control handle disengages to allow greater maneuverability
- Audio input jack for recording comments with optional ear bud and microphone attachment

BK6000 / BK5500 Applications:

- Ideal for engine, A/C, under dash, suspension and transmission work
- Inspect cylinder bores and valves through the spark plug hole
- Examine for gear wear in differentials and manual transmissions
- View inside door and body panels to check for malfunctions, defects and hidden damage
- Inspect under dash for electrical routing, HVAC actuator operation and radio code verification
- Locate fluid leaks without a direct line of sight



BK5500

BK5500 Video Inspection Scope.

- Single on/off button and battery indicator
- Convenient thumb control for LED light intensity
- 2 3/8" color LCD provides a larger viewing image than eyepiece borescopes

BK6000 / BK5500 Shared Features.

- 8.5mm diameter imager head fits into most spark plug holes
- High intensity LEDs direct light where it is needed
- 36" long obedient shaft for added reach
- 3/4" shaft bend radius for great flexibility
- 320 x 240 display resolution
- 720 x 480 imager resolution when using the video-out port to an external monitor
- Close focus range from 1/2" to 12"
- Quick-change connector enables use of optional length, specialized purpose imagers
- Integrated stand and hanger for flexible positioning



BK5500-7



BK5500-9



BK5500-10



BK5500-12



BK5500-13



BK5500-14

Stock No.	Description	Included with BK5500	Included with BK6000	Accessory for BK5500	Accessory for BK6000
BK5500-1	36" Imager (8.5mm head)	•			
BK5500-2	Mirror and Magnet	•	•		
BK5500-6	Blow Molded Case	•			
BK5500-7	72" Imager (8.5mm head)			•	•
BK5500-8	Video Out Cable	•			
BK5500-9	120" Imager (8.5mm head)			•	•
BK5500-10	36" Blue Light / UV Imager (8.5mm head)			•	•
BK5500-12	Dual Imager (mm head)			•	•
BK5500-13	36" View Imager (5.5mm head)			•	•
BK5500-14	Digital Video Recorder			•	
BK6000-1	Battery, Lithium Ion		•		
BK6000-2	S-Hook		•		
BK6000-6	Blow Molded Case		•		
BK6000-10	Battery Charger		•		
BK6000-11	Earbud and Microphone				•
BK6000-12	USB Cable		•		
BK6000-13	Kick Stand		•		
—	(4) AA Batteries	•			
—	Warranty	2 years	2 years		
—	Instruction Manual	•	•		



WARNING



- Do not use in environment with explosive vapor
- Read safety precautions on pages 594 to 597

TESTING AND ELECTRONICS

Digital Multimeters

Select the Meter For Your Needs



7 Year Limited Warranty

CHECK YOUR NEEDS

Specifications	✓	EEDM596DK	EEDM525D	EEDM504D	EEDM503D
Certificate of Calibration Model		EEDM596DCRT	—	EEDM504DCRT	—
Display Count		40,000	4,000	4,000	2,000
AC Volts		750	750	750	750
DC Volts		1,000	1,000	1,000	1,000
Basic DC Accuracy		0.10%	0.50%	0.50%	0.50%
AC Amps		10	10	10	10
Micro Amps		Yes	Yes	Yes	Yes
DC Amps		10	10	10	10
True RMS (Root Mean Square)		Yes	Yes	—	—
Resistance		40M Ohm	40M Ohm	40M Ohm	20M Ohm
Capacitance		Yes	Yes	Yes	—
Frequency		Yes	Yes	Yes	—
Analog Bar Graph		Yes	Yes	Yes	—
Auto Range		Yes	Yes	Yes	—
Data Hold		Yes	Yes	Yes	Yes
Min/Max		Yes	Yes	Yes	—
Backlight		Yes	Yes	—	—
Auto Power Off		Yes	Yes	Yes	—
RPM (*opt.)		Yes	EEDMRPMG*	EEDMRPMG*	EEDMRPMG*
Adj. Trigger Level		Yes	—	—	—
Noise Red. Circuit		Yes	—	—	—
Temperature (*opt.)		Yes	Yes	EEDM506C*	EEDM506C*
Duty/Dwell		Yes	Duty Only	Duty Only	—
mS Pulse Width		Yes	—	—	—
Comp. Output (USB)		Yes, Included	—	—	—
CE or UL Listed		CE, cULus 61010-1	CE, cULus 61010-1	CE, cULus 61010-1	CE, cULus 61010-1
CAT Rating		CATII 750 VAC CATIII 1000VDC CATIII 600 Volt AC/DC	CATII 750 VAC CATIII 1000VDC CATIII 600 Volt AC/DC	CATII 750 VAC CATIII 1000VDC CATIII 600 Volt AC/DC	CATII 750 VAC CATIII 1000VDC CATIII 600 Volt AC/DC
Easy Open Battery and Fuse Door		Yes	Yes	Yes	Yes
Glitch Capture		Yes	—	—	—
Low Pass Filter (LPF)		Yes	Yes	—	—
Blown Fuse Identifier		Yes	Yes	Yes	Yes
Dimensions (w/Boot), inches		7 3/4 x 3 3/4 x 1 1/2	7 3/4 x 3 3/4 x 1 1/2	7 3/4 x 3 3/4 x 1 1/2	7 3/4 x 3 3/4 x 1 1/2
Case		MT586BK1	MT586BK1	EEDM503B3	—
Replacement Fuses		EEDM504B1 EEDM504B2	EEDM525D6 EEDM525D7	EEDM504B1 EEDM504B2	EEDM503B2 EEDM504B2

TECHNICAL SUPPORT
1-888-382-6522

Certified and UL listed

TESTING AND ELECTRONICS

Digital Multimeters

**HYBRID
INNOVATION**



7 Year Limited Warranty on Snap-on® meters

5 Year Limited Warranty on Blue-Point® meters

CHECK YOUR NEEDS

EEDM604C	EEDM695C	MT454C	MT501C	MT574C	Specifications	✓
—	—	—	—	MT574CRT MT574CCRT	Certificate of Calibration Model	
50,000	50,000	4,000	2,000	4,000	Display Count	
1,000	1,000	600	600	600	AC Volts	
1,000	1,000	600	600	600	DC Volts	
0.05%	0.05%	0.50%	0.75%	0.30%	Basic DC Accuracy	
10	10	—	—	400mA	AC Amps	
Yes	Yes	—	—	—	Micro Amps	
10	10	—	—	400mA	DC Amps	
Yes	Yes	—	—	—	True RMS (Root Mean Square)	
(plus conductance)	(plus conductance)	40M Ohm	2K Ohm	40M Ohm	Resistance	
Yes	Yes	—	—	—	Capacitance	
Yes	Yes	—	—	—	Frequency	
Yes	Yes	—	—	—	Analog Bar Graph	
Yes	Yes	Yes	—	Yes	Auto Range	
Yes	Yes	—	Yes	Yes	Data Hold	
Yes	Yes	—	—	Yes	Min/Max	
Yes	Yes	—	—	—	Backlight	
Yes	Yes	Yes	—	Yes	Auto Power Off	
EEDMRPMG*	EEDM512B1*	—	EEDMRPMG*	EEDMRPMG*	RPM (*opt.)	
—	Yes	—	—	—	Adj. Trigger Level	
—	Yes	—	—	—	Noise Red. Circuit	
MT586B	MT586B1	—	EEDM506C*	EEDM506C*	Temperature (*opt.)	
—	Yes	—	—	—	Duty/Dwell	
Yes	Yes	—	—	—	mS Pulse Width	
—	optional	—	—	—	Comp. Output (USB)	
CE, cULus 61010-1	CE, cULus 61010-1	CE, cULus 3111	CE, cULus 3111	CE, cULus 3111	CE or UL Listed	
CATIII 1,000 V CAT IV 600 V	CATIII 1,000 V CAT IV 600 V	CATIII 600 Volt	CATIII 600 Volt	CATIII 600 Volt	CAT Rating	
Yes	Yes	—	—	—	Easy Open Battery and Fuse Door	
Yes	Yes	—	—	—	Glitch Capture	
—	—	—	—	—	Low Pass Filter (LPF)	
Yes	Yes	—	—	—	Blown Fuse Identifier	
3 13/16 x 8 x 2 13/32	3 13/16 x 8 x 2 13/32	6 x 3 x 2	6 x 3 x 2	6 x 3 x 2	Dimensions (w/Boot), inches	
MT586BK1*	MT586BK1*	—	—	—	Case (*optional)	
EEDM604C1 EEDM604C2	EEDM604C1 EEDM604C2	—	—	EEDM504B1	Replacement Fuses	

Certified and UL listed

TECHNICAL SUPPORT
1-888-382-6522



WARNING



• Do not use in environment with explosive vapor
• Read safety precautions on pages 594 to 597

TESTING AND ELECTRONICS

Digital Multimeter Accessories



EETA501C

- EETA501C Clamp-on Amp Probe.**
- Measures AC and DC currents greater than 10 amps without breaking the circuit
 - Ideal for measuring starter (amps) and automotive current draw
 - Used with DMMs that have 2V and 200 mVAC and DC ranges
 - Range: 0 to 20 amp on 200 mVAC or DC, 0 to 400 amp on 2VAC or DC



EETA502C

- EETA502C Clamp-on Amp Probe.**
- Similar to EETA501C except range is 0 to 1000 amp AC or DC



EETA503C

- EETA503C Low Current Adaptor.**
- AC/DC low current adaptor for digital multimeters with DC mV Range and 10 mAmps impedance
 - Measures parasitic current draw on battery cable when key is in off position to indicate component failures or shorts
 - Quickly measures branch circuit draw to isolate problem area. Safely measures current draw of electrical fuel pumps
 - Measures from 10 mA to 60 Amps



EEDM5030

- EEDM5030 Pressure Adaptor.**
- Measure pressure from 1 to 500 psi and vacuum from 1 to 29 inHg
 - Output is 1mV DC per psi or inHg
 - Ideal for measuring transmission or hydraulic pressure
 - 1/4" NPT fitting on pressure transducer
 - Sensor compatible for air or liquid
 - 6 1/2' cable length



EEDMRPMG

- EEDMRPMG Gasoline Engine RPM Adaptor.**
- Ideal for small, single cylinder, 2 and 4 stroke gas engine applications
 - Use with any digital multimeter that has DCmV ranges to measure gasoline engine RPM
 - Plug adaptor into DMM (set to DCmV function), clip lead above engine spark plug boot and multiply reading by 10
 - Range is 300 to 6,000 rpm
 - Output is 1 DCmv per 10 RPM
 - Powered by 9V battery (included)



EEDM506D



EETH501C



EETH502B



EETH503B

Temperature Probes and Adaptor

EEDM506D Temperature Adaptor.

- Adds temperature capabilities to multimeters that do not have built in temperature functions
- Provides dual temperature and differential temperature measurements for multimeters
- Output equals 1mV per degree
- Use with any multimeter with 200mVDC and/or 2VDC ranges
- Provides readings from -50° F to 1,800° F. Includes 2 beaded K-type temp probes. Low battery indicator light. Accuracy: ±0.75% of full scale + one digit

EETH501C Temperature Probe. Measures temperature in fluids and soft materials.

EETH502B Temperature Probe. Measures surface temperatures. 8" tip.

EETH503B Temperature Probe. Measures air temperatures. 8" tip.



EEDMRPMD

EEDMRPMD Diesel Engine RPM Adaptor.

- Ideal for small diesel engine applications
- Measures diesel engine RPM
- Plug adaptor into the DMM (set to IP), attach transducer to fuel line leading to an injector and read RPM on the meter
- Range is 300 to 4,000 RPM
- Resolution is 1 RPM. Powered by 9V battery (included)



EEDM5997

EEDM5997 DMM RPM Adaptor.

- For motorcycles, outboard motors, snowmobiles and ATVs with limited or no ignition shielding
- Use with 2 or 4 stroke engines
- Internal circuitry filters out noise
- Pick up features dual tapped coils to help eliminate errors on negative polarity ignitions



EEDMDVA

EEDMDVA Direct Voltage Adaptor.

- Converts outboard marine, motorcycle and other small engine ignition pulse signals into DC voltage signals
- Adaptor helps identify secondary ignition problems like failed individual coil packs or poor spark



EEDM5830

EEDM5830 Amp Adaptor.

- Allows DMMs to accurately measure up to 30 Amps AC/DC by converting the signal to millivolts
- Measure current draw of individual circuits from fuse box on automobiles, trucks and buses
- Measure the parasitic load on the battery
- Requires no internal/external power supply
- Range of 0 to 30 Amps



EETA106B

EETA106B Inductive Pick Up-Blue-Point®.

- Non-intrusive pickup slides over to secondary ignition spark plug wire and snaps shut for quick hook-ups without directly connecting to ignition circuit
- Used on most engines with 2 and 4 cycle ignition systems including small engines and waste spark systems

MTTL501 Probe Extension.

- 8" probe extension for EEDM504B3
- Reach connectors under dash or deep in engine compartment
- Alligator clips (not included) screw on to probe ends
- Fully insulated for user safety



MTTL501

EEDM504B3 Test Lead Set w/Alligator Clips.

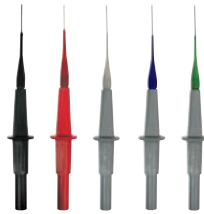
- Standard vinyl jacketed set of test leads with screw on alligator clips for basic application testing needs
- Screw on probe protectors limit the metal probe shaft from touching during testing for safety (remove the protectors when using alligator clips or adaptors)



EEDM504B3

MTTL7005PK Backprobes.

- Color coded for easy identification
- Non-intrusive probes slide behind terminals
- Modular ends attach quickly



MTTL7005PK

TL2A Test Lead Set.

- High grade test lead pair fits all meters using standard banana plug jacks
- Non slip prodding probes have stainless steel points
- Coiled cords stretch to more than 60"
- Screw on alligator clips convert the leads to jumper wires



TL2A

TL3A Test Leads.

- Heavy duty pair of jumper leads
- Use to connect a power source or a ground to test a fixture in automobile
- Heavy duty alligator clips feature the "bed of nails" concept
- Banana plug screws allow use with most multimeters.



TL3A

TL4A Multimeter Test Leads.

- High grade test leads offer excellent coil memory and can be used with most popular test meters
- Leads feature the "bed of nails" concept, wire piercing probe and alligator style all-in-one tips



TL4A

MTTL504 Fused Test Leads.

- 48" fused test leads help protect unfused digital multimeters from electronic damage
- Provides additional protection when measuring high voltage
- Includes test lead set with alligator clips and 5 extra fuses
- Overall length is 48"



MTTL504

MTTL5041 5 Amp Fuses.

- 3-pack of replacement 5 amp fuses for MTTL504 fused test leads



EETA107B

EETA107B Shielded Test Lead.

- Shielded test leads block out radio frequency interference (RFI)
- 6' leads are heat and oil resistant



EETA108B

EETA108B Shielded Test Lead.

- Shielded test leads block out radio frequency interference (RFI)
- 10' leads are heat and oil resistant



MTTL502

MTTL502 Insulation Piercing Test Probes.

- Use probes on threaded probe tips
- Banana adaptors included so probes can be used on banana plug lead sets



TLS7B Test Lead and Adaptor Kit.

- Quick attach probes and mini alligator clips press onto the straight PVC jacketed lead set
- Threaded hook clips, standard plugs and alligator clips thread onto the probe ends
- Provides an economical set for conducting various tests



TLS7B

MT300 Test Lead Kit.

- 4 color coded test leads help reduce the chance of wrong connections
- Use as test lead, jumper wires, or for shorting out components when performing ignition system tests
- Each lead is 4' long



MT300

MT301A Test Lead Kit.

- Contains 12", 18", 24", and 10' jumper leads
- Use as extension leads or for shorting out components when testing ignition



MT301A



WARNING



- Do not use in environment with explosive vapor
- Read safety precautions on pages 594 to 597

TESTING AND ELECTRONICS

Test Leads

High Grade Test Leads (For Digital Multimeters)



MTTL500

MTTL500 Test Lead Kit.

- Interchangeable probes permits wider range of testing possibilities
- Right angle 48" long test leads are made from double insulated silicone super flex wire
- Spring hooks for use on 16 gauge and smaller bare wire
- Alligator clips for attachment to bolts and large wire conductors
- Spade terminals for use on terminal blocks and prods for probing wire ends

Stock No.	Description	MTTL500	MTTL600	MTTL700
MTA20	Prods - modular	•		
MTA24	Test Leads Silicone Jacket - modular	•		
MTA75	Alligator clips - Medium - modular	•		
MTA80	Spring hooks - modular	•		
MTA85	Alligator clips - Heavy Duty - Flanged	•		
MTTL7001	Test Leads Silicone Jacket - threaded			•
MTTL7002	Banana Plugs - screw-on		•	•
MTTL7003	Alligator Clips - Large - modular		•	•
MTTL7004	Insulation Piercing Prods - modular		•	•
MTTL7005	Backprobe adapters - needle - modular		•	•



TL616AO

TL624AG

TL648AR

High Visibility Jump Leads

TL Series High Visibility Jump Leads.

- High grade test leads offer the highest heat and oil resistance and exceptional coil memory
- Leads feature a removable "bed of nails" concept
- After removal, probe end with 8-32 brass thread allows use of other product accessories

TL616AO Test Leads. Hi-vis orange color, 16' extended length.

TL624AG Test Leads. Hi-vis green color, 24' extended length.

TL648AR Test Leads. Hi-vis red color, 48' extended length.



YA1175KIT

Retractable Test Leads—Blue-Point®

YA1175KIT Retractable Test Lead Kit. Includes YA1175

- Retractable test leads, YA1175-1 probes (pair), YA1175-2 alligator Clips (pair) and YA1175-3 spring hooks (pair)
- Retractable test leads pull out and stay at desired length
- Rewind test leads when not in use for compact storage
- 18 gauge copper wire and interchangeable tips



MTTL600

MTTL700

MTTL600 Test Lead Kit.

- Includes screw-on banana plug adaptors, needle backprobe adaptors, large alligator clips and insulation piercing prods

MTTL700 Test Lead Kit.

- Includes screw-on banana plug adaptors, needle backprobe adaptors, large alligator clips and insulation piercing prods
- Test leads with interchangeable tips are 50" long
- Double insulated silicone wire is heat and flame resistant and flexible in extreme cold conditions

MTA70 Alligator Clip Set.

- Screw-on style alligator clips for use with EEDM504B3
- Do not use with MTA24



MTTL505

MTA70

MTTL505 Grabber Lead Set.

- Grabber leads slide in to grab wire or terminal ends in tight areas
- Recommended for use with MTTL500 modular test lead set or MTTL700 with the MTTL7002 screw-on banana plug adaptors
- Use with any threaded test lead set using the MTTL7002
- The finger grip and plunger placement provides technician controlled placement of the jaws even under extreme conditions
- Jaw gripping pressure securely bites on the target terminal or wire
- Plunger and finger grip allow maximum jaw opening with minimum pressure for ideal placement, enabling a good contact
- Safety CAT III 1000 V, 10 A rating. cULus 61010 and IEC61010 listed



TLR6B

TLBR6B

Intrusive Circuit Testing Adaptors

- High quality "bed of nails" wire piercing adaptors
- These alligator style clips allow circuit testing when back probing is not desired or practical

TLB6B Adaptor. Straight nose test clip with black boot.

TLR6B Adaptor. Straight nose test clip with red boot.

TLBL6B Adaptor. Straight nose test clip with blue boot.

TLBB6B Adaptor. 15° bent nose test clip with black boot.

TLBR6B Adaptor. 15° bent nose test clip with red boot.

TLBBL6B Adaptor. 15° bent nose test clip with blue boot.



TLS4A

Battery Adaptor

TLS4A Battery Adaptor.

- 12V cigarette lighter style adaptor supplies power to circuit testers and scanners as well as to most other 12V powered devices like car phones and lights
- Copper-coated alligator clips with vinyl grips attach to battery terminals
- 3' cord length

Circuit Testers



CT4G

6 and 12 Volt Circuit Testers

CT4G Circuit Tester.

- Can be used to detect power, ground and find shorts and breaks
- 6' cord, insulated alligator clip, 3 1/2" long insulated probe
- 7 1/4" overall length
- Uses 2-5130 bulb



EECT300BR

EECT300BR Circuit Tester.

- Similar to CT4G
- Red coiled cord extends to 12'
- Uses 2-5130 bulb

EECT300BG Circuit Tester.

- Green coiled cord

EECT300BO Circuit Tester.

- Orange coiled cord



CT2

CT2 Miniature Circuit Tester.

- For easy access to tight places
- 1 3/4" long probe
- 4 1/2" overall length 6' cord
- Uses 2-5130 bulb



EECT301B

EECT301B Circuit Tester.

- Powered by vehicle plug or the TLS4 and TLS5 battery adaptors
- Red LED indicates power, green LED indicates ground
- 12 Volt only



EECT100

EECT100 Circuit Tester-Blue-Point®.

- Basic circuit tester
- Replaceable blue light (EECT100-1)



EECT314A

EECT314A Multi-Voltage Circuit Tester.

- Compatible with current 12 Volt and 42 Volt systems
- Safe for low current circuits since tester only draws 3 mA at 12 Volt
- Automatic voltage identification with blue LED for 12 Volt and red LED for 42 Volt



CTS42V

Specialty Circuit Testers

CTS42V Circuit Tester-Blue-Point.

- Quickly finds broken wires, blown fuses, bad switches and more
- Microprocessor controlled current loading capability for tests of powers and grounds
- Unit features all the advantages of an incandescent test light while being computer and air bag safe
- Super bright LED headlamp for working under dash, under hood or behind door panels
- Dual audible tone and bicolor LED indicate power, ground or open circuits
- 42 Volt



EECT313A

EECT313A Terminal Test Kit.

- Non-invasive system tests 6 and 12 Volt systems without damage to the connector
- Terminal matched tips assure a secure mechanical and electrical connection
- Flexible rubber probe tips prevent damage and allow access to tight spaces
- Uses 2-5130 bulb



YA11167

YA11167 OBD-II Breakout Box-Blue-Point.

- Provides easy access to all 16 OBD-II terminals and connection to scan tool
- Eliminates guessing which terminals are being probed
- Eliminates damage to vehicle terminals from probing
- Tester probes plug in securely so you are free to diagnose
- No more crawling under the dash
- Great for diagnosing inoperative communication links



CT24E

CT24E Circuit Tester.

- Circuit tester for 18 and 24V systems
- Uses 2-5130 bulb



CTN10001

CTN10001 Circuit Tester.

- Cordless unit with no ground wire to deal with
- Red LED indicator and audio signal to verify power
- Computer and air bag safe
- 3-24 Volt DC range



EEDMRACKM

EEDMRACKM

- Convenient rack to hold circuit testers, DMM lead sets, amp clamps, temperature probes and other accessories for multi-meters
- Can be mounted to wall with screws or placed on rollcab with magnetic block



WARNING



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• Read safety precautions on pages 594 to 597

TESTING AND ELECTRONICS

Circuit Testers



CTS2

Continuity Testers

CTS2 Continuity Volt Tester.

- Use as a conventional circuit tester or, with a flip of a switch, use as a continuity tester for testing ignition, wires, broken feed or ground, and blown fuse problems
- Tests for a range of DC voltage from 6 to 24V
- Running LED scale provides accurate tests of alternator output



EEFB315

EEFB315 Max Fuse Buddy™ Kit–Blue-Point.

- MAXI circuit testing capability up to 80 Amps
- Also works with ATC and MINI circuits (adaptors included)
- Unit features peak hold functions and one touch zero function
- Use on anti-lock brake circuits, car stereo circuits, power distribution circuits, marine and automotive branch circuits, rear window defogger circuits, solar power DC branch circuits, traction control circuits, solar charge controller circuits and heavy duty equipment circuits
- Amps: 0-80 Amps DC
- Resolution: 0.1A
- Accuracy: +2.0% of reading + 4 digits

YA8005 Fuse Saver Kit–Blue-Point.

- Dual type fuse box connector with 10' cord allows you to move around the vehicle testing wires while looking for the short
- Includes: 10, 15, and 20 Amp resetting breaker handles
- Use when installing radios, CD players, radar detectors and other accessory equipment

Accessories

YA8005-EXT 10' Extension Cord.

- 10' extension cord

YA8005-11 Buzz Alert Adaptor.

- Buzz alert sound module



MT1009A

Inductive Ammeters

MT1009A Inductive Ammeter Set (2 pcs).

- Meters require no direct hookup
- Just lay meter guide on cable for item being tested and take a reading
- Zero center scale provides a reading regardless of polarity
- Individual meters for measuring alternator and starter current



YA111KIT

Short Circuit Locator

YA111KIT Relay Shorting Plug Kit–Blue-Point.

- Plugs close normally open contacts and instantly determine which half of an output circuit is suspect
- Eliminates guessing which terminals to short
- Significantly reduces diagnostic time
- Kit works on all vehicles using standard 4 and 5 pin relays
- Avoids damage to relay socket as a result of probing

YA111-10 Relay Shorting Plug.

- 10 Amp

YA111-15 Relay Shorting Plug.

- 15 Amp

YA111-20 Relay Shorting Plug.

- 20 Amp



EEFB310

EEFB310 Fuse Buddy® Pro Test Kit–Blue-Point®.

- Great tool for reading circuit amperage draws and troubleshooting up to 30 Amps
- Includes: 1 meter with 3 interchangeable test functions: 30 Amp MINI circuit current testing, 30 Amp ATC circuit current testing and 30 Amp all purpose current test
- Plugs directly into MINI and ATC fuse sockets
- Original fuse is replaced in-line, thereby maintaining circuit protection
- Measuring range: 0-30 Amps/48 VDC – 10 seconds
- Accuracy: ±2% of reading
- Resolution: 100 mA



YA8006

Fuse Savers

YA8006 Master Fuse Saver Kit–Blue-Point.

- Dual type fuse box connector with 10' cord allows you to move around the vehicle shake-testing wires while looking for the short
- No wasted fuses
- Includes: 5, 10, 15, 20 and 30 Amp resetting breaker handles, buzz alert module and 6 fuse adaptors
- Use when installing radios, CD players, radar detectors and other accessory equipment



YA8005

Circuit Testers



YA7900A



YA7900AP

Trailer Harness Testers and Adaptors—Blue-Point®

YA7900A Mobile Universal Trailer Light Tester.

- Unit offers full trailer light testing features and capabilities with on-board diagnostics on site
- Using a 12 Volt car battery, a technician can wheel the tester to the trailer and power up all its lighting systems while diagnosing electrical problems in the brakes, turn signal, running and safety light systems
- RF remote control allows complete testing from over 100' away (a technician is free to walk around any size trailer while in full control of the testing sequence)
- Auto Cycle feature continuously powers up and switches to each circuit for 5 seconds to reduce inspection time

TECHNICAL SUPPORT

1-888-786-7899

Features:

- Overload indicator
- Open circuit indicator
- Reversed polarity indicator
- Backlit 30 Amp meter
- 3 Amp trickle charge input
- 20 Amp sole Power Input
- 7 round trailer socket
- Auto indicator
- Voltage indicator
- Circuit indicators
- Chassis ground
- 20 Amp fuse
- Power selection switch
- 10" pneumatic tires

YA7900AP Mobile Universal Trailer Light Tester.

- Same as YA7900A with trailer air brake systems test added

YA7900A-PKIT Brake System Testing Add-on Kit.

- Allows owners of the original YA7900A to add air brake testing capabilities to their units
- Upgrades YA7900A units to YA7900AP

YA7900A-1 Round Pin Cable.

- 7-way round pin cable is 5 feet long

YA7900A-2 Chassis Ground Cord.

- Chassis ground cord is 10 feet long

YA7900A-3 Adaptor.

- 7-way round to 7-way flat adaptor

YA7900A-4 Remote Control.

- Wireless



MTAC110

AC Voltage Sensor MTAC110

MTAC110 AC Voltage Sensor.

- Non-intrusive AC sensor detects voltage from 110 to 600 VAC
- Use to ensure the absence of current before working on a circuit
- Move probe tip along an insulated wire, near an outlet or near a circuit breaker and tip will glow if voltage is present



TLT8003



TLT8000



TLT5



TLT6



TLT7

TLT8003 Trailer Plug Adaptor.

- Converts 12 Volt feed at the back of a truck or SUV trailer socket to a dual 12 Volt power outlet
- Powers 12 Volt test equipment, charging equipment and work lights in shop environment
- Recreation purposes such as running air pumps, radios or TVs while tailgating and camping
- Plugs into any 7-way spade pin trailer connection

TLT8000 Three Way Trailer Adaptor.

- Adapts 7 way connection to 6 round pin and 4/5 pin connections
- Sealed plugs to keep road debris from corroding connections
- Winged grip for easy installation and removal
- Use on medium/light duty trucks, 1/2 ton, 3/4 ton and 1 ton pickups, campers and other heavy duty applications

TLT5 Trailer Harness Tester.

- Easily locates electrical problems in the tow vehicle
- Checks both 4 and 5 pin flat trailer connectors with LED indicator lights
- Tests left and right signals, brake lights and running lights

TLT6 Trailer Harness Tester.

- Checks 6 pin round trailer connectors with LED indicator lights
- Same applications as TLT5

TLT7 Trailer Harness Tester.

- Checks 7 pin round trailer connectors with LED indicator lights.
- Same applications as TLT5



YA3179B Circuit Chaser.

- Round pin circuit chaser for semi trailers
- Test the semi trailer plug and cable
- Both male and female ends so technician can isolate a fault to trailer or cable
- Can temporarily repair short circuits in the shop or on the road
- Includes: 5 jumper tabs and 1 replacement prong

YA3179B



AC41C

Electrical Brushes

AC41C Taillight Socket Brush.

- Stiff carbon steel wire bristles
- 6 5/8" long



WARNING



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- Read safety precautions on pages 594 to 597

TESTING AND ELECTRONICS

Hand Held Gas Analyzers



HHGA4X

HHGA4X Hand Held Gas Analyzer Kit.

- 5 gas analyzer tests vehicle exhaust emissions for Nitrogen Oxide (NOx), Carbon Monoxide (CO), Hydrocarbons (HC), Carbon Dioxide (CO2), Oxygen (O2) and AFR/LAMDA
- Provides ideal functionality for diagnostic work, pre-compliance testing and servicing vehicles to manufacturer's specifications
- Helps diagnose engine problems and catalytic converter failure
- Onscreen commands in 8 languages
- Can be powered by AC or 12V
- Fully portable and is ideal for on road testing
- Magnet on analyzer and printer allows mounting almost anywhere
- Print records to infrared printer

TECHNICAL SUPPORT
1-888-717-1333



MT706A



HHGA-8

HHGA-8 Motorcycle Exhaust Probe.

- Optional motorcycle exhaust probe for HHGA Series gas analyzers



HHGA-16

HHGA-16 AC Adaptor.

- Designed for use in the service bay



HHGA-9

HHGA-9 Five Gas Exhaust Probe.

- 5 gas exhaust probe for HHGA Series gas analyzers

HHGA-11 Filters.

- Filters for HHGA Series gas analyzers



HHGA-17

HHGA-17 12V Adaptor.

- Designed for use in the service bay or on the road

HHGA-18 Paper Roll.

- Replacement paper roll for HHGA-5 infrared printer



HHGA-5

HHGA-5 Infrared Printer.

- Infrared printer for HHGA series gas analyzers

Carbon Monoxide Analyzer

MT706A Carbon Monoxide Analyzer-Blue-Point®.

- Monitor and test adjustments affecting carbon monoxide emissions from gas powered vehicles, propane powered forklifts plus other combustion style equipment
- Flow indication warns of restricted emissions flow due to clogged or pinched lines
- Backlit display for ease of reading in dim light
- Range is 0 to 10% CO (approx. 100,000 PPM)
- Response time is 90% of reading in less than 60 seconds
- CE conformity

TECHNICAL SUPPORT
1-888-382-6522

Leak Detectors



ACT790

ACT790 Combustible Gas Detector. Find leaks in fuel and exhaust systems plus verify integrity of fuel storage containers. Detectable compounds include acetylene, iso-butane (R600a), methane, ethane (R170), propane (R290), hydrogen, acetone, methanol and gasoline. Probe length of 17". Uses (4) "AA" alkaline batteries. Body length of 10 3/8". Includes storage case.

- Numeric leak size indicator
- Audio mute function
- Automatic calibration
- Comfortable neoprene grip
- Intrinsic safety certified
- 3 levels of sensitivity
- Flashing probe LED visual leak indicator
- Long life sensor
- High impact injected molded instrument case
- 2 year warranty on detector, 2 years on sensor

TESTING AND ELECTRONICS

Leak Detectors



EELD302B



EELD100



EELDCOVER

Diagnostic Smoke™ Machines

EELD302B Diagnostic Smoke Machine (EVAP).

- Evaporative emissions diagnostic smoke machine delivers fully automatic EVAP system testing plus general purpose applications
- Vapor trail and/or fluorescent dye pinpoint leaks
- Unit safest with nitrogen (nitrogen optional)
- Uses EELD301A1 UltraTrace™ scent free smoke producing solution
- Unit ships fully loaded with smoke solution

EELD302B and EELD100 Applications:

- Oil leaks • EGR valve • Wind and water leaks
- PCV valve and hoses • Air cleaner assembly
- Mass air flow meter • Vacuum switches • Loose clamps
- Throttle body shaft • Diaphragms • Air valves
- Map sensors • Exhaust manifolds • Exhaust pipes and mufflers
- Vacuum hoses • Intake gaskets • Air ducts
- Carburetor base gasket • Injector o-rings

EELD100 Diagnostic Smoke Machine (EVAP).

- General purpose smoke machine

EELDCOVER Cover.

- Optional cover for EELD302B and EELD100

EELD302B and EELD100 Standard Accessories:

- EELD301A2 Cap Plug Kit.
- EELD301A3 Exhaust Cone Adaptor.
- EELD301A4 Wind/Water Leak Adaptor.
- EELD301A5 Halogen Spotlight.
- EELD302A1 Nitrogen Hose (optional on EELD100).
- EELD302A2 EVAP Port Adaptor (Standard Service).
- EELD302A3 EVAP Port Adaptor (Ford Service-optional on EELD100).
- EELD302A4 Schrader Valve Core Tool.

Specifications	EELD302B	EELD100
Power Supply	12VDC	12VDC
Power Consumption	15 Amps	15 Amps
Supply Volume	10 l/min	10 l/min
Line Length/Smoke Supply, ft. (mm)	10 (3)	10 (3)
Line Length/Power Supply, ft. (mm)	10 (3)	10 (3)
Line Length/Remote Starter, ft. (mm)	10 (3)	10 (3)
Weight, lbs. (kg)	21 (9.5)	19 (8.6)
Dimensions, inches (mm)	17 H x 16 L x 12 W (431H x 406L x 254W)	13 H x 13 L x 12 W (305H x 330L x 254W)

Diagnostic Smoke Vapor Producing Machines - Feature Comparison	EELD302B	EELD100
STAR Diagnostic Smoke vapor technology developed in collaboration with Ford Motor Co., GM & Chrysler (Approved by most major OEMs*)	•	•
UltraTraceUV® dye solution the ONLY dye solution approved by any OEM. Will not harm activated charcoal canister, ORVR valve, purge valves, catalytic converters, O2 sensors, seals or gaskets and determined not to void vehicle factory warranty*	•	•
Designed with an electronic safety valve that automatically shuts off air flow into the vehicle's EVAP system every time the machine turns off. This stops gasoline fumes from possibly continually exiting the EVAP system and filling your work bay*	•	•
Meets spec if OEM requires nitrogen to produce the smoke when testing the EVAP system*	•	•
Flow test capabilities*	•	•
Pressure decay**	•	•
Shared accessories: 1 Exhaust cone, Spotlight port adaptor, Cap plug kit, Tech Tip booklet	•	•
Additional accessories 25' nitrogen coiled hose, 2 Exhaust cones	•	
Dual Phase testing capabilities; first verifies 0.040 & 0.020 leaks with a simple 2 minute pass/fall test	•	
Internal orifice calibration for 0.040"=1999 vehicles and older	•	
Internal orifice calibration for 0.020"=2000 vehicles and newer	•	
Built in "Future" up gradable leak standard	•	
OEM test modes: Phase One & Phase Two	•	
Micro processor touch pad for quick and easy operation of tester	•	
2 Year Warranty		•
3 Year Warranty	•	

*Most OEMs now require this feature.

**EELD302B doesn't need this feature because it has OEM test modes for Phase-one and Phase-two

TECHNICAL SUPPORT
1-800-901-1988



WARNING



- Do not use in environment with explosive vapor • Use only in well ventilated area
- Read safety precautions on pages 594 to 597

TESTING AND ELECTRONICS

Leak Detector Accessories



EELD302CART



EELD302CART



EELD302REG



EELD302010



EELD301A1

EELD302CART Cart-Blue-Point.

- Exclusive heavy duty, black powder-coated cart holds the EELD302B or EELD100 securely in place allowing for easy transport anywhere in the service bay
- Specially designed tray carries nitrogen tank (optional)

EELD302REG Gas Flow Regulator-Blue-Point.

- Quickly pops-on virtually any filler neck
- Costly replacement seals are no longer needed
- One size fits all (new model vehicles may be subject to change)

EELD302010 Upgrade Kit, .010.

- Easily connects to nitrogen cylinder (optional)

- Easily connects to nitrogen cylinder (optional)

EELD301A1 UltraTraceUV[®] Smoke Solution.

- 3 pack of EELD301A1
- Single for BMW
- Follow the steps to install this kit into your EELR302B smoke machine
- EELD302B smoke machine will now measure leaks to .010"
- Includes solenoid assembly, o-ring and O'Keefe orifice
- UltraTraceUV[™] scent-free smoke producing solution for use with EELD301A/EELD302B smoke machines
- Single 12 oz. bottle

Specialty Meters and Small Testers



RELAYTEST1

RELAYTEST1 Automotive Relay Tester.

- Quickly and accurately test 4 and 5 terminal electromechanical relays used on many domestic and imported automobiles.
- Will interrogate and identify an unknown relay terminal configuration then self configure its own internal circuitry to perform all required test functions automatically
- Can be used to perform the following tests: coil resistance, surge suppression device (resistor or diode), open/closed contact integrity, contact cyclic testing for intermittent failure detection, loaded contact continuity, relay contacts stuck open or closed and time to contact closure and opening
- Unit automatically indicates test results with a series of red, green and yellow performance lights



EEDM575D

Digital AC/DC Clamp On Meters

EEDM575D Digital Clamp On Meter.

- A true RMS meter that provides accurate measurements of nonlinear current
- Designed to measure starting current to 400 Amp, as well as volts, resistance and frequency
- Use to diagnose wheel speed sensors, injector control signals, cam and crank outputs, test cables, connections and fuses
- LCD display and analog bar graph enhance viewing of fast signal changes
- Records maximum and minimum values of RMS current, frequency or other measurements with Min/Max/Rec function
- Meets UL, IEC and cULus61010 safety standards
- Includes test leads, temperature probe, soft carrying case, battery and instruction manual

Specifications	EEDM575D
Display Count	11,000
AC Amps	400
AC Volts	600
DC Amps	400
DC Volts	600
Basic DC Accuracy	0.5%
Frequency	10 KHz
Resistance, ohms	110M
Dimensions, (L x W x H) inches	10" x 1 3/8" x 2 1/2"



YA76562

Coil-On-Plug (COP) Probe

YA76562 Ignition Quick Probe-Blue-Point.

- Quickly verify the firing of a coil on plug (COP) ignition coil and spark plug
- Eliminates the need for back probing coil wires and disassembly to test at the coil connector or spark plug
- Variable sensitivity (VS) thumbwheel for greater diagnostic accuracy and expanded application coverage
- Super bright KV and ARC indicator LEDs

Quickly pinpoint the source of noise or vibration in underhood, undercar and vehicle interiors. 6 selectable channels allow placement of sensors in various locations to pick up bearing, gear, engine, suspension, drive accessory and wind noises.

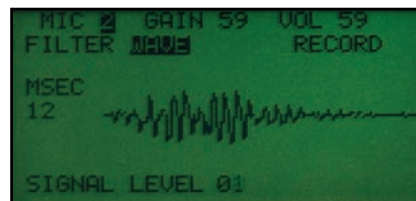


LD6900

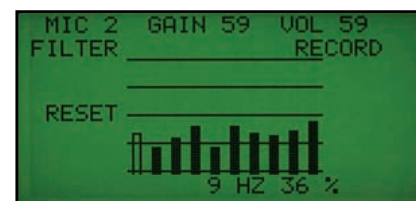
Electronic

LD6900 THEBIS™ Diagnostic Unit.

- Under Chassis: Differentials/CV joints, transmission/transfer cases, u-joints plus bearings, gears and suspensions
- Under Hood: Faulty fuel injectors, vacuum leaks, noisy valves and lifters
- Body: Wind and vent noise, dashboards and instrument panels
- Operate as an electronic noise and vibration detector using the inductive clamp or vent microphone attachments
- Operate as an electronic stethoscope using the listening wand and contact probe attachments
- Recorded files are stored on included USB memory stick for easy playback on PC



Wave Form Viewer-displays a visual representation of the audio signal



Band Pass Filter-tunes out unwanted background noises

YA6890KT Electronic Squeak and Rattle Finder–Blue-Point®.

- Quickly pinpoints source and location of noises emanating from under chassis, under hood, transmission, differential/CV joint, faulty fuel injectors and bearings, gears and suspension parts
- Helps detect and isolate squeaks, rattles, groans, cowl “pops”, clunks, growls, thumps, rumbling and ticking noises
- Wireless transmitters feature magnetic body with versatile clip
- Wireless channel receiver isolates six different transmitter locations
- LED lights indicate the strength of signal of the active channel
- Illuminated button indicates active channel at a glance

YA6895 Transmitter (Channel 5)–Blue-Point.

- Optional transmitter for YA6890KT. Operates on channel 5

YA6896 Transmitter (Channel 6)–Blue-Point.

- Optional transmitter for YA6890KT. Operates on channel 6

YA6930 Electronic Engine Stethoscope–Blue-Point.

- Electronic stethoscope amplifies sound during diagnosis or verification of proper vehicle operation
- Contact probe is used to pinpoint faulty bearings, injectors, squeaks, rattles and more
- Mode selection switch with LED indicator easily switches between the stethoscope and contact probe functions
- Noise cancellation feature eliminates background noise
- Studio style headphone set with tangle free cord
- Detachable flex-wand with LED illuminated tip
- Rotary volume control



YA6930



WARNING



• Read safety precautions on pages 594 to 597

TESTING AND ELECTRONICS

Stethoscopes



YA6910



YA6920



MST100



GA111D



YA6800

Electronic

YA6800 Electronic Stethoscope-Blue-Point®.

- Features 7 level sound control settings, A/B tone control, high/low volume controls, and battery check position on control stick
- Supersensitive microphone in top is attached to a flexible 9" shaft for hard to reach areas
- LED light signals when switch is on; earphones block outside noise
- Adjustable volume controls

YA6910 Mini Electronic Stethoscope-Blue-Point.

- Convenient diagnostic tool can pinpoint location of noise caused by bad bearings, bushings, dirty fuel injectors, wind and air leaks, noisy valves and lifters
- Allows user to monitor gears, bearings and suspension components under load so problems can be more accurately diagnosed
- Sensor clamp helps to detect noises during test drives that cannot be duplicated in the work bay
- Sensor tip mounted on 6" flexible shaft allows access to hard-to-reach areas
- 5" inductive metal probe allows user to pinpoint source of noise or vibration
- Ultra sensitive microphone provides a full range of sound
- Rotary volume control allows easy adjustment

YA6920 Electronic Marine Stethoscope-Blue-Point.

- Unique diagnostic listening device specifically designed to pinpoint squeaks, rattles and other troublesome noises in most marine vessels and watercraft with inboard or outboard motors
- Test for noise and harmonic vibration on bearings, under dash areas, control cables, fuel injectors, cabinets and compartments, alternators, switches, pumps, final drives, steering gears, gear cases, steering pumps, hulls and compressors
- 14 ft. long, water-resistant wire loom harness allows user to diagnose hard-to-reach problem areas
- 6 spring-loaded, color-coded stainless steel sensor clamps with built-in super sensitive microphone in the tips for optimal sound detection
- Heavy-duty professional headphones block any unwanted sounds

Mechanic's

MST100 Mechanic's Telescoping Stethoscope.

- Stainless steel shaft extends to a 36 1/2" overall length for easy access to hard-to-reach areas
- Aluminum sound chamber produces a more natural sound than plastic chambers
- Flexible tubing to ear piece aids positioning
- Rigid shaft extends, keeping hands away from heat and moving parts
- Soft comfortable ear piece is replaceable
- Comfortable soft grip handle
- Probe reverses to fit inside chamber for safe, compact storage
- Length closed with probe reversed (11")
- Length closed (15")
- Length extended (36 1/2")

GA111D Mechanic's Stethoscope.

- Locates any engine sound such as bearing noise, knocks, squeaks in fan or water pump, and valve tappets
- Sound amplifying diaphragm and a 12" probe to locate trouble

TESTING AND ELECTRONICS

Infrared Thermometers

These infrared thermometers safely monitor hot, hazardous or hard to reach materials without contamination or damage to the surface. Simply point at target, pull the trigger read the temperature on the large, backlit LCD display.

Applications:

- Pinpointing radiator core restrictions
- Checking exhaust and emission control problems
- Measuring catalytic converter temperatures
- Diagnosing exhaust manifolds for combustion problems
- Measuring tire temperatures
- Measuring race track temperatures
- Measuring bearing, rotor, drum or brake temperatures for potential problems
- HVAC-Use for temperature room balancing, check supply/return registers duct work, monitor steam traps, furnace performance plus use in energy audits
- Check bearing, rotor, brake and drum temperatures
- Food Safety-Perform HaCCP temperature measurements at receiving docks, take cooking temperatures, check hot and holding temperatures, ensure storage temperatures on freezers, ovens and ranges



Features	RTEMPB4	RTEMPB120	RTEMPB3A	RTEMPB2A
Temperature Range	-67° to 428°F (-55° to 220°C)	-7° to 248°F (-22° to 120°C)	-58° to 932°F (-20° to 500°C)	0° to 500°F (-18° to 260°C)
Temperature Display	Selectable for °F or °C	Selectable for °F and °C	Selectable for °F and °C	1°F or .5°C
Response Time	0.5 Seconds	Less than 0.5 Seconds	0.5 Seconds	500 mSec, 95% Response
Emmissivity	Adjustable, set to 0.95	Pre-Set 0.95	0.98	Pre-Set 0.95
Power	3 V Lithium (Included)	CR2032 Battery	9 V Alkaline or NiCad Battery	9 V Alkaline or NiCad Battery
Accuracy	±2% of Reading	2% of Reading or ±3.5°F, whichever is greater	±2% of Reading or ±2°C (±4°F)	±2% of Reading or ±2°C (±3.5°F)
Distance To Spot Ratio	1:1	1.3:1	12:1	6:1
Ambient Operating Range	32° to 104°F (0° to 40°C)	32° to 104°F (0° to 40°C)	32° to 105°F	32° to 120°F (0° to 50°C)
Protective Case	—	—	Storage Case	Optional (RTEMPBPK)



Features	RTEMPB5	RTEMP25PB	RTEMP30PBA	RTEMP60PBA
Temperature Range	-76° to 1,400°F (-60° to 760°C)	-25° to 999°F (-32° to 535°C)	-32° to 545°C (-25° to 950°F)	-32° to 600°C (-25° to 1,100°F)
Temperature Display	Selectable for °F and °C	Selectable for °F and °C	0.2°C (0.5°F)	0.2°C (0.5°F)
Response Time	1 Second	Greater Than 0.5 Seconds (95% of Reading)	500 mSec.	500 mSec.
Emmissivity	Adjustable, set to 0.95	Pre-Set 0.95	Pre-Set 0.95	0.1 to 1.0 Digitally Adjustable
Power	(2) AAA Batteries	9V Alkaline or NiCad Battery	9V Alkaline or NiCad Battery	9V Alkaline or NiCad Battery
Accuracy	±1% of Reading	(-25 to -15°F/-32 to -26°C) ±5°F (±3°C) (-15 to -0°F/-26 to -18°C) ±4°F (±2.5°C) (0 to 73°F/-18 to 23°C) ±3°F (±2°C) (73 to 950°F/23 to 510°C) ±1% of Reading or ±2°F(±1°C) whichever is greater (Above 950°F/510°C) ±1.5% of Reading	±1% of Reading or ±1°C (±2°F)	±1% of Reading or ±1°C (±2°F)
Distance To Spot Ratio	30:1	Optimized for use at 8"; Approx. 16:1 at Focus Point	12:1	30:1
Ambient Operating Range	32° to 104°F (0° to 40°C)	32° to 120°F (0° to 50°C)	0° to 50°C (32° to 120°F)	0° to 50°C (32° to 120°F)
Protective Case	Storage Case	Storage Case	Protective Hard Case	Protective Hard Case

RTEMPBPK Carrying Case. Rugged and compact carrying case with wrist strap (optional).

RTEMP60EX Contact Probe. Optional contact probe for RTEMP60PBA infrared thermometer.



WARNING



• Read safety precautions on pages 594 to 597

TESTING AND ELECTRONICS

Tachometers



EEDMTACH1

EEDMTACH1 Digital Tachometer.

- Combination contact/non-contact tachometer with Minimum (MIN), Maximum (MAX) and LAST or current reading
- Non-contact operation uses photoelectric sensor and reflective tape (included)
- Contact measurements are taken with 1 of 3 contact adaptors; cone, concave wheel or large wheel
- Current data will remain until the next reading is taken
- Memory figures will remain until the next recorded reading is taken

Ranges:

Photo Tach: 5 - 30,000 RPM
 Contact Tach: 0.5 - 19,999 RPM
 Surface Speed: 0.2 - 6,560 ft/min or 0.5 - 1,999 m/min

MTTACH1A1 Photo Tape.

Reflective photo tape for the EEDMTACH1 Tachometer.



contact adaptors



EEDMRPM500

EEDMRPM500 Digital Tachometer (Gas Engines).

- Use to digitally read RPM on single cylinder, 2 or 4 stroke gas engines
- Choose between 2 or 4 stroke engines and 1 or 2 spark ignition systems
- Unit provides MIN/MAX readings with 8 storage locations to save readings for future reference
- Range is 300 to 10,000 RPM
- Powered by 9V battery (included)
- Overall dimensions are 2 3/4" x 5 3/4" x 1"

EEDMRPMD500 Diesel Engine Adaptor.

- Optional diesel engine adaptor for the EEDMRPM500 digital tachometer
- Use on diesel engines only
- Range is 300 to 6,000 RPM



EEDMRPMD500

Diesel Timing Meter

MT257B Diesel Pulse Adaptor-Blue-Point®.

- Test injector timing or engine RPM on diesel engines equipped with 1/4" or 6mm external steel fuel injector lines
- Enables use with inductive pick up timing light to test engine timing
- Not for use on diesels with common rail fuel systems



MT257B

Timing Lights



EETL500



EETL5568



MT125A

EETL500 - Timing Light and Ignition System Analyzer

- Diagnose ignition system drivability problems
- Inspect and adjust ignition timing on conventional, DIS and aftermarket ignition systems with digital display
- View Tachometer readings (249-9,999 RPM), adjust Dwell settings (0° to 180° / 2-12 cyl.) and set base ignition timing and overall advance / retard (0° to 90°)
- Measure the minimum and maximum firing kV (Kilovolts) on each cylinder and view the spark burn time in ms (milliseconds) of each ignition event
- Quickly inspect the condition of the battery and charging system by observing the status of the red, yellow and green LEDs

EETL5568 Digital Timing Light-Blue-Point.

- Multi function timing light works on all distributorless and conventional ignition systems
- Skip circuitry tests tachometer readings up to 9,900 RPM
- View, set and adjust ignition advance and retard from 0° to 90°
- Measure and adjust ignition dwell from 0° to 180°/ 2-12 cylinders
- Measure battery and charging voltage from 10 to 16 Volts
- Dual display backlit screen allows clear viewing of tachometer and ignition advance reading
- Pivoting barrel allows easy access and a clear view to ignition timing marks

MT125A Self Powered Timing Light.

- Self powered timing light features a single 6' inductive pick up
- Quick attachment to spark plug wires on motorcycles, marine motors, snowmobiles, jet skis, small engines and other equipment that do not have easy access to a battery power source
- Can be used for automotive applications as well
- On/Off switch is located within thumb reach

Computer/Electrical



YA960

YA961

Computer Memory Savers

YA960 Computer Memory Saver.

- Prevents memory loss on digital radios, clocks, door locks, and computers when disconnecting vehicle battery
- Plugs into cigarette lighter socket
- Uses a 9V battery to keep "memories" alive for up to four continuous hours
- Use YA961 on Chrysler products

YA961 Computer Memory Saver.

- Similar in function to YA960 except its power source is any 120VAC outlet
- Will work on all vehicles



TLM12AO

TLM12AO Computer Memory Saver.

- Saves computer memory on clocks, radio settings and fuel injection systems
- Simply plug into cigarette lighter, then attach battery clamps to spare battery

EECS5MEM OBDII Memory Cord, 5'.

- Use in conjunction with a jump starter to preserve vehicle codes and electronic presets while a vehicle's battery is disconnected
- Turns any jump starter with a 12V power port into a memory saver
- Interface connector between a jump starter and a vehicle's OBD II port
- Prevents electronic memory loss when disconnecting a vehicle's battery
- LED confirms a proper connection has been made to OBD II port



EECS5MEM



YAGM1

Service Light/Airbag Resetting Tools

YAGM1 Air Bag Release Tool.

- Tool will quickly and easily release the retention springs for the removal of the SIR module on certain late model GM vehicles
- Applications include Cadillac, Buick Park Avenue, Pontiac Grand Am, minivans and trucks

Electrical



FZ4B



YA9811



FZ7A



GMSTB25

Fuse Tools

FZ4B Fuse Tongs. Delrin tongs pull fuses up to 15/16" in diameter. A 1/8" hook on the handle pulls short fuses. Tongs have high insulating qualities and are resistant to oil, water and heat up to 300°F. Hand stops prevent slipping.

FZ7A Fuse Tongs. Nylon tongs remove auto high tension wires and pull cartridge fuses from 15/16" to 1" in diameter. Has hooks on handles and jaws. Tongs have high insulating qualities and are resistant to oil, water and heat up to 300°F. Hand stops prevent slipping.

YA9811 Relay/Fuse Pliers. Remove/install relays and fusible links. Designed to reach into confined access areas. Features convenient slip joint design to enable use for a variety of sizes. Coated pliers tip securely grips corner of relay or fusible link. Black industrial finish with red cushioned grip handles. 8" in length.

GM Multi-function Switch Tools

GMSTB25 GM Multi Function Switch Tool. Reduces the time it takes to replace the multifunction switch (turn signal/dimmer/windshield wiper switch). Tool includes a low profile 1/4" bit wrench with a T25 Ball Torx® bit that allows better control and access in restricted areas. Conveniently remove/install the multifunction switch on GM vehicles. Allows the multifunction switch to be removed and installed without removing the air bag, steering wheel, and clock spring. Reversible ratchet action speeds tightening/loosening. Heat treated for strength and durability. Chrome plated for great appearance and wear resistance. Magnetic bit retention to allow for easy replacement of bits. Please visit www.snapon.com for the full application listing.

Terminal Tools

GA500A Wire Terminal Tool-Blue-Point®. Removes flat and round wires from terminal blocks without damage. 6 stations fit most sizes.

YA500GM Wire Terminal Tool. Services wire connectors on computer-controlled GM vehicles and most AMC products.

YA13120 Electrical Connector Separator. Disconnect electrical connectors without damage. Double ended to fit different access angles. Easy to use. Simply engage the tool tip behind the connector clip and push or pull to disconnect. Works on weather pack and other automotive electrical connectors.



GA500A



YA500GM



YA13120



WARNING



• Read safety precautions on pages 594 to 597

FUEL AND ENGINE SYSTEMS

Electrical



TT600



TT12KT



SGTT106A



SGTT110

Terminal Tools

TT600 Terminal Tool Kit. Includes 6 tools for removing terminals from harness blocks: pin vise, square probe, wedge probe, tube probe, flat probe, and hook probe. Tools come in a vinyl pouch.

TT12KT GM C3/Wire Terminal Tool Kit. Applications include most GM and other domestic computer connectors and terminals. Individual handles for easy access in tight places. Designed for weather pack and pack-con terminals with flat blade to open connectors and fork for ALDL connectors to access trouble codes. Color coded: Red handle for GM and Green for wire terminal tools. Includes molded storage case.

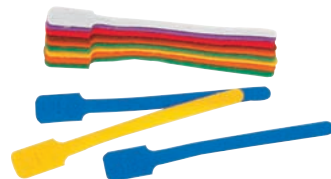
- TT1201 3.3MM X 28MM terminal tool
- TT1202 1.4MM X 28MM square terminal tool
- TT1203 1.5MM X 24.75MM flat terminal tool
- TT1204 2.0MM X 22MM flat terminal tool
- TT1205 8.0MM X 24MM fork terminal tool
- TT1206 3/16IN X 1.0IN flat screwdriver
- TT1207 3.3MM X 28MM tube terminal tool
- TT1208 4.3MM X 13MM tube terminal tool
- TT1209 3.75MM X 13MM tube terminal tool
- TT1210 3MM X 13MM tube terminal
- TT1211 3MM flat 2 blade terminal tool
- TT1212 1.6MM flat 2 blade terminal tool
- TT1213 blow molded case

Kit includes these GM C3 System terminal tools (red handle):
 tube, spring loaded, 3.3 x 28mm
 square blade, 1.4 x 19.00mm
 flat blade, 1.5 x 24.75mm
 flat blade, 2.0 x 23.00mm
 fork blade, 8.0 x 24.00mm
 flat blade screwdriver,
 3/16" x 1.00"

Kit includes these wire terminal tools (green handle):
 tube, 3.30 x 28.0mm
 tube, 4.30 x 13.0mm
 tube, 3.75 x 13.0mm
 tube, 3.00 x 13.0mm
 flat twin blade, 3.0mm
 flat twin blade, 1.6mm



GOFER1A



GOFER4A

Wire Installation Tools

GOFER1A Wire Installation Tool. Designed for quick installation of wires for stereo systems, alarm systems, cellular phones, vacuum hoses and air shock supply lines. Conical shaped collet provides secure wire retention when threading wires. Will push or pull wires through openings.

GOFER4A Holding Straps. 1/2" wide by 8" long Velcro® fastening holding straps. Use to organize and hang tools in the shop, or to separate or retain hoses or wires during engine service. Also helpful for sorting wiring during test, for holding scope or meter leads together, or a multitude of other applications. 12 straps included in 8 different colors.

Soft Grip Terminal Tools

Easily remove terminals from electrical connectors found on mid-1990s and later domestic and import vehicles. Terminal tools incorporate a stainless steel design with ergonomic "soft grip" handles.

SGTT1A Soft Grip Terminal Tool. Use on PCM and transmission harnesses found on Chrysler, Hyundai, Kia and Mitsubishi. 4 13/16" long.

SGTT2A Soft Grip Terminal Tool. Provides robust narrow width blade with fulcrum for easier access to release tabs found on newer terminal blocks. General purpose release tool for domestic and import vehicles. 5 1/8" long.

SGTT3A Soft Grip Terminal Tool. Use on underhood sensors such as coolant temperature and throttle position sensors. For use on Ford, GM (including Cadillac), Chrysler, Mitsubishi and Hyundai. 4 13/16" long.

SGTT4A Soft Grip Terminal Tool. Use for cutting open wire harnesses for easy access to troubleshooting and replacement applications. Easily slits harness sheathing without piercing the wires inside. 4 3/8" long.

SGTT5A Soft Grip Terminal Tool. Use on 55 pin ABS ECU's found on Ford, GM, Jaguar, Jeep, Volvo, VW, BMW, Hyundai, Kia and Mercedes. 4 13/16" long.

SGTT6A Soft Grip Terminal Tool. Use on 35 pin ABS ECU's found on Audi, BMW, Chrysler, Ford, GM, Infiniti, Isuzu, Jaguar, Mazda, Mercedes, Mitsubishi, Nissan, Porsche, Subaru, Saab, Volvo and VW. 4 13/16" long.

SGTT7 Soft Grip Terminal Tool. Applications: Powertrain Control Modules (PCM) on Acura, Audi, Chrysler, Ford, Hyundai, Jaguar, Kia, Mercedes, Mazda, Toyota and Volkswagen. 4 27/32" long.

SGTT8 Soft Grip Terminal Tool. Applications: Powertrain Control Modules (PCM) on Acura, Audi, Buick, Chrysler, Ford, GM, Honda, Jaguar, Mercedes, Mazda, Toyota and Volkswagen. 4 27/32" long.

SGTT9 Soft Grip Terminal Tool. Applications: Powertrain Control Modules (PCM) on Acura, Audi, Chrysler, Jaguar, Hyundai, Kai, Mercedes, Toyota and Volkswagen. 4 27/32" long.

SGTT10 Soft Grip Terminal Tool. Applications: Open connector clips and sides of clips on Acura, Audi, Chrysler, Honda, Mercedes, and Volkswagen. 4 27/32" long.

SGTT106A Soft Grip Terminal Tool Set. Includes SGTT1A thru SGTT6A (6 pcs) in kit bag.

SGTT110 Soft Grip Terminal Tool Set. Includes SGTT1A thru SGTT10 (10 pcs) in storage tray.

FUEL AND ENGINE SYSTEMS

Compression Gauge Sets and Adaptors



MT308M



EEPV303B

Compression Gauge Sets

- Intended for use on spark ignited gasoline engines that do not exceed 300 psi compression
- Uses hose adaptors that thread into the spark plug hole and connect at the gauge hose's quick coupler
- Maintains highest compression test reading and resets to zero with a push-button release valve
- Gauge displays individual cylinder pressure
- Test range: 0-300 psi (0-2,000 kPa) in 10 psi (50 kPa) increments

MT308M Compression Gauge Set.

- Test late model cars and trucks with hard to access spark plug ports
- Gauge assembly includes 2 3/4" diameter gauge and 27" flexible hose with quick coupler

EEPV303B Motorcycle Compression Gauge Set.

- Test motorcycles and recreational vehicles with hard-to-access spark plug ports
- Gauge assembly includes 2 3/4" diameter gauge and 18" flexible hose with quick coupler

Compression Gauge Adaptors

- 10 1/4" length unless otherwise noted
- Standard reach applies to flat and tapered spark plug hole seats: long reach applies to servicing motorcycle engines



EEPV305A

EEPV305A Compression Gauge Adaptor.

- Long reach (M10 x 1.0 pitch)



MT26J300R

MT26J300R Compression Gauge Adaptor.

- Long reach (M14 x 1.25 pitch)



MT26J400

MT26J400 Compression Gauge Adaptor.

- Standard reach (M18 x 1.5 pitch)



EEPV304A

EEPV304A Compression Gauge Adaptor.

- Standard reach (M10 x 1.0 pitch)



MT26J200R

MT26J200R Compression Gauge Adaptor.

- Standard reach (M14 x 1.25 pitch)



EAK0259L02A

EAK0259L02A Compression Gauge Adaptor.

- Long reach (M16 x 1.5 pitch) for Ford 5.4L Triton™ engines
- 18" length



EEPV306A

EEPV306A Compression Gauge Adaptor.

- Long reach (M12 x 1.25 pitch)



EEPV307A

EEPV307A Compression Gauge Adaptor.

- Main application 2nd generation Ford Triton engines 2008 and later
- Tests cylinder compression up to 300 psi
- Additional applications include: Mercedes (most V6 and some V8 models newer than 2006), Nissan (2.0L 2007 and later) plus Toyota Scion (1.8L 2008 and later)

Cone Type Compression Gauge

MT27C Cone Type Compression Gauge.

- Dial reads from 0 to 250 psi in 5 psi increments (0 to 1,700 kPa in 20 kPa increments) and is specially designed for Type I VW's
- Offset stem overcomes clearance problems
- Check valve located at bottom of unit to avoid interference with cooling shroud sheet metal

MT27BR Service Kit.

- Included with MT27C gauge
- Contains cone tip, valve, and sealing ring in drawstring bag



MT27C



WARNING



- Do not expose gasoline or fuel to flames, sparks or other sources of ignition
- Use only in well ventilated areas • Read safety precautions on pages 594 to 597

FUEL AND ENGINE SYSTEMS

Diesel Compression

MT33C Diesel Compression Gauge.

- Dial reads from 9 to 800 psi and from 0 to 5,500 kPa
- Gauge includes 18" hose with release valve



Compression Adaptors - Injector Style

EEPV313A Diesel Compression Gauge Adaptor.

- For 1998 to 2002 Dodge 24 valve 5.9L Cummins plus 5.9L Cummins ISB and ISBE diesel engines

M3540A Compression Adaptor.

- For Cummins 855 cu. in. and NH 903 V8 L10 diesel engines

M3543A Diesel Compression Gauge Adaptor.

- For Detroit 53, 71, 92, and 8.2L diesels

M3542A Diesel Compression Gauge Adaptor.

- For Volkswagen, Mercedes-Benz, Volvo, and Audi 5000 diesel engines M24 x 2.0

M3571 Diesel Compression Gauge Adaptor.

- For 21mm injectors and Bosch type injectors on the following diesel engines: Allis Chalmers 433, 649, and 670, Allis/Fiat 3 cylinder, John Deere 404, 466, 531, and 619, Navistar 361 and 407, Perkins 4.203, 4.236, 4.248, 6.354, and 8.540, Wisconsin Engine 340, 350, 430, 660, 670, 750, 860, and 1000, White Engine D2000, D2300, D3000, D3400, and D4800, Mack 673, 674, 675, 864, 865, and 866, Waukesha diesel engines, Ford Tractor diesel engines, Scania DN11 and DS11



M3572 Diesel Compression Gauge Adaptor.

- For pencil type injectors on the following diesel engines: Caterpillar 3208 and 1100 Series, Case 70 Series, 188 and 207, John Deere early 300, 400, and 500 Series, 276, 404, and 531

M3574 Diesel Compression Gauge Adaptor.

- For 17mm injectors on Navistar DT466 and 9L, 312, 360, 414, 436, and 446 diesel engines

M3584 Compression Adaptor.

- For Case/Cummins Series "B" 2.9L, 3.9L, and 5.9L diesel engines

M3585 Compression Adaptor.

- For Case/Cummins Series "C" 8.3L engines



Compression Adaptors - Glow Plug Style

- All "M" series glow plug style adaptors plus the EEPV312A adaptor require the use of either the M3569 or M3570 quick coupler
- EEPV314A, EEPV315A and EEPV317A do not require the use of a quick coupler

EEPV312A Glow Plug Compression Adaptor.

- For GM Duramax 6600 and Isuzu 6.6L diesel engines

EEPV314A Glow Plug Compression Adaptor.

- For Ford / Navistar 7.3L Powerstroke diesel engines

EEPV315A Glow Plug Compression Adaptor.

- For Volkswagen 1.9L TDI diesel engines

EEPV317A Glow Plug Compression Adaptor.

- For Ford Powerstroke 6.0L and Navistar/International 6.0L VT365E engines with 14M x 1.25 glow plug size

M3545B Glow Plug Compression Adaptor.

- For GM 4.3L and 5.7L plus Navistar 6.9L and 7.3L diesel engines
- Replacement valve core is M3545A4
- Must be used in conjunction with MT33C compression gauge and M3569 or M3570 quick couplers

M3569 Quick Coupler.

- 45° offset

M3570 Quick Coupler.

- 90° offset

M3564 Glow Plug Compression Adaptor.

- For GM 6.2L and 6.5L diesel engines

M3565A Glow Plug Compression Adaptor.

- For Isuzu 1.8L and 2.2L diesel engines and Toyota 1.8L diesel engine

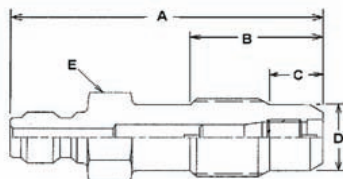
M3566 Glow Plug Compression Adaptor.

- For Toyota and Nissan 2.2L diesel engines, plus Mitsubishi 2 and 3 cylinder engines

M3576 Glow Plug Compression Adaptor.

- For BMW 2.4L engines used in 1984 and 1985 Lincoln, Mark VII, and Continental models; Peugeot 1978 to 1984, 2.0L and 2.3L engines; VW, Audi, and Volvo 1.5L, 1.6L, 2.0L, and 2.6L engines

Glow Plug Style



Adaptors

Stock No.	Thread	A inch (mm)	B inch (mm)	C inch (mm)	D inch (mm)	E (Hex)
EEPV312A	M10 X 1.25	4.12 (104.65)	3.00 (76.20)	2.50 (63.50)	.320 (8.13)	12mm
EEPV314A	M10 X 1.0	3.33 (84.58)	2.78 (70.61)	2.31 (58.67)	.315 (8.00)	10mm
EEPV315A	M10 X 1.0	2.05 (52.07)	1.50 (38.10)	1.03 (26.16)	.315 (8.00)	10mm
M3545B	M10 X 1.0	1.78 (45.20)	1.06 (26.92)	.38 (9.65)	.385 (9.77)	3/8 in.
M3564	M10 X 1.0	2.46 (62.48)	.79 (20.00)	.25 (6.35)	.325 (8.25)	3/8 in.
M3565A	M10 X 1.25	2.50 (63.50)	1.61 (26.92)	.866 (21.99)	.320 (8.13)	12mm
M3566	M10 X 1.25	1.96 (49.78)	1.27 (32.26)	.39 (9.14)	.315 (8.00)	12mm
M3576	M12 X 1.25	1.77 (44.95)	1.08 (27.43)	.300 (7.62)	.305 (7.75)	12mm
M3577	M10 X 1.25	2.19 (55.62)	1.50 (38.10)	.59 (14.98)	.317 (8.05)	12mm

FUEL AND ENGINE SYSTEMS

Cylinder Leakage/Engine Vacuum Gauges and Tester



EEPV309A

EEPV309A Cylinder Leakage Tester.

- Use on all domestic and import engines
- Input pressure gauge displays input air pressure for proper cylinder leakage test set up and accurate results
- Pressure gauge range is 0-100 psi (0-700 kPa) in 2 psi (20 kPa) increments
- Cylinder leakage gauge displays leakage as a percentage of input pressure with three distinctive zones of high, moderate and low



EEPV308A

EEPV308A Automatic Transmission Pressure Gauge Set.

- Use on all major manufacturer domestic and import vehicles
- Set includes two gauge assemblies for high and low pressure ranges plus 9 adaptors to test a wide variety of automatic transmissions
- Four special fittings are also included for connection to hard-to-reach test ports in areas requiring a 45° or 90° angle high pressure gauge (0-500 psi/0-3,500 kPa over pressure protected to 1,500 psi) assembly includes 3 1/2" diameter gauge and 10" flexible hose with fluid coupler
- Low pressure gauge (0-100 psi) assembly includes 2 1/2" diameter gauge and 6' flexible hose with fluid coupler

EEPV311A Vacuum Pressure Gauge Set.

- Use for almost all basic vacuum pressure testing needs in the shop
- Perform engine vacuum tests on gasoline engines as well as exhaust back pressure tests on applications with an oxygen sensor
- Test vacuum accessories and emission control devices such as EGR valves canister purge systems, air switching and divert valves, vacuum delay and check valves, heater and A/C controls and cruise control systems
- Multi-color gauge face with scales of in., Hg., psi, negative kPa and positive kPa



EEPV311A



MT37A

MT37A Oil Pressure Gauge Set.

- Use on diesel and gasoline engines
- Includes standard and metric adaptors for most domestic and import cars, trucks, tractors and stationary engines
- Features bright, easy to read gauge with green protective boot
- Includes: 0-100 psi (0-700 kPa) gauge assembly
Hose Assembly
Adaptor (1/8-27 to 1/4-18)
Adaptor (1/8-27 to 3/8-18)
Adaptor (1/8-27 to 1/8-28 BSPT)
Adaptor (1/8-27 to M10 x 1.0)
- Adaptor (1/8-27 to M12 x 1.5)
Adaptor (1/8-27 to M14 x 1.5)
Street Elbow
2" Large Nipple
Coupling

YA4000B Automotive Test Kit-Blue-Point®

- Produces vacuum or pressure at the turn of a switch
- Comfortable ergonomic design
- One-finger trigger vacuum/pressure release
- Durable, accurate diaphragm style pressure/vacuum gauge
- Includes:
 - Hand held vacuum/pressure pump with 2" compound gauge and rubber boot
 - 12 oz. fluid reservoir bottle with fluid transfer and storage lids plus fluid pick-up tube
 - 6 tapered adaptors for connecting to tubing from .09" to 1/2" ID, rubber cupped adaptor
 - 2 tapered manifold plugs
 - 2 universal bleed screw adaptors
 - 12 vacuum cap plugs, vacuum line T-adaptor
 - (2) 1/4" ID x 24" long connection tubes with quick-change connector
 - 5/32" ID x 1/4" D tubing adaptor
 - 5/32" ID x 3" long vacuum test tube
 - Master cylinder refill kit



YA4000B

Applications:

- Vacuum and pressure related engine performance diagnostics and tune-ups
- Brake bleeding
- Fluid transfer, evacuation, and sampling

SVT270P Vacuum Pump and Gauge.

- Gauge reads 0 to 30" mercury (0 to 76 cm)
- Aluminum construction with reverse pistol grip for simple one hand operation
- Attaches directly to unit being tested or with one of its adaptors
- SVT270P1 storage case



SVT270P



WARNING



- Do not expose fuel or solvents to flames, sparks or other sources of ignition
- Use only in well ventilated areas • Read safety precautions on pages 594 to 597

FUEL AND ENGINE SYSTEMS

Fuel Injection



EEFI500



EEFI500CORE



EEFI50030



EEFI5CLEANER

EEFI Series Adaptor Sets

EEFI500 Master Fuel Injection Pressure Gauge Set.

- Tests fuel injection pressure on major domestic, European and Asian model multiport fuel systems
- Convenient label shows image of components, part numbers and applications for quick, easy identification and storage
- User manual includes test connection illustrations and application charts
- Contains: tee manifold with shut-off valve, a 3 1/2" diameter gauge assembly with blow down valve and adaptors needed to test most fuel injection systems
- Case with removable lid allows for convenient storage in 4" deep drawer for easy access
- Includes EEFI500CORE and EEFI500ADD

EEFI500CORE Core Fuel Injection Pressure Gauge Set.

- For basic fuel injection pressure service needs
- Individual components or the EEFI500ADD set can be purchased to build up to master set
- Includes:
 - EEFI5001 gauge and hose assembly with bleed-off valve
 - EEFI5002 standard schrader hose assembly (Chrysler, GM, M-B, Porsche, Saab and Saturn)
 - EEFI5003 small schrader hose assembly (BMW, Ford, Jaguar, Kia, Lincoln, Mazda, Mercury, Mini, Volvo and VW)
 - EEFI5004 standard schrader right angle adaptor (Chrysler, GM, M-B, Porsche, Saab and Saturn)
 - EEFI5005 small schrader right angle adaptor (BMW, Ford, Jaguar, Kia, Lincoln, Mazda, Mercury, Mini, VW and Volvo)
 - EEFI5006 TEE adaptor with 1/4", 5/16" and 3/8" diameter hoses and clamps (Chrysler, Infiniti, Isuzu, Mazda, Nissan, Saturn and Suzuki)
 - EEFI5006-1 replacement hoses and clamps
 - EEFI5007 spare parts service kit for EEFI5001 thru EEFI5006

EEFI500ADD Set

- Combine the components of the EEFI500ADD set with the EEFI500CORE set to form the EEFI500 master fuel injection pressure gauge set

EEFI50030 Universal Fuel Pressure Adaptor.

- Allows owners of MT337, EEFI301 and EEFI307 series fuel pressure gauges to increase applications by using components from the EEFI500 master fuel injection pressure set

Stock No.	Description
EEFI5008	Tee Hose Assembly - 3/8" Quick Connect
EEFI5009	3/8" Quick Connect Double Male - GM
EEFI50010	5/8" Spring Lock Male - Ford, Mazda
EEFI50011	5/8" Spring Lock Female - Ford, Mazda
EEFI50012	5/16" Quick Connect Male - Acura, Chrysler, Ford, Mazda, Toyota
EEFI50013	5/16" Quick Connect Female - Acura, Chrysler, Ford, Mazda, Toyota
EEFI50014	5/16" Male Hose Adaptor- BMW, Chrysler, Infiniti, Nissan, VW
EEFI50015	5/16" Hose Adaptor- BMW, Chrysler, Infiniti, Nissan, VW
EEFI50016	M14 x 1.5 Inverted Flare Male- Geo, Infiniti, Toyota
EEFI50017	M14 x 1.5 Inverted Flare Female- Geo, Infiniti, Toyota
EEFI50018	M14 x 1.5 Ball Seat Female- Audi, Hyundai, Jaguar, Land Rover, Porsche, Volvo, VW
EEFI50019	M14 x 1.5 Ball Seat Male- Audi, Hyundai, Jaguar, Land Rover, Porsche, Volvo, VW
EEFI50020	16mm O-Ring Adaptor- Hyundai, Mitsubishi
EEFI50021	11mm O-Ring Adaptor- Infiniti, Kia, Mitsubishi, Nissan
EEFI50022	M12 x 1.0 Pulse Dampener Adaptor- Acura, Honda
EEFI50023	M12 x 1.5 Banjo Bolt Adaptor- Audi, Porsche, Saab
EEFI50024	M12 x 1.25 Banjo Bolt Adaptor- Honda, Hyundai, Isuzu, Lexus, Toyota
EEFI50025	M6 x 1.0 Filter Adaptor- Acura, Honda
EEFI50026	Spare part service kit for 5009 thru 50025 adaptors

General Purpose Fuel System Cleaners

EEFI5CLEANER Fuel Injection System Cleaner.

- Cleans deposits from fuel injectors, fuel rail and intake valves to restore engine performance, lower emissions and smooth idle
- Canister-style cleaner accepts preferred or required fuel injection system cleaner (sold separately)
- Check vehicle fuel pressure with right hand gauge and easily set cleaning pressure with the left hand gauge
- Stainless steel braided Teflon® hose resists solvents
- Conveniently hangs under hood with center chain
- Compatible with EEFI500 series adapters (sold separately)
- See user manual for vehicle make details

Specialty Service Tools

FIH500 Fuel Module Disconnect Tool.

- GM fuel module disconnect tool for 1998 and later GM full size pickups, Suburbans and Tahoes
- Two piece design permits easy access to the connectors
- Slide proper end into the connector, rotate and slide the other half in place to disconnect module
- Fits both 3/8" and 5/16" connector sizes
- Tool segments can be clipped together for convenient storage



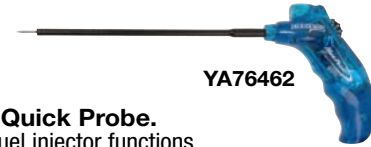
FIH500

TECHNICAL SUPPORT

1-800-342-5080

YA76462 Universal EFI Quick Probe.

- Quickly detects electronic fuel injector functions on any gas or diesel engine
- Specifically designed to detect vibrations emitted when electronic injector fires
- No hunting for injector wires to test at connector
- No need to remove injector for testing
- Includes: bright LED strobe, 7" removable probe tip, user guide, battery operation and sensitivity thumb-wheel



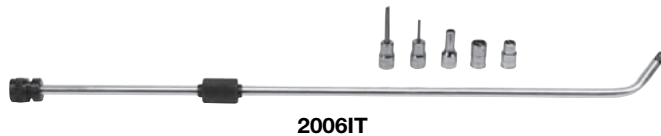
YA76462

Carburetor

Carburetor Adjustment Tools

2006IT Carburetor Adjusting Set.

Includes: S6137E, S6138E, S6139, TM64, TM83A, TM85



2006IT

S6137E Idle Adjusting Hex Head Driver.

- For 1978 and later Chrysler
- 3/32" hex driver is 1 9/16" long
- Nickel/chrome finish socket,
- 7/16" OD
- 1/4" drive industrial finish bit



S6137E

S6138E Idle Adjusting Driver.

- For Ford feedback carburetors
- 7/16" OD
- 1/4" drive
- Bit has a 3/16" x 1/32" flat tip, 2" long
- Nickel/chrome finish socket, industrial finish bit



S6138E

S6139 Double "D" Carburetor Adjusting Socket.

- For 1978 and later GM idle adjusting screw
- OD drive end is 7/16"
- Nickel/chrome finish
- 3.5mm across flats
- 1/4" drive
- 13/16" long



S6139

TM64 Rigid Adjusting Tool.

- Rigid elbow bend rather than flexible feature
- Use with carburetor drivers for making carburetor and point adjustments
- Rigid shaft



TM64

TM65 Flexible Adjusting Tool.

- Flexible shaft end for working in restricted areas
- Overall length is 19 3/4", 1/4" drive
- Ideal for working in tight spaces when servicing window-type distributors
- Knob markings allow for counting turns



TM65

Carburetor Service Tools

ACT1370 Disconnect Set.

- Convenient plastic holder included
- Useful on air-conditioning spring couplings as well as push lock connectors on radiator and transmission lines
- Includes 6 tools for disconnecting spring couplings on Ford, GM, and Chrysler air conditioning lines
- Works on fuel lines and can be used as push lock connectors on radiator and transmission lines
- Included sizes are 5/16", 3/8", 1/2", 5/8", 3/4" and 7/8"



ACT1370

TM615 Flexible Driver.

- 1/4" drive
- Designed for carburetor work, this driver can also access buried distributors
- 1/4" drive at the end of a tough but flexible spring steel shank
- 18 5/8" long
- For low torque applications
- Ideal to access buried adjusting screws
- Cable length is 15"; overall length is 18 5/8"



TM615

TM83A Recessed Blade Carburetor Screwdriver.

- 1/4" drive
- Use with TM64 or TM65 and other 1/4" square drive handles
- Blades are recessed in outer socket wall to self center
- Nickel/chrome finish
- 3/8" x 1/32" blade



TM83A

TM84 Recessed Blade Carburetor Screwdriver.

- 1/4" drive
- Use with TM64 or TM65 and other 1/4" square drive handles
- Blades are recessed in outer socket wall to self center
- Nickel/chrome finish
- 7/16" x 1/32" blade



TM84

TM85 Recessed Blade Carburetor Screwdriver.

- 1/4" drive
- Use with TM64 or TM65 and other 1/4" square drive handles
- Blades are recessed in outer socket wall to self center
- Nickel-chrome finish
- 9/32" x 1/32" blade for adjusting late model Quadrajet carburetors



TM85

TAM3E Metric Hex Head Driver.

- Use to make carbon monoxide adjustments on 1976 Dasher, 1974 to 1976 Audi and Volvo, and 1975 and 1976 Fiat and Saab
- 3mm bit size, 1/4" drive
- 6 7/8" long
- Nickel-chrome finish



TAM3E

GA467 Pin Puller.

- For removing or installing carburetor pins and for work with "C" clips
- Puller hook retracts into housing when not in use
- 6 13/16" long



GA467



WARNING



- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages 594 to 597

FUEL AND ENGINE SYSTEMS

Fuel Systems



FID8838A

Injector Harness Testers

FID8838A Injector Harness Tester Set.

- Plugs into solenoid harness to identify electrical or fuel system malfunctions
- Includes 8 testers and injector harness extension in a storage case

FID8320 Injector Harness Tester.

- Use on GM TBI models 100, 200, 220, 300, 400, and 500 used on various cars and trucks

FID8329 Injector Harness Tester.

- Use on Bosch PFI injectors used on various GM, Ford and Chrysler vehicles with PFI

FID8330 Injector Harness Tester.

- Use on Ford TBI systems

FID8339 Injector Harness Tester.

- Use on GM Multec 1 injectors and the "bottom feed" injectors used on 2.2L 4 cyl. "J" and "L" cars from 1989 to 1993

FID8340 Injector Harness Tester.

- Use on GM SCPI truck engines 4.3L V6, 5.0L V8, and 5.7L V8 (1996 and later) plus 4.8L V8, 5.3L V8, and 6.0L V8 (1999 and later)



YA997



FIH940

Fuel Inlet/Fuel Filter/Fuel Pump Tools

YA997 Swivel Handle Fuel Filter Wrench.

- Designed to access hard to reach fuel filters
- Fits fuel filters 2 1/4" to 2 9/16"

FIH940 Gas Tank Fuel Pump Removal Tool.

- Removes plastic fuel pump retaining rings
- Universal adjustable design fits most plastic retaining rings
- Prevents damage to original pump retaining ring
- Use with 1/2" drive extension and ratchet
- Use to reinstall old retaining ring

FID9210 Injector Harness Tester.

- Designed for Geo TBI systems (1992 and later)

FID8838A1 Injector Harness Tester.

- Use on GM Multec 2 injectors found in 1999 and later 2.4L 4 cylinder engines in Oldsmobile Intrigue and Cutlass, Chevrolet Cavalier and Malibu and Pontiac Sunfire

FID8838A2 Injector Harness Tester.

- Use on Bosch 2 injectors used in 2000 and later Cadillac 4.6L V8 engines and Oldsmobile 4.0L V8 engines

FID8838A3 Injector Harness Extension.

- Injector harness extension line for all FID series injector harness testers
- Use when injector is in a lower position in manifold or cylinder head

FID8838A4 Plastic Case.

- Storage case for the FID8838A injector harness tester set

Shut offs/Hose Pinching Pliers—Blue-Point®



YA965



HCP6A



YA2850A



HCP7A



HCP6A



FPP17

YA965 Hose Pinching Pliers.

- Eliminates need to drain cooling system when repairing thermostat or water pump
- Use to pinch off emission control hoses, flexible brake lines, and rubber hose fuel lines
- Jaws swivel for positive clamping

YA2850A Hose Pinchers.

- For diagnosing problems that require rubber or plastic fuel, vacuum, and air lines to be temporarily closed
- Effectively seals lines without disconnecting
- Set of 2

HCP6A Hose Pinching Pliers.

- For sealing hose sizes 1/8" to 5/16"
- Also use on brake lines, fuel lines and vacuum hoses
- 6" long

HCP7A Hose Pinching Pliers.

- For sealing hose sizes 1/2" to 3/4"
- Also use on heater hoses and vacuum lines
- 7" long

HCP10A Hose Pinching Pliers.

- For sealing hose sizes 3/4" to 2 1/4"
- Also use on radiator hoses
- 10" long

HCP3KT Hose Pinching Pliers Set.

- HCP6A, HCP7A and HCP10A (6", 7", 10") in storage pouch

FPP17 Hose Pinching Pliers.

- Ideal for truck/tractor applications
- Quickly and easily pinch off difficult to reach vacuum lines, water hoses, etc.
- 17" semi rigid shaft allows prepositioned, one hand use
- Heavy duty steel clamp sleeves are heat treated to 48-52 RC to provide strong clamping
- Fine tooth ratchet allows precision clamping and locks into place for ease of use
- Pull bar and thumb lock made of high carbon steel for extended tool life
- 2 1/4" jaw opening for use in a wide range of applications

Fuel Line Disconnect Tools

Fuel Line Coupling Release Tool Sets.

- Designed to service special quick connect couplings found on fuel feed and return lines located at the engine

FIH9055 Fuel Line Coupling Release Tool Set.

Includes a **FIH9055-1** (5/16") and a **FIH9055-2** (3/8") tool for GM fuel lines.

FIH9056 Fuel Line Coupling Release Tool Set. Includes **FIH9056-1** (1/2") and **FIH9056-2** (5/8") for fuel and air conditioning quick connect couplers on most late model Ford and Mazda Navajo vehicles.

YA9457 Fuel Line Disconnect Tool Set.

- Designed for reach and access to fuel line couplers
- Use on GM Cadillac Northstar engines (1993 and later) and Ford E and F Series trucks (1991 and later)
- Includes **YA9457-1** (5/16") and **YA9457-2** (3/8")

LDTF2 Fuel Line Disconnect Tool.

- Disconnect the fuel line from the fuel filter on 5.3 liter Suburban, Tahoe, Yukon, Avalanche plus select Silverados and Sierras
- Can be used on other Flex Fuel systems

LDT8 Master Disconnect Set.

- For spring lock and quick disconnect couplings used on air conditioning and fuel lines on Ford, GM and Chrysler vehicles

LDT6 Disconnect Set.

- Disconnects air conditioning, quick connect fuel lines and spring lock couplings on Ford and Chrysler AC lines
- Works on fuel lines and other quick disconnect couplings on domestic and import vehicles
- Angled to access tight spots
- Durable plastic resists fuels and solvents
- Includes 6 sizes from 1/2" to 7/8"

LDT14 Master Plus Disconnect Set.

- Contains all the tools in the LDT8 master disconnect set
- The 3/8" and 1/2" Jiffy-Tite disconnect tools from the LDTSP4 set
- The blue 5/16" fuel line adaptor from the LDTF2 fuel line disconnect set
- A set of 4 air line push-pull disconnect tools that work on heavy duty trucks and industrial applications
- Label inside cover of carrying case shows images and applications



FIH9055



YA9457



FIH9056



LDTF2



LDT6



LDT8



LDT14



LW11



LW204

Fuel Line Wrenches

- "Spring-Torque" provides tighter grip on fitting with increased force on the wrench (up to 2 times ANSI Standards)
- Removes even the most worn brake and fuel fittings
- Works where other flare nut wrenches fail
- Easy access to tight areas where fittings are found
- Fits over 90% domestic and import vehicles
- Compact fold-out chrome molybdenum wrench heads with black oxide finish

LW10 Fuel/Brake Line Wrench. 10mm (3/8").

LW11 Fuel/Brake Line Wrench. 11mm (7/16").

LW1213 Fuel/Brake Line Wrench. 12/13mm (1/2").

LW14 Fuel/Brake Line Wrench. 14mm (9/16").

LW204 Fuel/Brake Line Wrench.

- Includes LW10, LW11, LW1213 and LW14 (10mm thru 14mm, 3/8" thru 9/16") (4 pcs) in foam storage tray



WARNING



• Read safety precautions on pages 594 to 597

FUEL AND ENGINE SYSTEMS

Fuel Systems

U.S. Distributor Wrenches

Stock No.	Wrench Size, inches
S8564B	1/2
S9707	1/2
M3515	9/16
S8176	9/16
S9609	9/16
S9622	9/16
S9626	9/16

S8564B Distributor Wrench.

- Ford, Lincoln and Mercury engines; clears leads and coils

S9707 Distributor Wrench.

- Ford, Mercury and Cadillac engines

M3515 Distributor Wrench.

- GM V6 and V8 trucks

S8176 Distributor Wrench.

- Pontiac and Oldsmobile engines

S9609 Distributor Wrench.

- Chevrolet V8 engines

S9622 Distributor Wrench.

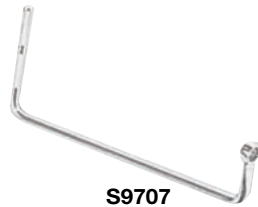
- 1977 and later full size GM cars with V8 engines

S9626 Distributor Wrench.

- GM V6 engines



S8564B



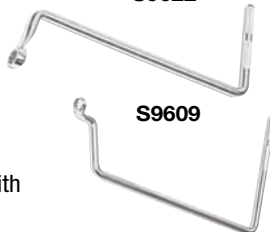
S9707



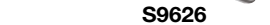
S8176



S9622



S9609



S9626



S6134

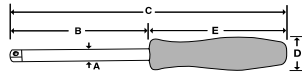
Metric Distributor Wrenches

S6134 Metric Distributor Wrench.

- 1982 and later Cadillac 4.1L V8 engines, GM 2.8L V6 engines, and 1985 VW Golf
- 15mm



TM63A



Drivers

Stock No.	A	B	C
TM63A	1/4	4 21/32	9 3/16

TM63A Flexible Driver.

- 1/4" drive
- For low torque applications
- For use on Delco-Remy window-type distributors



ACD12A

Cleaning Brush

ACD12A Distributor Cleaning Brush—Blue-Point®.

- Wire brush cleans terminal connections on distributors and coils
- 5 1/4" long with a 4" long handle
- Wire diameter is .012"



YA6465

Ignition Tools

YA6465 Ford Ignition Modulator Wrench.

- Use to remove 7/32" (5.5mm) hex retainer bolts on Ford ignition modules
- 1/2" hex drive



YA2700



ITHE100



IT100

Ignition Testers

YA2700 Ignition Module Tester.

- For testing Chrysler 4 pin and 5 pin modules; GM 4 pin, 5 pin, and 7 pin modules; plus Ford 3 pin and "grommet" style modules
- LED indicator gives a simple "good" or "bad" reading

ITHE100 Ignition Tester.

- Same as HT100 but for use on HEI systems

IT100 Ignition Tester.

- For standard ignition systems
- Check for spark without removing spark plug from engine
- Testers attach to spark plug lead and spring clip attaches to appropriate ground

FUEL AND ENGINE SYSTEMS

Distributor Service Tools



Oxygen Sensor

S6176 Oxygen Sensor Socket.

- For service on most Nissan, Mazda and Honda/Acura vehicles
- Slotted side clears projections
- 22mm, 1/2" drive, 3 7/8" long

S6150 Oxygen Sensor Wrench.

- Special crowfoot wrench design provides strength necessary for removal/installation
- 12-point, 7/8" wrench size, 1/2" drive
- Nickel-chrome finish

S6154 Oxygen Sensor Wrench.

- For use on oxygen sensors on 2007 Acura RDX. 22mm
- 12-point wrench opening, 1/2" drive
- Nickel-chrome finish

SWR1 Oxygen Sensor Wrench.

- Designed for all oxygen sensors with a 7/8" hex
- Flex head offers essential clearance for removal/installation of oxygen sensors when sensor is positioned upward and inward to the floorboard or when leverage is needed around an exhaust pipe
- Ford Contours and 4.6L and 5.4L Ford Modular engines used in trucks and SUVs have this application
- Other applications include 7/8" and 22mm knock sensors used on mid-size trucks, SUVs and vans
- Flank Drive® wrenching system for greater applied torque
- Chrome finish for easy cleanup and protection against corrosion
- Compact, low clearance head
- Overall length: 10 3/4". Hex: 7/8" 6-point. Head diameter: 1 9/16". Slot width: 1 5/16"

SWR2 Oxygen Sensor Socket.

- For oxygen sensors located in the exhaust manifolds of 1981 and later cars and light trucks, including VWs
- 3/8" drive with 7/8" hex size
- 1/2" opening for easy access to oxygen sensor
- Flank Drive wrenching system for greater applied torque with less effort
- Ball detent in square drive for secure retention
- Industrial finish

SWR4 Oxygen Sensor Wrench.

- Use on oxygen sensors with a 22mm (7/8") hex
- Bent handle design with flex head offers extra clearance for removal and installation of shielded oxygen sensors and air/fuel sensors
- Chrome finish for easy cleanup and protection against corrosion
- Depth of socket and wall diameter of socket is critical for limited space inside heat shield
- Overall length: 10 3/4". Hex: 7/8" 6 point. Head diameter: 1 3/16". Slot width: 1/2"

Applications

- Toyota: 2003 and later
- Acura: 2005 and later
- Lexus, Honda, Hyundai and Kia: 2006 and later
- Nissan, Mazda: 2007 and later

SWR102 Oxygen Sensor Wrench Set.

- SWR1 and SWR2 (2 pcs) in storage tray.

YA1239 Dual Drive Oxygen Sensor Wrench–Blue-Point®.

- 1/2" and 3/8" drive
- Attach 1/2" breaker bar on the end of the tool to initially loosen stuck sensors, use a 3/8" ratchet on the top for fast removal and installation
- Fits oxygen sensor applications with a heat shield
- Slotted body allows clearance for wire harness
- Forged, heat treated steel with 6 point design will withstand high torque removal applications

YA9385 Oxygen Sensor Socket–Blue-Point.

- Use to install and remove oxygen and vacuum sensors on most domestic and import vehicles
- Can be used with impact wrench
- 1 1/4" external hex. 19/32" x 2 3/4" slot to clear obstructions, 22mm, 1/2" drive
- Black industrial finish

YA9375A Oxygen Sensor Wrench–Blue-Point.

- For oxygen sensors on GM LT1 and LT5 5.7L V8 engines
- Further applications on 2007 and later Harley-Davidson® motorcycles
- Eliminates need to unhook exhaust system when removing or reinstalling oxygen sensor
- 3/8" drive with 2 1/8" hex size
- Industrial finish

YA6675 Shielded Oxygen Sensor Socket–Blue-Point.

- For use on late model Toyota and Lexus
- Depth and outer diameter are critical for limited space inside heat shield
- 12-point double hex for twice the number of "clock angles" versus 6-point configurations
- Forged for maximum strength

YA6775 Oxygen Sensor Wrench–Blue-Point.

- Designed for use with most oxygen sensors no matter what size electrical connectors they have
- Double sided design, 12-point configuration and 6-point
- Pivoting handle design allows positive leverage in confined areas



YA6775



WARNING



- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages 594 to 597

BATTERY SERVICE

Charge. Test. Boost. Invert. Diagnose.

When you use Snap-on® battery service equipment it doesn't matter what rolls into your shop because you will be prepared. When it comes to batteries, versatility is power, and that's exactly what Snap-on gives you.

- Battery Charger Plus™—The bottom line: batteries have changed. Has your charger? Charge almost any battery you can think of at any rate you need. Safely. It's that simple.
- Testing equipment—Snap-on offers reliable results in an easy-to-use package.
- Service tools—From kits to individual tools, Snap-on offers a full range of safe equipment you can count on.
- Cables/booster packs—Fully insulated, professional-quality equipment that's perfect for the shop or the field.



BATTERY CHARGERS

EEBC500 Battery Charger Plus.

- Adaptive: Standard automotive, deep-cycle, AGM and gel cell batteries each require a different charging cycle
- Versatile: Charges 6, 12 and 24 Volt batteries with 4, 15 and 60 Amp charging rates
- Convenient: GFCI outlets for auxiliary power to lights and other accessories: handy storage compartment for optional battery hand tools
- Smart: Fully automatic operation: microprocessor-controlled algorithms optimize the charge cycle without overcharging. Includes manual mode for timed charging
- Powerful: 300 Amp engine starting power
- Hi-tech: Exclusive flash reprogramming power supply maintains consistent OEM specified voltage
- Informative: Digital display: voltage, % of charge and alternator % of performance
- Professional: Rugged, streamlined design. Higher working height handle helps relieve stress on lower back
- SS3151 product information DVD



EEBC500



EEBC500CVR

EEBC100 Manual Charger.

- Manually set charging time as required
- 200 Amp 12 Volt and 100 Amp 6 Volt engine start available for emergency starting
- 40 Amp rapid charge charges in .5 to 1.0 hours
- 10 Amp fast charge charges in 3 to 5 hours
- Rugged retractable handle provides convenient storage
- UL Listed - USA and Canada



EEBC100

Specifications	EEBC500	EEBC500INT	EEBC500SJ	EEBC100
Output Currents ADC	60/15/4	60/15/4	60/15/4	40/10/2
Output Voltages VDC	6/12/24	6/12/24	6/12/24	6/12
Switch Positions	3 switches - 64 Combinations	3 switches - 64 Combinations	3 switches - 64 Combinations	5
Continuous Input Current (Max), Amps	14.6	7	14.1	10
Crank Assist Input Current (Max), Amps	66.5	25	88	30
Input Voltage (Rated), VAC	120	230/240	100	120
Crank Assist Rating, ADC	300	300	300	200
Crank Assist Duty Cycle	1/36	1/36	1/36	1/48
Crank Assist On Time (seconds)	5	5	5	5
Crank Assist Off Time (seconds)	180	180	180	240
Boost Rating, Amps	300	300	300	200
DC Lead Type	Fixed	Fixed	Fixed	Fixed
DC Lead Length	7'6"	7'6"	7'6"	6'
DC Lead Gauge	4 AWG	4 AWG	4 AWG	8 AWG
DC Clamps	500A	500A	500A	300A
AC Cord Length, feet	9	9	9	6
AC Cord Gauge	14-3	14-3	14-3	16-3
Ammeter	None	None	None	0-40
Voltmeter	Digital	Digital	Digital	None
Timer	Digital	Digital	Digital	135 Minute
AC Circuit Breaker	Self-Resetting	Self-Resetting	Self-Resetting	Self-Resetting
DC Circuit Breaker	Self-Resetting	Self-Resetting	Self-Resetting	Self-Resetting
Rectifier	8 SCR	8 SCR	8 SCR	4 Diodes
Ventilation	Fan Cooled	Fan Cooled	Fan Cooled	Fan Cooled
No. of Charge Rates	3	3	3	3
Wheel Size, inches	10	10	10	6
Weight, lbs.	86	90	90	40
Dimension L x W x H, inches	20.4 x 16.5 x 30.5	20.4 x 16.5 x 30.5	20.4 x 16.5 x 30.5	13.8 x 13.5 x 20
Outdoor Use	Yes	No	No	No
Country of Use	North American	Australia, Europe, UK	Japan	North America
Power Supply Cord	Included	EEBC5CABLE-A, E, U	Included	Included



EEBC5CABLE-A



EEBC5CABLE-E



EEBC5CABLE-U

EEBC500CVR Battery Charger PLUS Cover.

- Protective cover for the EEBC500 battery charger PLUS series

EEBC5CABLE-A

- Power supply, Australia. Use only with EEBC500INT

EEBC5CABLE-E

- Power supply, Europe. Use only with EEBC500INT

EEBC5CABLE-U

- Power supply, United Kingdom. Use only with EEBC500INT

EEBC500-15 Lead Set.

- 15' for EEBC500 series

TECHNICAL SUPPORT

1-866-713-6007



WARNING



- Charger must be OFF when connecting or disconnecting leads
- Avoid overcharging batteries • Read safety precautions on pages 594 to 597

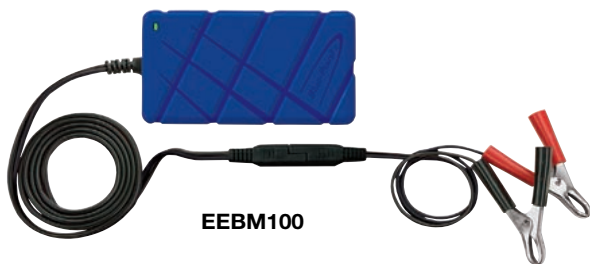
BATTERY CHARGERS



EEBC2216



EEBM500



EEBM100



EEPI1500



EEPI175



EEPI2250

Bench Chargers

EEBC2216 Bench Top Battery Charger.

- Automatic operation plus an intelligent micro-processor controlled charging sequence for use on a wide variety of battery types
- Charge conventional, maintenance free, AGM, gel cell, deep cycle and marine batteries
- Simply select the correct battery size: Charger will initiate the automatic charging process

Specifications	EEBC2216
Input	120V AC, 60Hz, 4.4 Amps
Output	12V DC, 1 to 16 Amps
Battery Range (Optimal)	25-200 AH
Charging Cable Length, ft	6
Dimensions	10.75" (L) x 4.5" (W) x 7.875" (H)
Shipping Weight, lbs. (kg)	4.94 (2.24)

Battery Maintainers

EEBM500 4A 6/12 Volt Battery Maintainer.

- Fully automatic 6/12 Volt operation, 4A charging rate
- Compatible with conventional, maintenance free, AGM, gel cel, spiral wound and deep cycle batteries
- LED charging status indication
- Includes quick connect output cord with clamp set, ring terminal set and 12V adaptor output accessories
- Ergonomic design with large buttons for easy use with gloves on
- Reverse polarity and battery fault warnings

EEBM100 1.5A 12 Volt Battery Maintainer.

- Fully automatic 12 Volt operation, 1.5A charging rate
- Compatible with conventional, maintenance free, AGM, gel cell, spiral wound and deep cycle batteries
- LED charging status indication
- Rubberized boot to avoid scratching vehicle components and protect maintainer
- Quick connect output cord with clamp set and ring terminal output accessories

Power Inverter

EEPI1500 Power Inverter.

- 150 Watt
- Powers cell phones, computers, Nintendo® DS, DVD players, iPods® and more
- Plugs into vehicle 12V power outlet
- Provides 110V AC household power inside your vehicle
- Provides USB power to small electronic devices

EEPI175 Power Inverter.

- 175 Watt
- Same features as EEPI1500
- 2 USB ports
- Fits in cup holder

EEPI2250 Power Inverter.

- 2,250 Watts of continuous power and 4,500 Watts peak power to run a wide variety of tools, electronics and appliances
- Stable, clean and reliable power with high surge capacity for use in the most demanding applications
- Precise electronics to enable proper charging of electronics: laptops, cell phones and gaming devices
- Three 120V AC outlets
- For tow trucks, fleets, construction vehicles and military use

D-TAC™ Plus Battery System Diagnostic Tester, Charger and Engine Starters

D-TAC Plus is a unique all-in-one starting and charging system service

EECS306BKR D-TAC Plus. D-TAC plus battery system diagnostic tester and charger.

Includes integrated printer and cart.

EECS306BPR D-TAC Plus. D-TAC does not include cart.

- Automated system test (battery, starter, alternator)
- Good/bad battery determination plus automatic recharge
- Starter cranking voltage normal/abnormal
- Pass/fail alternator determination under loaded mode
- 300 Amps cranking assistance
- Troubleshooter menu offers a range of pinpoint test options including a digital multimeter, impedance meter, programmable battery loading and amp probe testing

EECS306BHD Heavy Duty D-TAC Plus.

- New heavy duty gas and diesel applications. Great for standard automotive systems
- Extends CCA table for multiple batteries. Tests multiple batteries in parallel with a single quick test
- Special impedance probe with zeroing, tests general wiring harnesses for poor or faulty connections
- Modified alternator and starter tests lower RPMs and cranking time to perform these tests on large diesel engines
- 18' heavy duty truck Amp probe provides ample lead length to reach up into cabs

EECS306BHK D-TAC Plus Heavy Duty Upgrade Kit. Upgrade the DTAC Plus to heavy duty.

MicroVAT™ Battery/Starting/Charging System Tester

- Complete automotive battery, alternator and starter system testing in under a minute
- Tests 6 and 12 Volt batteries and 12 and 24 Volt charging systems
- Impedance battery test diagnoses battery in 5 seconds or less
- Automatically compensates for state of charge and temperature
- Heavy duty truck applications - batteries up to 1,500 CCA, charging systems up to 400 Amps
- Fan cooled 50 Amp load for accurate alternator test under load

EECS304B1B MicroVAT Specifications



EECS304B1B

Specifications	EECS304B1B
Voltmeter Range	0 to 50 Volts
Voltmeter Resolution	0.01 Volts
Voltmeter Accuracy	1% of reading ±L.S.D.
Test Range	100 to 1500 CCA batteries
Rating Systems	CA / CCA / DIN
Battery Life	50 hours
Dimensions	8.5" x 7" x 2.5"
Weight lbs. (kg)	2.6 (1.179)

EECS304B1B MicroVAT Tester. Programmed for English, French Canadian and Latin American Spanish languages.

D-TAC/MicroVAT Accessories

2-6342-1 High Amp Probe.

- Clamp-on inductive high amp probe for EECS306B Series D-TAC plus battery systems testers and EECS304B1B MicroVAT
- 0 to 1,500 Amp range for testing high current circuits
- 5' length. 1 Amp resolution

2-6442-1 Low Amp Probe.

- Clamp-on Inductive Low Amp Probe for EECS306B Series D-TAC plus battery systems testers and EECS304B1B MicroVAT
- 0 to 15 Amp range for testing low current circuits
- 5' length. 10 Milliamp resolution

DTACCART Roll Cart.

- Rolling storage cart for EECS306B Series D-TAC plus battery system diagnostic tester and charger
- Tubular steel cart with locking front casters and 2 storage trays
- Cart weight is 30 lbs.

2-22566 Printer. Wireless printer features infrared communication and 2" paper roll. For EECS304B1B MicroVAT and YA2636 tester (optional).

8-00910A Printer Paper. TAC plus battery system tester.

5-08826A Printer Paper. MicroVAT battery system diagnostic tester 2-22566.



EECS306BKR



EECS306BHK



2-22566



2-6442-1



2-6342-1



WARNING



- Charger must be OFF when connecting or disconnecting leads
- Avoid overcharging batteries • Read safety precautions on pages 594 to 597

BATTERY TESTERS

The battery system testers use conductance technology to quickly provide the technician with the state of health of the battery, the starting system and the charging system. Select from 4 models for a good, better, best line up. One unit has a built in printer and another uses a wireless infra red printer. Some include on-screen commands in up to 7 languages.

Electronic Battery Testers



Features	EECS500	YA2636	YA2624	YA2612B
CCA Range	100-1,400	100-3,500	390-1,700	100-1,400
Testing Method	Conductance	Conductance	Conductance	Conductance
Displays Battery % Available Capacity	CCA	% and CCA	%	%
Displays Battery Condition	•	•	•	•
Tests Discharged Batteries	•	•	•	•
Displays Battery State of Charge	•	•	•	•
Tests 12V Batteries	•	•	•	•
Test 6V & 12V Batteries	•	•	•	•
Tests Flooded/AGM/Gel Cell Batteries	•	•	•	•
Battery Recharge Indicator	•	•	•	•
Reverse Polarity Protection	Protect and detect	•	•	•
Detects and Displays Bad Cell	•	•	•	•
Surface Charge Warning	•	•	Displays volts	Displays volts
Tests 12V Starter/Charging Systems	Displays volts	•	Displays volts	Displays volts
Tests 12/24/36V Starter/Charging Systems	•	•	Displays volts	•
Internal Lead Set Diagnostics	•	•	•	•
Detects Alternator Ripple	•	•	•	•
Temperature Compensation	•	•	•	•
Loose Lead Detection	•	•	•	•
International Unit Conversion EN, JIS, EIC, DIN	•	•	•	•
Tests Parallel & Series (24V) Battery Packs	•	•	•	•
Printer Capable	Infrared Internal Printer	IR Printer	•	•
Store Test Data for Review and Print Out	•	•	•	•
English, Spanish, French Languages	7 Languages	•	•	•
Custom Header with Date and Time	•	•	•	•
Display	2 line 16 character	16 character LCD	4 digit LED	3 digit LED
Cable Length, inches (mm)	36 (914.4)	48 (1,219.2)	48 (1,219.2)	24 (609.6)
Parasitic Drain Function	•	•	•	•
Retention Magnet	•	•	•	•
Product Information DVD	SS3152	•	•	•

YA2636-4 Infrared USB Adaptor.

- Use to store and print YA2636 test results to a PC or laptop
- Custom software on CD included with kit

HHGA-5 Infrared Printer.

- Infrared printer for YA2636 tester

HHGA-18 Replacement Paper Roll.

- 4 pack of replacement rolls for HHGA-5 infrared printer

EECS500-1 Replacement Paper Roll.

- Paper rolls for EECS500 printer



TECHNICAL SUPPORT

1-866-592-8052
For EECS500 Only

BATTERY SERVICE TOOLS

Booster Packs/Booster Cables/Clamps

Portable Booster Pack

EECS309B Portable Booster Pack.

- 1,700 peak Amps for quick starting power – works on deeply discharged batteries
- 2 LED charge level indicator provides charging status at a glance
- 30" 6 gauge clamp leads (included) are detachable, via heavy duty brass sockets for easy field replacement of cables
- 2 insulated posts provide secure separation and storage for the clamps
- 12V cigarette lighter socket allows recharging, and also provides a 12V source to power external devices, such as radios, lights; 5' power cord included
- Fast recharge via 120V 4 Amp wall charger; includes charging status indicator lights

EECS309B Optional Accessories:

EECS309B-5. Positive lead and clamp 60".

EECS309B-6. Negative lead and clamp 60".

EECS309B-9. Motorcycle leads (positive and negative).

EECS660 Portable Booster Pack.

- 1,700 peak Amps for starting power in heat or cold
- Long reach 46" 4 gauge cables
- Industrial grade clamps grab and hold on battery terminals
- Quickly plug heavy duty shop extension cord into front of unit for built in charging
- 12 Volt DC power for convenience



EECS309B



EECS660



BC20500



BC25500P

Cables/Clamps

- Professional quality booster cables with heavy gauge 100% copper stranding
- Clamp bodies are fully insulated and have recessed copper jaws to minimize the chance of sparking if the cables touch
- Heavy duty clamp springs bite securely on top or side battery posts

BC20500 Booster Cable Set.

20' long, 4 ga., 413 strands copper wire

BC15500 Booster Cable Set.

15' long, 4 ga., 329 strands copper wire

BC25500P Plug In Style Booster Cables.

- Starting cable and connection harness
- Heavy gauge 25' cables plug into bumper mounted socket to reach any stalled vehicle without having to lift the truck's hood
- Polarized socket mounts to service truck bumper and connects to truck battery
- 500 Amp clamps are fully insulated with vinyl 4 ga., 413 strands of copper wire

Battery Service Tools



2005BSKA



2004BSKA



MT302A

Service Kits

All components are described and illustrated on the following page

2005BSKA Battery Service Kit. 5 pcs.

Includes:

- 208CCP Angle nose pliers
- B260A Cable clamp pliers
- BTC10 Side terminal cleaner
- BTC7B Terminal cleaner
- CJ92 Self locking cable clamp
- C0506 Kit bag

2004BSKA Battery Service Kit. 4 pcs.

Includes:

- 208CCP Angle nose pliers
- BTC10 Side terminal cleaner
- BTC3A Terminal brush
- YA249 GM battery terminal wrench
- C0410B Vinyl kit bag

Remote Starter Solenoid Switch MT302A Remote Starter Solenoid Switch.

- 5' leads allow cranking engine from sides or beneath auto while keeping hands away from moving belts, parts
- Housing protects switch from dirt and moisture
- Heavy duty switch reduces arcing; includes safety shield
- 35 Amps at 12 Volts. 20 Amps at 24 Volts



WARNING



• Charger must be OFF when connecting or disconnecting leads

• Avoid overcharging batteries • Read safety precautions on pages 594 to 597

BATTERY SERVICE TOOLS



208CCP

Cable Clamp Tools 208CCP Angle Nose Pliers.

- Rounded nose protects battery from damage
- Jaws are offset 30° for better leverage
- 7 3/4" long



B260A

B260A Cable Clamp Pliers.

- Spreads and cleans cable clamps
- Prybar on one end
- 7 3/8" long



GA486A

GA486A Cable Clamp Puller.

- Removes cable clamps without damaging posts
- 4" long



CJ92

CJ92 Cable Clamp Puller.

- Self-locking jaws securely grip terminal and pull without damage to post
- 1 3/4" spread



BTC3A



YA9484



BTC7B



BTC8A



BTC10



YA249



YA249L

Terminal Tools—Blue-Point®.

BTC3A Terminal Brush.

- Stiff wire bristles thoroughly clean posts and clamps
- 3 3/8" long

BTC7B Terminal Cleaner.

- Cleans posts and cable clamps
- Includes a small, circular wire brush with protective cap to clean side terminals
- Plastic body

BTC8A Terminal Cleaner.

- Cleans posts and cable clamps
- Plastic body
- 3 1/2" long

BTC10 Side Terminal Cleaner.

- Cutters on one side clean battery contacts; brush cleans cable contact
- 4 1/2" long

YA9484 Battery Terminal Crimper.

- Ideal for replacing or repairing battery cable terminal ends
- Design helps prevent overcrimping
- Terminal sizes 6 ga. through 4/0

YA249 GM Battery Terminal Wrench.

- Ratcheting box wrench design for use on GM side terminal batteries
- 5/16" hex, 5 1/2" long

YA249L Side Battery Terminal Wrench (5/16").

- Extra long (9 3/4") for connecting/disconnecting battery side terminals on 1994 and later Ford Aerostar vans and GM vehicles including: 1994 and later Pontiac Grand AM, Lumina APV, "W" body cars, plus Buick Regal, Olds Cutlass, Chevrolet Lumina and Pontiac Grand Prix
- 5/16" wrench size



BT101



BB4C

Hydrometers—Blue-Point

BT101 Battery Hydrometer.

- Determines specific gravity from 1.100 to 1.300
- No temperature tables required or difficult float reading to observe
- Design enables both customer and technician a viewing opportunity to see the state of the battery acid

BB4C Hydrometer/Thermometer.

- Measures specific gravity from 1.100 to 1.300 and includes a quick reference, color coded "poor," "fair" or "good" scale plus a temperature correction scale
- 14 3/4" long



GA207A



BB6



BL1B

Fillers—Blue-Point

BB6 Filler Bulb.

- 6 oz. fluid capacity
- Hard rubber stem features an overflow for dripless filling
- 10 1/2" long

GA207A Automatic Filler.

- Insert spout into fill hole and press down
- Fills without overflow

Carrier—Blue-Point

BL1B Battery Carrier.

- For top post and side terminal batteries
- Rubber pads securely grip battery widths from 5" to 7"
- Plastic hand grip provides a firm hold

AIR CONDITIONING AND COOLING

More Business In-House Means More Business Period.

Snap-on® offers the latest technology in air conditioning (A/C) and cooling system products along with complete cooling system coverage. From coolant exchangers and refillers to cooling system pressure testers, Snap-on will help you cool any vehicle on the road.

- From A/C equipment that does most of the work automatically, to hand held equipment that delivers quick, accurate results—it doesn't take long to see a return on your investment.

- A/C recyclers and leak detectors—Designed and manufactured to meet all current EPA and SAE standards, Snap-on recyclers prove themselves to your customers. They also reduce refrigerant usage in your shop and protect the ozone while SAE J2791 certified detectors uncover the smallest of leaks.
- System coverage—From vacuum pumps and manifold sets to UV leak detection kits and digital thermometers, your A/C needs are covered.

Reducing Call Backs.

The last thing you want to do is the same job twice. When you use Snap-on A/C service equipment, accuracy will be your calling card. With microprocessor-controlled operation and automatic detection mechanisms, you're working with smarter equipment.



AIR CONDITIONING

Recycling/Recharging Systems (R134a)



EEAC325B

COMPRESSOR	2.80Z ↑
FRONT EVAP	3.80Z
CONDENSER	1.80Z
07 TAHOE	↑
FRONT & REAR A/C	
CHARGE CAPACITY	
2.52LBS	↓
07 TAHOE	
COMPONENT OIL CAP	
REPLACEMENT:	
ACCUMULATOR	2.80Z ↓

KOOL KARE™ PLUS

A/C Service Center (R134a)

EEAC325B A/C Service Center.

- Complete auto sequence programmability
- Larger gauges, larger 4 x 20 display and vacuum leak test

EEAC324B/EEAC325B Standard Accessories:

- EEAC325A1 Spin on filter dryer
- EEAC325A2 High side service hose
- EEAC325A3 Low side service hose
- EEAC325A4 Oil drain bottle
- EEAC325A5 High side service coupler
- EEAC325A6 Low side service coupler

EEAC324B/EEAC325B Shared Features:

- Fully automatic air purge and built in oil injection
- Meets SAE J-2788 standard of 95% refrigerant recovery and +/- .5 oz. charge accuracy
- 20% increase in refrigerant recovery saves refrigerant
- Increased charge accuracy reduces A/C repair call backs
- Extra-long 11-1/4' hoses for heavy duty applications
- Microprocessor controlled operation
- Meets all current SAE, UL and CSA standards for operation, performance and purity: true single pass recycling
- Simple, menu driven operation
- Automatic high pressure and tank shutoff
- Automatic purge of air and other non-condensable gases
- Multi-lingual

EEAC325B Only Features:

- Vehicle database (1994-2008) for refrigerant and oil specifications
- Imports charge capacity directly into charge mode
- Programmable vacuum hold time
- Upgradeable software

EEAC325A1 – Spin-on filter dryer for EEAC324A/EEAC324B and EEAC325A/EEAC325B A/C Recyclers. Avoid A/C recycler downtime. Keep extra EEAC325A1 filters on hand, since the new SAE J-2788 standard requires filter dryer replacement after 150 lbs. of refrigerant used. Filter life prompt occurs when 100 lbs. of refrigerant have been filtered. Mandatory filter lockout will occur after 150 lbs. of refrigerant have been filtered.



EEAC324B

ECO™ PLUS A/C Service Center (R134a)

EEAC324B A/C Service Center.

- Great performance at a semi-automatic value price
- Intuitive interface uses up/down screen menu options
- Menu display guides technician through service process

Specifications	EEAC324B / EEAC325B
Temperature Range	50° to 120°F (10° to 49°C)
Relative Humidity	Up to 80% non-condensing
Operating Pressure	450 psi
Storage Temperature Range	-4° to 140°F (-20° to 60°C)
Compressor	1/3 HP, 1.1 CFM reciprocating
Vacuum	28 inch Hg at sea level
Vacuum Pump (EEAC324B)	1/4 HP, 1.5 CFM, reciprocating, 40 microns
Vacuum Pump (EEAC325B)	1/3 HP, 3.0 CFM, reciprocating, 40 microns
Gauge Ranges	High Side: 500 psi (34 BAR) Low Side: 350 psi (24 BAR)
Recovery Amount	23 lbs. (10.43 Kg)
Recovery Rate	1 lb. per minute
Refrigerant Charge Amount	0-22 lbs. (9.98 Kg)
Onboard Refrigerant Capacity	30 lbs. (14 Kg)
Charge Oil Bottle	12 oz. (360 mL)
Drain Oil Bottle	12 oz. (360 mL)
Dimensions	34"D x 46"H x 24"W
UV Oil Dye Injection	Yes
Warranty	2-Year
Vehicle Database (EEAC324B)	No
Vehicle Database (EEAC325B)	Yes

TECHNICAL SUPPORT
1-866-769-2788



EEAC325ACV

EEAC325ACV A/C Service Center Cover.

- Protects EEAC324A, EEAC324B, EEAC325A and EEAC325B from dust, moisture and shop environments



SS444E

Air Conditioning Sales

SS444E Merchandising Banner - Air Conditioning.

- Durable, weather resistant plastic
- Measures 82" x 34"
- Includes 60" ropes at corners

Service Center Accessories

ACTFILTERPL A/C Filter.

- Filters and separates A/C sealants, dyes, debris, lubricants and other contaminants
- Damage results from Type I sealants or Type II entering A/C service equipment from a vehicle during servicing
- ACTFILTERPL not required or recommended for J2788 certified EEAC324A/EEAC325A and EEAC324B/EEAC325B recyclers



ACTFILTERPL

ACTFILTER1 Replacement Filter Kit.

- Replacement filter for ACTFILTERPL

Filter Dryers

EEAC325A1 Filter Dryer.

- Use on EEAC324A/EEAC324B and EEAC325A/EEAC325B
- Mandatory filter lock-out will occur after filtering 150 lbs. of refrigerant

EAK0095C01AB Filter Dryer.

- Use on EEAC307C, EEAC308C and EEAC310A (R12 side)

EAK0095C02AB Filter Dryer.

- Use on EEAC310A (R134a side)

EAK0030C02AB Master Dryer Kit.

- Use on EEAC313A (R134a side)
- Dual mode heated

Master Dryer Kit

EAK0030C01AB Master Dryer Kit.

- Filter/dryer should be changed regularly depending on usage of unit
- Kit includes filter and instructions
- Use on EEAC301B, EEAC304D, EEAC313A (R12 side), EEAC316A, EEAC318A, EEAC319A and EEAC320A



EAK0030C01AB

Oil Change Kits

EAK0029C00AB Compressor Kit.

- Use on EEAC308C, EEAC319A and EEAC320A

EAK0029C01AB Compressor Kit.

- Use on EEAC310A, EEAC313A, EEAC316A, EEAC318A, EEAC324A/EEAC324B AND EEAC325A/EEAC325B
- Includes 2 quarts of oil, parts and instructions



EAK0029C01AB

ACT71-0A Vacuum Pump Kit.

- 32 oz. bottle



ACT71-0A

Service Equipment (R134a and R12)

Refrigerant Gas Leak Detectors

ACT795UV Refrigerant Gas Leak Detector.

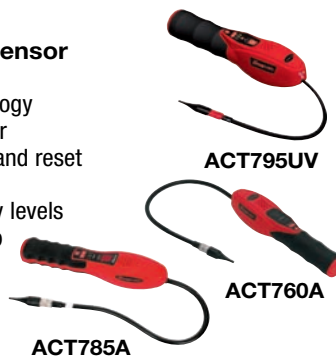
- Features both UV light and solid electronic electrolyte sensor
- Detects all commercially available dyes
- Digital alarm with numeric leak size indicator
- 3 UV light array illuminates fluorescent dye leaks
- No UV enhancement glasses needed
- Automatic calibration and reset to ambient levels
- 3 adjustable sensitivity levels
- True mechanical pump
- Long life, stable sensor, low battery indicator
- Mute feature
- SAE J2791 Certified
- EN14624 Certified
- CE Certified

ACT785A Electronic Refrigerant Gas Heated Sensor Leak Detector.

- High sensitivity to HFC refrigerants such as R134a
- Digital alarm with numeric leak size indicator
- Audio and visual (flashing LEDs) leak indicators
- Detects smaller leaks; reduction in false triggering
- SAE J2791 Certified

ACT760A Heated Sensor Leak Detector.

- Heated sensor technology
- Long life, stable sensor
- Automatic calibration and reset to ambient levels
- 3 adjustable sensitivity levels
- True mechanical pump
- Mute feature
- SAE J2791 Certified
- EN14624 Certified
- CE Certified



ACT795UV

ACT760A

ACT785A



ACT120A

Electronic Charging Scale

ACT120A Electronic Refrigerant Scale.

- Use with R12 or R134a refrigerants
- Reads transfer amount during charging or recovery operations
- Reads in pounds or kilograms
- Auto off function after 3 hours

Specifications	ACT795UV	ACT785A	ACT760A
Sensitivity Range	.05 oz/yr (R134a), .025 oz/yr (R22)	.05 oz/yr (R134a), .03 oz/yr (R22)	.05 oz/yr (R134a), .03 oz/yr (R22)
UV Mode	3 UV LEDs	—	—
UV Wavelength	395-415nm	—	—
Sensor Life	>300 hours	>300 hours	>300 hours
Power Supply	4 AA Alkaline batteries	4 AA Alkaline batteries	4 AA Alkaline batteries
Battery Life	8 hours continuous	8 hours continuous	8 hours continuous
Warm Up Time	—	<20 seconds	<20 seconds
Probe Length	17 inches	17 inches	17 inches
Weight, lbs. (kg)	1.5 (.68)	1.5 (.68)	1.5 (.68)
Warranty	3 years (2 on sensor)	3 years (2 on sensor)	3 years (2 on sensor)
Numerical Display	7 segment digital display (1 to 9)	7 segment digital display (1 to 9)	—
Alarm Near Sensor	Visual probe LED	Yes	—
Carrying Case	Included	Included	—

Specifications	ACT120A
Capacity, lbs. (kgs.)	240 (110 Kg)
Accuracy	±.16 oz. (±0.01 Kg) or 0.1% of reading (whichever is greater)
Resolution	0.01 lb. (0.01 Kg)
Operating Temperature	32°F to 120°F (0°C to 49°C)
Platform	9" (228.6mm) square
Power Supply	9 Volt battery (included)
Battery Life	Approx. 40 hrs.



WARNING



- Wear safety shield (user and bystander)
- Read safety precautions on pages 594 to 597

AIR CONDITIONING

Service Equipment (R134a and R12)



ACTUVPROKT



ACTUVQUADKT



ACTUVMINI4



ACTUVLED



ACTUVINJKT

Ultraviolet Leak Detector Kits (LED Light)

ACTUVQUADKT UV Leak Detection Kit–Blue-Point®.

- Includes 4 LED UV light, mini dye injector, A/C dye cartridges, hose with R134a coupler, R12 adaptor, 1 oz. of coolant dye, 1 oz. of oil/fuel/ATF dye, 10 A/C service labels and UV glasses

ACTUVMINI4 Mini LED UV Flex Light and UV Goggles Kit –Blue-Point.

- Bright LED light with 12" flexible probe gets in tight spots
- Comfort grip light handle with conveniently located On/Off button
- Includes flex light and UV safety glasses

ACTUVLED LED UV Light Kit–Blue-Point.

- Includes rechargeable ultra bright LED UV cord free swivel light (ACTUVLED8) plus rechargeable battery, battery charger and UV glasses

ACTUVC10 Dye Cartridge.

- 10 application dye cartridge with 10 A/C service labels

ACTUVPROKT Metered UV Injection Kit.

- New technology dye injection solution
- One precise squeeze of trigger per application
- More accurate than caulk-style guns
- Includes high-capacity 12 oz. cartridge that covers 96 applications

ACTUVPRO12

- 12 oz. dye cartridge for ACTUVPROKT
- Injection gun only for ACTUVPROKT

ACTUVINJKT A/C Leak Detection Kit–Blue-Point.

- Detects A/C refrigerant leaks quickly and easily
 - Universal A/C dye is SAE certified and OEM approved
- Includes:

- Universal A/C dye to service up to 40 vehicles ACTUVKITHRT for refills
- Exclusive gun style injector and dye cartridge
- Powerful 1 watt Luxeon® light
- Compatible with fluorescent dyes
- R134a adaptor
- UV Glasses
- Service stickers
- Convenient storage case

ACTUVKITHRT–Blue-Point

- Consists of 4 - 1oz cartridges

Ultraviolet Leak Detector Kits (High Intensity Light)

ACTUVDYEKIT UV Leak

Detection Kit–Blue-Point. Includes high intensity light (ACTUVDYEKIT1), dye injector and cartridge with 25 applications, hose w/R134a coupler

(ACTUVDYEKIT2), R12 adaptor (ACTUVDYEKIT4), 25 A/C service labels (ACTUVDYEKIT5), dye cleaner (CLEAN1SM), UV safety glasses (GLASS20BKY) and storage case (ACTUVDYEKIT6).

ACTUVDYEKT1 High Intensity UV Light.

- High intensity 12VDC/50W compact light gets in tight spots
- Coiled cord extends to 14' with clips for attachment to battery

ACTUVDYEKT2 Injection Hose.

- Hose with R134a coupler for ACTUVDYEKIT

ACTUVDYEKT3 Replacement Injector Handle.

- Replacement injector handle for dye injector in ACTUVDYEKIT

ACTUVDYEKT4 R12 Adaptor.

- R12 adaptor for ACTUVDYEKIT

ACTUVDYEKT5 A/C Service Labels.

- Pack of 25 A/C service labels for ACTUVDYEKIT

ACTUVC25 Dye Cartridge.

- 25 application dye cartridge with 25 A/C service labels

GLASS20BKY Safety Glasses.

- Black frame with amber lens



ACTUVDYEKIT



ACTUVGUNA

ACTUVKITA

ACTUVGUNA8

Ultraviolet Leak Detector Kits

- Inject dye in low side port on automotive A/C system, circulate and check for leaks with the UV Mini Light
- Detect leaks as slow as 1/4 oz. per year
- Use optional dyes to check for leaks in engines, transmissions, hydraulic systems and power steering systems

ACTUVKITA R12/R134a UV Leak Detection Kit –Blue-Point Includes:

- ACTUVGUN3 Injection gun
- ACTUVGUN5 R134a Injection gun adaptor
- ACTUVGUNA7 R12 System injection gun adaptor
- ACTUVGUNA8 Universal dye cartridge (8 oz.)
- ACTUVLITE4 UV enhancing glasses
- ACTUVLITEA8 Swivel head UV light (12 volt, 50 watt)
- ACTUVLITEA9 Storage case

ACTUVGUNA Injection Gun Kit–Blue-Point Includes:

- ACTUVGUN3 Injection gun
- ACTUVGUN5 R134a Injection gun adaptor
- ACTUVGUNA7 R12 System injection gun adaptor
- ACTUVGUNA8 Universal dye cartridge (8 oz.)

Ultraviolet Leak Detector Dye Cartridges/Accessories

Stock No.	Description
ACTUVGUN3	Injection Gun
ACTUVGUN5	R134a Injection Gun Adaptor
ACTUVLITEA8	12V, 50 Watt UV Swivel Head Mini Light
ACTUVGUNP1	PAG Oil Cartridges/46 Viscosity (six, 8 oz.)
ACTUVGUNP2	PAG Oil Cartridges/100 Viscosity (six, 8 oz.)
ACTUVGUNP3	PAG Oil Cartridges/125 Viscosity for GM (six, 8 oz.)
ACTUVGUNP4	PAG Oil Cartridges/150 Viscosity (six, 8 oz.)
ACTUVGUNE1	Ester Oil Cartridges/100 Viscosity (six, 8 oz.)
ACTUVGUN2	Universal A/C Dye Cartridge (4 oz.)
ACTUV10PAK	Universal Dye Cartridges (ten, 1/4 oz.)
YAUVC00L	Coolant Dye Cartridges. (six, 1 oz.)
YAUV4N1	Engine/Transmission/Hydraulic/ Power Steering Accessory Dye Cartridges. (six, 1 oz.)
ACTUVKITJR1	A/C Dye Cartridges (six, 1/4 oz.)
ACTUVKITJR2	A/C Dye Cartridges (six, 1 oz.)

Ultraviolet Flashlights—Blue-Point® ECFUVLITE Ultra Compact UV Leak Detection Flashlight Kit.

- High intensity LED bulb with 100,000 hour service life

- Comparable to high intensity 75 Watt lamps
- Compatible with all standard leak detection dyes
- Inspection range of up to 6'

ECFUVLITE



ECFUV150 UV Leak Detection Flashlight.

- Very high intensity LED technology
- 15 times brighter than regular LED lights
- Power comparable to 150W lamps
- Inspection range of up to 20'
- Compatible with all standard dyes
- Fluorescence enhancing glasses and charger included



ECFUVDUAL UV Leak Detection Flashlight.

- Pinpoints A/C, oil, fuel, ATF, PS, hydraulics, coolant and auto body leaks
- Use with blue lamp with fluorescent dye, white lamp for general component inspection
- 100,000 hour LEDs never need replacing
- UV inspection range up to 6' (1-8 m)
- Powered by (3) AAA alkaline batteries (included)
- Flashlight, holster and fluorescence enhancing glasses included



Manifold Service Kit—Blue-Point ACT1234PKT Manifold Repair Kit.

- Includes various replacement lens, knobs, O-rings, gaskets and more
- Use to service ACTR4151, ACT9500C, ACTR5134 and ACT51234 manifold gauges



ACT1234PKT

Manifold Test Gauge (R12) ACT9500C Manifold Gauge.

- Extruded aluminum body with 65mm gauges
- Sight glass allows you to see refrigerant as it flows
- Built-in Schrader valves
- 96" yellow charging hose
- 96" yellow charging hose plus 72" red and blue hoses



ACT9500C

Digital Manifold Gauges (R134a)—Blue-Point ACTR5150A Digital Manifold Gauge Set (R134a).

- Displays refrigerant and oil capacities
- Large easy to read LCD screen displays pressure and vacuum readings for R134a
- High quality aluminum block manifold
- Performs system leak check at conclusion of the evacuation process
- Heavy duty hook folds and stores on back
- Rubber boot for added protection
- Includes digital manifold, (3) 72" hoses and (2) manual couplers in a storage case



ACTR5150A

Manifold Test Gauges (R134a) ACTR5134 Manifold Gauge Set.

- Extra large
- 80mm gauge face and oversized sight glass for better visibility
- Large, 1/4 turn open/close manifold ball valves
- Manual high and low couplers for quick connections
- 72" red and blue nylon barrier hoses meet EPA, SAE and UL standards
- 96" yellow charging hose



ACTR5134

ACTR4151 Manifold Gauge—Blue-Point.

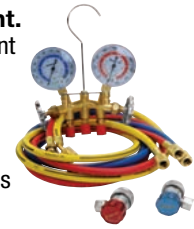
- Manual couplers are spring loaded to eliminate service valve damage
- Extruded aluminum body with solid brass fittings
- High side and low side silicon anti-flutter gauges (65mm) reduce vibration
- Sight glass permits visual monitoring of refrigerant flow
- 96" yellow charging hose plus 72" red and blue hoses



ACTR4151

ACTR4131 A/C Manifold Set—Blue-Point.

- Anti-flutter gauges smooth out needle movement
- Easy grip all metal side mounted knobs
- Piston-type free floating valves reduce O-ring wear
- Manual R134a couplers
- 60" red, blue and yellow inner nylon layer hoses meet EPA, SAE, and UL standards
- Yellow hose includes shut off valve



ACTR4131

ACTR4772-3 High Side Quick Coupler. ACTR4772-2 Low Side Quick Coupler.

Manifold Test Gauge (R134a/R12)

ACT51234 R12/R134a Manifold Test Gauge.

- Three sets of hoses (72" red and blue plus 96" yellow) permit true interchange between R12 and R134a refrigerants
- Large, 1/4 turn positive open/close manifold ball valves
- Oversize sight glass for easy flow viewing
- Extra large 80mm gauge face for better visibility
- Manual high and low couplers for quick connections
- Nylon barrier hoses meet EPA, SAE and UL standards



ACT51234



WARNING



- Wear safety shield (user and bystander)
- Read safety precautions on pages 594 to 597

AIR CONDITIONING

Service Equipment (R134a and R12)



ACTRB72



ACTRY96



ACTB72



ACTB72A



ACTR72A

Replacement Hoses (R134a)

- Low permeation hoses for internal equipment connections
- 1/2" ACME fittings
- Hoses comply with SAE J2197

- ACTRR72** Red, 6' length
- ACTRR96** Red, 8' length
- ACTRB72** Blue, 6' length
- ACTRB96** Blue, 8' length
- ACTRY72** Yellow, 6' length
- ACTRY96** Yellow, 8' length

Replacement Hoses (R12)

- 6' hoses include 1/4 turn manual shutoff valves
- Comply with SAE J2196
- 6' and 8' hoses also available with automatic shutoff valves

- ACTB72** Blue, 6', 1/4 turn manual shutoff valve
- ACTB72A** Blue, 6', automatic shutoff valve
- ACTR72A** Red, 6', automatic shutoff valve
- ACTY72** Yellow, 6', 1/4 turn manual shutoff valve
- ACTY72A** Yellow, 6', automatic shutoff valve



ACT2100



ACTMAN2100

A/C Hose Crimping Tools

ACT2100 Hydraulic A/C Hose Crimper Set–Blue-Point.

- Recrimp or install most barbed and beaded fittings
- Allows user to create standard or custom length A/C hoses
- Set contains the hand operated hydraulic crimping tool (ACT21001), (4) sets of dies for standard fittings and (4) sets of dies for reduced barrier fittings

ACTMAN2100 Manual A/C Hose Crimper Set–Blue-Point.

- Manual version of the ACT2100 hydraulic hose crimper
- Easily mounts to workbench or held securely in a vise
- Includes a complete set of dies covering standard #6, #8, #10 and #12 hose sizes

ACT21001 Crimping Tool.

- Hand operated hydraulic A/C hose crimper used to recrimp or install new fittings on A/C hoses



ACT9005



ACTR12345C



ACT9006

Vacuum Pumps (R134a/R12)–Blue-Point®

ACTR12345C Vacuum Pump.

- 2 stage design lowers pumping pressure, resulting in a deeper vacuum
- Internal check valve stops oil blowout in case of power loss
- Center oil fill port is accessible from the front as well as sides
- Durable lightweight die cast aluminum housing
- UL Listed

Specifications	ACTR12345C
Free Air Capacity, cfm (l/ min.)	1.5 (42.4)
Oil Capacity	10 oz. (0.25 kg)
Exhaust	1/2" NPT
Dimensions	5" x 12" x 9"
Electrical Requirements	120VAC, 60 Hz
Pump Motor, hp	1/6
Intake Port	1/4" SAE and 1/2" ACME
Pump Speed	3,450 RPM
Ultimate Vacuum	50 microns

ACT9005 Vacuum Pump.

- High efficiency, single stage 1.5 CFM pump
- Ultimate vacuum of 100 microns
- 3 inlet port sizes: 1/4", 3/8" SAE and 1/2" ACME
- Gas ballast valve helps prevent oil contamination
- Easy access oil fill port
- 1/6 HP
- 120 VAC motor
- Weight: 16 lbs., oil capacity: 6 oz.

ACT9006 Vacuum Pump.

- High efficiency, 2 stage 5 CFM pump
- Ultimate vacuum is 25 microns
- 3 inlet port sizes: 1/4", 3/8" SAE and 1/2" ACME
- Easy access oil fill port
- 1/3 HP 120 VAC motor
- Weight: 38 lbs., oil capacity: 8 oz.

Stock No.	Description	Fitting Size	Hose Size
ACT21002	Standard/Reduced Barrier Die Set	#6 (Standard), #8 (Reduced Barrier)	5/16" (Standard), 13/32" (Reduced Barrier)
ACT21003	Standard Die Set	#8	13/32"
ACT21004	Standard Die Set	#10	1/2"
ACT21005	Standard Die Set	#12	5/8"
ACT21006	Reduced Barrier Die Set	#6	5/16"
ACT21007	Reduced Barrier Die Set	#10	1/2"
ACT21008	Reduced Barrier Die Set	#12	5/8"

Service Equipment (R134a and R12)

Vacuum Pumps (R134a/R12)

ACT28B Pneumatic Vacuum Pump –Blue-Point®.

- Removes impurities and moisture from A/C systems during evacuations
- Operates on 90 to 120 PSIG
- Consumption is 42 SCFM; vacuum flow: 1/3 hp at 28"
- Air inlet thread: 1/4"-18 NPT
- Vacuum inlet: 7/16"-20 UNC



ACT28B

Valve Core Tools (R134a/R12)

ACT1297 Master Valve Core Tool Set (R134a/R12).

- Unique design offers locking device to hold shaft in place when removing or installing valve core
- Makes removal and installation of Shrader valve cores possible on fully charged systems

Includes:

- High side GM/Ford R12 adaptor (1/4" x 3/16")
- High side Ford R12 adaptor (1/4" x 1/8")
- R134a high side connector (16mm)
- R134a low side connector (13mm)
- 1/4" FL swivel connector
- Box for set component storage
- GM large bore valve core remover/installer assembly
- JRA R134a valve core remover/installer assembly
- Eton R134a low side valve core remover/installer assembly
- Eton R134a high side valve core remover/installer assembly



ACT1297

ACT2105 Orifice Tube Service Kit.

- Install and remove any style orifice tube
- Remove broken screens and tubes
- Includes auger point shaft, GM puller, brass extension, puller, remover arbor, remover nut and storage case



ACT2105

Can Tapper Valve

ACT413A Can Tap Valve.

- Fits R134a (2 7/8"), R12 (2 1/2") and Oil (2") U.S. standard charge cans
- Includes 1/2" ACME-M and 1/4" FL-M ports
- Internal safety check valve prevents system backflow
- Composite construction with brass ports
- Includes insert for smaller cans



ACT413A

Oil Injector (R134a)

ACTR82375 Oil Injector.

- Use to add refrigerant oil or large amounts of UV leak detection dyes to A/C systems
- Quickly adapts to manifold gauge sets or charging equipment
- 1/2" ACME male x 13mm R134a low side female threads
- 2 oz. capacity
- R134a use only



ACTR82375

Seal and Clutch Service (R12)

ACT1300A A/C Clutch Remover Set.

- Simplifies removal/installation of A/C compressor clutch and clutch plates
- Provides access to shaft seals
- For use with Ford, Chrysler and GM A/C compressors



ACT1300A

Thermometers

TEMP2A Digital Thermometer–Blue-Point.

- Use on A/C systems, cooling systems and other applications
- Reads temperature of liquids, solids and gases
- Easy to read display in F° and C°
- Magnet: cover holds unit in place
- Tip cover protects probe during storage
- CE conformity



TEMP2A

TEMP3A Digital Thermometer–Blue-Point.

- View center vent air temperature from under hood by placing external sensor in center vent
- Compare outside temperature with A/C discharge temperature
- Built in internal sensor
- External sensor with 10' extension wire
- MIN/MAX memory for both sensors
- Uses standard AAA battery (included)
- Large, backlit display with clock feature
- CE conformity



TEMP3A

Specifications	TEMP2A	TEMP3A
Temperature Range	-58° to 300°F (-50 to 150°C)	-58° to 158°F (-50 to 70°C)
Resolution	± 0.1°F (± 0.1°C)	+/- .1°F (+/- .1°C)
Accuracy	± 2.0°F (± 1.0°C)	+/- 1.8°F (+/- 1.0°C)
Response Time	Updates every 1.5 seconds	Updates every 1.5 seconds
Battery	MTACDC1-1	AAA
Battery Saver	35 minute auto power off	—
Probe Length	3 1/2" (89mm)	—
Overall Length	7" (178mm) with case	—

TEMP10 Pocket Digital Thermometer –Blue-Point.

- Measures liquid, air and surface temperatures via sturdy stainless steel probe
- Digital display for easy viewing
- Angled viewing head can be rotated 180°
- Convertible from Fahrenheit (F) to Centigrade (C)
- Temperature ranges: -58°F to 300°F (-50°C to 150°C)
- Plastic carrying sheath



TEMP10

ACT73A Dual Scale Dial Type Thermometer –Blue-Point.

- Range 0°F to 220°F in 2° increments
- Checks temperature of condenser, outside air and cooling power
- 1 3/4" diameter



ACT73A

ACT83A Dial Type Thermometer–Blue-Point.

- Range 0°F to 220°F in 2° increments
- Immerse stem about 2" in liquids, 4" in gases
- 1" diameter



ACT83A

ACT2030 A/C Temperature Tester–Blue-Point.

- Quickly and easily determine A/C system performance
- Microprocessor compares temperature at the A/C vent and outside ambient temperature
- Automatic shutoff
- Includes diagnostic chart and tech tips
- Powered by 9V battery (included)
- Range 32°-120°F



ACT2030



WARNING



- Wear safety shield (user and bystander)
- Read safety precautions on pages 594 to 597

AIR CONDITIONING

AC Service Tools



Adaptors/Valves/Connectors

ACT106B Expansion Tube Remover.

- For most GM models
- 4" long

ACT1009A Orifice Tube Remover.

- Use as CCOT and FFOT screen extractor
- Use in conjunction with ACT106B

ACT1008A Orifice Tube Tool.

- Services A/C systems
- 6 1/4" long

ACT119 Quick Connect Set.

- Simplifies connecting to core valve service fittings
- Includes straight coupler and a 90° coupler that accept either of 2 adaptors

Service Tools

ACT1046C Flush Kit.

- Pressure flush condensers, evaporators and refrigerant lines after A/C system is completely discharged
- Designed to work with any lightweight flushing material that can be mixed with pressurized air
- Includes flush gun, hose, canister and canister adaptor

ACT111B Compressor Oil Injector Adaptor.

- Aluminum body holds up to 2 oz. of oil
- Uses pressure differential of the high and low side of A/C system

ACT118B Spring Lock Coupler Set.

- 4 pc. set aids in disconnecting refrigerant line couplings on many 1981 and later Ford A/C systems
- Color coded: red, 3/8"; blue, 1/2"; black, 5/8"; and beige, 3/4"

TR109 Valve Core Tool.

- Use to remove or replace valve cores on A/C systems (large bore)
- 6 3/4" long

ACT1290A Universal Valve Core Service Tool.

- Removes and replaces standard size Schrader style valve cores plus the larger size found in GM systems

ACT81290 Universal Valve Core Service Tool.

- Use on R12/R134a standard valve cores and JRA/EATON large bore R134a valve cores

ACT499A Spanner Wrench.

- Adjustable 3 stud design for GM R-4 compressors
- Applications on some GM, Warner, Pitts and Ogura clutches

R404 Refrigeration Ratcheting Box Wrench.

- 4 popular square sizes: 3/16", 1/4", 5/16", and 3/8"
- Quick ratcheting action with reverse levers at both ends

RF818SC Refrigerant Ratcheting Box Wrench.

- 9/16" 6-point for servicing compressor valve caps on 1 end
- 1/4" female square on other end for vehicles without Schrader valves

TLE80A Torx® 6-Point Socket.

- Service size E8 Torx fasteners on many compressors
- 1/4" drive

TLE60A Torx 6-Point Socket.

- Service size E6 Torx fasteners on 1977 and later Eaton and York compressors
- 1/4" drive

ACT407 Fin Straightener and Cleaner.

- Multi-head tool handles 8, 9, 10, 12, 14 and 15 fins per inch
- 4 1/4" long

CT4G Circuit Tester.

- For 6 and 12V systems
- Tests with engine off
- 6" lead protected by strain relief

GOGGLE1 Protective Goggles.

- Durable molded frame with flexible elastomer seals comfortably for a custom fit around nose, cheeks and forehead
- Quick adjust headband clips permit fast and easy fitting
- Indirect ventilation system channels and directs airflow over the lens
- Uvex 4C+™ lens coating protects against fogging, scratches and ultraviolet rays
- Meets ANSI Z87.1-1989

ACT1370 Disconnect Set.

- Includes 6 tools for disconnecting spring couplings on fuel lines
- Convenient plastic holder
- Useful on A/C spring couplings as well as push lock connectors on radiator and transmission lines
- Includes 6 tools for disconnecting spring couplings on Ford, GM and Chrysler A/C lines
- Works on fuel lines and can be used as push lock connectors on radiator and transmission lines
- Included sizes are 5/16", 3/8", 1/2", 5/8", 3/4" and 7/8"



SVTSRAD262A



SVTSRAD262U



RADKITPLUSA



RADKITPLUSJR



YA4505

Vacuum Cooling System Filler

SVTSRAD262A Vacuum Cooling System Filler.

- Eliminates cooling system air locks that cause overheating
- Ideal for vehicle specific shops or municipal garages
- Expands the versatility of SVTS262C cooling system tester
- Adaptors available separately for virtually all import and domestic vehicles
- Liquid filled gauge provides an accurate reading
- Includes main body assembly, venturi and hose assembly, suction hose assembly, instruction manual with complete adaptor list

SVTSRAD262U Universal Cooling System Filler.

- Universal version does not require cooling system adaptors
- Includes 2 universal style cones to cover most applications

RADKITPLUSA Cooling System Vacuum/Filler.

- Easily eliminate cooling system air locks that can cause overheating
- Vacuum test checks for system leaks prior to filling
- Gauge protector helps prevent damage to gauge housing
- Push button vacuum valve for easy operation
- Fills system quickly by siphoning directly from the mix container
- Requires 90 psi (4.2CFM) air supply
- Includes Venturi assembly gauge and gauge protector, refill hose assembly, adaptors for most applications, universal fit cone adaptor, hose assembly and instruction manual with complete adaptor list in storage case.

RADKITPLUSJR Vacuum Cooling System Refiller.

- Reduces system filling time, eliminates airlocks and checks for system leaks
- Compact size allows access in restricted underhood areas
- Cone adaptor ensures unit will work on most domestic and import passenger vehicles and light trucks
- Push button control valve eliminates the need to interchange hoses
- Shop air (90 psi) quickly draws a powerful vacuum
- Eliminates system bleeding and purging

YA4505 Universal Radiator Adaptor-Blue-Point.

- 95% application coverage on cars and light trucks
- Replaces as many as 25 other costly radiator adaptors
- Compatible with radiator necks or reservoir tanks
- Can be used with Snap-on® RADKITPLUSA or RADPLUSA cooling system fillers, YA4000B vacuum and pressure pump and SVTS262A, SVTS262B and SVTS262C cooling system testers



YA2090



YA9190



2009FPI

YA7747



CG25



LDTSP4

Radiator and Freeze Plug Tools

YA2090 Radiator Cap Wrench-Blue-Point.

- Grips and removes radiator caps with or without wings
- 7 1/2"

YA9190 Universal Radiator Drain Plug Socket-Blue-Point.

- Double slotted end of this 3/8" drive socket will fit most radiator drain plugs that have thumb wings
- Will fit Acura, Honda, Toyota, Lexus and other imports

2009FPI Freeze Plug Installer Kit.

- 18 1/2" long installing tool with ball type swivel for easy positioning
- 7 installer heads in 20, 25, 30, 35, 40, 45, and 50mm sizes

YA7747 Pneumatic Adaptor-Blue-Point.

- Speeds freeze plug installation
- Use with 2009FPI Installer Kit
- 401" Parker-style shank enables use with air hammers

CG25 Freeze Plug Puller.

- Freeze plugs up to 2" in diameter
- 1/4" thick yoke receives 2 7/8" long self tap screw
- Drill 17/64" hole first

LDTSP4 Quick Disconnect Fittings Set.

- Includes sizes 3/8", 1/2", 5/8"-30% and 5/8"-39%
- Applications: 1996 and newer GM vehicles, many 2004 and newer Daimler Chrysler vehicles, some 2005 and newer Mercedes vehicles, V-Rod, Freightliner, Peterbilt, Volvo and White. Handy spring-action keeps the tool on the line for ease of use. Teeth fit perfectly into tight tolerance of Jiffy-tite connectors. When rotated, allows the line to be pulled without damage to the connector or retaining clip. Fits the most popular Jiffy-tite fittings found on oil cooler lines used on transmissions and radiators and on other applications



WARNING



• Read safety precautions on pages 594 to 597

AIR CONDITIONING

Testers



AF102

Antifreeze and Coolant Testers

AF102 Antifreeze Hydrometer.

- Degree of protection indicated by direct reading—no temperature compensating scales required
- Range of +32°F to -60°F
- Includes Celsius scale range
- Tests hot and cold solutions

EETA305B Refractometer—Blue-Point®.

- Quickly and accurately determines the freezing point of propylene and ethylene glycol-based antifreeze
- Gives indication of the charge level in battery acid
- Focusing eyepiece provides an easy to read scale
- Includes steel and glass constructed head and prism, rubber finger grip and focusing eyepiece with eyecup
- Specification range: -50°F to 32°F propylene glycol, with 10° divisions; -60°F to 32°F ethylene glycol, with 10° division



EETA305B



YAUVCOOL



GDCT16

Leak Testers—Blue-Point

YAUVCOOL Leak Detector Fluid.

- Six 1 oz. bottles of dye for coolant systems for use with ACTUVLITEA

GDCT16 Combustion Leak Tester.

- Easy and quick way to diagnose engine overheating problems
- Check for leaks between the combustion chamber and the cooling system
- Test head and gasket for combustion leaks before removing radiator
- For use on water cooled gas and diesel engines
- Kit includes complete test chamber, 16 oz. bottle of testing fluid and instructions

GDCT161 Leak Detector Fluid.

- 16 oz. bottle of leak testing fluid for the GDCT16 combustion leak tester



SVTS262C



SVTS263

Cooling System Testers

SVTS262C Cooling System Tester.

- Test pressure caps and cooling systems for leaks on a wide variety of domestic and import vehicles
- Cap has rotating lever for fine pressure adjustment
- Set features hand pump and tester head with 12" hose that reads in both psi and kPa
- Improved material in pump head is corrosion resistant
- Includes SVT262-28A, TA36GMA and TA38C radiator adaptors plus storage case
- Reference SVT262C instruction sheet for complete listing of applications

SVTS263 Cooling System Pressure Tester, Air Powered.

- Air powered upgrade to SVTS262C hand pump cooling system tester
- Includes 3 common cooling system adaptors: TAB10036, SVT262-28A and TA38C
- Uses pressure regulated shop air to pressure test cooling systems for leaks
- Sensitive pressure regulation allows safe testing of small systems
- Fills large systems in seconds
- Stainless steel and chrome plated components for a lasting finish
- Compatible with most commonly used cooling system adaptors
- Safety spring release cap assembly limits pressure to no more than 32 psi
- Convenient swivel hook allows unit to be hung from under vehicle hood

AIR CONDITIONING

Tester Accessories



Cooling System Tester Accessories

Radiator adaptors and cap adaptors listed below can be used with the SVTS262 Series and SVTS263 cooling system testers. See SVTS262C cooling system tester instruction manual for complete listing of specific model year applications.

Radiator Adaptor	Cap Adaptor	Application
SVT262-28A	SVT262-29	Acura, Chevrolet, Chrysler/Dodge/Eagle/Plymouth, Ford/Lincoln/Mercury, Geo, Honda, Hyundai, Infiniti, Isuzu, Lexus, Mazda, Mitsubishi, Nissan, Subaru, Suzuki and Toyota
TA16B	TA23A	VW and Audi
TA18B	TA26A	Volvo, Saab, Jeep, Sterling and Renault
TA27	—	Volvo large trucks with 63mm x 3mm threaded filler neck
TA31A	TA30A	VW
TA32A	TA33A	Buick, Cadillac, Chevrolet, Ford, International, Mercedes, Oldsmobile, Pontiac and Saturn
TA34A	TA246A	Ford, Jaguar, Pontiac, Porsche, Range Rover and Saab. Use with TA246A cap adaptor
TA36GM	TA37	Cadillac, Chevrolet, Geo, GMC, Pontiac, Oldsmobile and Saturn. Use with TA37 cap adaptor
TA38C	TA39A	Acura, Chevrolet, Chrysler, Geo, Honda, Isuzu, Lexus, Mazda, Mitsubishi, Suzuki and Toyota. Use with TA39A cap adaptor
TA41	TA40	Audi and VW. Use with TA40 cap adaptor
TA44	TA45	Mercedes
TA46	TA47	Ford, Jaguar and Mazda. Use with TA47 cap adaptor
TA48	TA49	Toyota
TA50	—	Volvo large trucks with 48 x 3mm male thread on filter neck

Radiator Adaptor	Cap Adaptor	Application
TA52	TA53	Mazda 3 (2004 and later) and Volvo S40/V50 (2004 and later)
TA54	—	Freightliner trucks with 60 x 3mm male thread on filter neck
TA56	TA57	Cobalt SS (2005 and later) and Saturn Ion Redline (2004 and later) with Supercharger cooling systems
TA58	—	2007 Dodge Sprinter Van with 42mm x 2.5mm thread on filler neck
TA445	TA446	BMW 3-series (2006 and later) and 5 and 6-series (2005 and later)
TA4503	—	1980s GM X and J body cars
TA245A	TA246A	BMW and Mercury. Use with TA246A cap adaptor
TA345A	TA346A	BMW and Range Rover
TA450A	Truck Adaptor Set	For trucks with "B" size (2 11/16" OD) filler neck adaptors. Includes A450-1A rubber plug.
TA4505	TA4504	For trucks with "B" size (2 11/16" OD) filler neck adaptors
A450-1A	Rubber Plug	Use with TA450A truck adaptor kit or as a replacement plug for A4503A GM adaptor kit
A450-2A	Rubber Gasket	Use with TA450A truck adaptor kit or as a replacement gasket for A4503A GM adaptor kit
A4503A	GM Adaptor Set	Tests system pressure on closed cooling systems on GM 2.5L "X" body cars and 1.8L "J" body cars



WARNING



• Read safety precautions on pages 594 to 597

AIR CONDITIONING

Tester Accessories



TAB10022



TAB10025



TAB10031



TAB10034



TAB10036



TAB10245



TAB10041



TAB10044

Cooling System Adaptor Sets–Blue-Point®

Radiator Adaptor	Applications
TAB10022	VW, Audi and Porsche
TAB10025	Volvo, Saab and Jeep
TAB10031	VW 1990-1998
TAB10034	Ford, Jaguar, Saab and Saturn
TAB10036	GM, Ford, Jaguar, Mazda and Nissan
TAB10041	VW, Audi and Porsche
TAB10044	Mercedes-Benz and Chrysler
TAB10046	Ford, Jaguar and Mazda
TAB10048	Toyota Celica and MR2
TAB10052	Mazda and Volvo
TAB10056	Chevy Cobalt and Saturn Ion
TAB10245	Pre-1988 BMW and Mercury
TAB10345	BMW 1988 to 2006 and Range Rover
TAB10445	BMW 2005 and later



TAB10046



TAB10048



TAB10345



TAB10052



TAB10056



TAB10445



SVTA17000

Cooling System Adaptor Set

SVTA17000 Cooling System Adaptor Set.

- Supplemental adaptor set to the SVTS262C cooling system tester kit
- 17 high quality metal construction adaptors cover vehicles through 2006
- Includes SVT262-28A, TA16B, TA18B, TA31A, TA34A, TA36GM, TA38C, TA41, TA44, TA46, TA48, TA52, TA56, TA245A, TA445 and TA4503 adaptors
- Storage case (PBSVTA1417) has extra storage compartments for the pump and gauge assembly from the SVTS262C kit

PBSVTA1417 Storage Case.

- Storage case for SVTAB1400 and SVTA17000 sets
- Removable cover for display

Truck Cooling System Adaptor Sets

SVTA6100 Large Truck Cooling System Adaptor Set.

- Designed for use with the SVTS262C but compatible with virtually any cooling system tester
- Ideal for servicing large trucks (Volvo, Kenworth, Freightliner and more)
- Pressure test the 8 different filler necks found on modern large trucks when combined with the pump and TAB10036 adaptor from the SVTS262B, SVTS262C or SVTS263 sets
- Can also be combined with the SVTS263 air powered cooling system pressure tester to provide virtually 100% truck coverage
- Includes TA27, TA50, TA54, TA32A, TA4505 and TA58 adaptors plus instruction manual in PBSVTA600 storage case



SVTAB1400

SVTAB1400 Cooling System Adaptor Set–Blue-Point.

- TAB series adaptors feature a composite metal/plastic construction for a lower cost option
- Includes 14 radiator composite metal/plastic radiator adaptors
- Storage case has extra storage compartments to accommodate the pump and gauge assembly and original 3 adaptors from the SVTS262C set
- Includes all TAB series adaptors plus TA4503 adaptor
- Consult instruction manual for a complete listing of all applications



SVTA6100

Cooling System Testers (Bladder Sealing System)—Blue-Point®

SVT275 Cooling System Tester.

- Inflatable bladder sealing system enables use with most passenger and light commercial vehicles
- Tests header tanks and radiator systems as well as thread type and bayonet-style caps
- Locate leaks from head gaskets, radiator and heater cores, Welch plugs and housings, water pumps and hoses
- Test cap relief pressure and seal condition
- Suitable for marine applications
- Fluid drain tube allows coolant to be returned to reservoir or safely collected for recycling
- Cycle tested to over 1,500 inflations
- Set includes SVT2751 thru SVT27514 (14 pcs) plus air supply hose and instruction manual in storage case



SVT275

Stock No.	Description	Application
SVT2751	Pressure Pump	—
SVT2752	Gauge, 0 to 30 psi (0 to 207 kPa)	—
SVT2753	Spare Bladder	—
SVT2754	Valve Seal Kit	—
SVT2755	Head Assembly	—
SVT2756	Neck Extension (Blue)	VW header tanks
SVT2757	Neck Extension (Red)	Japanese micro vehicles
SVT2758	Neck Extension (Black)	Audi/VW header tanks
SVT2759	Cap Adaptor (Blue)	Standard bayonet, Ford header tank, GM N-body
SVT27510	Cap Adaptor (Yellow)	Jeep, Saab, Audi/VW external thread header tanks
SVT27511	Cap Adaptor (Green)	Small Japanese deep, Audi/VW internal thread header tanks
SVT27512	Cap Adaptor (Red)	Small Japanese shallow, late model Audi/VW external thread header tanks
SVT27513	Cap Adaptor (Orange)	Late model BMW, Land Rover and Range Rover
SVT27514	Cap Adaptor (Gray)	Late model Mercedes with thread type

Hose Cutters and Removers—Blue-Point

YA9344 Heater Hose Disconnect Tool.

- Removes heater hoses with 3/4" or 5/8" quick disconnect couplings from rear heater core on 1987 and later Dodge Caravan and Plymouth Voyager vans
- Gets into difficult access area next to firewall on 1986 and later Ford Aerostar vans plus 1990 and later Ford Econoline vans



YA9344

YA1000A Multi Cutter.

- Ideal for cutting heater hoses, fuel line hoses, copper wiring, PVC pipes, wiper hoses and air brake hoses, plus any resilient or semi-resilient material with a 0" to 1 1/8" diameter
- Comfort contoured handles with plastic grips
- Wire loop for safe storage: 9 5/8" long



YA1000A

PWC60

PWC60 Compound Leverage Hose Cutter.

- 8 1/2" compound action multiplies normal hand pressure to easily slice through rubber and plastic hose up to 1 1/8" in diameter
- Includes stainless steel cutter blades and internal components



HCR1

HCR1 Heater Hose Coupler Removal Tool.

- Removes broken heater hose couplers on GM engines
- Can be used with an impact wrench

Fan Clutch Wrenches/Pulley Holders—Blue-Point

YA9325 Ford Fan Clutch Wrench Set.

- 36 and 58mm set
- Includes YA9325-1 and YA9325-2. Applications: E-Series trucks 4.9L (1984-1991), F-Series trucks 4.9L (1984-1992), Bronco II and Ranger 2.8L (1984-1985), Ranger 2.9L (1986-1992), Aerostar 3.0L (1986-1988), Aerostar and Ranger 4.0L OHV (1990 and later), Explorer 4.0L OHV (1991 and later), Mazda Navajo 4.0L OHV (1991-1994), Mazda B4000 4.0L OHV (1995 and later), Explorer 4.0L V6 SOHC (1997 and later) and Mountaineer 4.0L V6 SOHC (1998 and later)

YA9325-1 Metric Flat Wrench. 36mm wrench size, 343mm long.

YA9325-2 Crowfoot Wrench. 58mm wrench size, 58.7mm long.

YA9521 Flat Wrench. 36/48mm wrench size, 356mm long.



YA9325



YA9521



WARNING



• Read safety precautions on pages 594 to 597

AIR CONDITIONING

Service Tools



Fan Clutch Wrenches

FCT706 Fan Clutch Wrench.

- Fan clutch wrench for heavy duty truck engines
- Hole pattern on tool aligns with fasteners on fan hub
- Use with open end wrench to remove fan clutch
- 24 1/2" length for maximum leverage
- Applications: International (VT365, T444E, DT466, DT350 and HT530), Ford Power Stroke (7.6L and 6.0L), Detroit Diesel (Series 40) and John Deere

YA6180 Fan Clutch Wrench—Blue-Point.

- Use on GM and Ford diesel and gas engines with a 48mm fan clutch nut
- Provides extra leverage needed to remove the fan clutch nut
- Overall length of 20 1/8" (511.2mm)
- Head width of 4 1/8" (104.8mm)
- Head thickness of 3/8" (9.5mm)



HCP48CP



HCP9



HCP10



HCP20

Heater Hose Clamp Pliers

HCP48CP Mobeas Heater Hose Clamp Pliers.

- 8"
- For 3/4" to 2" diameter clamps
- Jaws close to within 1/8"

HCP9 Corbin Heater Hose Clamp Pliers—Blue-Point.

- 9"
- Removes or replaces all spring wire hose clamps
- Deep slotted jaws swivel 180° and lock in 3 different positions

Fan Clutch Wrenches/Pulley Holders—Blue-Point®

YA9526 Ford Fan Clutch Wrench.

- 40mm open end wrench
- Use with YA9325-2 or YA9522
- Applications include 4.9L Econoline vans (1992-1996) and 4.9L F-Series pickups (1993-1996)

YA9980 Water Pump Fan Clutch Pulley Holder.

- Use on vehicles with pressed-on pulleys
- Use on GM (4.8L V8, 5.3L V8, 6.0L V8 1999 and later) and Chrysler (3.9L V6, 4.7L V8, 5.2L V8, 5.9L V8, 8.0L V10 1998 and later)
- Cannot be used on Chrysler 4.7L V8 using factory replacement water pumps

YA6120 Fan Clutch Wrench Set. Ford/Lincoln/Mercury Applications: E-Series trucks 4.9L (1984-1991), F-Series trucks 4.9L (1984-1992), Bronco II and Ranger 2.8L (1984-1985), Ranger 2.9L (1986-1992), Aerostar 3.0L (1986-1988), Aerostar and Ranger 4.0L OHV (1990 and later), Explorer 4.0L OHV (1991 and later), Mazda Navajo 4.0L OHV (1991-1994), Mazda B4000 4.0L OHV (1995 and later), Explorer 4.0L V6 SOHC (1997 and later) and Mountaineer 4.0L V6 SOHC (1998 and later). GM Applications: Astro and Safari vans 4.3L, Blazer, Jimmy and Bravada SUV 4.3L, S10, Sonoma and Isuzu Hombre pickups with 2.2L 4 cylinder and 4.3L V6, C1500, C2500, C3500, K1500, C1500/C2500/C3500/K1500 Sierra pickups, G1500/G2500 Chevy Express, G1500/G2500 Savana vans 4.3L V6, 5.0L V8 and 5.7L V8; and Suburban, Tahoe, Yukon, Escalade, Denali and Envoy 5.7L V8.

YA6160 Universal Fan Clutch Pulley Holder.

- Removes and replaces the fan clutch on vehicles using "bolt-on" water pump pulleys
- Reverse pulley holder for assembly operations
- Use with YA9521 36/48mm wrench or YA9526 40mm wrench for many Chrysler, Ford, Lincoln, Mercury and GM applications

YA6210 BMW/Audi/VW Fan Clutch Wrench.

- 32mm fan clutch wrench is used with YA6160 fan clutch pulley holding tool to service Audi vehicles (1996 and later), VW Passat 3.0L V6 (1998 and later) plus BMW 3, 5, 6, 7, 8, X and Z series vehicles
- YA6160 works on all models listed except 4.0L and 4.4L V8 engines
- Made from heat treated steel
- Overall length of 17" (431.8mm)

HCP10 Mobeas Heater Hose Clamp Pliers—Blue-Point.

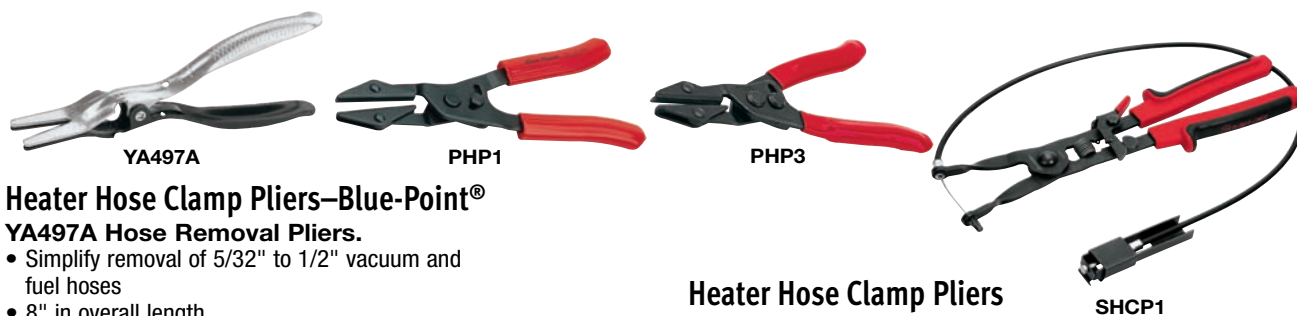
- 9"
- Same as HCP9, except for new style hose clamps found on GM, Ford, VW, BMW, Toyota, Volvo and Audi cars

HCP10RK Service Kit—Blue-Point.

- Includes 1 pair of replacement tips plus a replacement spring for HCP10

HCP20 Mobeas Heater Hose Clamp Pliers—Blue-Point.

- For heater and radiator hoses found on 1988-1990 GM, Ford, Chrysler and most imports
- Jaws pivot to almost any angle



Heater Hose Clamp Pliers—Blue-Point®

YA497A Hose Removal Pliers.

- Simplify removal of 5/32" to 1/2" vacuum and fuel hoses
- 8" in overall length

PHP1 Hose Clamp Pliers.

- Clamp off hoses up to 1 1/4" in diameter
- Swivel jaws for parallel clamping action
- 9 1/4" in overall length

PHP2 Hose Clamp Pliers.

- Clamp off hoses up from 1 1/4" to 2 3/4" in diameter
- Swivel jaws for parallel clamping action
- 4 3/8" jaw length
- 14" long

PHP3 Hose Clamp Pliers.

- Clamp off hoses up to 3/4" in diameter
- Swivel jaws for parallel clamping action
- 1 1/4" jaw length
- 5 1/2" long
- Black industrial finish

Heater Hose Clamp Pliers

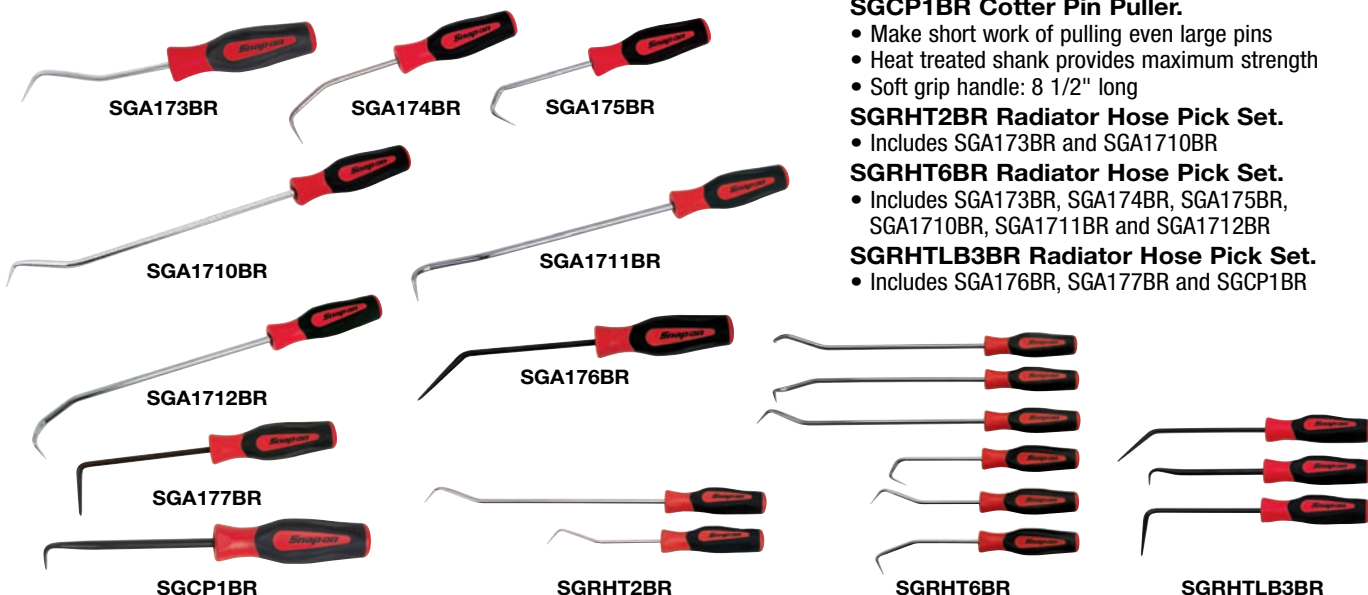
SHCP1 Hose Clamp Pliers.

- Unique jaw design will work on all 3 styles of hose clamps in the automotive market (standard, space saver & pre-opened)
- Bi-mold grips provide more comfort and control while reducing hand fatigue
- Cable snap provides an easy storage feature
- Round base ratcheting system provides a larger catching surface area on the locking feature
- Lock lever has 2 matched locking gears with a deep cut to prevent slipping and wearing
- Flexible cable reaches into tight places with minimal effort

Soft Grip Hose Picks

- Ideal for removing and replacing hoses and clamps
- Unique hose blade design for getting around the most difficult obstacles
- Soft, solvent resistant handle material provides a sure, comfortable grip

Stock No.	Finish	Blade Length, inches (mm)	Length, inches (mm)
SGA173BR	Chrome	5.43 (137.9)	10.33 (262.4)
SGA174BR	Chrome	4.94 (125.5)	9.84 (249.9)
SGA175BR	Chrome	4.61 (117.1)	9.51 (241.6)
SGA1710BR	Chrome	11.66 (296.1)	16.56 (420.6)
SGA1711BR	Chrome	10.89 (276.6)	15.79 (401.1)
SGA1712BR	Chrome	11 (279.6)	15.91 (404.1)
SGA176BR	Industrial Finish	5.62 (142.9)	10.50 (266.7)
SGA177BR	Industrial Finish	4.12 (104.7)	9.00 (228.6)
SGCP1BR	Industrial Finish	3.75 (95.3)	8.50 (215.9)



SGA173BR Radiator Hose Pick.

- Use for easy access applications

SGA174BR Radiator Hose Pick.

- Perfect for tight access firewall applications

SGA175BR Radiator Hose Pick.

- Ideal for getting behind hoses and pulling

SGA1710BR Radiator Hose Pick.

- Longest pick for extra reach

SGA1711BR Radiator Hose Pick.

- Length and angle are designed for tight access and long reach firewall applications

SGA1712BR Radiator Hose Pick.

- Long pick easily maneuvers around obstacles

SGA176BR Radiator Hose Pick.

- 45° pick for restricted access applications

SGA177BR Radiator Hose Pick.

- 90° pick for restricted access applications

SGCP1BR Cotter Pin Puller.

- Make short work of pulling even large pins
- Heat treated shank provides maximum strength
- Soft grip handle: 8 1/2" long

SGRHT2BR Radiator Hose Pick Set.

- Includes SGA173BR and SGA1710BR

SGRHT6BR Radiator Hose Pick Set.

- Includes SGA173BR, SGA174BR, SGA175BR, SGA1710BR, SGA1711BR and SGA1712BR

SGRHTLB3BR Radiator Hose Pick Set.

- Includes SGA176BR, SGA177BR and SGCP1BR



WARNING



- Plastic coated handle does not protect from electric shock
- Read safety precautions on pages 594 to 597

UNDER CAR SERVICE

Expanding The Reach Of Your Business.

It's the equipment you use every day, so you need it to be as efficient as possible. Snap-on® provides the versatility to work on a wide variety of vehicles with the same equipment—giving you more space and ensuring jobs that come to your shop, stay at your shop.

- Snap-on makes it affordable for you to get into new businesses —Much of the same undercar equipment you use for cars and trucks can be used for light commercial vehicles and motorcycles as well.
- Easy to use and with the accuracy you need—Snap-on undercar equipment delivers consistent results, making it easy for anyone in the shop to use.
- Tire changers—Designed to handle the industry's most difficult, high-performance tires. Snap-on features models equipped with Pneumatic Bead Assist and added protection to minimize damage to expensive wheels.
- Wheel balancers—Revolutionary Virtual Plane Measurement® sensing assembly divides the tire and wheel “down the center” for unsurpassed accuracy and repeatability.
- Lifting equipment—Enhanced features, better access and multiple load capacities mean fewer jobs you have to turn away.



WHEEL BALANCING

Computerized Balancers

Shared Features:

- Use on passenger cars, light trucks, motorcycles and light commercial vehicles
- Weight placement accuracy as low as $\pm 0.7^\circ$
- Eight balancing modes:
 - Dynamic - for balancing most wheels in two planes
 - Static - ideal for narrow rims
 - ALU (5 each)
 - ALU-S - customized weight placement location (ideal for inside tape)

- Dual operator mode: allows 2 separate parameter inputs
- Custom weight placement mode
- LED Displays: indicates left and right weight placement positions
- LED Windows: indicates left and right weight amounts
- Self-calibration and self-diagnostics: require minimal maintenance



EEWB304C



EEWB305C

Motorized Wheel Balancer

EEWB304C Motorized Wheel Balancer.

- Two parameter auto entry to measure rim offset and distance by touching the distance gauge to the rim
- Molded weight tray has 16 weight storage pockets

Hand Spin Wheel Balancer

EEWB305C Hand Spin Wheel Balancer.

- Single parameter auto entry to measure rim offset by touching the distance gauge to the rim
- Molded weight tray has 12 weight storage pockets

Specifications	EEWB304C	EEWB305C
Operation	Motorized	Handspin
Accuracy, oz. (grams)	0.10 (2)	0.10 (2)
Rim Diameter, inches (mm)	8-30 (203-762)	6-30 (152-762)
Rim Width, inches (mm)	3-25 (76-635)	1-20 (25-508)
Maximum Tire Diameter, inches (mm)	44 (1,118)	44 (1,118)
Maximum Tire Width, inches (mm)	20 (508)	19 (482)
Maximum Tire/Wheel Weight, lbs. (kg.)	154 (69)	120 (54)
Shaft Speed at Calculation, RPM	<200	119
Cycle Time, seconds	<7	<15
Sound Level, dBa	70	70
Electrical Requirements	115V, single phase, 60Hz, 15A	115V, single phase, 60Hz, 15A
Shipping Weight, lbs. (kg.)	325 (148)	230 (105)
Required Floor Space	62"W x 64 1/2"D	60"W x 48"D

Standard Accessories - 40mm Shaft

Stock Number	Description
EAM0003J05A	Small Cone - 1 11/16" to 2 17/32"
EAM0003J06A	Medium Cone - 2 3/16" to 3"
EAM0003J07A	Large Cone - 2 13/16" to 3 19/32"
EAM0003J08A	Truck Cone - 3 3/8" to 5 1/32"
EAA0263G66A	Quick Nut 40mm
EAC0058D08A	Pressure Disk
EAC0058D15A	Rubber Protector
EAM0021D90A	Stub Shaft 40mm
WWPR13A	Wheel Weight Pliers (Optional)
EAA0247G21A	Rim Width Caliper
EAA0255J33A	40mm Shaft Upgrade Kit (for EEWB305A and EEWB304A)
EAA0346J75A	Optional 1" Extension Flange
EAA0346J76A	Optional 2" Extension Flange
EAK0221J64A	AC Adaptor (EEWB305C only)

TECHNICAL SUPPORT
1-800-225-5786



- Read and follow all safety messages in instructions
- Read safety precautions on pages 594 to 597

WHEEL BALANCING

Computerized Balancers



WB410

Truck/Automotive Wheel Balancer

WB410 Truck and Auto Wheel Balancer.

- Balance most light truck wheels with center holes from 3.18" to 6.6" with use of standard adaptors
- Built-in battery provides power to electronics module, providing complete portability
- Built-in jack makes balancing even the heaviest wheels a one man operation
- Multiple balancing modes: static, dynamic and four custom modes
- Includes small weight tray
- Operates on 120VAC, 50/60 Hz line source or 12VDC

6605-000101 Power Adaptor. 120VAC (included).

EAK0221J00A Medium Duty Truck Cone Kit.

- Use on wheels from 1 1/2 ton and greater medium duty trucks
- Applications: Ford F450, F550 and steel wheels
- For use with all Snap-on® wheel balancers with a 28.5mm shaft diameter

Optional Accessories:

WB1497 Automotive Back Cone Mounting Set.

WB1465-01 Adaptor Plate.

- For 10-bolt, 11 1/4" (285mm) bolt circle and 8-bolt, 10 3/4" (275mm) bolt circle

WB1496-01 Dayton Wheel Adaptor Plate.

- For 22" to 24" diameter wheels

WB1496-02 Dayton Wheel Adaptor Plate.

- For 20" to 22" diameter wheels

EAA0346J76A Extension Adaptor.

- Permits balancing of extra wide light truck wheels

Specifications	WB410
Accuracy Normal Mode, oz. (grams)	2 (50)
Accuracy Fine Mode, oz. (grams)	*
Rim Diameter, inches (mm)	13-26 (330-660)
Rim Width, inches (mm)	4 1/2-15 (114-381)
Tire Weight, lbs. (kg)	500 Maximum (227)

*.1 oz. (2 g) on rims less than 17 1/2" in diameter;

.25 oz. (5 g) when balancer is dialed down to automotive rims from 2 oz. accuracy on truck rims.

TECHNICAL SUPPORT
1-800-225-5786



EEWB308B

Motorcycle Wheel Balancer

EEWB308B Motorcycle Wheel Balancer.

- Quickly, easily and accurately hand spin balance motorcycle wheels
- 2 plane weight display makes the system easy to use and understand
- Auto brake stops the wheel after the measurements are complete, allowing time to select weights
- 12 pockets for standard weights, 1 for tape weights or pliers storage
- Auto distance entry speeds setup time: distance is entered in memory with 1 touch
- Memory permits storage and instant recall of 2 of the most often used tire parameters or use by 2 operators for faster balancing
- Pedal-activated spindle lock holds tire wheel assembly for accurate weight placement
- Required install space: 60"Wx48"D (1524x1219mm)
- VPI (Virtual Plane Imaging) technology provides unsurpassed accuracy (within 0.7 degrees and 0.1 oz.)
- Self-calibration ensures accurate balancing

EAK0221J64A Power Adaptor.

- 120 VAC, 60Hz (included)

Specifications	EEWB308B
Accuracy, oz. (grams)	0.10 (2.8)
Weight Placement Resolution	±0.7°
Cycle Time (15" wheel)	approx. 8 seconds
Shaft Measuring Speed	less than 100 RPM
Shaft Capacity, lbs. (kg)	60 (27.2) maximum
Rim Diameter, inches (mm)	6-30 (152-762)
Rim Width, inches (mm)	1-20 (25-508)
Tire Diameter, inches (mm)	44 (1,117) maximum
Tire Width, inches (mm)	16 (406.4) maximum
Electrical Requirements	120VAC
Shipping Weight, lbs. (kg)	225 (102) with standard accessories

TIRE CHANGERS

Accessories and Changers



EEWB3-04



EEWB3-1



EEWB3-2

Balancer Pin Plate Sets

Pin plate kits accurately align and center the rim to the wheel balancer. Eliminate misalignment and save time by balancing accurately the first time.

- Complete coverage of vehicle types listed in included application chart
- Works with wheel balancers that have a 40mm shaft

EEWB3-1 Car, Lt. Truck and SUV Pin Plate Kit –Blue-Point®.

EEWB3-2 Lt. Truck and SUV Pin Plate Kit–Blue-Point.

Component Description	EEWB3-1	EEWB3-2
EEWB3-11 Adaptor Plate #1	•	
EEWB3-12 Adaptor Plate #2	•	
EEWB3-13 Adaptor Plate #3	•	
EEWB3-14 Adaptor Plate #4	•	
EEWB3-21 Adaptor Plate SUV Lt Trk #1		•
EEWB3-22 Adaptor Plate SUV Lt Trk #2		•
EEWB3-01 Stud A (1 each)	8X	6X
EEWB3-02 Stud B (1 each)	8X	6X
EEWB3-03 Stud C (1 each) 5	5X	
EEWB3-04 Stand	Optional	Optional
EEWB3-23 EEWB3-2 Application Chart		•
EEWB3-15 EEWB3-1 Application Chart	•	
EEWB3-07 O-ring, Repl. 25 pkg.	Part	Part

Note: EEWB3-1 and EEWB3-2 Pin Plate kits work with balancers that have a 40mm shaft. This includes Snap-on® model numbers EEWB304C and EEWB305C, as well as other brands. Older model Snap-on balancers can be upgraded to the larger shaft size by ordering Shaft Upgrade Kit EAA0255J33A.

TECHNICAL SUPPORT
1-800-242-6687

Wheel Balancing Accessories

YA1714 Wheel Lift Assist–Blue-Point.

- Eliminates manual lifting of tire and wheel assemblies
- Works on passenger cars, light trucks and truck wheels: auto size adjustment
- Minimizes effort and limits back injury so you can get jobs done quickly and safely
- Assists user in alignment of tire and wheel assembly to the hub studs to ease remounting
- Eliminates wheel balancer shaft damage and bending
- Maximum tire/wheel weight: 130 lbs.
- Tire diameter range 24" to 36"
- Lifting height over 29"



YA1714



KRD401A

KRD401A Wheel Weight Cabinet.

- Storage for a wide assortment of wheel weights: mount on wall or place on bench
- 36 compartments, each measuring 3 7/8" x 3 7/8"
- 5 slide-out dividers permit enlarging compartments to accommodate larger wheel weights



WWPR13A

WWPR13A Right Angle Wheel Weight Pliers.

- Easily removes and replaces wheel weights as well as cutting and crimping
- Made of heat strengthened steel
- Includes comfortable vinyl handle grips and replaceable hard plastic hammer tip

WWPR13-3 Replacement Hammer Tip.

- For WWPR13A

Tire Changers

Basic Tire Changers

EEWH301B Tire Changer.

- (2) 7" dual power pneumatic drive cylinders to provide forward and reverse cycle power
- Integrated adjustable lower bead breaker for versatility
- 2 way power from air and hydraulic sources

Standard Accessories:

EAA0247C78A Replacement Tool Bar.

00066006000 Lube Bottle.

Optional Accessories:

EAA0247C79A Tire Bar Nylon Protector Kit.

EAA0247G70A Depressor.



EEWH301B

Specifications	EEWH301B
Rim Diameter, inches (mm)	10-17.5 (254-445)
Rim Width, inches (mm)	3-19.75 (76-502)
Air Supply Required	120-180 PSI (8-12 Bar)
Center Post Torque	@150 PSI torque = 550 ft. lbs.
Cylinders	Two 7" diameter x 6 1/2" stroke
Surge Tank	10" diameter x 18 3/4 high (.75 cu. ft.)
Dimensions, inches (mm)	22 x 54 1/2 x 44 (559 x 1,384 x 1,118)
Shipping Weight, lbs. (kg)	520 (236)



WARNING



- Read and follow all safety messages in instructions
- Read safety precautions on pages 594 to 597

TIRE CHANGERS

Tire Changers

Snap-on® Tire Changers come in a variety of models to fit the individual shop's needs. These units have unique features to service a wide range of tire types and sizes.



EEWH306A



EEWH311A



EEWH317A
EEWH315A



EEWH310A

- Mount/dismount head adjusts to correct position and is designed to avoid direct contact with the rim
- 6 point contact rim clamping jaws provide additional slip resistance and can be adjusted to allow for added clamping capacity
- Side mounted bead breaker allows for effective bead breaking of virtually all rim configurations
- Pneumatic bead assist gives operator additional pneumatic power to assist in mounting and dismounting low-profile, high performance and run flat tires (on some models)
- Bead seating jets are integrated into the clamping jaws and force additional air into the tire cavity
- High torque 1HP motor virtually eliminates turntable stalling
- Twin cylinder clamping offers more clamping force and provides a uniform clamping pressure on the rim
- Nylon Inserts on the mount/dismount head along with rim clamps provide added scratch resistance and rim protection
- Surge tank delivers additional volume of air during the bead seating process
- Inflation gauge and water separator is standard and includes an integral oiler
- +4 Adaptors increase the rim clamping capacity (optional)
- Safety restraint arm provides another level of retention to the tire/wheel assembly when seating beads (optional)

	EEWH306A	EEWH311A	EEWH317A	EEWH315A	EEWH310A
	Workhorse Tire Changer	Tilt-Back Tire Changer	Deluxe Tire Changer	Deluxe AIR/AIR Tire changer	Motorcycle Tire Changer
Type	Swing	Tilt	Swing	Swing	Swing
Pneumatic Bead Assist	EAA0329G33B	Included	Included	Included	EAA0329G33B
Outside Clamping Range (in)	10-18	10-24	10-24	10-24	10-21†
Inside Clamping Range (in)	12-20	12-24	12-24	12-24	12-20
Rim Width (max, in)	12	14	13	13	12/10†
Tire Diameter (max, in)	39	39	39	39	39
Tire Width (max, in)	13	14	13	13	10/13*
Bead Breaking Width (max, in)	13	13	14	14	13
Bead Breaking Force (lbs @150 psi)	3,300	3,300	3,300	3,300	3,300
Air Requirements (psi)	140-170	140-170	140-170	140-170	140-170
Voltage Requirements	120V 60Hz, 20A	120V 60Hz, 20A	120V 60Hz, 20A	—	120V 60Hz, 20A
Net Weight (lbs)	449	719	661	558	306
Overall Height X Width X Depth (in)	67.8 x 41.0 x 49.0	69.3 x 41.4 x 55.3	74.8 x 39.3 x 45.3	74.8 x 39.3 x 45.3	67.3 x 30.3 x 28.0
+4 Adaptors	ST4029446	EAA0332G91A	EAA0304G76A	EAA0304G76A	ST4029446
Safety Restraint Arm	EAA0270J11A	EAA0304G72A	EAA0270J14A	EAA0270J14A	—

† 10-18" car, 8-15" scooter, 15-21" motorcycle

* 13" car, 10" motorcycle

§ use with EAA0304G80A

TECHNICAL SUPPORT
1-800-242-6687

Tire Pressure Monitoring

TPMS Tools

TPMS1 Tire Pressure Monitor Tool.

- Works with all magnetic and electronic original equipment sensors with no gaps in coverage
- Upgradeable and allows downloading of the newest protocols
- PIM update module is integrated in the unit
- USB cable included
- Register online at www.tpms1.com

TECHNICAL SUPPORT
1-866-498-7671

QDTPMS Valve Core Torque Tool.

- Specifically designed to be used as a core remover and precise installer for TPMS tire valve to eliminate risk of damaging expensive TPMS sensors
- Preset to 4 ft. lbs. to prevent over or undertorquing
- Preset torque setting also helps prevent valve core leaks that lead to low tire pressure and TPMS alerts

TPRG60 TPMS/Racing Tire Gauge–Blue-Point®.

- Ideal for applications requiring precise readings like TPMS gauge testing and performance driving
- PowerFlex™ movement has durability and accuracy to spare
- ±1% accuracy



TPMS1



TPRG60



QDTPMS

Tire Pressure Gauges–Blue-Point



TPGHGDD150



TPGDL150



TPGD150



TPGDL1000

Digital Tire Pressure Gauges

TPGD150 Digital Tire Pressure Gauge.

- Ranges from 5 to 150 psi in 0.5 increments
- Flexible 11" (279mm) braided hose with dual foot chuck helps access hard to reach tire valves
- Black ribbed gauge guard provides a sure gripping surface and helps protect the gauge if dropped
- Auto shutoff extends battery life
- 1% accuracy

TPGHDD150 Digital Tire Pressure Gauge.

- Reads 5 to 150 psi in 0.5 psi increments and 101-150 psi in 1.0 psi increments
- Large digital backlit display
- Chrome finish helps prevent corrosion and facilitates easy cleanup
- Overall length of 12.5" (317.5mm) helps access hard to reach tire valves
- Auto shutoff extends battery life
- Uses replacement battery CR2032 lithium (3V) or equivalent

TPGDL150 Digital Tire Pressure Gauge.

- Backlit for easier measurement reading
- Auto shutoff extends battery life
- 5 to 150 psi reading
- Shockproof rubber guard to prevent damage when dropped
- Molded finger grips for added comfort
- Heavy die cast faceplate
- Includes steel belt clip and batteries

TPGDL1000 Digital Tire Pressure Gauge/Inflator.

- Measures from 5 to 150 psi
- Displays reading in psi, BAR kPa or kg/m
- 1/4" NPT fitting for inlet air connection
- Shockproof rubber guard to prevent damage when dropped
- On/Off button for display light
- Clip-on air chuck and dual foot chuck included
- Batteries included
- ±1% accuracy



WARNING



- Read and follow all safety messages in instructions
- Read safety precautions on pages 594 to 597

TIRE AND WHEEL

Tire Pressure Gauges—Blue-Point®



YA243A



TPGIF120



TPGF60



TPG60



TPG160



TPIF160



TPGL30



TPDLIF150



TPG15

Dial-Type Pressure Gauges

YA243A Dial Type Pressure Gauge.

- Calibrated in 1 psi increments from 0 to 100 psi
- Includes 2" dial face, rubber gauge guard and full geared brass movement with bronze bourdon tube
- Can be used on tractor tires containing non freeze solution without the need to wash or oil after use
- 14" hose with push button releases air to exact pressure

TPGIF120 Automatic Pressure Gauge.

- Calibrated in 2 psi increments from 12 to 120 psi
- Dual foot chuck and 12" hose

TPGF60 Tire Pressure Gauge.

- Flexible 11" (279mm) hose between gauge and chuck for hard to reach tire valves, large 2" dial with 5 to 60 psi scale, swivel angle chuck and push button valve to bleed to desired pressure
- Needle holds reading until released
- Durable steel case gauge has a full geared, solid brass precision movement with bronze burdon tube
- Burdon tube is not affected by changes in temperature, humidity or altitude
- Black rubber guard protects gauge

TPG60 Basic Tire Pressure Gauge.

- Large 2" dial with 5 to 60 psi scale, straight chuck and push button valve to bleed to desired pressure
- Needle holds reading until released
- Durable steel case gauge has a full geared, solid brass precision movement with bronze burdon tube
- Burdon tube is not affected by changes in temperature, humidity or altitude
- Black rubber guard protects gauge

TPG160 Heavy Duty Tire Gauge.

- Large 2" dial with 5 to 160 psi scale, straight dual foot chuck and push button valve to bleed to desired pressure
- Needle holds reading until released
- Durable steel case gauge has a full geared, solid brass precision movement with bronze burdon tube
- Burdon tube is not affected by changes in temperature, humidity or altitude
- Black rubber guard protects gauge

TPIF160 Tire Pressure Gauge/Inflator.

- Large, easy to read dial features 2 scales (5-160 psi in 1 psi increments and 0-1100 kPa in 100 kPa increments)
- Large activating lever
- 12" flexible rubber hose with dual foot air chuck
- Rubber guard protects gauge
- Comfortable ribbed rubber grips at handle and end of hose ensure a secure grip

TPGL30 Tire Pressure Gauge.

- Large, easy to read 2.5" dial from 3 to 30 psi in 0.5 psi increments
- Flexible 11" (279mm) braided hose with swivel chuck helps access hard to reach tire valves
- Black gauge guard provides a sure gripping surface and helps protect gauge when dropped
- Comfortable ribbed rubber grips at handle and end of hose ensure a secure grip

TPDLIF150 Dual Tire Inflator.

- Fill 2 large truck tires simultaneously
- Set desired pressure, lock on the air chucks and walk away
- System includes (2) 4' flexible hoses and (2) lock on air chucks (1 standard, 1 dual foot)
- Large, easy to read air gauge/regulator allows user to set desired pressure
- Gauge is calibrated in 5 psi increments from 0 to 150 psi and 0.2kg/cm² increments from 0 to 10kg/cm²
- Includes mounting bracket

TPG15 Low Pressure Tire Gauge.

- Low pressure gauge for ATVs, lawnmowers, motorcycle fork tubes and more
- Unique design offers superior shock resistance: movement from socket is isolated, reducing effects of shock
- Silicone dampened gears and enhanced vibration dampening design cushion movement for extended gauge service
- Clear and concise, easy to read 1-15 psi gauge displays in 1/4 psi increments

TIRE AND WHEEL

Tire Pressure Gauges—Blue-Point®



TPGP100



TPGP120



TPGP120DF



TPGP50



TPGP20



TPGP150SDF



TPGP45LQ



TPGP150DF

Pencil Tire Pressure Gauges

TPGP100 Pressure Gauge.

- Calibrated in 1 psi increments from 10 to 50 psi and in 25 kPa increments from 75 to 325 kPa
- Straight head
- Chrome plated
- 5 1/2" long

TPGP120 Pressure Gauge.

- Calibrated in 2 psi increments from 20 to 120 psi and in 10 kPa increments from 150 to 800 kPa
- Chrome plated
- 5 3/4" long

TPGP120DF Pressure Gauge.

- Calibrated in 2 psi increments from 20 to 120 psi and in 10 kPa increments from 150 to 800 kPa
- Dual foot
- Chrome plated
- 5 3/4" long

TPGP50 Pressure Gauge.

- Calibrated in 1 psi increments from 10 to 50 psi in black markings and in 5 kPa increments from 75 to 325 kPa in red markings
- Pocket clip

TPGP20 Low Pressure Gauge.

- Calibrated in 1/2 lb. increments from 1 to 20 psi
- For lawn and garden equipment, ATVs, snowblowers, etc.
- 5 1/2" long

TPGP150SDF Tire Gauge.

- Measures from 10 to 150 psi
- Dual foot design: Straight foot is well suited for use on Budd truck style tires
- 30° angle reverse foot helpful in hard to reach areas
- Includes hanging hook
- Chrome plated
- 12" long

TPGP45LQ Air Liquid Pressure Gauge.

- Calibrated in 1 psi increments from 5 to 45 psi
- Spring retracts into gauge, causing pump action to expel tire liquid
- Pocket clip
- 5 15/16" long

TPGP150DF High Pressure Gauge.

- Calibrated in 2 psi increments from 10 to 150 psi
- Includes a hanging ring
- Dual foot
- 13" long

Air Chucks



GA356A



GA460A



GA296A



GA358



GA359



YA173A

Air Chucks

Maximum rating on all Snap-on® air chucks is 150 psi

GA356A Dual Foot Air Chuck—Blue-Point.

- 1/4"-18 female NPT with 5/8" hex nut
- Straight foot works well on Budd style wheel rims
- 30° angle reverse foot is helpful in limited access situations
- 6 1/2" long

GA460A Dual Foot Air Chuck—Blue-Point.

- 1/4"-18 female NPT
- 6 1/8" long

GA296A Angled Air Chuck—Blue-Point.

- 1/4"-18 female NPT
- Rubber gasket included

GA358 Air Chuck.

- Screwdriver style black handle
- Thread size of 1/4" NPT
- Overall length of 7"

GA359 Dual Foot Air Chuck.

- Easily access hard to reach inner tandem wheels
- Tilt lock feature locks onto the valve
- 30° reverse angle chuck can be used on outside tires

- Screwdriver style handle

- Thread size of 1/4" NPT

- Overall length of 12"

YA173A Clip on Style Angled Air Chuck—Blue-Point.

- 1/4"-18 female NPT

- Spring loaded, trigger operated valve stem clip

- Maximum operating pressure is 200 psi



WARNING



- Do not exceed rated pressure
- Read safety precautions on pages 594 to 597

TIRE AND WHEEL

Valve Tools



TR107A



TR108



TR109



TR117O



VT1A



GA143B



VT14



QDTPMS

Valve and Stem

TR107A Valve Core Tool.

- For installation and removal of standard valve cores
- Screwdriver style handle
- 6 1/4" long

TR108 Valve Core Tool.

- Similar to TR107A. 4 3/4" long

TR109 Valve Core Tool.

- Use to remove or replace valve cores on air conditioning systems (large bore)
- 6 3/4" long

TR117O Valve Core Remover/Installer Tool.

- Valve core remover/installer tool
- 6 1/4" long

VT1A Valve Stem Inserter.

- Simplify installation of valve stem in tubeless tire rim
 - Notched shank to accommodate various rim styles
 - Comfortable screwdriver type handle
- #### GA143B Valve Core and Stem Tool-Blue-Point.
- 4 function tool inserts and removes cores, taps inner stem threads and chases outer threads
 - 1 7/8" x 13/16"

VT14 Universal Valve Core Tool-Blue-Point.

- Double ended bit removes and installs large and small valve cores
- Reverse the double ended wrench in the tool body to fit both large and small valve cores
- Use the cup end to remove valve caps
- Lifetime warranty

QDTPMS Valve Core Torque Tool.

- Specifically designed for TPMS tire valve cores to eliminate risk of damaging expensive TPMS sensors
- Preset to 4 lbs. to prevent over or under torquing and valve core leaks that lead to low tire pressure and TPMS alerts



GA599A



TDG1

Tread Depth Gauge

GA599A Tread Depth Gauge.

- Measures to a depth of 1" in 1/32" increments
- Plastic body with aluminum probe and sliding gauge
- Includes pocket clip

TDG1 Tread Depth Gauge.

- Sliding gauge is color coded
- Measures to a depth of 1" in 1/32" increments
- Plastic body with aluminum probe and sliding gauge
- Includes pocket clip

Torque Sticks/Standard Duty

- Strobe marks stop turning at precisely the right torque
- Engineered for rugged professional environments
- Manufactured with heat treated Swedish spring steel in a solid one piece design
- Sticks are individually packaged
- Sets come with a color coded torque chart showing the correct stick for nearly every foreign and domestic vehicle
- Lifetime guarantee

Stock No.	Size, mm	Color	Torque Limit, ft. lbs.	Drive, inches	Set Contains:		
					BTQS500	BTQS600	BTQS1000
BTQS12A	21	Brown	100	1/2			•
BTQS12AA	22	Orange	75	1/2		•	
BTQS12B	21	Lt. Brown	80	1/2	•		•
BTQS12BB	21	Charcoal	147	1/2	•		•
BTQS12C	19	Gray	100	1/2	•		•
BTQS12D	21	Black	60	1/2			
BTQS12E	19	Blue	80	1/2			•
BTQS12EE	22	Turq.	140	1/2	•		•
BTQS12F	19	Yellow	65	1/2		•	
BTQS12G	17	Red	80	1/2		•	
BTQS12H	17	Green	55	1/2		•	
BTQS12I	22	White	120	1/2	•		•
BTQS12K	17	Lt. Yellow	113	1/2		•	
BTQS12KK	21	Red-Orange	110	1/2			
BTQS12MM	17	Off White	90	1/2		•	
BTQS12NN	19	Lt. Tan	90	1/2			
BTQS1200	19	Quartz	120	1/2			
BTQS12T	24	Lt. Green	140	1/2			•
BTQS12UU	14	Mud	80	1/2			
BTQS12XX	21	Lt. Purple	160	1/2			•
BTQS12Y	22	Lt. Blue	100	1/2			•

BTQSWC10 Wall Chart. Color wall chart for service bays Sets shown include storage case



BTQS500



BTQS600



BTQS1000

Torque Sticks/Heavy Duty

Stock No.	Size, inches, (mm)	Color	Torque Limit, ft. lbs.	Drive, inches	Set Contains:	
					BTQSHD400	
BTQSHD34114	1 1/4	HD Red	250	3/4		
BTQSHD3433M	(33)	HD Brown	475	3/4		
BTQSHD1114	1 1/4	HD Red	250	1		•
BTQSHD133M	(33)	HD Brown	475	1		•
BTQSHD1112	1 1/2	HD Black	475	1		•
BTQSHD11316	1 3/16 sq.	HD Yellow	475	1		•

Set shown includes storage case



BTQSHD400

Torque Sticks/Special Application

Stock No.	Size, mm	Color	Torque Limit, ft. lbs.	Set Contains:	
				TSS2KT	
TSS2TT	22	Pink	150		•
TSS2QQ	22	Salmon	95		•

Torque Extensions

- Help eliminate overtorqued lug nuts, broken or damaged studs and distortion of rotors, drums and wheels
- Color coded low friction sleeve for quick reference
- Cold formed special alloy steel for greater accuracy and strength
- 1/2" male and female square drive for use with appropriate impact socket
- Female square drive designed for improved retention on impact wrenches
- Male square drive has friction ring for secure socket retention

Stock No.	Color	Torque Limit, ft. lbs.	Set Contains:	
			305TSKTA	
TSKT65A	Yellow	65		•
TSKT80A	Blue	80		•
TSKT100A	Gray	100		•
TSKT120A	White	120		•
TSKT140A	Teal	140		•

Set shown includes storage case



TSS2KT



305TSKTA



WARNING



• Read safety precautions on pages 594 to 597

TIRE AND WHEEL

Lug/Retaining Nut Sockets—Blue-Point®

Lug Nut Sockets

LSR1500 Standard/Twist Wheel Flip Socket Set.

- 5 sockets for use on the most popular lug nut sizes (17, 19mm/ 3/4", 21mm, 13/16" and 7/8")
- 6-Point Flank Drive® wrenching configuration at one end and a 6 fluted twist socket for removal of damaged wheel lugs at the other end
- Flip the socket when encountering a damaged head
- Knurling identifies twist socket end
- Sockets and 3" extension are all 1/2" drive for use with hand drivers or impact wrenches
- Black oxide finish
- Storage case



LSR1500

LSR2000 Thinwall Wheel Flip Socket Set.

- Covers the 4 most popular lug nut sizes (3/4" and 13/16", 19mm and 21mm) Flank Drive wrenching configuration
- 1/2" square drive located at center of socket
- Use with hand driver or impact wrench
- Includes LSR1150 and LSR1250 lug nut sockets and 3" extension in a custom case
- Black industrial finish



LSR2000

LSR2000PLUS Lug Nut Flip Socket Set.

- 3 flip sockets in 3/4" and 13/16", 7/8" and 15/16" plus 19 and 21mm
- All sockets are 3" long
- 1/2" square drive located at center of socket
- Use with hand driver or impact wrench
- Custom case
- Black industrial finish on all components
- Requires use of optional LSR1000EXT extension (not included)



LSR2000PLUS

LSR1150 Thinwall Wheel Flip Socket.

- Thinwall wheel flip socket covers 3/4" and 13/16" wheel lug sizes
- Use with hand driver or impact wrench
- 3" long



LSR1150

LSR1250 Thinwall Wheel Flip Socket.

- Thinwall wheel flip socket covers 19 and 21mm wheel lug sizes
- Use with hand driver or impact wrench
- 3" long

LSR2500 Lug/Lock Flip Twist Socket Set.

- Quickly and easily remove damaged wheel lugs (6 flute end) or damaged wheel locks with damaged or lost keys (12 flute end)
- 1/2" square drive located at center of socket
- Use with hand driver or impact wrench
- Includes LSR2501 and LSR2502 lug/lock sockets and 3" extension in a custom case
- Black industrial finish



LSR2500

LSR2501 Lug/Lock Flip Twist Socket.

- 3/4" - 19mm twist socket quickly and easily removes damaged wheel lugs (6 flute end) or damaged wheel locks with damaged or lost keys (12 flute end)
- Use with hand driver or impact wrench
- Black industrial finish: 2 5/8" long



LSR2501

LSR2502 Lug/Lock Flip Twist Socket.

- Same as LSR2501 except in 7/8" size

LSR2503 Lug/Lock Flip Twist Socket.

- Same as LSR2501 except in 17mm size

LSR2500PLUS Lug/Lock Flip Twist Socket Set.

- Quickly and easily remove damaged wheel lugs (6 flute end) or damaged wheel locks with damaged or lost keys (12 flute end)
- 1/2" square drive located at center of socket
- Use with hand driver or impact wrench
- Includes LSR2501, LSR2502 and LSR2503 lug/lock sockets in a custom case
- Black industrial finish



LSR2500PLUS

- LSR1000EXT is optional 3" extension for the set

LSR1450 Thinwall Wheel Flip Socket.

- Covers 17 and 19mm wheel lug sizes
- Flank Drive wrenching configuration
- 1/2" square drive located at center of socket (requires optional extension LSR1000EXT)
- Ideal companion to LSR2000 and LSR2000PLUS
- Black industrial finish
- Major OD: 1.03" (26.3mm) – Minor OD: 0.94" (23.9mm)
- Length: 3" (76.2mm)

LSR1580 Thinwall Lug Nut Flip Socket.

- 21 and 22mm socket size: 3" long
- Use with hand driver or impact wrench
- Requires use of optional LSR1000EXT extension
- 1/2" square drive located at center of socket

LSRM2000 Metric Flip Socket Set.

- Includes LSR1580 and LSR1450 sockets plus LSR1000-EXT 3" extension
- Designed for 2005 and later vehicles
- Includes 17, 19, 21 and 22mm sizes
- Applications: Dodge Pickup 1500, Dodge SRT-10, Honda Odyssey, Land Rover L3, Range Rover and Sport, Lexus LX470 and Toyota Land Cruiser

LSR1560 Flip Socket.

- 7/8" and 1" socket size: 3" long
- Use with hand driver or impact wrench
- Expands LSR2000 and LSR2000PLUS sets
- Requires use of LSR1000EXT extension (not included)
- 1/2" square drive located at center of socket
- Applications: (7/8") Chevy, GMC vans, Dodge 1500 Ram Pickup, Ford E250/350, Ford Super Duty, Hummer H1, Lincoln Blackwood, Lexus LX470, Toyota Land Cruiser, Jaguar XJ Series, (7/8" and 1") Chevy/GMC Pickups and SUVs, (1") Plymouth 1 ton vans

LSR1570 Flip Socket.

- 15/16" and 1 1/16" socket size: 3" long
- Use with hand driver or impact wrench
- Expands LSR2000 and LSR2000PLUS sets
- Requires use of optional LSR1000EXT extension
- 1/2" square drive located at center of socket
- Applications: (15/16") Dodge Ram 2500, 3500, (1 1/16") Land Rover, Range Rover Discovery II, Ford E300/350, Ford F300/350

Lug/Retaining Nut Sockets



Lug Nut Sockets

DW402C Dayton Lug Nut Impact Socket.

- 3/4" square drive with a 1 1/4", 6-point wrench opening
- Use with socket retainers

YA1005C Locking Lug Nut Remover Kit–Blue-Point®.

- Removes locking lug nuts and locking hubcaps on most vehicles including the new Chrysler hubcap locks. Updated set includes new turbo lug nut socket to easily remove damaged 3/4", 13/16", 19 and 21mm lug nuts
- Tapered swirl in socket bites into damaged lug nut for quick removal
- Intended for hand use only, except for turbo lug nut socket, which should be used with an impact wrench

2003LN Double Ended Lug Nut Socket Set.

- Set includes A98A socket, A98M socket, and IMX32B extension bar (3 pcs)

A98A 6-Point Lug Nut Socket.

- 1/2" square drive is recessed between two 6-point wrench openings: 3/4" and 13/16"
- Length is 2 3/4" and diameter is 13/16"

A98M 6-Point Socket.

- 1/2" square drive is recessed between two 6-point wrench openings: 19 and 21mm
- Length is 2 3/4" and diameter is 13/16"

IMX32B Impact Extension.

- 1/2" square drive, 5/8" shank diameter; 3" long
- Snap ring locking mechanism

TSR500 Lug Nut Remover Socket–Blue-Point.

- Use on late model OEM and aftermarket lug nuts
- Dual sided design allows use on 3/4", 13/16", 19 and 21mm lug nuts
- Use with 1/2" drive impact wrench
- Fluted socket design helps remove most stubborn lug nuts
- Includes extractor punch

TSR600 Locking Lug Nut Socket–Blue-Point.

- 1/2" square drive is located in the center of the socket
- Use included pin to dislodge lug nut if wedged in socket
- Removes most locking lug nuts and has 2-in-1 flip socket design

- For use with impact wrench

- Fluted for extra grip

TSR700 Lug Nut Remover Socket–Blue-Point.

- Use on late model OEM and aftermarket lug nuts
- Dual sided design allows use on 7/8", 1", 22 and 25mm lug nuts
- Use with 1/2" drive impact wrench
- 6 flute socket design helps remove most stubborn hex lug nuts

TSR800 Lug Nut Remover Socket–Blue-Point.

- Use on late model OEM and aftermarket lug nuts
- Dual sided design allows use on 7/8", 1", 22 and 25mm lug nuts
- Use with 1/2" drive impact wrench

- 12 flute socket design helps remove most stubborn rounded lug nuts

TSR1000 Lug Nut Socket Set–Blue-Point.

- Set includes TSR500 and TSR600 lug nut sockets plus extractor punch
- Use TSR500 on late model OEM and aftermarket lug nuts
- Dual sided design allows use on 3/4", 13/16", 19 and 21mm lug nuts

- TSR600 removes most locking lug nuts and has a 2-in-1 flip socket design

- For use with 1/2" drive tools

- Fluted socket design provides extra grip

TSR1250 Lug Nut Removal Socket–Blue-Point.

- Dual flip 1/2" drive impact socket design
- Removes lug nuts with missing or distorted caps
- 19.5mm side fits distorted 19mm chrome caps found on many GM and Chrysler vehicles
- 18.5mm side fits rusted lug nuts missing chrome covers

Wheel Lock Sockets–Blue-Point

LSR1000A Wheel Lock Removal Socket Set.

- Easily removes most lug nuts and wheel locks on most domestic and import passenger vehicles and light trucks
- Use with hand driver or impact wrench
- Some sockets cover specific GM, Ford and Chrysler applications
- Set includes 11 sockets, extension and extractor punch in storage case



LMS24

Lug Nut Socket (Magazine Loading)–Blue-Point

- Allow easy multiple lug nut removal up to 5 lug nuts at a time
- Eliminates rolling or lost lug nuts and wasted motion
- Ideal for use in tire and brake shops
- Adjust Type 9, 12 and 16 cu. in. air chambers that are equipped with 1/2"-20" threaded rod and 3/4" nut

Stock No.	Wrench Size, inches (mm)	Square Drive, inches	Outside Dia., inches	Overall Length, inches
LMS24	3/4 (19)	1/2	1	5 5/16



WARNING



• Read safety precautions on pages 594 to 597

TIRE AND WHEEL

Lug/Retaining Nut Sockets

Wheel Hangers

Allow faster, safer and easier balancing of wheels when attempting to inset and tighten wheel bolts.

Stock No.	Thread Size	Hex Size	Applications
WHM1	M12 x 1.5	10mm	Mercedes, BMW, Mini, Cadillac Catera, Chrysler Crossfire
WHS1	M14 x 1.5	15mm	Current Mercedes, current Dodge Sprinter trucks, Freightliner Sprinter trucks from 2002 to 2004
WHV1	M14 x 1.5	10mm	Volkswagen, Audi, Mercedes ML Class, BMW 7 and X5 Series, Porsche



WHM2 Wheel Hanger Set (Mercedes/BMW). Set of (2) WHM1 wheel hangers.

WHS2 Wheel Hanger Set (Dodge/Freightliner Sprinter).

Set of (2) WHS1 wheel hangers.

WHV2 Wheel Hanger Set (VW/Audi). Set of (2) WHV1 wheel hangers.

Axle Nut Sockets



Use with a torque wrench to service truck wheel bearing lock nuts.



Axle Nut Sockets—Blue-Point®

	Stock No.	Nominal Size	Style
1/2" Square Drive	ANS1937	2 1/2"	6-Point
	ANS1939*	2 3/8"	6-Point
	ANS1938	2 3/4"	6-Point
3/4" Square Drive	ANS1900B	2 1/8"-54mm	6-Point
	ANS1933A**	59mm	6-Point
	ANS1901A	2 3/32"	6-Point
	ANS1920A	2 1/4"	6-Point
	ANS1902A	2 3/8"	6-Point
	ANS1903A	2 3/8"	8-Point
	ANS1921A*	2 1/2"	6-Point
	ANS1928A*	2 9/16"	6-Point
	ANS1905A	2 9/16"	8-Point
	ANS1904A	2 9/16"	6-Point
	ANS1922A	2 5/8"	6-Point
	ANS1923A	2 3/4"	6-Point
	ANS1924A	2 3/4"	8-Point
	ANS1926A	2 13/16"	8-Point
	ANS1932A	2 7/8"	6-Point
	ANS1906A	3"	6-Point
	ANS1907A	3"	8-Point
	ANS1908A	3 1/4"	6-Point
	ANS1909A	3 1/4"	8-Point
	ANS1910A	3 1/2"	6-Point
	ANS1911A	3 1/2"	8-Point
	ANS1925A	3 3/4"	8-Point
	ANS1927A	3 13/16"	8-Point
	ANS1912A	3 7/8"	6-Point
	ANS1913A	3 7/8"	8-Point
	ANS1914A	4"	6-Point
	ANS1915A	4 1/8"	6-Point
	ANS1916A	4 3/8"	6-Point
	ANS1917A	4 3/8"	8-Point
	ANS1918A	4 7/8"	6-Point
ANS1919A	4 7/8"	8-Point	

* Fits special "rounded" hex nuts on Dana axles of some Ford trucks.

** For 1/2 ton vehicles with automatic locking nuts. Designed for late model Ford vehicles. 3/4" square drive, 59mm nominal size. Industrial finish.

GM Axle Nut Set (1/2" Drive)—Blue-Point

Stock No.	Size, mm	A	B	C	D	E	
SIMM290	29	41.3	41.3	71.6	88.9	21.3	•
SIMM300	30	42.9	42.9	71.1	88.9	21.6	•
SIMM340	34	49.3	44.5	72.8	88.9	22.6	•
SIMM350	35	50.8	45.8	72.8	88.9	22.9	•
SIMM360	36	50.8	45.8	72.8	88.9	22.9	•



S6109A Axle Nut Socket 6 Lug.

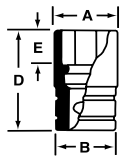
- For front wheel bearing retaining nut on 3/4 ton vehicles with heavy duty suspension
- Designed for use on GM, Ford and Dodge trucks with Dana 70 Series axle
- 1/2" square drive: 3 3/4" long
- Industrial finish

S8695C Axle Nut Socket 4 Lug.

- 1/2" square drive: 3 3/4" long
- For 1/2 ton vehicles with manual locking nuts
- Use on front wheel bearing retaining nut on Dana 44 Series Axle used on 1959 and later GM, Ford, Dodge, and AMC
- Industrial finish

S6146 Axle Nut Socket 4 Lug.

- For front wheel bearing retaining nut on 3/4 ton vehicles with Dana 60 Series axle used on GM, Ford, and Dodge trucks
- 1/2" square drive: 3 3/4" long
- Industrial finish



A = Socket End Dia.
B = Drive End Dia.
C = Bolt Clearance Depth
D = Length
E = Opening Depth

Axle Nut Sockets

Special Application Axle Nut Sockets, inches SIM540A 6-Point Axle Nut Socket.



SIM540A

- Remove or install 1996 and later Dodge truck axle nuts
- Or use on other truck and bus wheel applications
- Flank Drive® wrenching design
- 1/2" square drive



BRUTUS3R250D

QUICK3FR150

Torque Wrenches

BRUTUS3R250D U.S. Adjustable Click Type Torque Wrench.

- Tougher for longer life cycle
- Hourglass shaped cam: less friction reduces wear, retains lubricant
- Thrust bearing resists wear
- "Gorilla-Proof" positive stop prevents accidental disassembly (Caution: Do not wind below lowest scale mark)
- Larger, tougher load screw helps prevent damage due to impact
- High strength, sealed head
- Long handle provides more leverage
- ASME specifications, traceable to N.I.S.T. at no charge

QUICK3FR150 Electronic Torque Wrench.

- Ideal for use in tire shops
- Offers 5 pre-settings for the most common lug nut torque: 80, 100, 120, 140 and 150 ft. lbs
- Accurate to 2%
- Yellow-green-red light visual indication lets operator know when preset is reached
- Lockout feature prevents unwanted presets changes
- More accurate than torque sticks
- 1/2" square drive

General Lug Nut Usage

Lug Nut Size	3/4" Drive	1" Drive	Applications
7/8" Hex Deep	SIM282	—	Medium to light truck general usage
15/16" Hex Deep	SIM302	—	Medium to light truck general usage
1" Hex Deep	SIM322	—	Medium to light truck general usage
1 1/16" Hex Deep	SIM342	SIM343	General usage, Ford F700 8-hole wheels
1 1/8" Hex Deep	SIM362	—	Various
1 3/16" Hex Deep	SIM382	SIM383	Various
1 1/4" Hex Deep	DW402C*	SIM403	Heavy duty Dayton style trailers, spoke wheel type
1 5/16" Hex Deep	SIM422	SIM423	Various
1 1/2" Hex Deep	SIM482	SIM483B	Stud piloted - Budd style wheel applications
1 3/4" Hex Deep	SIM562	SIM563	Construction and off road equipment applications
13/16" Square	BW626A	BW726A	Inner nuts on Budd style wheel applications
30mm Hex Deep	SIMM302	SIMM303	Medium duty trucks, small 8 lug wheel sizes
32mm Hex Deep	SIMM322	SIMM323	European truck applications
33mm Hex Deep	SIMM332	SIMM333	General hub piloted wheel applications
35mm Hex Deep	SIMM352	—	Import truck applications
36mm Hex Deep	SIMM362	—	Import truck applications
38mm Hex Deep	SIMM382	SIM383	Import truck applications
41mm Hex Deep	SIMM412	—	Stud piloted - Budd style wheel applications
1 1/2" Hex - 13/16" Square	BWD482	BWD483	Stud piloted - Budd style wheel applications
41mm Hex - 21mm Square	BWDM412	—	Stud piloted - Budd style wheel applications

* Thin walled extra deep.



HDLUGSET1



HDLUGSET2

Heavy Duty Truck Wheel Lug Sockets

HDLUGSET1 Heavy Duty Lug Socket Set.

- Includes: SIM383, SIM403, SIM483B, SIMM333, SIMM383 plus BW726A and BWD483 in storage case

HDLUGSET2 Heavy Duty Lug Socket Set.

- Includes: SIM342, SIM482, SIMM332, SIMM382, SIMM412, DW402C, plus BW626A, BWD482 and BWDM412 in a PAKPB063 storage case

- Flank Drive wrenching configuration
- Alloy steel combines strength and durability
- All sockets 1" square drive

- Flank Drive wrenching configuration
- Alloy steel combines strength and durability
- All sockets 3/4" square drive



WARNING



- Do not use chrome or industrial finish hand tools or axle nut sockets with impact driver
- Read safety precautions on pages 594 to 597



SIMDM300



IMDM320



IMDM390

Special Application Axle Nut Sockets, mm (1/2" Drive)

Stock Number	Size	Style	A	B	C	D	E
SIMDM300	30mm	12pt	—	—	64mm	88.9mm	22.2mm
IMDM320	32mm	12pt	45.7mm	45.7mm	36.8mm	50.8mm	20.6mm
IMDM390	29mm	12pt	53.8mm	39.6mm	36.8mm	50.8mm	22.3mm
SIM540A	1 11/16"	6pt	2 1/2"	1 5/8"	2 7/8"	3 1/2"	7/8"

SIMDM300 12-Point Axle Nut Socket.

- 1/2" square drive

Applications/axle nut removal:

- Toyota: Avalon, Camry, Highlander and Matrix
- Lexus: ES300
- Pontiac: Vibe
- VW: Beetle, Jetta and Golf (1999 and later)
- Dodge: Dodge/Freightliner Sprinter vans with 215mm rear axle (2004 and newer)

Applications/automatic transmission tail output shafts:

- Chrysler: 300C and Crossfire (2004)
- Dodge: Magnum (2004)
- Jeep: Grand Cherokee V6 models (2005)
- Mercedes: Many years of coverage

Applications/flange nuts on transmission drive shaft and pinion shaft differential:

- BMW 3 series E90

IMDM390 12-Point Metric Shallow Impact Socket.

- Use on front axle hub of 2007 Toyota Tundra 4WD
- 1/2" drive

IMDM320 12-Point Metric Shallow Impact Socket.

1/2" drive applications:

- Drive shaft nuts - VW Touareg 2003 and later
- Axle nuts - Mercedes W140 chassis 1992 to 1999 SC and SL Class
- Axle nuts - Porsche Boxster, Cayenne and 944
- Axle nuts - BMW X3, X5 and X6 Series 2007 and later

TIRE AND WHEEL

Sockets and Bead Breakers

Dual Opening Impact Sockets

- 6-point and square openings combined
- Use with socket retainers below
- Industrial finish

BWD482 Dual Opening Socket.

- 1 1/2" hex, 13/16" square, 3/4" drive
- Hex opening depth is 5/8"; square opening depth is 2 1/4"; hex clearance is 1 1/4"
- 4" long



BWD482

BWD483 Dual Opening Socket.

- Similar to BWD482 except 1" square drive

BWDM412 Dual Opening Socket.

- 3/4" square drive with 41mm hex and 21mm square beneath the hex
- For 1986 and later Nissan and Isuzu classes 4, 5, 6, and 7
- Length: 108mm



BWDM412

BWS1316A Stud Remover-Blue-Point®.

- Use on 13/16" studs on Budd wheels

WSK755 Light Truck Wheel Stud Kit-Blue-Point.

- Use on most domestic and import light trucks and SUVs
- Self-centering units permit quick installation the first time
- Will not damage threads: use with impact wrenches
- Clamshell container for storage
- Includes 9/16"-18, 1/2"-20, 12mm-1.75 and 14mm-1.5 installers plus spacer and washer



BW626A

Impact Sockets

Use with socket retainers listed above right. Industrial finish.

Stock No.	Square Drive, inches	Wrench Size	Length
BW626A	3/4	13/16" square	4"
IM562	3/4	1 3/4" hex	2 3/4"
SIMM332	3/4	33mm hex	82.6 mm
BW726A	1	13/16" square	2 1/4"



BWS1316A



WSK755

WSK938 Automotive Wheel Stud Kit.

- Use on most domestic and import cars
- Self-centering units permit quick installation the first time
- Will not damage threads: use with impact wrenches
- Clamshell container for storage
- Includes 7/16"-20, 1/2"-20, 12mm-1.25 and 12mm-1.5 installers plus spacer and washer

Shackle Pin

Shackle Pin Impact Sockets

- Oval shaped wrench opening services shackle pins on International and Kenworth semi tractors

SPS10 Shackle Pin Socket. 1/2" square drive. Socket opening is 21/32" x 1 3/32". 1 3/4" long.

SPS11 Shackle Pin Socket. 1/2" square drive. Socket opening is 21/32" x 1 17/32". 1 3/4" long.



SPS10

Spanner Sockets

For use with a torque wrench when servicing Chevrolet, GM and Ford axles.

Stock No.	Square Drive, inches	No. of Lugs	Outside Dia., inches	Applications
ANS1929A*	3/4	6	2 5/8	Chevy/GMC with 5,200 and 7,200 lb. axles.
ANS1930	3/4	6	2 7/8	Chevy/GMC with 11,000 and 13,500 lb. axles.
ANS7269A	1/2	4	2 3/4	1985 and later Ford F250/F350 with floating rear axle.

*Blue-Point



ANS1929A

Bead Breakers

TR200 Bead Breaker.

- For bus, truck or tractor tires
- Sliding hammer weighs 13 lbs.
- Stroke length is 16"; overall length is 46" closed and 62" expanded

BH102 Hammer.

- 9 1/4 lb. 32" long handle gives force and leverage for bead breaking on auto and large truck tires
- Rubber hand grip

BH102-1 Replacement Hammer Handle.



TR200



BH102

Impact Socket Retainers

3/4" Drive

IM182R Rubber Locking Ring.

- For all 3/4" drive units

IMR2 Socket Retainer.

1" Drive

IM243P Steel Locking Pin.

- For use with IM243R
- Fits IM35

IM243R Synthetic Rubber Locking Ring.

- For IM35, IM243 to IM443 and SIM223 to SIMM353

IMR3 Socket Retainer.

- For all 1" drive sockets
- 1 piece retention system holds socket to impact wrench anvil

Rim

TR100 Rim Tool.

- Use on split rims and rim lock rings
- One end is angled; the other is straight
- 19 1/8" long with 9/16" and 5/8" wide ends

TR102 Rim Tool.

- For drop center rims
- 18" long with a 1 3/8" wide end

TSP813 Motorcycle Tire Spreader.

- Permits 1 person installation of tubed tires on street motorcycles, dirt bikes, small farm equipment and industrial equipment
- Easily access valve stem hole when installing 90° valve stems on tubed tires
- Screwdriver style handle for comfort and control
- All metal, heavy duty construction: industrial black finish helps resist corrosion
- Overall length: 23"

Seal

S6129 Seal Puller.

- Designed to pull wheel bearing or other small seals
- 7" long: industrial finish

YA105 Seal Puller.

- For removing rubber seals
- 2 tips designed to reach in and fit nearly all seal applications
- 12 5/8" long

SRT1 Seal Removal Tool.

- Saves time and labor by eliminating prying against bearings or driving out seals
- Grabs seal only, leaving bearings undamaged
- Seals remain intact allowing for complete failure analysis
- Wedges and long handle provide exceptional leverage
- Heavy duty construction for long life and dependability
- Works with steering, drive and trailer wheel seals on the largest heavy duty wheels

Hubcap

HCH1A Hubcap Remover/Installer.

- Wide angled prying end for removing hubcaps and built in mallet for replacement
- Comfortable, screwdriver style handle
- 16" long

HCH2 Center Hub Cap Remover–Blue-Point®.

- Double-ended prybar removes center hub caps on most chrome and aluminum wheels without damaging the wheel
- Tool ends dipped in PVC to protect wheel surface
- Works on both metal and plastic center hub caps

Dustcap

GCP10 Grease and Dust Cap Tool.

- Tapered jaws of tool fit behind the crimped edge of grease cap
- 1 handle designed for prying hub caps loose



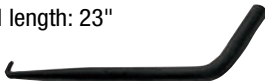
TR100



TR102



TSP813



S6129



YA105



SRT1



HCH2



GCP10

Cotter Pin Pullers

388CF High Leverage Diagonal Cutters.

- High leverage cutter pulls cotter pins with ease
- 1 1/16" jaw length
- 8 5/16" long
- Vinyl grips



388CF

SGCP1BR Cotter Pin Puller.

- Heat treated shank provides maximum strength
- Soft grip handle: 8 1/2" long



SGCP1BR

S9094B Cotter Pin Puller.

- Pins removed by hitting anvil sharply
- Side handle ensures a firm grip
- 10" long
- Replaceable steel hook



S9094B

S9094A2X Replacement Hook and Rivet Set.

- For S9094B

CP9 Cotter Pin Pliers.

- 38° angle end pries cotter pin loose
- 105° angle end pulls it out
- 10" long



CP9



BF620C



BF623

Mallets–Blue-Point

BF620C Rubber Head Mallet.

- Solid rubber head is 3 3/4" long and 2 1/4" in diameter
- 11" hardwood handle
- Ideal for replacing hubcaps, bodywork, etc.

BF623 Soft Blow Mallet.

- Designed to reduce marring and denting
- Use in assembly applications and on all types of surfaces including metal, glass, plastic and wood
- Special polymer head resists dynamic fatigue, creep and compression set, even at extreme temperatures

Truck Wheel Pan–Blue-Point

TWP8 Truck Wheel Pan.

- Helps prevent messes and spills
- Fits rims with 13 3/4" inside diameter or larger for use on most large trucks and trailers
- Holds 88 oz. of oil
- Pan will not warp if oil is warm
- Compartment above handles holds hub nuts



TWP8

Wheel Chocks–Blue-Point

YA9020A Truck Wheel Chocks.

- Heavy duty truck chocks are connected by a 10' nylon rope and measure 8" wide and 8" high overall
- Nonslide design



YA9020A



WARNING



• Read safety precautions on pages 594 to 597

WHEEL ALIGNMENT

Ball Joint



BJP1



BJP1-18



BJP1HONDA

Ball Joint Presses

BJP1 Master Ball Joint/Universal Joint Press Set.

Master ball joint press set covers 95% of current domestic SUVs, light trucks and passenger cars. Applications: Ford (43 models), GM (53 models), Dodge/Daimler-Chrysler (54 models) and Jeep (16 models). Installs and removes ball joints with pre-fitted straight grease fittings. Press frame features large throat for increased ball joint applications and vise-mount capability for U-joint applications. Locking cup design holds cup in place. Large, coarse thread pressure screw for extra strength and maximum force. Grease zerk fitting for smooth screw action. Includes full ball joint/universal joint application chart and storage/carrying case. Visit www.snapon.com for full information on all application guides.

BJP1F Press Frame.

- 7 13/16" throat opening; 3 1/2" depth
- 6" height; 10 13/16" length

ME7A207 Retaining Ring.

- Retaining ring included in BJP1 and UJP1 sets

ME7A208 Large Snap Ring.

- Large snap ring included in BJP1 and UJP1 sets

ME7A209 Small Snap Ring.

- Small snap ring included in BJP1 and UJP1 sets

ME9A34 Steel Ball.

- Steel ball included in BJP1 and UJP1 sets

PAKPB061 Storage Case.

BJP1-18 Receiver Adaptor.

- Use with BJP1 for quick removal and installation of lower ball joints on Dodge/Mercedes Sprinter van models from 2003 to 2007
- Tools required for lower ball joint removal/installation include: install ram (BJP1-11), install receiver (BJP1-13), removal ram (BJP1-6) and removal receiver (BJP1-18)
- No upper ball joint applications apply to this tool

BJP1HONDA Adaptor Set.

- For removal and installation of upper/lower ball joints on many Honda and Acura vehicles: must be used with BJP1 master ball joint/universal joint press set
- Includes BJP1-22 and BJP1-24 ball joint adaptors plus (2 each) ME7A208 O-rings

BJP1-22 Adaptor.

- For removal and installation of upper/lower ball joints on many Honda and Acura vehicles: must be used with BJP1 master ball joint/universal joint press set

BJP1-24 Adaptor.

- For removal and installation of upper/lower ball joints on many Honda and Acura vehicles: must be used with BJP1 master ball joint/universal joint press set

BJP1-25 Receiver Adaptor.

- Use with the BJP1 master ball joint/universal joint press set for quick removal and installation of ball joints on Ford F450 and F550 trucks from 2005 to 2007

Stock No.	BJP1 Set Components	ID.-OD, inches	Length, inches
BJP1-1	Sleeve Adaptor	1 9/32 - 1 21/32	2 1/8
BJP1-2	Pressure Screw, 1 1/8 -7 UNRC thread, 7/8 hex	—	9 3/4
BJP1-3	Pressure Pad (Ball Joint)	NA - 1 19/32	3 3/16
BJP1-4	Pressure Pad (Universal Joint)	NA - 7/8	3 3/16
BJP1-5	Adaptor	29/32 - 1 11/32	1 13/16
BJP1-6	Adaptor / Extension	1 1/4 - 1 21/32	2 1/16
BJP1-7	Adaptor	1 11/16 - 1 29/32	1 1/8
BJP1-8	Adaptor	1 25/32 - 2	1
BJP1-9	Adaptor, Front face angled 4.5°	1 27/32 - 2	1 1/4
BJP1-10	Adaptor, Front face angled 4.5°	2 11/32 - 2 21/32	2 1/8
BJP1-11	Adaptor	2 - 2 1/4	2 1/8
BJP1-12	Adaptor	2 1/4 - 2 1/2	2 3/4
BJP1-13	Adaptor	2 7/16 - 2 3/4	1 11/16
BJP1-14	Adaptor	2 11/16 - 2 15/16	2 3/4
BJP1-16	Adaptor	2 1/4 - 2 1/2	1 1/8
BJP1-17	Grease Fitting (for BJP1F Press Frame)	2 1/4 - 2 1/2	1 1/8

Ball Joint/Tie Rod Separators



A204

Stock No.	Jaw Opening, inches	Overall Length, inches
A204	5/8	12
A200	13/16	18
A201	1	12
A203	1 1/4	12



S9365B



S9613

Ball Joint Sockets

S9365B Ball Joint Socket.

- For medium-size Chrysler cars
- 3/4" square drive
- Wrench size is 1 59/64", length is 2"

S9479A Ball Joint Socket.

- For Dodge/Chrysler pickups and vans
- 3/4" square drive
- Wrench size is 2 9/64", length is 2"

S9613 Ball Joint Socket.

- Use on 4-5B axles such as found on Dodge, Ford, Chevrolet, GMC and International 4 wheel drive trucks
- Adjusts the sleeve in the top of the yoke on the front suspension
- 1/2" square drive, 1" OD, 2 1/8" long

General Service Tools



SIML160



1658C

General Service Tools

SIML160 6-Point Extra Deep Impact Socket.

- Use to remove or replace fuel tank retaining strap nuts
- Also has applications on emergency brake adjustment nuts and stabilizer retainers
- 1/2" square drive; 1/2", 6-point wrench opening
- 5" long

General Service Tools—Blue-Point®

1658C Pinch Bar.

- 16" long

2420A Pinch Bar.

- 20" long

2430C Pinch Bar.

- Tapered point on one end and a chisel type edge on the other
- 7/8" edge, 7/8" stock, 38" overall length

WHEEL ALIGNMENT

General Service Tools



TC90A

General Service Tools

TC90A Tail Pipe Cutter.

- Handles on-the-car cutting from 3/4" to 3 1/2" diameter
- 16 link cutter chain is 12" long
- Threaded shaft with cross piece provides elasticity to help prevent chain wheels from breaking
- Ideal for cutting the strut assembly to enable servicing of the strut cartridge

TC90A1 Chain Assembly.

- Includes 1 wheel and 1 roll pin

BF620C Rubber Head Mallet–Blue-Point®.

- Solid rubber head is 3 3/4" long, 2 1/4" in diameter
- 11" hardwood handle
- Ideal for replacing hubcaps, bodywork, etc.

GCP10 Grease and Dust Cap Tool.

- Tapered jaws fit behind the crimped edge of grease cap
- One handle designed for prying hub caps loose



BF620C



GCP10

B240B Brake and Accelerator Pedal Jack–Blue-Point.

- Holds throttle at a constant RPM
- Easily adjusts to desired length
- Adjustment screw fine tunes desired RPM
- Rubber tip keeps the tool firmly positioned
- Overall length of 40" (102cm)
- Can also be used as a pedal depressor



B240B

YA6510 Bushing Extractor–Blue-Point.

- Used on Acura Integra (1994-2001) plus various Honda vehicles (1988-2001)

YA6510-2 Bushing Extractor Adaptor–Blue-Point.

- Enables the YA6510 bushing extractor to be used on 1990-1993 Integra vehicles



YA6510

Shock Absorber

Shock Absorber Sockets

Stock No.	Square Drive, inches	Wrench Oval Width	Wrench Oval Diameter	Length, inches
A137	3/8	1/4"	5/16"	29/32
A138	3/8	15/64"	21/64"	29/32
A139	3/8	6mm	8mm	23mm



A137

Caster Camber

Wrenches

Metric combination wrenches. Long handle design for access.

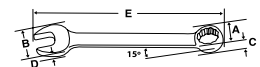
mm	Stock No.	A	B	C	D	E
17	OEXLM17B	25	35	11	8	298
18	OEXLM18B	27	37	12	8	314
19	OEXLM19B	28	39	12	9	330



OEXLM18B



CC6630



CC6630 Camber/Caster Alignment Tool.

- Works on 2003 and later GM "G" Series Chevy Express and GMC Savanna vans
- Eliminates need to use the front 21mm eccentric bolt, which is difficult to access behind a steel shield
- Hook tool on the top "A" arm and, with locking nut loosened, push or pull for easy caster and camber adjustment
- Saves about 15 minutes per side

Tie Rod Adjusting Tools

WA12A Tie Rod Adjusting Tool.

- For large cars and light trucks
- 1/2" square drive: 3 3/4" long

WA13A Tie Rod Adjusting Tool.

- For compact and medium cars
- 1/2" square drive: 3 3/4" long

WA16 Tie Rod Adjusting Tool.

- For large trucks
- 1/2" square drive: 4 7/64" long

WA17 Tie Rod Adjusting Tool.

- Designed to permit 360° rotation of the adjusting sleeve even in tight quarters
- Use on 1 7/8" sleeves on full size 3/4 and 1 ton pickups, including Ford Super Duty
- Use with 1/2" square drive ratchet or breaker bar
- Chrome finish: 4 3/4" long



WA13A



WA17



YA2218

YA2218 Tie Rod Adjusting Wrench.

- For domestic and import vehicles with rack and pinion steering using tie rods with knurled or 17.0 to 18.5mm hex gripping sections
- Spring loaded jaws and comfort grip handle



WARNING



- Do not use chrome or industrial finish hand tools with impact driver
- Read safety precautions on pages 594 to 597

WHEEL ALIGNMENT

Tie Rod



Tie Rod Adjusting Tools

YA2222 Tie Rod Adjusting Wrench.

- For domestic and import vehicles with rack and pinion steering using tie rods with knurled or 12mm hex gripping sections
- Spring loaded jaws and comfort grip handle
- 10 1/2" long

YA2223 Tie Rod Adjusting Wrench.

- For rack and pinion steering using 14 to 15.5mm tie rods
- Spring loaded jaws and comfort grip handle
- Applications: 1995 and later Dodge Dakota and Caravan, 1998 and later Dodge Durango, Dodge Viper and most 1999 and later GM 1/2 ton, 3/4 ton and 1 ton trucks

YA2224 Tie Rod Adjusting Wrench.

- Similar in design to YA2222 but for 10.5 to 12mm diameter tie rods like those found on Ford Escort, GM Geo, and smaller Nissan vehicles with rack and pinion steering
- Spring loaded jaws and comfort grip handles
- 9 1/2" long

Tie Rod Removal/Installation Tools

YA3000C Inner Tie Rod Tool–Blue-Point®.

- Designed to remove tie rods lacking a full hex on the socket end
- Removable crowfoot adaptors are placed on hex of tie rod
- Engages crowfoot for removal or installation of tie rod
- Includes crowfoot adaptors in 1 3/16", 1 1/4", 1 5/16", 1 7/16", 1 1/2" and 33.6mm sizes

YA3500 Universal Inner Tie Rod Wrench –Blue-Point.

- Removes inner tie rods equipped with completely round end sockets or flats
- Designed to remove and install all inner tie rod sockets up to 1 15/32"
- Wrench head has 3 set screws that tighten against the socket
- Includes 1/4" short head hex wrench
- Lifetime warranty

WA14A Tie Rod End Socket.

- For removing tie rod ends
- Fits most cars and some trucks
- U-shaped opening measures 1 3/8" x 3/4"
- Use with 1/2" square drive handles. 1 15/16" ID, 2 1/4" long

WA15 Tie Rod End Socket.

- Similar to WA14A
- For tie rod servicing on most any truck in the Class 2 thru 6 range
- U-shaped opening measures 1 7/8" x 15/16"
- Use with 1/2" square drive handles. 2 1/2" ID, 2 7/8" long

WA800 Heavy Duty Truck Tie Rod Socket.

- Use on most Class 7 and 8 heavy duty trucks with 9,000 to 20,000 lb. axles
- U-shaped slot measures 1 7/8" x 1 1/2"
- Inside diameter is 3"
- Overall length is 3 1/2"

WW500 Rack Wrench–Blue-Point.

- Use on steering racks to service inner tie rod ends
- Fits rack end with hex drive, round with 2 drive flats or round with no drive flats
- Universal fit from 33mm (1 15/16") to 41mm (1 9/16") and hex sizes from 31mm (1 1/4") to 35mm (1 3/8"), 19mm (3/4") hex drive
- Clamp force increases as load is applied

ITRS22 Tie Rod Bushing Socket–Blue-Point.

- Use to access the inner tie rod bushings on Chrysler LHS/Concorde and Dodge 300M/Intrepid featuring the LH body style
- Low profile design provides easy access to install or remove the 7/8" or 22mm hex head bolts
- A conventional socket cannot be used in this application

YA6870 Subaru Rear Toe Adjustment Kit.

- Includes 2 wrenches: each 16" long for extra reach
- YA6870-1: a 6 point, 22mm wrench with the correct 0° offset to securely hold the cam bolt
- YA6870-2: a 6 point 17mm/19mm dual ended wrench designed to meet the high torque levels required when loosening/tightening the cam bolt retaining nut
- Used on all Subarus 1990 and later
- YA6870-1 fits Subaru 1990 and later: YA6870-2 fits 1990-2008 Subaru (17mm) and 2009 and later (19mm)
- High quality steel is specially heat treated for torque requirements

YA3100 Inner Tie Rod Tool.

- Use on inner tie rods with inaccessible wrench flats found on many trucks and SUVs
- Large inner tie rod tool includes 4 crowfoot wrenches: 1-7/16", 33.6mm, 38.4mm and 42mm
- Long socket slips over the tie rod end and the crows foot engages on socket for easy removal and installation
- Applications include many Toyota, Nissan, Ford, Lincoln Mercury and Chevrolet truck and SUVs
- Also fits some Cadillac Escalade, Hummer H2, Honda Passport and Jeep Liberty

YA6870-1 Toe Adjustment Wrench.

- Subaru cam bolt wrench

YA6870-2 Toe Adjustment Wrench.

- Subaru cam bolt retaining nut wrench

Strut



MacPherson/Coil Spring Compressors

WA92 Coil Spring Compressor.

- Holds coil spring at desired tension for removal of other parts
- 11" screw

• Liberally lubricate threads with anti-seize compound

MSC1 Master MacPherson Strut Tool-Blue-Point®.

- Designed to quickly and easily compress most MacPherson strut springs
- Compresses up to 5/8" (.625mm) coil diameter
- Broad spring contact for stable compression
- Acme threaded rod and built in detent latches to help lock coil in place

• Forged construction for strength and durability

MSC2 Coil Spring Compressor-Blue-Point.

- Removes and installs coil springs quickly and safely
- Compresses coil springs on all passenger cars and pickup trucks
- Features Acme threaded rod

MSCS1000 Master Spring Compressor Set.

- Includes MSC1 and MSC2 in storage case

Carbide Cutters

YA333A Carbide Cutter Kit.

- 3 carbide burrs for alignment adjustment on MacPherson struts
- Double cut design
- 1/4" shank diameter, 1" cut length
- Includes YA333A4 kit bag



YA333A

Set Contains:
YA333A

Stock No.	Head Dia., inches	Shank Length, inches	
YA333A1	1/4	1	•
YA333A2	3/8	2	•
YA333A3	5/8	2	•



LCAT1

Lower Control Arm Tool-Blue-Point

LCAT1 Lower Control Arm Tool.

- 1 man operation performs the job faster and easier
- Makes strut replacement easier and removes ball joints without damage



YA9260

WA7500

Ford and GM Strut Tools

YA9260 GM Front Strut Cartridge Tool Set.

- Removes and installs front oil or gas filled strut cartridge on 1988 and later GM W-platform cars
- Works on both manufacturer's stock oil filled shocks and gas filled aftermarket shocks

YA9260-1 Strut Cartridge Nut Wrench.

- Strut cartridge nut wrench from YA9260 set

YA9260-2 Strut Jounce Bumper Wrench.

- Strut jounce bumper wrench from YA9260 set

WA7500 GM Strut Cartridge Tool.

- Replaces strut cartridge through the body shock tower on GM 10 Series ("W" Car) vehicles
- Includes 1988 and later Pontiac Grand Prix, Oldsmobile Cutlass and Buick Regal; 1989 and later Chevrolet Lumina

VW/Audi Strut Nut Socket

YA8730 VW/Audi Strut Nut Socket.

- For late model front wheel drive vehicles to remove the top strut retaining nut



YA8730



YA6810

Honda/Acura Bushing Tool-Blue-Point

YA6810 Honda/Acura Bushing Tool Kit.

- Used in removing and installing Honda and Acura lower control arm bushings without the need of a press

Applications:

Honda:

- Civic 2001-2005
- CRV 2002-2006
- Element 2003-2006
- Pilot 2003 and later
- Odyssey 2005 and later
- Ridgeline 2006 and later
- Accord 2003-2007

Acura:

- MDX 2000-2006
- TL 2000-2007



WARNING



- Do not use chrome or industrial finish hand tools with impact driver
- Read safety precautions on pages 594 to 597

WHEEL/AXLE PULLERS

King Pin Pullers

20 ton Capacity Hydraulic

CG430HYC Hydraulic King Pin Press Set. CG420A hydraulic ram and pump delivers up to 20 tons of controlled power to remove stubborn king pins on large vehicles with king pin diameters up to 1 1/4". Also removes brake shoe anchor pins on trucks. Wide side arm construction. Uses 3 pilots: 7/8" x 4", 7/8" x 6", and 7/8" x 8". Includes 2 guide bushings: 1 3/8" x 7/8" and 1 3/8" x 3 1/4".

CG430HYC2S Hydraulic King Pin Press Set.

- CG430HYC Set with CG420A2S ram and 2 stage pump

CG430B King Pin Press Set.

- CG430HYC Set less the hydraulic power components



CG430HYC

35 ton Capacity Hydraulic

CG730HY Hydraulic King Pin Press.

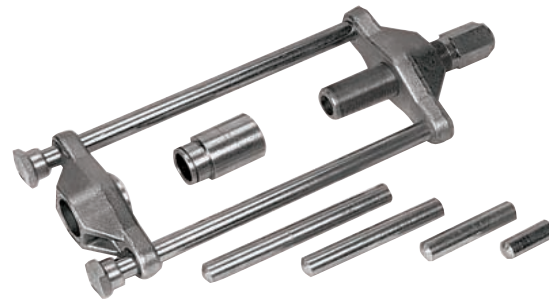
- For use on large trucks and semitrucks with king pin diameters from 1" to 2"
- Similar to CG430HYC except it uses 35 ton hydraulic power components (CG720 ram, CG420-2A pump, CG420-3-1 hose, and CG420-4 quick coupler)
- Includes 3 guide bushings and 7 pilots

CG730HY2S King Pin Press Set.

- CG730HY Set with CG420A2S ram and 2 stage pump

CG730 King Pin Press Set.

- CG730HY Set less the hydraulic power components



CG730A

Manual Set for 3/4-ton and 1-ton

CG230A Truck King Pin Press Set.

- Applications: heavy trucks, buses and vans having king pins larger than 7/8", including Ford 3/4 ton and 1 ton trucks and vans
- Spread is 5 1/8", reach is 12 3/16"
- Includes: 1 1/4" bushing guide, adaptor and 4 7/8" diameter pilots 2", 4", 6", and 8"

Set Components

Stock No.	Pressure Screw	Yoke Adaptor	Work Head	Yoke Post (2)	Post Nut (2)	Pilot Guide	1 3/8" x 7/8" Bushing	1 3/8" x 3 1/4" Bushing	Expansion Plug	Hydraulic Power Pack	7/8" Diameter Pilots
CG430HYC	CG430-1	CG430-2	CG430-3	CG430-4	CG45-2	CG430-6	CG430-7	CG430-8	CJ91-2A	CG420A	CG230-9 (6")
—	—	—	—	—	—	—	—	—	—	—	CG230-8 (4")
—	—	—	—	—	—	—	—	—	—	—	CG230-10 (8")

CG430HYC2S This is the CG430HYC set with CG420A2S ram and 2 stage pump.

Stock No.	Pressure Screw	Yoke Adaptor	Work Head	Yoke Post (2)	Pilot Guide	Post Nut (2)	1 15/16" Bushing	1 9/16" Bushing	1 13/16" Bushing	Hydraulic Power Pack	Pilots
CG730HY	CG730-1	CG730-2	CG730-3	CG730-4	CG730-6	CG750-7	CG730-7	CG730-8	CG730-9	CG420A	CG730-12 (6 3/4")
—	—	—	—	—	—	—	—	—	—	—	CG730-10 (2 1/4")
—	—	—	—	—	—	—	—	—	—	—	CG730-11 (4 1/2")
—	—	—	—	—	—	—	—	—	—	—	CG730-15 (6")
—	—	—	—	—	—	—	—	—	—	—	CG730-13 (9")
—	—	—	—	—	—	—	—	—	—	—	CG730-16 (9 1/2")
—	—	—	—	—	—	—	—	—	—	—	CG730-14 (11 1/4")

CG730HY2S This is the CG730HY set with CG420A2S ram and 2 stage pump.

Stock No.	Spread, inches	Reach, inches	Pressure Screw	Screw Yoke	Screw Yoke Post (2)	Post Nut (2)	General Use Head	1 1/4" Bushing	1" Bushing	Pilots
CG212A	3	6 1/2	CG21A	CG21B	CG21D	CG21J	CG21P5	CG21P3	CG21P2	CG21E Long (3/4" dia.)
—	—	—	—	—	—	—	—	—	—	CG21F Short (3/4" dia.)
—	—	—	—	—	—	—	—	—	—	CG21G Long (5/8" dia.)

Stock No.	Spread, inches	Reach, inches	Pressure Screw	Screw Yoke	Screw Yoke Post (2)	Post Nut (2)	General Use Head	1 1/4" Bushing	7/8" Diameter Pilots	Adaptor
CG230A	5 1/8	12 3/16	CG230-1	CG230-2	CG230-4	CG230-5	CG230-3	CG230-6	CG230-9 (6")	CG230-11
—	—	—	—	—	—	—	—	—	CG230-7 (2")	—
—	—	—	—	—	—	—	—	—	CG230-8 (4")	—
—	—	—	—	—	—	—	—	—	CG230-10 (8")	—

WHEEL/AXLE PULLERS AND DRIVE LINE

Wheel/Axle Pullers

Wheel Hub Removal Adaptor

DHP1 Dodge Wheel Hub Removal Adaptor. DHP1

- Designed to remove the front hubs found on 3/4 ton (2500 series) and 1 ton (3500 series) Dodge pickup trucks
- Cut the flat rate for changing out U joints, front differential service, ball joints and any front hub service
- On average it takes 3.4 hours to do both sides using a sledge hammer, torch or heavy duty slide hammer. With the DHP1, it takes about 1 hour to do both sides
- No broken rotors when using a sledge hammer
- No heavy slide hammers to use
- Wheel bearing and seal will not get damaged

FHP1 Ford Wheel Hub Removal Adaptor.

- Designed to take off the front hubs found on the F250 and F350 series Ford pickup trucks
- Cut the flat rate for changing out U joints, front differential service, ball joints and any front hub service
- Soft insert of socket will not damage the studs



Pullers

CJ129A Universal Wheel Hub Puller. Remove front wheel/axle assembly on all front wheel drive Ford, GM, Chrysler, and most imported cars. Also use to remove rear brake drums on tapered axles such as those found on AMC and Chrysler. Removable anvil fits over 1 1/8" hex on pressure screw. Includes adjustable lets.

YA498A Front Wheel Drive Hub Puller. For most domestic and import vehicles with independent front suspension. Pressure screw size is 5/8" - 18 x 5 1/2".

4567SH Bolt-on Axle Shaft Puller. Breaks axles loose on Ford and GM cars and light trucks with flange type axles. Includes housing, three removable jaws, 10 lb. slide hammer and 1 1/2"-12 x 23 1/2" slide screw with a 1 1/2" hex. Fits any bolt pattern with a 4" to 7" bolt circle.

Slide Hammer and Shaft

CJ1250 12 lb. Slide Hammer.

- Designed to pull rear axles
- Slide hammer is approximately 25 1/4" long with a 5/8"-18 thread
- Can be used with the YA498A hub puller



Snap Ring Pliers

SRP400A Snap Ring Pliers Set.

- Includes the following 4 snap ring pliers in a storage tray

SRP1B Snap Ring Pliers.

- For output shaft on GM transmissions
- Serrated jaws bent at a 90° angle
- 1/16" wide tip; measures 8 15/16" long

SRP2A Snap Ring Pliers.

- 3/32" wide ends with 1/8" diameter
- Jaws are angled at 90° dimple for snap rings with tabs
- ASME/ANSI B107.19-1993 applies
- 8 7/8" long

SRP3A Snap Ring Pliers.

- 3/32" wide straight tips and 1/16" thick ends
- ASME/ANSI B107.19-1993 applies
- 8 7/8" long

SRP5B Snap Ring Pliers.

- 7 rivet action for high leverage tip expansion
- Straight tip ends, 5/32" wide, are dimpled for snap ring tabs
- 10 1/8" long



SRP4 Snap Ring Pliers.

- 3/32" wide ends with 1/8" diameter dimple for snap rings with tabs
- Jaws bent at a 90° angle
- 14" long



PRT600A Transmission Service Set.

- For Chrysler, GM and Ford products

PRT21 High Range Seal Tool.

- 2 1/2" x 1/2" spring steel blade
- 7 1/2" long

PRT22 High Range Seal Tool.

- .015" high carbon wire loops on each end
- 6 1/2" long

SRPC3800 Convertible Retaining Ring Pliers.

- Straight .038" tips
- 6 7/16" long

SRPC7000 Convertible Retaining Ring Pliers.

- Straight .007" tips
- 7 7/16" long

PR15 External Snap Ring Pliers.

- Wide (1/16") tips are angled at 90°
- 8 3/4" long

PR16 External Snap Ring Pliers.

- Wide (3/16") notched tips
- 8 3/4" long

Bushing/Oil Seal Pullers and Driver

- Designed to easily remove or replace transmission rear extension housing bushings and oil seals on most Ford, GM, Chrysler and AMC automatic transmissions
- Refer to chart for specifications and applications

S8673C1 Bushing Driver.

- Handle screws onto one end; bushing is placed on the other end and driven into shaft housing with a few light hammer blows

S8673B3 Oil Seal Installer.

- Slide onto the driver head
- Use to replace oil seals
- Reversible



Stock No.	Type	O.D., inches	Depth, inches	Application
S8673C1	Driver	—	1 15/16	Ford C-4 Series, GM 200, 350, and 375 Series
S8673B3	Seal Installer	2 3/4	1 15/16	Ford C-4 Series, GM 200, 350, and 375 Series



WARNING



- Screen puller and press applications
- Read safety precautions on pages 594 to 597

DRIVE LINE

Transmission



Transmission Service Tools

YA321 Sealing Cap Set—Blue-Point®.

- 5 polyethylene caps to service all domestic and most import transmissions when the drive shaft is removed
- Caps keep dirt out of the transmission and prevent fluid loss

YA2340 Sealing Cap Set.

- Retain transmission fluid by sealing transmission and transaxles when drive shaft or drive axle is removed on most domestic and import vehicles

- Side gear centering for Ford transaxles

- 5 caps cover a range of 1" to 2 3/16"

- Segmented design prevents caps from slipping

YA7244A Quick Connect/Disconnect Tool.

- For late model Fords using push lock connectors on transmission cooler lines as well as on fuel lines
- Diameter is 1 1/4"

XLE1012A Torx® Box Wrench.

- Box end Torx sizes are E10 and E12
- Drive shaft must be removed when towing 1980 Corvette and 1/2, 3/4 and 1 ton GMC and Chevy trucks
- Designed to access drive line fasteners
- Also services AMC drive lines

CPT110A Drain Plug Socket.

- Use on VW transmission drain plugs
- Additional applications include removing front wheels on Triumph Daytona and America motorcycles
- 17mm, 6-point socket is for VW transmission drain plugs
- 3/8" drive, 1" long

S5902 Oil/Transmission Plug Wrench.

- Box ends are 17mm, 6-point and 21mm, 12-point
- Designed for VW transmission drain plugs
- 258mm long

YA322 Seal Driver Kit—Blue-Point.

- 15 different drivers install front and rear transmission seals
- Includes a master driver
- Each driver is numbered for specific transmission applications

EEPV308A Automatic Transmission Pressure Gauge Set.

- Use on all major manufacturer domestic and import vehicles
- Includes: 2 gauge assemblies for high and low pressure ranges, 9 adaptors to test a wide variety of domestic and import automatic transmissions, comprehensive instruction manual with applications table and storage case
- 4 special fittings are also included for connection to hard to reach test ports in areas requiring a 45° or 90° angle
- High pressure gauge assembly includes 3.5" diameter gauge and 10' flexible hose with fluid coupler
- Low pressure gauge assembly includes 2.5" diameter gauge and 6' flexible hose with fluid coupler

SLEPL200 Low Profile Torx Plus Socket.

- For removal and installation of low profile drive plate and flywheel bolts on QR25 Nissan motors with automatic transmissions
- Similar to the J-45816 Nissan specialty tool
- Size is 20EPL
- 1/2" drive
- For flywheel bolts on QR25 Nissan motors with manual transmissions, use the 3/8" drive FTX50TPE male T50 Torx Plus® Socket



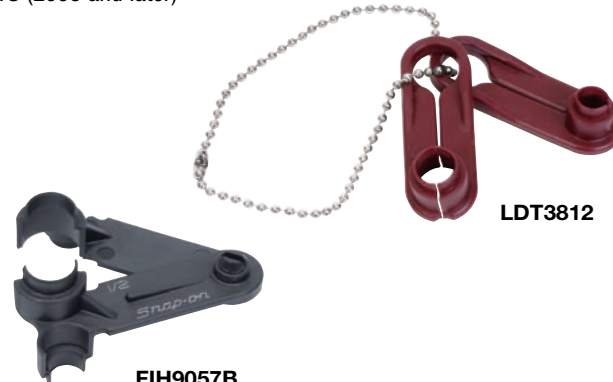
SLEPL200

LDT3812 Transmission Oil Cooler Line Disconnect Tool.

- 2 sizes (3/8" and 1/2") designed to disconnect transmission cooler lines
- Use 3/8" size for 2003 and later Ford V8 Explorer plus 2004 and later Ford F150 and Cadillac

FIH9057B Transmission Line Quick Disconnect Tool.

- For 3/8" O.D. and 1/2" O.D. transmission and fuel lines on certain Ford and Cadillac models
 - Constructed from durable 30% glass filled nylon—allows more pressure to be applied and delivers a longer tool life
 - Compact design allows access in tight quarters
- Ford Applications:
- Explorer (2002 and later with five speed automatic transmission)
 - F150 trucks (2003 late production series with four speed automatic transmission)
 - F150 trucks (2004 and later - all models)
 - Thunderbird and Lincoln LS (2003 and later)
 - F250/F350 truck series (2004 and later) Cadillac
 - SRX (2004 and later)
 - CTS (2003 and later)
 - STS (2005 and later)



FIH9057B

LDT3812



CJ193



CJ193-1-1



YA9348



YA9648



ATS2200

Transmission Pump Puller

CJ193 Transmission Pump Puller.

- Removal of front pump on GM, Ford and Chrysler transmissions requires 2 pullers
- Includes 1 1/4 lb. slide hammer and 3/8"-16 x 14" slide screw
- Applications on most GM, Ford C-4, C-5 AOD (Automatic Overdrive), and Chrysler TF904-72 ON.

CJ193-1-1 Optional Adaptor.

- M10-1.5 male end is designed to work on Ford and Chrysler transmission pumps
- 3/8"-16 female end screws onto slide screw of CJ193
- 2 1/4" long

Seal/Bushing Installers and Removers

YA9348 GM Transmission Seal Remover/Installer.

- Removes and installs GM transmission shift selector shaft seals without draining the fluid
- 5/8" drive size, 3/8"-16 UNC-2B thread
- Remover bolt has a 9/16" head and 3/8"-16 UNC-2A thread

YA9648 Removal/Installation Tool.

- Applications on 1996 and later GM trucks and Astro vans with 4L60E and 4L80E transmissions

ATS2200 Bushing Remover/Installer.

- Service extension housing bushings while in the car
- Centers and holds the output shaft in proper position for assembly work

Magnetic Angle Locator–

Blue-Point®

YA328A Angle Locator.

- Precise, accurate tool to determine angle measurements
- Ideal for checking drive shaft angle
- Red degree indicator located behind numbers for exact reading
- English and metric scales molded into base of tool in 1/8" and DM
- Large 1 7/8" x 7/8" magnet in base for secure retention



YA328A

Universal Joint Tools

UJP1 Universal Joint Press Set. Press frame features large throat and vise mount capability for U-joint applications. Locking cup design holds cup in place. Large, coarse thread pressure screw for extra strength and maximum force. Grease zerk fitting for smooth screw action. Adaptor hardness of 42-46Rc. Includes application chart. Includes storage case.

BJP1F Press Frame. 7.80" Throat, 10.80" Length.

BJP1-1 Sleeve Adaptor. 2.12" Length.

BJP1-2 Pressure Screw. 1 1/8-7UNRC, 7/8" Hex.

BJP1-4 Pressure Pad. Universal Joint, 3.19" Length.

BJP1-5 Adaptor. .90-1.33

BJP1-7 Adaptor. 1.68-1.89

BJP1-8 Adaptor. 1.78-2.00

BJP1-17 Grease Fitting.

ME7A207 Retaining Ring.

ME7A208 Large Snap Ring.

ME7A209 Small Snap Ring.

ME9A34 Steel Ball.

PAKPB061 Storage Case.



UJP1

Clutch



GA454A



SP2031



YA7646

A144A



ATS2987



A37M



A145

Clutch Service Tools

GA454A Spicer Clutch Adjusting Wrench.

- For internal adjustment of Spicer angle spring and multiple lever clutches
- Eliminates the need for prybars that could damage clutch parts
- 15" long

SP2031 Pilot Bearing Puller.

- Attaches to slide hammer shafts with 3/4"-16 or 5/8"-18 threads
- Pressure screw adaptor is made of stress resistant steel
- Industrial finish

YA7646 Ford Clutch Coupling Tool.

- Reach and disconnect the hydraulic clutch line from the clutch slave cylinder without damage to the coupling or clutch line
- Applications: current Ford vehicles with hydraulic clutch including light duty trucks, Bronco II, Ranger, Explorer and 1989- later Thunderbird and Mercury Cougar with manual transmission and hydraulic clutch
- Same as Ford No. T88T-70522-A

A144A Flywheel Turner.

- Use when replacing clutch pressure plate
- Turns flywheel to predetermined point that might be bypassed when "bumping" with starter
- 12 1/8" long

ATS2987 Automatic Transmission Clutch Spring Compressor–Blue-Point.

- Use to compress clutch springs on most automatic transmission clutch units
- Packaged in ATS2987-21 storage case

A37M Clutch Aligner Set.

- For vehicles with standard transmissions, including many import cars
- Allows quick aligning for complete range of single disc clutches (16 collet sizes ranging from 0.465" to 1.181")
- Packaged in PB21 storage case

PB21 Storage Case.

A145 Clutch Aligner Set.

- Smaller companion to A37M
- Includes 5 double ended collets ranging in size from .578" to .810"



WARNING



• Read safety precautions on pages 594 to 597

DRIVE LINE

Four Wheel Drive Tools



YA3050



YA3085



YA3080



KD3191



FBG1



CVBOOTRP



CVBOOTKIT

Boot and Joint Tools

YA3050 Boot Clamp Pliers.

- For earless type clamps, including those found on late model GM inboard CV universal joints

YA3080 Boot Clamp Pliers.

- For ear type clamps
- Sturdy enough for ear type clamps, including late model GM outboard CV universal joints
- Use with a torque wrench to meet required specifications

YA3085 Boot Banding Tool.

- For reinstallation of Band-it® or Band-it Jr.® boot bands

KD3191 Joint Clamp-Blue-Point.

- Use to wind up the free end of the clamping band
- Holds tension until band can be clipped down
- For use with Band-it style free end clamps, roll band, and clips or Band-it Jr. style preformed clamps
- A socket with ratchet is used to turn the actuating screw for adjustment

FBG1 Flex CV Boot Installer-Blue-Point.

- Reduce CV boot installation to less than 20 minutes
- Tool stretches the CV boot, allowing it to slip over the trunion for rapid installation and reduced fatigue
- Includes flex boot installer, FBGAR air regulator and storage case
- Use CV boots listed on this page

Boot and Joint Tools-Blue-Point®

FBGAR Air Regulator.

- Air regulator for FBG1 flex CV boot installer

CVBOOTKIT Complete CV Boot Replacement Kit.

- 6 each CVBOOTSM
- 4 each CVBOOTLG
- 2 each CVBOOTRP

CVBOOTXS ATV Replacement Boot.

- Fits most ATV boot applications
- Includes boot, clamps and grease

CVBOOTXSPK ATV Replacement Boot Kit.

- Package of 12 CVBOOTXS

CVBOOTLG Large CV Boot.

- Fits most cars and SUVs with large CV boots
- Includes boot, clamps and grease

CVBOOTLGPK Large CV Boot Kit.

- Package of 12 CVBOOTLG

CVBOOTSM Small CV.

- Fits most cars and SUVs with small CV boots
- Includes boot, clamps and grease

CVBOOTKSMPK Small CV Boot Kit.

- Package of 12 CVBOOTSM

CVBOOTRP Universal Rack and Pinion Kit.

- Fits rack and pinion boots on most cars
- Includes boot, clamps and grease

CVBOOTRPPK Universal Rack and Pinion Boot Kit.

- Package of 12 CVBOOTRP
- Includes boot, clamps and grease



HST100-1



FABLM8E



YA5500

Half Shaft Removal Tools

HST100-1 Half Shaft Removal Tool.

- 0.900" diameter
- Easily removes half shaft on most domestic and import front wheel drive vehicles with gentle tap from brass mallet

HST100-2 Half Shaft Removal Tool.

- 0.940" diameter
- Easily removes half shaft on most domestic and import front wheel drive vehicles with gentle tap from brass mallet

Front Wheel Drive Service Tools

FABLM8E Metric Long Ball Hex Driver.

- 8mm hex, 3/8" drive
- For 1978 and later Omni and Horizon standard transmission drive axle flange bolts

YA5500 Flywheel Wrench.

- For domestic and import vehicles
- Useful where access is too limited for using spanner type wrenches
- Slip over the rim of the flywheel and turn
- 8 13/16" long
- Vinyl handle

DRIVE LINE/LIFTING

Four Wheel Drive Tools

Spindle Puller

YA2220 Spindle Puller.

- 3 step threaded (1 1/2", 1 5/8", and 2") for most front spindles on 4 wheel drive vehicles
- Use with 1/2"-20 and 5/8"-18 slide hammers



YA2220

Differential

Differential Service Tools

A176 Differential Adjusting Wrench.

- For most differentials where 9/32" and 17/32" adjustment nuts are found
- Useful on transmissions, steering gears and some water pumps where adjustable spanner wrench is required
- 10" long



A176

M3548A Diesel Pinion Nut Impact Socket.

- Use on pinion nuts only

M3586 Pinion Nut Impact Socket.

- Use to remove pinion nut on Dana 80 series axles on late model Ford and Dodge trucks
- Strong enough to handle the torque required
- Flank Drive® wrenching system
- Industrial finish for extra corrosion protection



M3548A



M3586

M3587 Pinion Nut Impact Socket.

- Use to remove pinion nut on 2005 Cadillac CTS, 2003 GM and 2004 Dodge trucks with 11.5" AAM axles
- Additional applications: removal of late model BMW axle shafts plus BMW E38, E39, M3 and SUVs with 36mm 12-point axle nuts
- Strong enough to handle the torque required
- Flank Drive wrenching system
- Wrench size: 36mm. Drive size: 3/4". OD Wrench end: 2". OD Drive end: 1 3/4". Bolt clearance: 1 9/16". Hex depth: 1". Overall length: 2 1/4"



M3587



IMDM360

- Industrial finish for extra corrosion protection

IMDM360 Impact Socket.

Applications:

- Duramax diesel front crankshaft bolt
- Late model BMW axle shafts
- Use to remove pinion nuts on 2003 GM and 2004 Dodge trucks with 11.5 AAM axles

Stock No.	Wrench Size, inches, (mm)	Drive Size, inches	OD Wrench End, inches, (mm)	OD Drive End, inches, (mm)	Bolt Clearance, inches, (mm)	Hex Depth, inches, (mm)	Overall Length, inches, (mm)
M3548A	2 3/4	3/4	1 9/16	2 3/8	2 3/4	1 9/16	3 3/4
M3586	1 7/8	3/4	2 3/8	1 3/4	2	1 1/8	2 3/4
M3587	(36)	3/4	2	1 3/4	1 9/16	1	2 1/4
IMDM360	(36)	1/2	(50.8)	(46)	(41.3)	(22.2)	(57.2)

Jacks

YA1715 Motorcycle Jack-Blue-Point®.

- 1,500 lb. capacity
- Low height of 4 1/2", maximum height of 14 3/4"
- Double rubber lined pad provides extra protection to motorcycle
- Pull handle assists user to maneuver jack into position
- 1 foot operation for ease of use
- Safety straps to secure motorcycle



YA1715



WARNING



- Do not exceed capacity of jacks or jack stands
- Do not work on vehicles supported by jack, use jack stands
- Use jack and jack stands only on hard level surfaces
- Read safety precautions on pages 594 to 597

LIFTING

Jacks



YA1707



YA1642A



YA642C



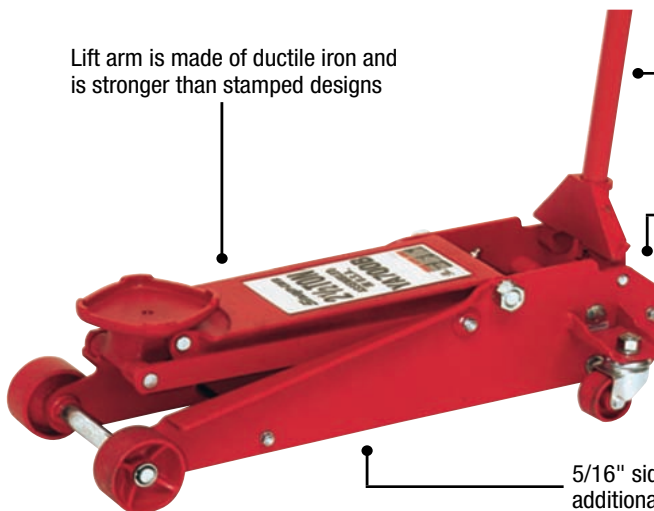
YA1716

Lift arm is made of ductile iron and is stronger than stamped designs

1 pc handle with universal release mechanism

Fast acting pump brings saddle to service height quickly

5/16" side plates are flanged for additional strength



YA700B

Short Chassis Service Jacks

Stock No.	Capacity, tons	Max Lift Height, inches	Low Height, inches	Saddle Size, inches	Frame Length, inches	Handle Length, inches	Warranty	Weight, lbs
YA700B	2 1/2	23	4 3/4	5 3/4	30 1/2	45 3/4	2 Years	96
YA1642A*	2	19 1/2	5 1/2	5 1/8	25 3/8	42 1/8	1 Year	73
YA642C*	2	20	3 3/4	5 1/2	29 3/4	49 7/8	1 Year	95
YA1707*	3 1/2	22	3 3/4	4 1/4	29 7/8	50	1 Year	103
YA1716*	2	20	3	—	30 1/4	40	1 Year	97

*Blue-Point®

Aluminum Service Jacks



YA1713



RACEJACKSET

- Dual pump design quickly brings saddle to service height
- Diamond cut, slip resistant handle with foam bumper pad protects vehicles

Aluminum Service Jacks—Blue-Point®

Stock No.	Capacity, tons	Max Lift Height, inches	Low Height, inches	Saddle Size, inches	Frame Length, inches	Handle Length, inches	Warranty	Weight, lbs
YA1713	3	18 1/4	4	5	30	49 1/2	1 Year	72
RACEJACKSET*	1 1/2	17 3/8	3 1/2	5	25 1/8	47 1/2	1 Year	46

* includes ALUMSTAND on P. 480



YA657C
YA667C



YA660C
YA662C

Long Chassis Service Jacks—Blue-Point®

Stock No.	Type	Capacity, tons	Max Lift Height, inches	Low Height, inches	Saddle Size, inches	Frame Length, inches	Handle Length, inches	Minimum Operating Pressure, psi	Warranty	Weight, lbs
YA657C	Hydraulic	4	24	5	5 1/2	53 1/8	42 1/8	—	1 Year	164
YA667C	Air/Hydraulic	4	24	5	5 1/2	53 1/8	42 1/8	140	1 Year	168
YA660C	Hydraulic	10	27	7	7 3/8	55 1/2	42 1/8	—	1 Year	436
YA662C	Air/Hydraulic	10	27	7	7 3/8	55 1/2	42 1/8	140	1 Year	441



YA1731A



YA731B

Air Operated Truck Jacks—Blue-Point

Stock No.	Capacity, tons	Low Height, inches	Maximum Lift Height, inches	Power Raise, inches	Screw Extension, inches	Handle Length, inches	Base Size, inches	Minimum psi (for rated load)	Weight, lbs.
YA1731A	22	9 7/8	20 1/4	6 3/8	4	48 3/4	22 7/8 x 12 1/2	150 psi	77.5
YA731B	20	9 1/2	17 1/2	5 1/2	2 1/2	50	8 x 5 1/2	140	69

End Lifts

Air Operated End Lifts

Specifications	YA696D	YA692D
Capacity, tons	2 1/2	10
Low Height, inches	8	12 1/2
Maximum Lift Height, inches	35 3/8	50 1/2
Power Raise, inches	24 3/4	28
Saddle Spread, inches	23 1/4 to 41 1/4	25 to 53
Minimum psi (for rated load)	200	200
Clearance (lifting column to saddle front), inches	20	13
Net Weight, lbs. (kg)	210	586



YA696D



YA692D



WARNING



- Do not exceed capacity of jacks or jack stands
- Do not work on vehicles supported by jack, use jack stands
- Use jack and jack stands only on hard level surfaces
- Read safety precautions on pages 594 to 597

LIFTING

Stands



YA779B



YA874B



YA875B



YA512



ALUMSTAND

Jack Stands (in pairs)

Stock No.	Capacity, tons	Low Height, inches	Maximum Height, inches
YA874B	3 (per pair)	11 1/2	17
YA875B	6 (per pair)	15 3/8	24 1/4
YA512*	12 (per pair)	17 1/2	27 1/2
ALUMSTAND*	3 (per pair)	10 3/8	15 3/8

*Blue-Point®

Utility Stand—Blue-Point

Slim design maximizes work spaces and storage. Acme screw allows for precise height adjustment.

Stock No.	Capacity, tons	Low Height, inches	Maximum Height, inches	Base Size, inches	Cap Size, inches
YA779B	3/4	53 1/4	80	12 (diameter)	5 5/16 x 2 7/16

Wheel Dolly



YA765D

Hydraulic Wheel Dolly—Blue-Point

- Provides smooth, positive power for the removal and installation of single, tandem and duplex tires and wheels
- Lift arms can be adjusted to handle different wheel combinations

Stock No.	Capacity, tons	Lift Range, inches	Lifting Arm (length), inches	Lifting Arm (spread), inches	Length, inches	Width, inches	Height, inches
YA765D	3/4	3 to 9	27 1/2	26	42 7/8	38 1/2	34 5/8

Transmission Jacks/Fuel Tank Stands

Transmission Jacks—Blue-Point®

YA715A 1/2 Ton Air/Manual Hydraulic Transmission Jack.

- Uses air for speed of operation and manual pump for precise control
- Extra wide base lowers center of gravity and promotes stability
- Rugged steel wheels and full swivel ball bearing casters
- Adjustable ratchet style saddle
- Unique, handy release pedal provides controlled lowering of load

YA714D 1/2 Ton High-Lift Transmission Jack.

- Crank for precise and easy alignment
- 4 adjustable load support arms fit most transmission pan flanges
- Foot pedal pump permits hands free operation
- Wide base and 4 casters for stability

YA876C 1/2 Ton Hydraulic Transmission Jack.

- Adjustable head can be tilted for optimum alignment of transmission bolt patterns
- Load restraint chain included
- 4 wheel caster design allows easy movement and positioning
- Rugged steel wheels and full swivel ball bearing casters
- User friendly 360° rotating pumping socket for maximum directional operation

YA727B 1 Ton Wishbone Hydraulic Transmission Jack.

- Use on bus, truck, farm, automotive and construction vehicles
- Load restraint chain included
- 2 heavy cast adjustable mounting plates
- 4 wedges to support load

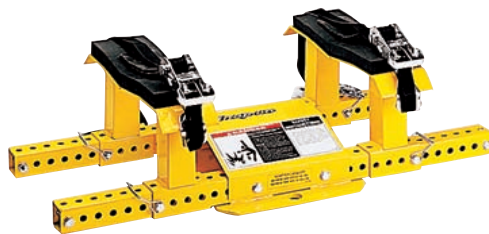
YA780 Transmission Jack Bracket.

- Fits most automatic FWD and RWD transmissions
- Use to stabilize automatic transmission when being removed or installed using a transmission jack
- Mounts with 2 bolts and has 2 hole choices for mounting

Fuel Tank Stand

YA712A Fuel Tank Stand.

- Easily service fuel tank, fuel pumps and other components
- Handles fuel tanks up to 40 gallons (empty)
- Includes anchoring straps and grounding wire
- Measures 9 1/4" (H) x 32" (L) x 15 3/8" (W)



YA712A



YA715A



YA714D



YA727B



YA780



YA876C

Transmission Jack Specifications

Stock No.	Cap., tons	Max. Ht., inches	Saddle Base, inches	Lifting Head Size, inches	Handle Length, inches	Chassis Length, inches	Chassis Width, inches	Tilt	Min. Ht., Inches	Exp. Saddle Area, Inches	Jack Size, Inches	Net Weight, lbs. (kg)
YA714D	1/2	69 7/8	8 7/8 x 7 1/8	15 1/2 x 15 1/2	11	—	33 1/2	12°	33	21 x 21	34 1/8 (L) x 36 1/8 (W)	181 (82.1)
YA876C	1/2	24 3/4	12 5/8 x 7 7/8	9 x 9	22 1/2	33	20	60° (fwd) 18° (rear) 12° (left and right)	8 1/2	17 x 9 3/8	31 1/8 x 15	106 (48.1)
YA715A	1/2	77 5/8	8 7/8 x 7 1/8	9 x 9	11	—	20	12°	37 7/8	21 x 21	34 1/8 (L) x 36 1/8 (W)	196 (88.9)
YA727B	1	44	18 5/8 x 12 1/4	15 1/2 x 15 1/2	19 1/2	48	29 7/8	40° (fwd) 15° (rear) 10° (left and right)	10	20 1/2 (L) x 18 1/2 (W)	47 1/2 (L) x 28 1/4 (W)	309 (140.2)



WARNING



- Do not exceed capacity of jacks or jack stands
- Do not work on vehicles supported by jack, use jack stands
- Use jack and jack stands only on hard level surfaces
- Read safety precautions on pages 594 to 597

LIFTING

Engine Hoists and Slings/Bottle Jacks—Blue-Point®

YA778 Engine Hoist.

- Lift arm extends from 27" to 55", to a height of 94.5"
- External remote pump with fine adjustment
- 25" x 33" footprint when folded for easy storage
- 360° swivel hook allows mobility
- Maximum 2 ton lifting capacity



YA778



A238

A238 Engine Sling.

- 40" flexible cable each end with a fitting drilled for 1/2" diameter bolts

YA554A Engine Lift Plate.

- Bolts to intake manifolds on domestic 2 or 4-barrel carbureted V6/V8 engines and throttle body V6/V8 engines
- 1 1/2 ton lift capacity



YA554A



YA2670A



GA197A

Engine Hoist and Sling

YA2670A Engine Hoist.

- Lightweight, portable unit - 500 lb. capacity
- Adjustable bar fits between fenders from 46" to 61 1/2"
- Suitable for FWD transmission removals
- Head adjusts 15° in either direction

YA2674A "W" Chassis Offset Bar.

- Use on GM "W" chassis vehicles
- Special device clips and holds the bottom of the offset bar behind the cross member in front of the radiator

YA2675A Swivel Adaptor Kit.

- Enables mounting between the main telescoping tube plate and the triangle leg plate
- Allows leg plates to swivel and align drip rails on tapered hood openings

GA197A Lifting-Pulling Tool.

- Maximum lift of 6'
- Minimum distance between hooks is 2'
- Anchored hook swivels a full 360°
- Automatic let down provides easy release 1 notch at a time
- 1 ton capacity

YA2676A Leg Plates.

- Enables use with 1998 and later Honda Accord/Odyssey
- Works best when used with YA2675 swivel adaptor kit

YA2673A Offset Bar.

- A special device clips and holds the bottom of the offset bar behind the cross member in front of the radiator



YA1228



YA1229A



YA1233A



YAS1233A

Hydraulic Bottle Jacks

Stock No.	Capacity, tons	Low Height, inches	Maximum Height, inches	Screw Extension, inches	Base Size, inches	Handle Length, inches	Cap Diameter, inches	Operating Force, lbs.
YA1228	8	8 1/8	17 5/8	2 3/4	4 3/4 x 4 3/4	18 1/8 (assembled)	1 3/8	101
YA1229A	12	9 1/2	18 5/8	3 1/8	5 1/4 x 5 1/8	18 1/8 (assembled)	1 3/4	102
YAS1229A*	12	6 1/8	10 5/8	1 5/8	5 1/4 x 5 1/8	18 1/8 (assembled)	1 3/4	89
YA1233A	20	9 1/2	18 5/8	3 1/8	6 1/4 x 5 7/8	18 1/8 (assembled)	2	109
YAS1233A*	20	6 1/2	11 1/4	1 5/8	6 1/4 x 5 7/8	18 1/8 (assembled)	2	101

*Low profile model

Welding Equipment That Works As Hard As You Do.

Snap-on's many MIG or TIG welders and accessories, plasma cutters, oxygen-acetylene torch kits, protective safety equipment and welding tools do their job so you can keep doing yours.

- **Performance**—Longer weld times, higher duty cycles and wider amperage ranges contribute to industry-leading performance.
- **Durability**—Metal wire feeder assemblies, copper-on-copper transformer construction and integral cooling fans provide increased longevity.

- **Versatility**—Detachable wire feeders are designed to allow greater access to remote areas.
- **Ease of use**—Simplified heat setting controls minimize set up time and increase productivity.
- **Capability**—Aluminum spool guns and DC TIG accessories handle multiple materials and thicknesses.
- **Safety**—Protect yourself with safety equipment that gives you a natural feel as you work. From basic masks to auto-darkening visors to protective sleeves and gloves.
- **Support**—Access Snap-on product support at: 1-800-ABC-WELD



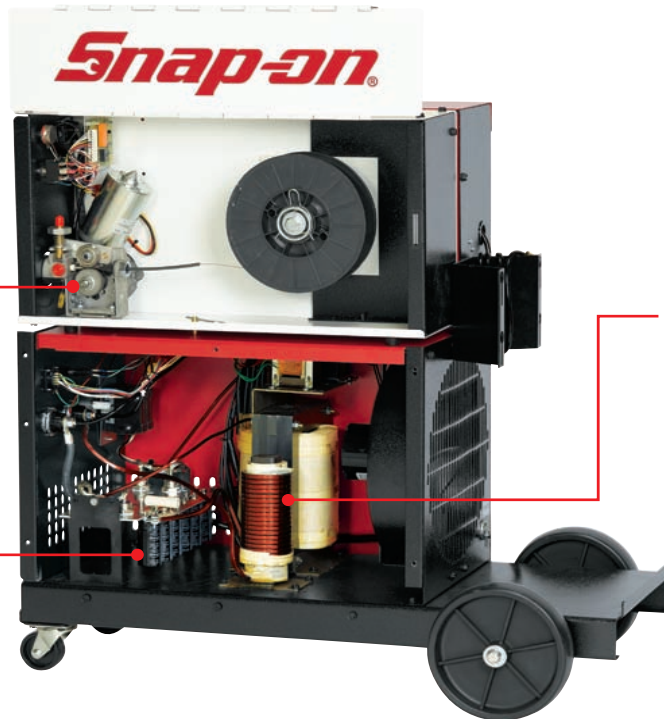
WELDING

Snap-on® Muscle MIG/MIG Wire Feed Welders

Snap-on MIG Welders have higher duty cycles at maximum amperage providing added weld times and performance that surpasses the competition. Ideal for many applications including automotive repair, collision, heavy duty truck, farm and metal fabrication shops. Added capabilities include a detachable feeder assembly, spot-stitch (some models), along with the optional TIG accessory and aluminum spool gun packs.

Wire feed assembly, constructed of precision machined cast aluminum, features all metal gearing and 800 in/min. delivery for consistent wire speeds

Capacitor bank and diode set deliver consistent voltage and industry-leading smooth-arc characteristics



All-copper wound, tapped transformer features Nomex insulation and bolted laminations to provide precise voltage control and repeatable welds



MM250SL



MIG220



MM140SL



MM350XL

Specifications	MM250SL	MIG220	MM140SL	MM350XL
Output Amperage Max (amps)	270	220	140	350
Duty Cycle Rating	185A-100%	185A-60%	140A-100%	300A-100%
Welding Capacity (inches)	3/8	5/16	1/4	7/16
Voltage Settings - MIG/TIG	8/4	12/4	8/4	8/4
Spot-Stitch	Yes	No	Yes	No
Detachable Feeder	Yes	No	Yes	Yes
Wire Size (inches)	0.023-0.045	0.023-0.045	0.023-0.045	0.023-0.0625
Torch Length (ft)	10	10	10	12
Feeder Cable Length (ft)	15	n/a	15	15
Ground Cable Length (ft)	15	10	15	15
Power Input Cable Length (ft)	20	20	20	20
Spool Gun Ready	Yes	Yes	Yes	Yes
Input Voltage	208/230VAC, 50/60Hz	208/230VAC, 50/60Hz	115VAC, 50/60Hz	208/230VAC, 50/60Hz
Input Amperage (recommended)	26/24	31/28	30	46/42
Gas Regulator-Flowmeter	Yes	Yes	Yes	Yes
Warranty*	2 Years	2 Years	2 Years	2 Years

*Does not include Cable or Torch

TECHNICAL SUPPORT
1-800-ABC-WELD

WELDING

Portable MIG Welders

Snap-on® MIG welders can be used as straight polarity with shielding gas or reverse polarity without shielding gas for flux-cored wire. MIG125 and MIG135 are compact and portable for use on the work site.



Specifications	MIG125	MIG135	FM140A	YA212AIND
Output Amperage Max (amps)	125	135	140	230
Duty Cycle Rating	80A-20%	90A-20%	140A-100%	230A-60%
Welding Capacity (inches)	3/16	1/4	1/4	5/16
Voltage Settings - MIG/TIG	4/-	7/-	12/4	12/4
Spot-Stitch-Gas Purge	No	No	Yes	No
Wire Size (inches)	0.023-0.035	0.023-0.035	0.023-0.035	0.023-0.045
Torch Length (ft)	7	9	10	10
Ground Cable Length (ft)	8	8	15	15
Power Input Cable Length (ft)	6	6	20	20
Spool Gun Ready	No	No	Yes	Yes
Input Voltage	115VAC, 50/60Hz	115VAC, 50/60Hz	115VAC, 50/60Hz	208/230VAC, 50/60Hz
Input Amperage (recommended)	20	20	20/30	26/24
Gas Regulator-Flowmeter	Regulator	Regulator	Yes	Yes
Warranty*	2 Years	2 Years	2 Years	2 Years

*Does not include Cable and Torch

TECHNICAL SUPPORT
1-800-ABC-WELD

TIG Welders

TIG250 Welders

Applications:

High quality welding on steel, aluminum, chrome-moly, stainless steel and copper.

- DC TIG welding with arc starting without high frequency
- AC and DC TIG welding with arc starting with high frequency
- Adjustable balance control
- Continuous/pulse 2 and 4-stage TIG welding
- AC and DC hot start time and current adjustment
- Switch-start or optional foot control

Includes:

- Flow-meter style gas regulator
- 25' TIG torch assembly
- 25' work (ground) cable assembly
- Wheel kit/cylinder rack
- TIG torch parts kit and electrodes
- Remote arc start switch

TIG250FP Remote Amperage Control. Optional remote foot operated amperage control for TIG250GAS and TIG250H20 welders.



Specifications	TIG250GAS	TIG250H20
Torch	Gas Cooled	Water Cooled
Input Voltage	208/230VAC	208/230VAC
Input Current	82/74 Amps	82/74 Amps
Output Current	250 Amps	250 Amps
Duty Cycle	60% @ 200 Amps	60% @ 200 Amps
Gas Supply	Argon	Argon
Torch Lead Length (ft)	25	25
Ground Cable Length (ft)	25	25
Power Cord Length (ft)	12	12
Shipping Weight	325 lbs.	363 lbs.

TECHNICAL SUPPORT
1-800-ABC-WELD



WARNING



- Wear face shield and protective clothing while welding and cutting
- Do not allow bystanders while welding and cutting
- Read safety precautions on pages 594 to 597

WELDING

Muscle MIG/MIG Welder Accessories

Parts and Consumables - MIG Welders

Stock No.	Description	MM140SL	MM250SL	MM350XL	MIG220	MIG125	MIG135	FM140A	YA212AIND
CKS15TG1030	10ft Cable and Torch (.030 wire)	std	opt	-	opt	-	-	std	opt
CKS15TG1035	10ft Cable and Torch (.035 wire)	opt	std	-	std	-	-	opt	std
CKS35XL1235	12ft Cable and Torch (.035 wire)	-	-	std	-	-	-	-	-
CKS15TG1025	10ft Cable and Torch (.025 wire)	opt	opt	opt	opt	-	-	opt	opt
CKS15TG1230	12ft Cable and Torch (.030 wire)	opt	opt	opt	opt	-	-	opt	opt
CKS15TG1235	12ft Cable and Torch (.035 wire)	opt	opt	opt	opt	-	-	opt	opt
CKS15TG1530	15ft Cable and Torch (.030 wire)	opt	opt	opt	opt	-	-	opt	opt
CKS15TG1535	15ft Cable and Torch (.035 wire)	opt	opt	opt	opt	-	-	opt	opt
CKS25SG1035	10ft Cable and Torch (.035 wire)	opt	opt	opt	opt	-	-	opt	opt
CKS35XL1245	12ft Cable and Torch (.045 wire)	-	-	opt	-	-	-	-	-
CKS35XL1535	15ft Cable and Torch (.035 wire)	-	-	opt	-	-	-	-	-
CKS35XL1545	15ft Cable and Torch (.045 wire)	-	-	opt	-	-	-	-	-
CKSM103LB	Liner for 10ft Torch (.020-.030)	std	opt	-	opt	-	-	std	opt
CKSM123LB	Liner for 12ft Torch (.020-.030)	opt	opt	opt	opt	-	-	opt	opt
CKSM104LN	Liner for 10ft Torch (.030-.045)	opt	std	-	std	-	-	opt	std
CKSM124LN	Liner for 12ft Torch (.030-.045)	opt	opt	std	opt	-	-	opt	opt
CKSM3T2510	Contact Tip (.025), 10ea	opt	opt	opt	opt	-	-	opt	opt
CKSM3T3010	Contact Tip (.030), 10ea	std	std	opt	std	-	-	std	std
CKSM3T3510	Contact Tip (.035), 10ea	opt	opt	std	opt	-	-	opt	opt
CKSM3T4510	Contact Tip (.045), 10ea	opt	opt	opt	opt	-	-	opt	opt
CKSM3TN50	1/2" Adjustable Nozzle	std	std	-	std	-	-	std	std
CKSM6C62	Nozzle with 5/8 ID	-	-	std	-	-	-	-	-
CKSM3TB2	Insulators (2ea) w/o-rings (6ea)	std	std	-	std	-	-	std	std
CKSM3TBR3	Insulator o-rings	std	std	-	std	-	-	std	std
CKSM3TD	Gas Diffuser	std	std	-	std	-	-	std	std
CKSM6D	Gas Diffuser	-	-	std	-	-	-	-	-
CKSM6B	Insulated Nozzle Bushing	-	-	std	-	-	-	-	-
CKSER706303	Steel Wire (size .030) 3 lbs	std	std	opt	std	opt	opt	std	std
CKSER7063011	Steel Wire (size .030) 11 lbs	opt	opt	opt	opt	opt	opt	opt	opt
CKSER7063033	Steel Wire (size .030) 33 lbs	opt	opt	opt	opt	-	-	opt	opt
CKSER706353	Steel Wire (size .035) 3 lbs	opt	opt	std	opt	opt	opt	opt	opt
CKSER7063511	Steel Wire (size .035) 11 lbs	opt	opt	opt	opt	opt	opt	opt	opt
CKSER7063533	Steel Wire (size .035) 33 lbs	-	opt	opt	opt	-	-	-	opt
CKSGRFM	Regulator - Flowmeter	std	std	std	std	-	-	std	std
CKSGR115	Regulator	-	-	-	-	std	std	-	-
MIG023	Contact Tip (.023), 10ea	-	-	-	-	std	std	-	-
MIG030	Contact Tip (.030), 10ea	-	-	-	-	opt	opt	-	-
MIG035	Contact Tip (.035), 10ea	-	-	-	-	opt	opt	-	-
MIG1151	Tapered Nozzle	-	-	-	-	std	std	-	-
MIG1152	Spot Weld Nozzle	-	-	-	-	opt	opt	-	-
MIG1153	Steel Liner	-	-	-	-	std	std	-	-
MIG1154	Nozzle Spring	-	-	-	-	std	std	-	-
MIG1155	9ft Cable and Torch	-	-	-	-	-	std	-	-
MIG1156	Diffuser	-	-	-	-	std	std	-	-
MIG1157	Teflon® Liner (for Alum wire)	-	-	-	-	opt	opt	-	-

std = Standard opt = Optional






MIGCARTA Welder and Plasma Cutter Cart—Blue Point®.

- 21" x 14.5" top tray for storage of MIG welders and plasma cutters
- 2 additional trays for storage of accessories
- Includes multi-position cylinder bracket for various bottle sizes
- Includes 2 hooks for cable storage



MIGCARTA

Accessories - MIG Welders

Image	Stock No.	Description	MM140SL	MM250SL	MM350XL	MIG220	FM140A	YA212AIND
	MHG5A	Aluminum Spool Gun • Converts welders listed to aluminum welding				•	•	•
	MHG5B	Aluminum Spool Gun • Converts welders listed to aluminum welding	•	•	•			
	CKSTP2125A	DC TIG Pack • Adds DC TIG welding capability for welding ferrous metals				•	•	•
	FLEXTIG25	DC TIG Pack • Adds DC TIG welding capability for welding ferrous metals	•	•	•			
	CKS2TK	Twin Cylinder Rack		•		•		•
	CKSMPK1	Parts Kit	•	•	•	•	•	•
	CKSMPK10	Master Parts Kit	•	•	•	•	•	•

Parts, Accessories and Consumables - Aluminum Spool Guns and TIG Packs

Stock No.	Description	MHG5A	MHG5B	CKSTP2125A	FLEXTIG25
CKSM5C62	⁵ / ₈ " Nozzle	std	std	-	-
CKSM5NB	Nozzle Body	std	std	-	-
CKSM5B	Insulated Nozzle Bushing	std	std	-	-
CKSM35NA62	Nozzle Assembly	std	std	-	-
CKSM35D	Gas Diffuser	std	std	-	-
CKSMGT2510	Contact Tip (.025) 10 ea	opt	opt	-	-
CKSMGT3010	Contact Tip (.030) 10 ea	opt	opt	-	-
CKSMGT3510	Contact Tip (.035) 10 ea	std	std	-	-
CKSMGT36410	Contact Tip (³ / ₆₄) 10 ea	opt	opt	-	-
CKS404330	Aluminum Wire (Size .030) 1 lb	opt	opt	-	-
CKS404335	Aluminum Wire (Size .035) 1 lb	std	std	-	-
CKS4043364	Aluminum Wire (Size ³ / ₆₄ ") 1 lb	opt	opt	-	-
CKSTIGSHARP	Chemical Tungsten Sharpener	-	-	opt	opt
CKS3T116	Tungsten 3" - size ¹ / ₁₆ "	-	-	-	std
CKS3T332	Tungsten 3" - size ³ / ₃₂ "	-	-	std	std
CKS3T418	Tungsten 3" - size ¹ / ₈ "	-	-	std	opt
CKS3C116	Collet for ¹ / ₁₆ " Tungsten	-	-	-	std
CKS3C332	Collet for ³ / ₃₂ " Tungsten	-	-	std	std
CKS3C418	Collet for ¹ / ₈ " Tungsten	-	-	std	opt
CKS3CB116	Collet Body for ¹ / ₁₆ " Tungsten	-	-	-	std
CKS3CB332	Collet Body for ³ / ₃₂ " Tungsten	-	-	std	std
CKS3CB418	Collet Body for ¹ / ₈ " Tungsten	-	-	std	opt



WARNING



- Wear face shield and protective clothing while welding and cutting
- Do not allow bystanders while welding and cutting
- Read safety precautions on pages 594 to 597

WELDING

Plasma Cutters

Snap-on® plasma cutters are ideal for cutting ferrous (steel, stainless steel) metals as well as non-ferrous metals (aluminum) and new high strength steels. Both models easily remove spot welds. Use clean, dry compressed air; no need to use bottle gases. Includes air regulator for accurate adjustment of air pressure for the best quality cut. Compact torch handle for accessing tight areas.



PLASMA50



PLASMA25

Heavy Duty

Standard

Specifications	PLASMA50	PLASMA25
Output Amperage, max. (A)	30 and 50	25
Cut Thickness (in)	1/2	3/8
Sever Thickness (in)	3/4	—
Primary Input (V)	208/230VAC 50/60Hz	115V 50/60Hz
Primary Input (A)	30	20
Duty Cycle @ max Amperage	40%	20%
Compressed Air Requirements (min)	88 psi @ 7 CFM	88 psi @ 5 CFM
Torch Cable Length (ft)	18	12
Ground Cable Length (ft)	18	12
Power Cord Length (ft)	6	6
Warranty*	2 Years	2 Years

* Does not include cable and torch

TECHNICAL SUPPORT
1-800-ABC-WELD

Plasma Cutter Consumables

Plasma Cutter Consumables	PLASMA115	PLASMA230
Nozzle Holder	PLASMA2304	PLASMA2304
Spacer Spring, 5-pack	—	PLASMA2309
Diffuser	PLASMA23031	PLASMA23031
Short Nozzle (1mm) 5-pack	PLASMA2301	PLASMA2301
Long Nozzle (1mm) 3-pack (35-50 Amps)	PLASMA2302	PLASMA2302
Short Electrode, 5-pack	PLASMA1151	PLASMA2305
Short Nozzle (0.9mm) 5-pack (0-35 Amps)	—	PLASMA2306
Long Electrode, 5-pack	—	PLASMA2307
Long Electrode, 2-pack	PLASMA1152	—
Long Nozzle (0.9mm) 5-pack (35-50 Amps)	—	PLASMA2308
Complete Torch Assembly	PLASMA1153	PLASMA23010

Plasma Cutter Consumables	PLASMA25	PLASMA50
Nozzle Holder	PLASMA5001	PLASMA5001
Swirl Ring, 2-pack	PLASMA5003	PLASMA5003
Electrode, 5-pack	PLASMA5004	PLASMA5004
Diffuser, 2-pack	PLASMA5005	PLASMA5005
Two Point Spacer	PLASMA2504	PLASMA2504
Nozzle, 5-pack	PLASMA2502	PLASMA5002
Torch Head	PLASMA5006	PLASMA5006
Complete Torch Assembly	PLASMA2503	PLASMA5007



PLASMA2308



PLASMA2305



PLASMA2304



PLASMA5001



PLASMA2306



PLASMA5005



PLASMA2504

Gas Welding—Blue Point®



WE200A



WE250A

Gas Welding

- Use for auto repair, construction, fabrication, manufacturing and maintenance
- Forged brass regulator is durable and strong
- Regulator diameter 2 1/4" allows precise control of gas
- Internal filter keeps particles from entering regulator
- PTFE Teflon® seal
- Handle shut off valve color coding allows ease in identifying the corresponding gas control
- Two piece cutting tip is easier to clean
- High quality hose offers reduced tear resistance and increased flexibility

WE200A Standard Duty Welding Kit.

- Cuts up to 1" and welds up to 1/8". Cuts up to 4" and welds up to 1/2" with optional tips

WE250A Medium Duty Welding Kit.

- Cuts up to 1" and welds up to 1/8". Cuts up to 5" and welds up to 1/2" with optional tips

Kit Components

Stock No.	Description	Set Contains:		Stock No.	Description	Set Contains:	
		WE200A	WE250A			WE200A	WE250A
HRC1401340	85 Weld Handle with Check Valves	std	std	HRC1800710	J-63-1 Heating Assembly	opt	opt
HRC1300380	72-3 Cut Attach	std	std	HRC1600840	23-A-90-0 #0 Weld Tip	opt	opt
HRC9100614	D-85 Weld Mixer	std	std	HRC1600860	23-A-90-2 #2 Weld Tip	opt	opt
HRC4300557	3/16 x 20 Twin Hose	std	std	HRC1600880	23-A-90-4 #4 Weld Tip	opt	opt
HRC4304482	Cover Goggle	std	std	HRC1502170	6290-00AC #00AC Cut Tip	opt	opt
HRC9004486	Striker	std	std	HRC1502171	6290-0AC #0AC Cut Tip	opt	opt
WE200A1	Oxygen Regulator	std	—	HRC1502173	6290-2AC #2AC Cut Tip	opt	opt
WE200A2	Acetylene Regulator	std	—	HRC1502174	6290-3AC #3AC Cut Tip	opt	opt
WE250A1	Oxygen Regulator	—	std	HRC1502175	6290-4AC #4AC Cut Tip	—	opt
WE250A2	Acetylene Regulator	—	std	HRC4301650	88-5FBT PR. Torch Flash Arrestor	opt	opt
HRC1502172	6290-1 #1 AC Cut Tip	std	std	HRC9000160	E-9 Tip Cleaner (2 pc tip)	opt	opt
HRC1600890	23-A-90-5 #5 Weld Tip	std	std	HRC9004484	Replacement Flints	opt	opt
HRC1600870	23-A-90-3 #3 Weld Tip	std	std				
HRC1600850	23-A-90-1 #1 Weld Tip	std	std				

std = Standard, opt = Optional

Optional Accessories

Welding Gloves/Sleeves—Blue Point



YA427B Welding Gloves.

- Helps protect hands from sparks when welding
- Leather construction with added insulation for heat protection
- Reinforced palm for durability



YA4282 TIG Welding Gloves.

- Ideal for TIG welding processes
- Pigskin material for precise control
- Helps protect hands from heat and sparks
- Thick leather cuff for wrist protection



YA4280 Welding Sleeves.

- Helps protect arms from sparks when welding or cutting
- Elastic bands at each end of sleeve
- Constructed of flame retardant fabric



WARNING



- Wear face shield and protective clothing while welding and cutting
- Do not allow bystanders while welding and cutting
- Read safety precautions on pages 594 to 597

WELDING

Accessories

Helmets (Auto Darkening, Adjustable Shade)

Auto-darkening adjustable welding helmets are triggered automatically by UV light sources and offer a variable shade adjustment for a variety of welding processes. Some models have adjustable sensitivity for various light conditions and an adjustable delay setting to maintain dark-state for extended periods of time.



Specifications	YA612B	YA613	YA4601	YA4602**
Shade	#9-12	#9-13	#9-13	#9-13
Sensitivity	Adjustable	Adjustable	Adjustable	Adjustable
Delay	Adjustable	Adjustable	Adjustable	Fixed
Clear Shade	#4	#4	#3.5	#3.5
Viewing Area (in.)	3.75 X 2.38	3.75 X 2.38	3.81 X 2.40	3.81 X 1.88
Viewing Area (square in.)	8.93	8.93	9.14	7.16
Number of Sensors	2	4	4	2
Delay Time (s)	0.25 to 0.80	0.25 to 1.0	0.2-1.0	0.1-1.0
Switching Speed (ms)	0.04	0.04	0.04	0.04
Power Supply	Solar-AA Battery	Solar-Lithium	Solar-Lithium	Solar
Applicable Standards	ANSI	ANSI	ANSI, CE, DIN, EN, CSA	ANSI, CE, DIN, EN, CSA
Opt. Magnifying Lens 1.5x	YA555MAG1.5*	YA555MAG1.5	—	—
Opt. Magnifying Lens 2.0x	YA555MAG2.0*	YA555MAG2.0	—	—
Warranty	2 Years	2 Years	2 Years	1 Year

* requires YA612MAGADP

**Blue Point®

Welding Helmets (Auto Darkening, Fixed Shade)

Auto-darkening fixed shade helmets offer a fixed #10 shade and are triggered automatically by UV light sources. Clear shade provides operator visibility to line up work prior to welding.



Specifications	YA590	YA4603*	EFP CODERED	EFP HANNIBAL	EFP NITESTLKR
Lens Style	Flat	Flat	180° Peripheral	180° Peripheral	180° Peripheral
Shade	#10	#10	#10	#10	#10
Clear Shade	#4	#3.5	#3	#3	#3
Viewing Area (in.)	3.75 X 1.2	3.81 X 1.38	4.25 X 2.0	4.25 X 2.0	4.25 X 2.0
Viewing Area (square in.)	4.5	5.26	8.5	8.5	8.5
Number of Sensors	1	2	1	1	1
Delay Time (s)	0.25	0.25-0.045	0.5	0.5	0.5
Switching Speed (ms)	0.04	0.04	0.04	0.04	0.04
Power Supply	AA Battery	Solar	Solar-Lithium	Solar-Lithium	Solar-Lithium
Applicable Standards	ANSI	ANSI, CE, DIN, EN, CSA	ANSI	ANSI	ANSI
Lens (Included)	—	—	EFP10WLDLENS EFPCLLENSREP	EFP10WLDLENS EFPCLLENSREP	EFP10WLDLENS EFPCLLENSREP
Opt. Magnifying Lens 1.5x	YA555MAG1.5	—	—	—	—
Opt. Magnifying Lens 2.0x	YA555MAG2.0	—	—	—	—
Warranty	2 Years	1 Year	1 Year	1 Year	1 Year

*Blue Point®

Welding Helmets (Fixed Shade)

Fixed shade welding helmets offer shade #10 protection. Hinged mask can be adjusted for hands-free drop down.



Specifications	YA551B	YA555A	EFPKILLA	EFPBONEHD	EFPSTRIKER
Lens Style	Flat	Flat	180° Peripheral	180° Peripheral	180° Peripheral
Shade	#10	#10	#10	#10	#10
Viewing Area (in.)	5.25 X 4.50	5.25 X 4.50	—	—	—
Viewing Area (square in.)	23.63	23.63	35.6	35.6	35.6
Applicable Standards	ANSI	ANSI	ANSI	ANSI	ANSI
Lens (Included)	—	—	EFPCLLENREP	EFPCLLENREP	EFPCLLENREP
Opt. Magnifying Lens 1.5x	YA555MAG1.5*	—	—	—	—
Opt. Magnifying Lens 2.0x	YA555MAG2.0*	—	—	—	—
Warranty	2 Years	2 Years	1 Year	1 Year	1 Year

* requires YA551MAGADP

Welding Goggles—Blue-Point®

GAC5002B Eyecup Welding Goggles.

- Shade #5 for oxy-acetylene welding and cutting
- Includes built-in side shields for added protection
- Adjustable nosepiece and headband

GAC1100C Safety Goggles.

- Green tinted lens for acetylene torch work
- Full 2" x 4-1/2" viewing area with shade #5 for oxy-acetylene welding and cutting
- Flip-up visor with added clear lens is ideal for grinding
- Fits over most prescription glasses
- Adjustable headband
- Can be used with optional YA555MAG1.5 or YA555MAG2.0 magnifier lens



GAC5002B



GAE56C



GAC1100C

Marking Set

YA247 Welder's Marking Set.

Includes:

- YA247-2 soapstone marker for making temporary markings
- YA247 scribe with a sharp, tough carbide tip for making permanent markings
- Replaceable soapstone
- Each tool has a tough aluminum barrel
- Soapstone marker includes built-in sharpener
- Convenient storage pouch

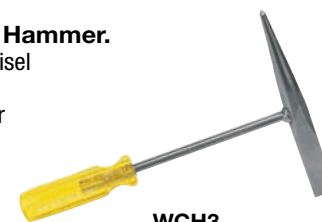


YA247

Welding Hammer

WCH3 Welder's Chipping Hammer.

- Features pick end and 3/4" chisel head end
- Heat treated high alloy steel for long life
- Overall length is 11"
- Head length is 7 1/2"



WCH3

C-Clamps

- Equipped with anti-spatter spindles precision cut from hardened steel
- Forged frames have extra deep throats for additional strength and work capacity
- Grooved anvil, in combination with a serrated pad, provides non-slip grip on various metal surfaces
- Spindles, handles and pads are copper plated to avoid collecting spatter



CL402A



WARNING



- Wear face shield and protective clothing while welding and cutting
- Do not allow bystanders while welding and cutting
- Read safety precautions on pages 594 to 597

Welding Clamps

Stock No.	Capacity, inches	Throat Depth, inches
CL402A	0-2	2
CL403A	0-3	2 1/2
CL404A	0-4	2 7/8
CL406A	0-6	3 5/8
CL408A	0-8	4 1/2
CL410A	2-10	5 5/8
CL412A	2-12	5 3/4

WELDING

Clamps/Vises



VGP12212

Large Jaw-Blue-Point®

Stock No.	A inch (mm)	B inch (mm)
VGP12212	3 15/16 (100)	12 (300)

- Multi-purpose tool with larger jaw capacity for general maintenance and screw in oil filter removal

Locking C-Clamps-Blue-Point

- Quick and easy handling clamps for auto body and metal fabrication applications

	Stock No.	A inch (mm)	B inch (mm)
Standard Tip	VGP12406	2 5/16 (60)	6 (152.4)
	VGP12412	3 15/16 (100)	12 (304.7)
	VGP12418	10 1/4 (260)	18 (457.2)
	VGP12424	15 11/16 (400)	24 (609.6)
Swivel Tip	VGP22406	1 5/16 (50)	6 (152.4)
	VGP22412	3 15/16 (100)	12 (304.7)
	VGP22418	9 7/16 (240)	18 (457.2)
	VGP22424	15 11/16 (400)	24 (609.6)
Long Reach	VGP13420	10 5/8 (270)	20 (508)
Aluminum Alloy	VGP14412	3 1/2 (90)	12 (304.7)
Locking U-Clamp	VGP12509	2 5/16 (60)	9 (228.6)
Self-Leveling Jaws	VGP23312	3 15/16 (100)	12 (304.7)
Sheet Metal Clamp	VGP12808	1 3/4 (45)	8 (203.2)
Plugweld Pliers	VGP13709	1 9/16 (40)	9 (228.6)



VGP12509

VGP12509 Locking U-Clamps

- U-shaped jaws allow access and visibility when welding



VGP13709

VGP13709 Locking Pliers/Plugweld

- Copper alloy knurled pad prevents burnthru when plugwelding thin sheet metal



VGP22418

VGP22418 Locking C-Clamps/Swivel Tip

- Swivel pads allow parallel clamping while preventing denting or gouging on delicate surfaces



VGP23312

VGP23312 Locking Clamps/Self-Leveling Jaws

- Swivel pads and narrow jaw profile firmly grip tapered surfaces in areas where c-clamps cannot fit

Auto Body/Welding Sets

VGP104 Autobody/Welding Locking Pliers Set.

- Includes VGP23312 self-leveling jaws pliers, VGP13709 plugweld pliers plus VGP14412 and VGP12406 c-clamp pliers (4 pcs) in VGP1041 kit bag

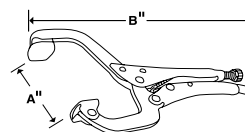


CL408VIS

CL408VIS High Visibility C-Clamps

- Similar to CL series c-clamps
- High visibility models conform to OSHA safety color standard for physical hazards regulation #19110.144
- 3/4" spindle diameter

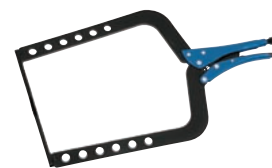
Stock No.	Capacity, inches	Throat Depth, inches
CL404VIS	0-4 1/2	3 1/4
CL406VIS	0-6 1/16	3 5/8
CL408VIS	0-8 1/4	5



VGP12412

VGP12412 Locking C-Clamps

- Quick and easy handling clamps for auto body and metal fabrication applications



VGP13420

VGP13420 Locking C-Clamps/Long Reach

- Wide profile with perforated jaws allows clamping around large objects with uniform tension distribution



VGP12808

VGP12808 Locking Clamps/Sheet Metal

- Wide jaws allow clamping, bending, forming and crimping of sheet metal without gripping effort



VGP14412

VGP14412 Locking C-Clamps/Aluminum Alloy

- Lightweight aluminum jaw will not bend or distort body panels
- Welding pellets will not adhere to jaw



MG2000K

Welding Clamps/Miniature-Blue-Point

- Micro-size for optimal access into confined spaces
 - Aluminum alloy body ensures robustness with minimal weight while resisting splatter and corrosion
 - Design permits exertion of 1/2 ton of force without deformation
 - Perforated jaw allows attachment to fixtures and connection of ground cables
 - One handed "no pinch" clamping and release
- MG2000K Micro-Grip Locking Clamp Set.** Includes 4 micro-grip clamps.

WELDING

Spot Welders



YA22300A

YA22300A Standard Duty Spot Welder.

- Produces spot welds for collision repair
- Squeeze-type action produces factory style welds
- Optional accessories can increase welding capability

YA223001 Welding Tip.

- Long spot welding tip for YA22300A

YA223002 Welding Tip.

- Short spot welding tip for YA22300A

YA223003 Welding Tip.

- Replacement drip rail welding tip for the YA223004 welding cable assembly

YA223004A Welding Cable Assembly.

- Accessory welding cable assembly for the YA22300A
- Allows welding from a single side such as door skins and other applications

YA223005A Dent Puller Kit.

- Fast, effective dent repair without drilling holes or using draw pins

YA223006 Welding Tip.

- Replacement welding tip for the YA223004 welding cable assembly

YA223009 Welding Tip.

- Drip rail spot welding tip for YA22300A

YA22356 Handle.

- New style handle to house the improved YA22357 switch. Can be retrofitted to older models

YA22357 Switch.

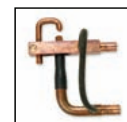
- Improved metal encased switch for increased durability; can be retrofitted to older models



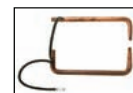
YA22355

YA22355 Heavy Duty Liquid Cooled Spot Welder.

- Designed to produce factory-type spot welds in collision repair
- Squeeze-type action produces factory-style welds
- Pneumatic gun welds through primers, sealers and adhesives
- Features coolant circulation throughout the welding tips for consistent weld penetration
- Included accessories: 14" long reach electrode and wheelhouse electrode



Wheelhouse Electrode



Long Reach Electrode

Specifications	YA22300A	YA22355
Primary Voltage	208/230VAC	208/230VAC
Line Fuse	50A	60A
Max Output, Amps	2,800	6,000
Max Thickness, ga.	2 pcs 20	3 pcs 20
Coated Metal Capability	No	Yes
KVA Rating	4	6
Shipping Weight, lbs.	120	300

Dent Pullers/Accessories



YA22345KT

Stud Gun Dent Pullers

YA22345KT Stud Gun Dent Puller Kit.

- Kit includes stud gun, welding tips, slide hammer and T-puller
- Used to pull dents by welding pins to work piece
- Stud gun uses minimal heat to reduce burn-through

YA223451 Draw Pins (2mm).

- Soft for easy flexing and grinding
- Delivers 500 lb. pull
- Pack of 500

YA223452 Draw Pins (2.5mm).

- Soft for easy flexing and grinding
- Delivers 500 lb. pull
- Pack of 500

YA223454 T-Puller.

- Compact for small damage repair on lightweight metal
- Helps reduce overpull



YA223453

YA223453 Magna Clamp.

- Features wing nut and is self-tightening
- Locks onto draw pins for pulling dents

YA223455 Slide Hammer.

- Polished steel bar with rubber handle ensures positive pulling action

YA223456 Shrinking Electrode.

- Provides fast heat

YA223457 Pin Electrode.

- Holds all standard size pins

YA223458 Trim Rivets.

- Used to repair metal trim strips
- Weld onto panel and provide permanent retention to trim strip
- Pack of 500

YA223459 Rivet Electrode.

- For use with YA223458 trim rivets
- Retains trim rivet for welding



WARNING



- Wear face shield and protective clothing while welding and cutting
- Do not allow bystanders while welding and cutting
- Read safety precautions on pages 594 to 597

WELDING

Dent Puller Systems



YA22375



YA22350C

Portable Dent Pulling System

- Easily pulls dents on roofs, hoods and side panels
- Star tip design eliminates the need to drill holes or cut pin heads
- Built-in slide hammer speeds up the pulling process (YA22350C only)

Specifications	YA22350C	YA22375	YAH22350C	YAH22375
Type	Star Tip	T-handle	Star Tip	T-handle
Primary Voltage	120VAC 50/60Hz	120VAC 50/60Hz	208/230VAC 50/60Hz	208/230VAC 50/60Hz
Line Fuse	30A	30A	30A	30A
Input Power Cable Length (ft)	25	25	25	25
Power Lead Length (ft)	7	10	7	7
Ground Cable Length (ft)	7	7	7	7
Shipping Weight (lbs)	64	64	64	64



YA2235CART



YA22351

Portable Dent Puller Accessories

YA2235CART Accessory Cart. Adds additional height and portability.

YA2355 Star Tips. Replacement tips (10 ea) for the YA22350C, YAH22350C and YA223005.

YA2351 Welding Tip. Optional long stud welding tip.

YA2352 Welding Tip. Optional molding rivet welding tip.

YA2353 Heating Tip. Replacement heat shrink heating tip.

YA2358 Magnetic Base. Replacement magnetic ground clamp.

YA22357 Trigger Switch. Replacement switch.

YA223008 Pry Bar. Replacement pry bar for YA22375 and AH22375, optional for YA22350C and YAH22350C.

Quick Claw Dent Pulling Set

YA22351 Quick Claw Dent Pulling Set.

- Used with YA22350C, YAH22350C, YA22375 and YAH22375
- Used to establish multiple pull points along dents
- Independent finger action of claw varies the pulling force at multiple points
- Can pull by hand, slide hammer or chain

• Comes with claw, 2 tips and 24 wires

YA22352 Claw Handle. Four-finger "claw" pulling handle. One included in set.

YA22353 Welder Tips. Welding tips for YA22354 welding wires. 2 included in set.

YA22354 Weld Wires. 1/2 lb welding wires. 24 included in set.

Innovative Lighting Solutions Define Form And Function.

You can't fix what you can't see. That's why Snap-on® provides lighting solutions that shine brighter, last longer and offer a wider range to view the jobs in front of you.

- **Versatile**—Match the illumination to the task: underhood, headlight, rechargeable, corded, flexible, UV and cordless options suit the need and the space. The versatility of the line reflects the requirements of the job.
- **Portable**—Get the job done faster with hands-free, clip-on lighting options. From penlights to magnetic swivel lights, direct the light where you need it, when you need it.
- **Dependable**—Maximum brightness, a rugged exterior and rigorous testing ensure that your lighting will last day in and day out.




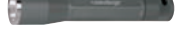



LIGHTING

Flashlights (Non-Rechargeable)

High Output LED Flashlights

- Precision-machined aircraft aluminum
- Crush resistant 2000+ lbs.
- O-ring provides ultra-tight seal
- Shock-proof and water resistant
- Three way tactical switch (momentary on/constant on/lockout mode)

Stock No.	Battery Type	Number of Batteries	Effective Range (up to)	Lumens	UV Light	Overall Length, Inches	Run Time (hours)
 ECF925B	AA	1	100'	25	—	4	2
 ECF950A	123	2	120'	25	—	4 3/4	20
 ECF965B	AA	2	150'	100	—	5 7/8	3
 ECF975A	123	2	250'	135	—	6	2.5
 ECFUV950 LED/UV	123	2	—	—	Yes	4 3/4	15



ECFHEAD1

ECFHEAD1 LED Headlight-Blue-Point®.

- Bright 1 Watt LED never needs replacing
- Pivoting head and adjustable headband
- Water resistant
- 30 hours continuous run time on (3) AAA alkaline batteries



ECFB1

ECFB1 Aluminum LED Flashlight-Blue-Point.

- 1 Watt LED with convex magnifying lens for maximum brightness
- Anodized aluminum construction for durability
- Push button On/Off tail cap switch with silent feature
- Includes (3) AAA batteries



ECFB101

ECFB101 Slim LED Flashlight-Blue-Point.

- Bright and durable 1 Watt Luxeon LED flashlight
- Fluted collar design minimizes rolling on flat surfaces
- Includes (2) AA alkaline batteries and wrist strap
- Water and shock resistant



ECFB200BL



ECFB200S

ECFB200BL/ECFB200S Penlight-Blue-Point.

- High intensity 3 Watt, 100 lumen penlight
- 6.25" in length, 1/2" in diameter
- Includes pocket clip and protective rubber tip
- Comes in blue (ECFB200BL) and silver (ECFB200S)
- Includes (3) AAA batteries



ECF201A

ECF201A Aluminum Police Style Flashlight-Blue-Point.

- 3 Watt LED flashlight features K2 Luxeon LED produces 130 lumens
- Aerospace grade extruded aluminum body
- Average run time of 10 hours on (2) D alkaline batteries (not included)



ECF35

ECF35 Explosion Proof Flashlight-Blue-Point.

- Powered by (2) D cells
- Features battery decks to isolate batteries from the bulb
- High-impact plastic body for durability
- Channel gasket that waterproofs the lens and lens cap
- UL listed and Bureau of Mines approved
- U.S. Fed. And Mil. Specs. MX-992/U, Type II, Style 1, except color



ECFLED24

ECFLED24 Rotating Magnetic LED Work Light-Blue-Point.

- 24 high output LEDs provide bright illumination
- Sturdy blue aluminum housing for durability
- Rotating head allows directional positioning
- Powerful magnetic base for secure mounting
- Includes (3) AAA batteries

Flashlight Accessories

ECFH1 AA/AAA Flashlight Holder.

- Magnetic base offers secure hold of AA/AAA flashlights
- Ball joint permits 360° rotation and pivots 70°
- Enables light beam of flashlight to be positioned as needed

ECFH2 D-Cell Flashlight Holder.

- Magnetic base offers secure hold of D cell flashlights
- Ball joint permits 360° rotation and pivots 70°
- Enables light beam of flashlight to be positioned as needed

ECFH3 C-Cell Flashlight Holder.

- Magnetic base offers secure hold of C cell flashlights with width of 3/4" to 1-1/8"
- Ball joint permits 360° rotation and pivots 70°
- Enables light beam of flashlight to be positioned as needed



ECFH1

Flashlight not included.

ECFH3

ECFSP30 Cordless 30 LED Utility Light.

- Full charge provides continuous operation for up to 8 hours
- Versatile light positioning - swivel hook, stand on end, lay on side
- 7.2 Volt NiMH 1300 mAh battery; 120V AC charger input
- Impact resistant housing and shatterproof polycarbonate lens



ECFSP30

Flashlights/Spotlights/Utility Lights (Rechargeable)

ECFBP30 Cordless LED Utility Light-Blue-Point®.

- 30 white LEDs for bright, non-glare light
- Long-life LEDs rated for 80,000 hours of use
- Rechargeable 7.2 NiMH battery for approximately 7 hours run time
- Slim design gets into tight places



ECFBP30

ECFLED215 Rechargeable 21 LED Shop Light-Blue-Point.

- Rechargeable and cordless compact shop light that can be taken anywhere
- 21 front-facing LEDs provide high light output to work surfaces
- 5 LED spot light provides up to 15 hours of continuous illumination
- Multi-function switch toggles between front and top LED illumination
- 180° folding design offers the ultimate in flexible positioning
- Dual magnetic design for parallel use or multi angle
- Includes both 110V AC charger and 12V in-car charger



ECFLED215

ECFLED18 Folding LED Pocket Light-Blue-Point.

- 18 super bright LEDs
- Rechargeable NiMH battery pack
- Foldable hook for added flexibility
- Approximately 7 hour run time



ECFLED18

ECFLED650 Compact Rechargeable Shop Light-Blue-Point.

- Built-in hook and stand for multi-positional use
- Integrated belt clip
- Cordless and rechargeable - up to 4 hours of use between charges
- 15 high output LEDs - generate 650 Lux light output
- Precision reflector provides wide angle light output
- Virtually unbreakable polycarbonate lens
- Compact design fits in narrowest roll cab drawer for secure storage
- Recharges in the shop or vehicle with included 110V AC and 12V DC chargers



ECFLED650



ECF490

ECF490 Rechargeable Xenon® Flashlight-Blue-Point.

- 4.8V Xenon bulb for maximum light output
- Equivalent brightness to a (3) D cell flashlight
- Tail cap On/Off push button with silent signal feature
- Includes (2) 4.8V rechargeable batteries, and 120V AC adaptor

ECFLED650-1 110V AC Adaptor. 110V AC adaptor for the ECFLED650

ECFLED650-2 12V DC Car Charger. 12V DC car charger for the ECFLED650



ECFDUX

ECFDUX Rechargeable Xenon-Blue-Point.

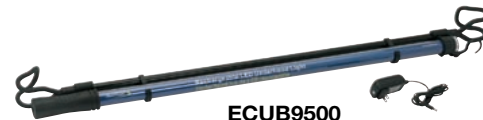
- Xenon bulbs easily switch from single to dual beam for added brightness
- Rugged ABS plastic body with balanced pistol-grip design
- Convenient metal hanging/storage bracket
- Powered by 6V 2.3 Ah lead acid battery



ECFDUXLED

ECFDUXLED Rechargeable LED Spotlight-Blue-Point.

- 2 high intensity Cree LEDs produce up to 204 lumens
- Heavy duty overmold grips for sure handling
- Trigger On/Off switch with side lock mechanism
- Includes 110V AC and 12V DC chargers



ECUB9500

ECUB9500 Cordless Rechargeable LED Under-Hood Light-Blue-Point.

- 95 ultra bright LEDs provide 9000 Lux output at 0.5m
- Extends from 47" to 71" to cover a wide range of vehicles
- Rubber coated hooks protect paintwork
- 4400 mAh battery provides 5 hours of constant light output



WARNING



- Do not remove or bypass the grounding prong on any electrical plug
- Read safety precautions on pages 594 to 597

LIGHTING

Utility Lights

Single Tube

ECU4250A 15 Watt Fluorescent Utility Light.

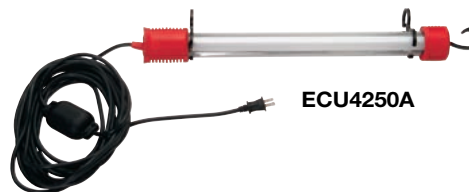
- Uses a single tube 15 Watt fluorescent bulb (ECU42501)
- 25' 3 conductor extension cord included
- UL/CUL listed

ECU415BK 15 Watt Fluorescent Utility Light.

- Uses a single tube 15 Watt fluorescent bulb (ECU250A17)
- High impact material in handle and top cap for durability
- Cord length 25'

ECU444AKT Underhood Utility Light.

- Fits hood widths from 47" to 80"
- Uses a single 15 Watt fluorescent tube (ECU4443)
- Padded hooks prevent damage to hood
- Flexible 25' cord resists oil and water



ECU4250A



ECU415BK



ECU444AKT

Single Tube Specifications

Stock No.	Lamp Style	Voltage	Bulb Type	Bulb Wattage	Bulb Length, inches	Cord Type	Cord Length, feet	Replacement Bulb	Overall Length, inches
ECU4250A	Tubular	120V AC	Single	15	17 3/4	18/2 SJTOW	25	ECU42501	23
ECU415BK	Tubular	120V AC	Single	15	17	18/2 SJTOW	25	ECU250A17	25
ECU444AKT	Tubular	120V AC	Single	15	41	18/2 SJTOW	25	ECU4443A	44 1/4



ECU350BK (50')
ECU325BK (25')



ECU4325A



ECU4425A (25')
ECU4450A (50')

Twin Tube

ECU325BK 13 Watt Compact Fluorescent Utility Light.

- High impact material in handle and top cap for durability
- Diffuser optimally spreads light transmission
- Metal hanging hook for flexibility

ECU350BK 13 Watt Compact Fluorescent Utility Light.

- High impact material in handle and top cap for durability
- Diffuser optimally spreads light transmission
- Metal hanging hook for flexibility

ECU4325A 13 Watt Compact Fluorescent Utility Light.

- Instant On/Off switch provides "light on command"
- Hanging hooks for portability
- UL/CUL listed

ECU4425A 13 Watt Angle Head Fluorescent.

- Angle design improves lighting in tight areas
- Instant start cold weather bulb
- 25' sub-zero premium cord is flexible to -58°
- 13 Amp power outlet in handle



ECU425ABK

ECU4450A 13 Watt Angle Head Fluorescent.

- Angle design improves lighting in tight areas
- Instant start cold weather bulb
- 50' sub-zero premium cord is flexible to -58°
- 13 Amp power outlet in handle

ECU425ABK 13 Watt Angle Head Fluorescent

- Case and lens made from impact resistant proprietary material
- Ratcheting metal hanging hook for better positioning
- 25' cold weather cord is flexible to -58°, resists chemicals and abrasions

- Uses ECU325-4 rough service bulb

ECU325-4 Rough Service Bulb.

- Silicon cocoons internal components in base to extend starter life
- Superior durability in harsh conditions
- Fits most twin tube 13 Watt lights

Twin and Quad Tube Specifications

Stock No.	Lamp Style	Voltage	Bulb Type	Bulb Wattage	Bulb Length, inches	Cord Type	Cord Length, feet	Replacement Bulb	Overall Length, inches
ECU325BK	Tubular	120V AC	Twin	13	7	18/2 SJTOW	25	ECU325-4	13
ECU350BK	Tubular	120V AC	Twin	13	7	18/2 SJTOW	50	ECU325-4	13
ECU4325A	Tubular	120V AC	Twin	13	7	18/2 SJTOW	25	ECU43251A	12 1/2
ECU4425A	Angle Head	120V AC	Twin	13	7 1/4	16/3 SJEOW	25	ECU43251A	16
ECU425ABK	Angle Head	120V AC	Twin	13	7	16/3 SJOW	25	ECU325-4	14
ECU4450A	Angle Head	120V AC	Twin	13	7	16/3 SJTOW	50	ECU43251A	16
ECU4000	Flat Head	120V AC	Quad	26	7	16/3 SJTOW	25	ECU43251A	16



ECU4000



ECU43251A

Four Tube ECU4000 Dual Twin Utility Light.

- 4 tube, 26 Watt, 13 Amp fluorescent bulb for high light output
- Comfortable, sure grip handle with fingertip switch
- Grounded outlet in handle base
- 25' cord, UL/CUL listed
- Uses ECU43251A replacement bulb

ECU43251A Replacement Bulb.

- 13 Watt, twin tube, flicker free cold temperature bulb



ECUR4500A



ECUR2450A



ECURO2350A

Reel Type Utility Lights

ECUR4500A 15 Watt Heavy Duty Reel Light.

- Cord reel mounts to wall or ceiling
- 360° swivel hook plus 2 horizontal hooks for flexibility
- 23" long, shatter resistant tube assembly and housing
- UL/CUL listed

ECUR2450A Heavy Duty Reel Angle Head Light.

- 13 Watt fluorescent light on 50' reel
- 13 Amp, 3 prong outlet in handle
- 180° swivel hook on lamp
- UL/CUL listed

ECURO2350A 13 Watt Heavy Duty Reel Light.

- Compact 13 Watt twin tube design
- Cord reel mounts to wall or ceiling
- Automatic switch activates light when cord is extended, deactivates when retracted
- UL/CUL listed

ECRB4430 Incandescent Reel Light.

- 75 Watt incandescent light with 30' reel
- Adjustable cord stop for convenience
- 3 prong grounded outlet for auxiliary power source



ECRB4430



ECUR4000

ECUR4000 26 Watt Fluorescent Reel Light.

- Dual twin tube, 26 Watt fluorescent light on 50' cord reel
- 13 Amp power outlet in handle
- 360° ratcheting swivel hanging hook for multiple location usage
- UL/CUL listed

Reel Type Specifications

Stock No.	Lamp Style	Voltage	Bulb Type	Bulb Wattage	Bulb Length, inches	Cord Type	Cord Length, feet	Power Lead Length, feet	Replacement Bulb	Overall Length, inches
ECUR4500A	Tubular	120V AC	Single	15	17 3/4	16/3 SJTOW	50	2	ECU42501	23
ECUR2450A	Angle Head	120V AC	Twin	13	7	16/3 SJTOW	50	2	ECU43251A	16
ECURO2350A	Tubular	120V AC	Twin	13	7	16/3 SJTOW	50	2	ECU43251A	12 1/2
ECRB4430	Incandescent Metal Shield	120V AC	Incandescent	75 max.	—	16/3 SVT	30	2	—	12
ECUR4000	Twin (2 bulbs)	120V AC	Twin	26	7	16/3 SJTOW	50	2	ECU43251A	16



WARNING



- Do not remove or bypass the grounding prong on any electrical plug
- Read safety precautions on pages 594 to 597

LIGHTING

Utility Lights



ECU4007

Fluorescent Utility Light

ECU4007 Twin Tube Utility Light.

- 13 Watt twin tube light works with any standard extension cord
- 360° swivel hook for hanging flexibility
- Replacement bulb is ECU43251A



ECU300



ECU44255A

Utility Light Accessories

ECU300 Magnetic Utility Light Clamp.

- Expandable clamp on a magnetic base
- Can be used with many fluorescent utility lights or "D" cell flashlights

ECU44255A Magnetic Utility Light Clamp.

- Expandable clamp on a magnetic base
- Can be used with many fluorescent utility lights

Extension Cords and Reels



EC267D

EC268D



ECR4300A



ECRB4300

Extension Cords—Blue-Point®

EC267D Extension Cord.

- 25', 16/3 gauge SJTW cord stays flexible in cold weather
- Oil and water resistant

EC268D Extension Cord.

- 50', 16/3 gauge SJTW cord stays flexible in cold weather
- Oil and water resistant

Multi-Outlet Strips and Reels

ECR4300A 50' Multi-Outlet Cord Reel.

- Reel mounts on wall or ceiling with 180° swivel bracket
- 2' power cord has three grounded outlets
- Includes mounting hardware

ECRB4300 30' Multi-Outlet Cord Reel—Blue-Point.

- Reel mounts on wall or ceiling with 180° swivel bracket
- 2' power cord has three grounded outlets
- Includes mounting hardware

Flexible Lights/Magnifiers



ECF1600

YA5100B



YA537

Flexible Lights—Blue-Point

ECF1600 Bendable Light.

- 10" flexible shaft with high intensity lamp
- Heavy duty barrel handle and switch
- Includes (2) AA batteries

YA5100B Bendable Light.

- 15" flexible shaft with 24" extension cover for added reach
- Brilliant krypton lamp runs on (2) AA cells

YA5100-2 Flashlight Bulb.

- Replacement bulb for YA5100B

YA5100B-1 Flashlight Switch.

- Replacement switch for YA5100B

Magnifier

YA537 Pocket Magnifier.

- Folding magnifier includes dual 3x lenses for combined 6x effect

Make Complex Jobs Simple.

Snap-on is known for innovation—and you'll find it throughout the entire selection of shop equipment. Whether it's reducing the time it takes to change a bushing, or change the way you think about body work, Snap-on simplifies the job.



Maintenance Means Income Opportunities For Shop Owners.

- Fuel system cleaning—Fully-automatic, high-efficiency fuel service systems pay for themselves in as little as three months.
- Brake, transmission and power steering fluid maintenance—Keep your customers' vehicles running smoothly, and add revenue opportunities for your shop.
- Abrasive blasting equipment—Stationary and portable blasting equipment designed to handle a wide range of jobs. From hand held units to industrial-sized cabinets, Snap-on has what your shop needs to get the job done.
- The basics—To build the business, you need a foundation. Creepers, air compressors, fluids, lubrication and gauge sets are a good place to start.

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FLUID MAINTENANCE

Fluid Transfer Service Equipment



EETF303B



EETF304B



EETF306A

Heavy Duty Transmission Fluid Exchangers

EETF303B/304B Heavy Duty Transmission Fluid Exchangers.

Replace automatic transmission fluid quickly, safely and easily. EETF303B features 100% fluid replacement and provides the most advanced fluid exchange technology available. Tank capacity is a generous 40 quarts, while a small footprint conserves valuable shop space. EETF304B performs both transmission and power steering fluid exchange.

EETF303B & 304B Features:

- Complete ATF fluid exchange (virtually 100%) in 8 minutes or less using vehicle-specific adaptor hoses
- Easy to use adaptors allow quick hookup to virtually any automobile make and model
- Heavy duty capable with the addition of the optional Allison transmission medium duty truck hose kit
- Connects directly to transmission cooler lines without dropping transmission pan
- Safe, clean, easy, fast - pit, lift or ramp not required
- Waste fluid drained at the touch of a button

TECHNICAL SUPPORT
1-800-303-5874

Transmission Fluid Exchanger Accessories

Included with EETF303B, EETF304B, EETF306A:

NOR940328 1/2" Adaptor.

NOR940329 3/8" Adaptor.

NOR940334 5/16" Adaptor.

NOR940831 Master Hose Connector. – 2 per unit

NOR940837 Tube w/Air Nipple - PSX, 12". Standard hose with adaptor for 1975 and newer Toyota, Nissan, Honda, Ford and Chrysler. Included with EETF304B only.

NOR940874 M14 Banjo Fitting. Standard hose with adaptor for 1994 and newer Ford Escort.

NOR940875 M14 x 1.5 Bolt w/2 Washers. Standard hose with adaptor for 1994 and newer Ford Escort.

NOR941801 Flare Swivel, 5/8" - 18 SAE, 45°. Standard hose with adaptor for 1993 and newer Chrysler.

NOR941802 Flare, 5/8" - 18 SAE, 45°. Standard hose with adaptor for Chrysler.

NOR941803 Flare Swivel, 5/8" - 18 SAE, 45°. Standard hose with adaptor for all GM with 3/8" diameter lines.

NOR941805 Open End Hose w/Clamp, 3/8" Diameter. Standard hose with adaptor for 1987 and newer imports.

NOR941807 Inverted Flare Swivel, 5/8" - 18 SAE, 45°. Standard hose with adaptor for 1997 and newer GM with 3/8" diameter lines.

NOR941809 Open End Hose w/Clamp, 1/2" Diameter. Standard hose with adaptor for imports.

NOR941813 Open End Hose w/Clamp, 5/16" Diameter. Standard hose with adaptor for imports.

EETF304B Power Steering Features:

- Replaces up to 95% of old power steering fluid in minutes
- Service hoses use vehicle reservoir to drain and refill power steering fluid for efficient servicing
- Remote pendant provides ease of operation for greater efficiency
- Compartment for new fluid bottle makes fluid exchanges easy and convenient
- Old fluid drains directly into the waste tank so there is no mess and clean up is easy

EETF306A Features:

- Electronic measuring technology
- Ability to select any fluid exchange amount from 1 to 35 quarts
- Multi-function transmission fluid exchange in-line or through dipstick
- Fully interactive LCD control panel eliminates guesswork
- Easy to follow screen prompts
- Large 2.5 GPM pump able to handle anything from low flow vehicles to trucks and buses
- ADD and REMOVE fluid features
- SWITCH HOSES indicator and the ability to switch flow direction with the push of a button
- Fluid totalizer
- Power loss memory
- Pause function plus Volt meter

NOR941815 1/4"-18 NPTF. Standard hose with adaptor for 1980-1986 Jeep Cherokee.

NOR941816 Inverted, 1/2" - 20 SAE, 45°. Standard hose with adaptor for 1985 and newer Chrysler, Ford Aerostar, Jaguar, Mercedes and Cadillac.

NOR941817 Inverted, 1/2" - 20 SAE, 45°. Standard hose with adaptor for Chrysler and Ford.

NOR941818 Inverted Swivel, 5/8" - 18 SAE. Standard hose with adaptor for 1980 and newer Ford with large nut.

NOR941819 Inverted, 5/8" - 18 SAE. Standard hose with adaptor for Ford.

NOR941820 Inverted Swivel, 1/2" - 20 SAE, 90°. Standard hose with adaptor for GM with 3/8" diameter lines.

NOR941821 Inverted, 1/2" - 20 SAE. Standard hose with adaptor for GM.

NOR941822 Inverted, 1/2" - 20 SAE. Standard hose with adaptor for Ford.

NOR941823 Inverted Swivel, 1/2" - 20 SAE, 90°. Standard hose with adaptor for Ford 5/16" small/long nut adaptor: 1980 and newer.

NOR941825 Swivel O-Ring, M14 x 1.5. Standard hose with adaptor for Jeep Cherokee, 1980-1986 Ford Escort.

NOR941828 1/4" Universal Bump Fitting. Standard hose with adaptor for Imports.

NOR941829 Open End Hose w/Clamp, 1/4" Diameter. Standard hose with adaptor for Imports.

Transmission Fluid Exchanger Accessories.

NOR941830 5/16" Universal Bump Fitting. Standard hose with adaptor for 1980 and newer Infiniti, Lexus and BMW.

NOR941831 3/8" Universal Bump Fitting. Standard hose with adaptor for 1975 and newer Toyota, Nissan, Honda, Ford and Chrysler.

NOR941832 1/2" Universal Bump Fitting. Standard hose with adaptor for 1975 and newer Toyota, Nissan, Honda, Ford and Chrysler.

NOR941835 Inverted Flare, 9/16" - 18 JIC, 37°. Standard hose with adaptor for Dodge Durango/Dakota - all years.

NOR941836 Inverted Swivel, 9/16" - 18 JIC, 37°. Standard hose with adaptor for Dodge Durango/Dakota - all years.

NOR941841 Duramax/Allison Male O-Ring.

NOR941842 Duramax/Allison Female O-Ring.

NOR942162 Quick Disconnect Tool.

NOR942163S GM Adaptor.

NOR940388 3/4" - 18 Male.

NOR940389 3/4" - 18 Female.



**EETF305A
TransKare™**

TECHNICAL SUPPORT
1-877-906-1395

Transmission Fluid Exchangers

EETF305A TransKare 1 ATF Exchanger. Take transmission service to a new level of speed, simplicity, productivity and profitability. Now a complete vehicle transmission exchange can be performed quickly through the dipstick tube without breaking into cooler lines, connecting adaptors, etc. No technical experience, no hoist, no tools, no mess. The TransKare system also offers the best way to drain the pan before filter and gasket replacements or internal repairs.

- Performs an ATF exchange, drains the transmission pan and/or tops off the ATF levels in vehicles with a transmission dipstick
- High flow rate permits most automatic transmission fluid exchanges through dipstick tube in 10 minutes using dipstick wand
- Intuitive, microprocessor controlled control panel with step by step guided operation
- Bright, 7 segment LED displays function, fluid volume in and out, process progression and service count
- 12V DC—can be used away from the service bay
- Highly mobile compact, yet rugged, design
- New ATF reservoir with readily visible sight gauge
- (2) 8' external nylon reinforced Hytron hoses



WARNING



- Read and follow all safety messages in instructions
- Read safety precautions on pages 594 to 597

NOR941900 5/8" Open End.

NOR941899 5/8" Adaptor.

NOR941910 3/8" Ford Adaptor.

NOR942169 3/8" GM Adaptor.

NOR941080 – Hose #93 Ford Focus/Mercury Mystique Female.

NOR941081 – Hose #94 Ford Focus/Mercury Mystique Male.

NOR940922 – Dock magnet is included with EETF304B only.

NOR941178 – PSX Y-adaptor is included with EETF304B only.

NOR941923 1/2 Ton Ford F150.

NOR941925 Ford Focus.

Optional Adaptor Sets and Accessories:

NOR941168S Allison Medium Duty Truck Hose Kit.

NOR941220 Wall Mount Hose Rack Kit.

NOR940872 Filter/Brochure Kit.

NOR942165 Step Fitting.



**EEBR311A
BrakeKare™**

TECHNICAL SUPPORT
1-800-393-1272

Brake Flush Machine

EEBR311A BrakeKare Brake Flush System. Safe, easy, quick and complete method for maintaining hydraulic brake systems. Automatically:

- Extracts the waste brake fluid
- Cleans, flushes and refills the system with new fluid
- Bleeds the automotive brake system

No technical experience is needed, little technician time is required, and there's no mess. The BrakeKare System offers a profitable add on service to brake jobs, oil changes, tune-ups, general repairs or scheduled maintenance.

- Comprehensive hydraulic brake system service; cleaning plus diagnostics in 10-12 minutes
- Test strips provide technician with visual indicators of brake system condition
- Extracts old brake fluid and disposes to internal waste container
- Reduces chance of technician contact with contaminated fluid
- Flushes system with pulsating pressure at the master cylinder reservoir and vacuum at all 4 bleeders at once
- Refills with new fluid and bleeds system
- Can also be used for hydraulic clutch flush service
- Step by step electronic control panel for ease of operation
- Connects to the vehicle's master cylinder through reservoir adaptors
- Restores soft pedal pressure, reduces corrosion of internal brake components and improves braking system safety

FLUID MAINTENANCE

Fluid Transfer Service Equipment



**EEFS305A
FuelKare**



TECHNICAL SUPPORT
1-877-906-1395

FuelKare™ Fuel Service System

EEFS305A FuelKare Fuel Service System.

The Snap-on® FuelKare system pulse cleans the fuel rail and fuel lines; removes soft carbon buildup in the combustion chamber, induction passages, on the intake valves and in the intake manifold. A 2 stage process (engine off, engine on) ensures a thorough and effective cleaning. The result is restored engine performance, reduced vehicle emissions and reduced fuel consumption. The FuelKare system also automatically troubleshoots fuel system components prior to starting service. Fully portable, 12V DC operation.

- 2 or 1 line quick service options
- Intuitive, fully electronic controls with step by step sequencing
- Electronically controlled diagnostic features to check flow rate, deadhead pressure, running pressure and leakdown
- Standard adaptor kit covers over 90% of popular domestic and import cars and light trucks
- Deluxe adaptor kit provides extended coverage for less common/more complex applications
- Uses internal filtration system and a mixture of fuel and Snap-on fuel system cleaning solution circulated through the fuel loop to loosen, dissolve and remove accumulated deposits and contaminants

EEFS305ACV Nylon Cover. For EEFS305A FuelKare fuel service system.

EEFS308A5. Replacement filter pack.

AEC061004011. (4) 1 liter bottles of fuel system cleaning solution.

AEC060812011. (12) 8 oz. bottles of fuel system cleaning fluid for EEFS305A.



EEFS505A

TECHNICAL SUPPORT
1-877-776-8486



EEFS505012



EEFS304AC4



EEFS106AC2

Fuel System Maintenance

EEFS505A Fuel System Decarbonizer–Blue-Point®.

Cleans fuel rail, injectors, combustion chamber and intake valves. Vehicle application CD covers vehicles from 1987-2006 and identifies proper adaptor, hook up location and fuel pump shut off procedures. Includes adaptor set for all popular vehicles. No mix fuel system cleaner eliminates technician exposure to chemicals. End of service LED indicator and audible alarm. Requires EEFS505012 fuel system cleaning fluid (sold separately).

EEFS505012 Fuel System Cleaning Fluid–Blue-Point.

(12) 17 oz. cans of fuel system cleaning fluid for EEFS505A.

EEFS304AC4 Engine Cleaner. Use as an all around cleaner, as a top engine cleaner and in cleaning machines. Removes carbon, dirt, gum and varnish harmful to critical engine components. Detergent-based solution is not harmful to critical engine components. Case of 32 oz. bottles. Use with EEFS100 Series of decarbonizing equipment.

EEFS106AC2 Diesel Engine Detergent.

Professional detergent for cleaning diesel engines. (4) 32 oz. bottles. Use to remove contaminants in engines and fuel systems. Includes 6 units of 3 step cleaner. Each unit includes 1 bottle of air intake cleaner, 1 bottle of combustion chamber cleaner and 1 bottle of fuel conditioner. Use with EEFS103 Series of diesel tune decarbonizing equipment.

Coolant Exchanger

EESE336A Coolant Exchange System.

Fast, simple replacement of engine coolant with no mess. Removes and refills engine coolant and pressure tests the cooling system without the vehicle engine running. One simple master valve controls drain, test, vacuum and refill functions. Connects to upper radiator hose via reusable hose adaptors.

- Complete power drain and fill process in less than 8 minutes
- System leak and radiator cap pressure tests
- Dual 32 quart storage tanks with gauges
- System pressure/vacuum gauge
- Powered by compressed air

Includes:

- Suction wand assembly
- Radiator adaptor assemblies (1 1/4"-1 3/8", 1 1/2"-1 3/4")
- Hose pinch pliers (small, medium, large)
- Rubber coolant hoses (1 1/4" iD, 1 3/8" iD, 1 1/2" iD, 1 3/4" iD)

Specifications:

- Pressure/vacuum gauge: 30 in HG to 30 psi
- Operating temperature: 0° to 120°F (-17.8° to 48.9°C)
- Storage temperature: -4° to 150°F (-20° to 65.5°C)
- Dimensions: 41 1/2"H x 33"W x 25 3/4"D
- Power: 30-90 psi max, compressed shop air
- Weight: 123 lbs (55.8 kg)



EESE336A
Coolant Exchange System



SS2196B

Optional Accessories:

EAK0239L01B. Optional recycler kit
SS2196B Coolant Exchange Point-of-Purchase Kit. Coolant exchange point-of-purchase kit contains brochure display card, 50 service brochures, service poster for mounting on wall and coolant exchange banner.



VAC201



VAC300

Fluid Evacuators and Transfer Pumps

Easily remove engine gear and transmission oil, coolant and brake fluids. Unit creates vacuum, providing a clean, fast and simple way to evacuate or dispense a wide range of fluids. 8 liter auto shut off prevents overflow. 2.3 gallon (8.8 liter) total capacity. Durable polyethylene construction is impervious to automotive and household chemicals.

VAC201 Manual Fluid Evacuator/Dispenser.

- No electrical or compressed air required
- Sturdy base with exterior pump helps prevent tipping
- Complete system includes manual fluid evacuator, main hose assembly (5/16" ID x 54" long) plus 2 rigid dipstick tubes for engine oil removal (3/16" ID x 34" and 1/8" ID x 34")

VAC300 Pneumatic Fluid Evacuator.

- Quiet operation results from air muffler on the Venturi
- Unit can be used away from air source by creating a vacuum, closing both shut off valves and transporting unit to the job
- Connect tubing and release valves to evacuate fluid
- Complete system includes air operated fluid evacuator with Venturi and air shutoff valve on base, main pour spout connector, main hose assembly (5/16" ID x 58" long), brake bleeding hose assembly with in line fluid control (1/4" iD x 60" long) plus 2 rigid dipstick tubes for engine oil removal (3/16" iD x 34" and 1/8" iD x 34")

Vacuum Cooling System Filler—Blue-Point®

RADPLUSA Coolant Exchanger.

- Empty/refill coolant system performs system leak tests in minutes
- Connects to most engine cooling systems at radiator filler neck or reservoir
- No need to cut heater hoses or disconnect radiator hoses: evacuates most systems in less than 3 minutes
- Refills most systems in seconds
- Safely stores used coolant in large 12 gal. (45.4 liter) holding reservoir
- Evacuates cooling system with vacuum generated by shop air



RADPLUSA

FLUIDPUMP

Fluid Transfer Pump.

- Transfer/siphon all types of fluids including coolant, oil, transmission fluid and water
- Use to inflate sports balls, bicycle tires, flotation devices and more
- Durable, non-corrosive polyethylene
- Includes pump, (2) 4" lengths of fluid hose, 2 intake/discharge hose connectors, air pressure hose, dipstick tube and dipstick/fluid hose adaptor



FLUIDPUMP



WARNING



- Read and follow all safety messages in instructions
- Read safety precautions on pages 594 to 597

LUBRICATION

Oil Filter



Filter Pliers/Filter Sockets

YA4050B Oil Filter Pliers—Blue-Point®. Grips oil filters for easier removal. Jaws are offset 20° from handle to increase accessibility. Jaw opening range of 2 1/4" to 4". 12" long.

YA4275 Oil Filter Pliers—Blue-Point. Use on filters from 4 1/4" to 7" (108-178mm) diameter. Applications: include truck, tractor and high torque diesel engines. Spring action size adjustment assures a solid grip on filter. Offset handle offers increased accessibility. Heavy duty forged levers. Cushioned grips for comfort. Industrial black finish. Overall length 19" (482.6mm).

YA4250 Oil Filter Pliers—Blue-Point. Slip joint design provides jaw opening range of 3 5/8" to 6". 12" long.

YA4274 Oil Filter Pliers—Blue-Point. Use on filters from 2 1/2" to 5 1/4" diameter. Use on automotive and truck applications. Spring action size adjustment ensures a solid grip. Offset handle offers increased accessibility. Heavy duty forged levers. Cushioned grips for comfort. Industrial black finish. Overall length 13 1/2".

A106 Oil Filter Socket. Low profile (1.68" OD x 1.04" Long), 6-point design to remove the plastic oil filter on GM Ecotec, 2.0L, 2.2L and 2.4L, 4-cylinder engines. Features the Flank Drive® wrenching system. Chrome finish for longer life and easy clean up. Wrench size: 1 1/4" (32mm). 3/8" square drive. Applications:

- Saturn: L-Series (2001), Ion, and Vue (2002 and later)
- GM: Cavalier, Sunfire, Grand Am, Sonoma, S10, Alero (2002 and later)
- Pontiac: G6 and Solstice (2006)
- Chevrolet: HHR, Cobalt, Cobalt SS (2006), Malibu (2002 to 2006)
- Saab: Some general applications

YA4022 Long Reach Oil Filter Pliers—Blue-Point.

Removes stubborn and overtightened oil, fuel and hydraulic filters plus fuel sending units and more. Easy to maneuver around hot exhaust manifolds. 23" long and tremendous holding power. 32 teeth jaws adjust to 2 sizes for optimum grip.

S3624 Filter Flip Socket. One tool will remove/install all 3 filter caps on Ford 6.0L power stroke diesel powered vehicles like super duty series pickups, Econoline Vans and Excursions. Use for removal and installation of the oil filter cap plus primary and secondary fuel filter caps on these vehicles. Not for impact use. Requires 3/8" drive extension (FX1 or FXWP1 1-1/2" long). 3/8" drive.

Additional 24mm Applications:
 Buick: VVT-V6 Rendezvous Ultra,
 LaCrosse CSX
 Cadillac: VVT-V6 CTS, STS, SRX
 Saturn: L-3000 V6
 Additional 35/36mm Applications:
 Audi/VW: VR6 engine
 BMW: 6, 8 and 12 cylinder engines
 Mercedes: diesel engines
 Mini-Cooper
 Volvo: 40 and 50 series, XC90 with 3.2L 6-cylinder engine

Specifications:
 Square Drive Size: 3/8"
 Wrench Sizes: 24 and 35/36mm
 Wrenching Configuration: Flank Drive
 OD Major: 1.80" (45.7mm)
 OD Minor: 1.38" (34.9mm)
 Length: 1.73" (43.9mm)
 Finish: Nickel-Chrome

OFWAJ13 Swivel Jaw Oil Filter Pliers—Blue-Point. Jaws swivel 90° in either direction to access most oil and fuel filters. Jaws adjust to 7 positions, in 30° increments, to fit most applications. Slip joint handle adjusts from 2 1/4" to 4 3/4" (57 - 120mm).

A127 Oil Filter Socket. Remove and install 27mm (1 1/16") oil filters on 2003 and later Mercedes 1.8L 4 cylinder engines. Additional applications: aftermarket oil filters with 1" nut at the top of canister. 1 1/16" wrench size. 3/8" drive.

OFSKIT Oil/Fuel Filter Socket Set. Includes: A127 and A106 oil filter sockets, S3624 filter flip socket and A129 Cummins Diesel fuel filter socket (4 pcs) in storage tray. Applications for S3624, A127 and A106 are listed on this page. Applications for A129 are listed on p. 221.



Oil Filter Wrenches—Blue-Point

Stock No.	Size	Steps	Flats	Style	Sq. Dr., inches	Application
YA995	3"	2	15	Cup	3/8	Fram, AC, Wicks, NAPA, Sears, Motorcraft, Hastings, and Baldwin filters. Has 1" external hex
YA996	76/80mm	2	14/15	Cup	3/8	OEM and Purolator filters on VW, Nissan, and Toyota. Has 1" external hex
A91E	—	—	—	Strap	—	Large diameter oil filters 1 to 6". Includes both 3/8" and 1/2" square drives
YA342C	—	—	—	Band	1/2	For 4 5/8 to 5 1/4" diameter filters
OFW12418	—	—	—	Band	1/2	For 4 1/8 to 4 21/32" (105 to 118mm) oil filters
OFW125532	—	—	—	Band	1/2	For 5 5/32 to 5 21/32" (130 to 143mm) oil filters. Similar to OFW12418
GA333C	—	—	—	Band	Handles	For 2 7/8 to 3 1/4" diameter oil filters
GA340A	—	—	—	Band	Handles	For 3 1/2 to 3 7/8" diameter oil filters. Similar to GA333C above
YA341A	—	—	—	Band	Handles	For 4 1/8 to 4 7/16" diameter oil filters. Similar to GA333C above
FWA6296A	62/96mm	—	—	Adjustable	3/8	Adjustable filter wrench for 62 to 96mm diameter oil filters. 3/8" square drive, 3/4" external hex
FWA62121A	62/121mm	—	—	Adjustable	3/8	Adjustable filter wrench for 62 to 121mm diameter oil filters. 3/8" square drive, 3/4" external hex
FW656714A	65/67mm	2	14	Cup	3/8	Fram-PH4386, PH4967, PH6017, PH6018, and PH6607
FW7614A	76mm	1	14	Cup	3/8	Champion, Champ, Lee, Purolator, Mopar, VW, Porsche, BMW, Mercedes
FW9315A	93mm	1	15	Cup	3/8	Casite, Champ, Champion, GM, Fram, Hastings, Purolator, Wix, Nissan, VW, Porsche, Renault
FW757715A	75/77mm	2	15	Cup	3/8	NAPA, AC Delco, Castrol, STP, Penske
FW7630A	76mm	1	30	Cup	3/8	Fram, IAPCO, Motorcraft, Parts Plus, Pennzoil
FW8015	80mm	1	15	Cup	3/8	Motorcraft, Parts Plus, Penska, Purolator



FWK7A

FWK7A Oil Filter Wrench Set–Blue-Point®. Wrenches in set cover 95% of domestic and import automobile and light truck oil filters. Storage/carrying case keeps wrenches together for quick access and contains any oil residue, keeping it out of your tool storage unit. Includes laminated application chart. FWK7A set includes FW656714A, FW757715A, FW7614A, FW7630A, FW8015, FW9315A and FWA62121A oil filter wrenches.



S9615A

Pan Plug Wrench

S9615A 12-Point Fractional/Metric Box Wrench. 9/16" and 15mm 12-point box ends fit most popular GM drain plugs. 10° offset at each end for maximum clearance. Both box ends feature Flank Drive® wrenching system. 9 23/32" long.



CRUSH1A

Oil Filter Crushers–Blue-Point

CRUSH1A Oil Filter Crusher. Removes approximately 95% of excess oil from spent filters. Features self-lubricating seal. 10,000 lbs. of crushing force with simple hook-up to 60 to 120 psi air line. 10 to 15 second time cycle. Pivoting door prevents oil from dripping into work area when loading or unloading filters. Won't operate when door is open. Crushing chamber is 8 1/2" H x 6" square. Height is 23". Weight is 70 lb.

CRUSH1EX100 Air Filter.

Grease and Oil

Drains

YA743 Waste Oil Drain. Fits standard 16 gal. drum. Includes: float gauge in drum cover, telescopic drain bowl adjustable from 42 3/4" to 70" and roll around base. (drum not included).

YA749 Drain. 24 1/2" diameter. Fits 6" or larger drain bowls. Prevents spillage when removing transmission pans.



YA749



YA743



FUNN1



FUNN2



FUNN15

Stock No.	Size	Neck Style	Screw Caps	Color
FUNN1*	1 pint	small	•	Orange
FUNN2*	1.25 qt.	large	•	Blue
FUNN15*	1.5 qt.	large	•	Red

*Blue-Point

Funnels/Spouts/Pans

GA96B Transmission Filler–Blue-Point. 8 1/2" oval funnel with filter screen. 30" long.

OFTOY38 Toyota/Lexus/Scion Oil Filler. Fits all Toyota, Lexus and Scion models (except Toyota Prius) with threaded oil filler cap. Prevents unwanted mess by sealing onto filler neck.

Drum Plug

A172A Drum Plug Socket. One socket removes virtually all screw-in drum plugs or caps. Spring loaded inner wrench handles smaller plugs and recesses automatically when removing large plugs. Use with a 1/2" drive ratchet or impact wrench.



A172A

Oilers–Blue-Point

OC5A Oiler. 5 1/2" small pressure oiler has a long, tapered spout with a screw-on tip. 1 7/8" OD. Includes base holder. 5 oz. capacity.

OCF5 Oiler. Similar to OC5A Oiler except it has a flexible spout.



OC5A

OCF5

OFHON33 Threaded Oil Filler. Threaded oil filler for use on:

- Honda (Accord, Civic, Element, Fit, S2000)
- Acura (All models except MDX and RDX)
- Nissan (most models)
- Dodge Cummins Turbo Diesels from 2001 to 2008
- Ford Turbo Diesel trucks (9.0L, 6.4L, 6.9L and 7.3L)
- Prevents unwanted mess by sealing onto filler neck

OFGMFORD Threaded Oil Filler. Applications: Chevy: Cobalt, Silverado, Tahoe, Trailblazer and Vans; GMC: Sierra, Envoy; Pontiac: Grand Prix, G6; Saturn: SL1; Cadillac: CTS; Ford: Explorer, F150, Mustang; Mercury: Mountaineer. Prevents unwanted mess by sealing onto filler neck.



GA96B



OFTOY38



OFHON33



OFGMFORD



WARNING



• Read safety precautions on pages 594 to 597

LUBRICATION

Grease and Oil



Grease Guns

	Stock No.	YA734A*	YA728A*	YA4190A*	GA471*	GA472*	GA473A*
Manual	Specification	Pistol Grip	Lever	Mini	Pistol Grip	Pistol Grip	Pistol Grip
	PSI	6,000	6,000	—	4,500	5,000	10,000
	Loading	Bulk or Cartridge	Bulk or Cartridge	Cartridge	Bulk, Cartridge, or Filler Pump	Bulk, Cartridge, or Filler Pump	Bulk, Cartridge, or Filler Pump
	Capacity	16 oz. Bulk and 14 1/2 oz. Cartridge	16 oz. Bulk and 14 1/2 oz. Cartridge	3 oz.	3 oz.	14 oz.	14 oz.
	Flexible Hose	18"	18"	—	—	—	—
	Rigid Extension	6"	6"	—	5-1/2"	3 1/2"	5 3/8"
	Nozzle	—	—	—	8 1/4"	13 1/4"	19 1/4"

	Stock No.	YA775	YA771B*	YA772B*
Air Powered	PSI	6,000	6,000	4,000
	Air Operating PSI	100	35 - 80	60 - 150
	Pump Ratio	60:1	40:1	40:1
	Loading	Bulk, Filler Pump, or Cartridge	Bulk, Filler Pump, or Cartridge	Bulk, Filler Pump, or Cartridge
	Capacity	14 oz. Cartridge	14 oz. Cartridge	14 oz. Cartridge
	Flexible Hose	—	18"	18"
	Rigid Extension	7 1/2"	6"	6"
Nozzle	—	—	—	

*Blue-Point



YA7500



YA747



YA801

Dispensing Accessories—Blue-Point®

YA7500 Grease-Dispensing Accessory Pack. Includes YA760 through YA757 (except YA750) (10 pcs) in a storage tray.

YA760 Universal Swivel. High pressure swivel. 1/2"-27 male x 1/4" NPT(m) threads. 5,000 psi maximum working pressure.

YA761 Needle Nozzle Coupler. This is the YA750 with a locking sleeve adaptor for quick attachment to a hydraulic coupler.

YA751 Flex Whip Hose. For powered and hand operated grease guns. 1/8" NPT(m) both ends. 4,500 maximum psi. 12" long.

YA752 Flex Whip Hose. 18" long version of YA751.

YA758 Flex Whip Hose. For hand operated grease guns only. 1/8" NPT(m) both ends. 18" long.

YA753 Heavy Duty Coupler. 1/8" NPT(f) thread. Fits all hydraulic type grease fittings.

YA754 Coupler. 1/8" NPT(f) thread. Fits all hydraulic type grease fittings.

YA756 Extension Coupler. Lubricates recessed fittings. Locking sleeve adaptor allows quick attachment to hydraulic coupler of any control valve or lever gun. 6" long.

YA747 Grease Control Valve. 1/4" NPT(f) inlet, 7,500 psi maximum working pressure. Includes 6" extension tube and YA753 coupler.

YA801 Needle Type Adaptor. For universal joint fittings, water pumps and metal covered springs. 4 7/8" long.

YA754 Swivel Coupler. 1/8" NPT(f) thread. Swivels 360°, locks in position every 45°.

YA757 Angle Lube Adaptor. 90° head allows fast and complete lubrication of steering and suspension systems on late model front wheel drive vehicles. 4 1/2" long.

YA799 Right Angle Grease Gun Adaptor. Use on Chrysler, Dodge and Plymouth FWD ball joints and other restricted access locations. Attach to any standard grease gun. Metal construction with industrial black finish. Measures 1 1/2" x 1" x 3/4".

YA750 Needle Nozzle. 1/8" NPT(f) thread. 2 3/4" long.

GA472-2 Grease Fitting Coupler. Push-on design with neoprene nipple and ball. Features spring check valve.

GA472-9 Flexible Polybraid Hose. Oil, grease and solvent-resistant with brass end fittings.



UFREE1

Grease Fitting Cleaner

UFREE1 Grease Fitting Cleaning Tool.

- Quickly and easily frees up joints and fittings for proper greasing and lubrication
- Inject light viscosity oil into the grease joint via the grease fitting to break up and remove dirt, rust and debris
- Pump in new grease after freeing the joint
- Includes injection cleaning tool, 4 3/4" (120.7mm) long flexible hose to access tight places and storage case



YA746



YA745A

Oil Spray and Suction Guns

YA746 Oil Spray Gun. Siphon type. Use for spraying lubricating oils, cutting oils and cooling oils. Includes 6' vinyl suction hose with strainer.

YA745A Oil Spray Gun-Blue-Point®. 16 oz. capacity. Fast, clean method for removing or adding transmission and gear oil. Special follower is impervious to oil, grease and water. Flexible



A180A



YA470B



YA742

Bearing Packers

A180A Manual Bearing Packer. Simultaneously pressure packs inner and outer wheel bearings 3/4" minimum ID and 4" maximum OD. Use with pressurized lube equipment or hand grease gun. Includes dust cover.

YA470B Manual Bearing Packer-Blue-Point. Packs 50 to 65 bearings with 1 grease filling. Apply manual pressure to flush and pack bearing with grease. Includes dust cover. 4 1/2" high.

YA742 Manual Bearing Packer. Unit features large packer head. Handles bearings to 9 1/2" OD and minimum 9/16" ID. Includes adaptor to service smaller bearings of 1" to 1 3/4" OD.



PBT5X29



PBT2120

Transmission Tables

PBT5X29 Transmission Table. 5' long.

PBT2120 Drawer. Optional drawer. 20" x 20" x 5".



YA739



YA737



YA738

Grease and Gear Oil Pumps/Manual

YA739 Manual Gear Oil Pump. Fits any 25 to 50 lb. original refinery container. Delivers 1 oz. per stroke using SAE 90 gear oil at 70°F. Includes 5' of 1/2" low pressure hose with dispensing nozzle.

YA737 Manual Operating Grease Pump. Clamps securely to any 25 to 50 lb. original refinery container. Handles any ball or roller bearing with 5/8" to 1 1/2" ID and 3 1/4" maximum OD. Primes and pumps even when using heavy grease at low temperatures. Follower plate prevents funneling of grease. Hose and grease gun not included.

YA738 Manual Gear Oil Pump. Fits any 120 lb. original refinery container. Powerful 50:1 ratio pump with 20 cu. in. displacement. Includes roll around base, straight swivel, 7' of 1/4" high pressure hose, quick connect air coupler, follower plate, YA747 grease control valve, and YA760 universal swivel.



YA736



YA759

Grease Pumps/Air

YA736 Air Powered Grease Pump. Fits any 20 to 50 lb. original refinery container. Powerful 50:1 ratio pump utilizes 20 cu. in. displacement. Includes: 6' of 1/4" high pressure hose, quick connect air coupler, follower plate, YA747 grease control valve, and YA760 universal swivel.

YA759 Air Powered Grease Pump. 50:1 ratio pump. Uses 120 lb. container size and handles all grades of lubricant. Features internal muffler for quiet operation and a pre-lubricated air motor requiring no external oiler. Exclusive micro-lapped hardened steel air valve and seat to assure a long and productive service life—no packings to wear out. Shovel type foot valve adds mechanical priming to normal suction. Casters offer unit mobility. Does not include barrel.



YA762

Dollies

YA762 Band Dolly. Provides mobility for 25 to 50 lb. original refinery containers. Includes jam swivel casters and screw clamp for secure adjustment.



WARNING



• Read safety precautions on pages 594 to 597

ENGINE SERVICE

Service Tools



YA9680



YA9730



YA9730-5



ML5000



ML6000



CC100



CC100PK



ML6000COMBO



AS4660



AS4653

Timing

YA9680 Camshaft Pulley Tool–Blue-Point®. Designed to hold the camshaft pulley in place while turning the center shaft bolt. Extremely useful on transverse-mounted V6 engines such as Nissan Maxima/VG30 engine and Toyota Camry/3VXFE and 1MZFE engine. The rear pulleys on these vehicles are located in close proximity to the shock tower making it difficult to remove/replace the center shaft bolt without this tool.

YA9730 Timing Belt Tensioner Compressor–Blue-Point. For 1995 and later T-100, Tacoma and 4Runner. Turn square to compress tensioner, then install locking pin (YA9730-5 included with YA9730).

ML5000 DOHC Lock Tool–Blue-Point. Locks cam shaft sprockets in place to preserve engine timing during belt or chain replacement. Knurled pins on unit lock on to the groove on the inside of the cam wheel. Unit base is constructed from anodized aluminum. Pins are steel. Works with most import and domestic cars and light trucks.

ML6000 Cam Lock Tool/Timing Gear Clamp–Blue-Point. Prevent engine damage resulting from incorrect timing. Maintain valve timing during belt replacement on twin and quad cam engines. Compact design allows access in transverse engines. Fits timing gear diameters from approximately 4" (101mm) to 6" (152mm). Fits gear spacing from approximately 0.06" (1.6mm) to 3" (76mm).

CC100 Single Cam Clamp–Blue-Point. Single cam clamp can be used on engines where the dual clamp ML6000 will not fit. Compact design permits easy operation in confined engine areas. Prevent engine damage resulting from incorrect timing. Maintain valve timing during belt replacement on twin and quad cam engines. Simple and easy to use. Manufactured from high strength industrial polymers which will not corrode or damage engine pulleys.

CC100PK Single Cam Clamp Set–Blue-Point. Set of (4) CC100 single cam clamps in storage tray.

ML6000COMBO Cam Clamp Set–Blue-Point. Includes (4) CC100 single cam clamps and (1) ML6000 dual cam clamp in storage tray.

AS4660 Master Engine Timing Setting/Locking Kit. Combines all components and applications of the AS4653 GM/Daewoo kit, AS4654 Ford/Mercury/Mazda Kit and AS4645 Chrysler/Asian kit plus a tensioner retaining pin set.

AS4653 Engine Timing Setting/Locking Kit. A comprehensive selection of special service tools for maintaining engine timing position during timing belt replacement and valve train service work. Applications:
 Chevrolet: Lumina, Monte Carlo, 3.4 V6
 Oldsmobile: Cutlas Supreme 3.4 V6
 Pontiac: Grand AM, Le Mans, Sunbird 2.0, Grand Prix 3.4 V6
 Daewoo: Lanos, Nubria 1.6



AS4654



AS4645



AS4145



AS4394

Timing

AS4654 Engine Timing Setting/Locking Kit.

Comprehensive selection of special service tools for maintaining engine timing position during timing belt replacement and valve train service work. Applications:

Ford: Contour, Escort Z2X, Escape, Focus, Probe 2.0, Ranger 2.5, Taurus 3.2 V6

Mercury: Mystique 2.0, Cougar 2.0

Mazda: B2300, B2500

AS4145 Engine Timing Setting/Locking Kit (GM). Avoid unnecessary retiming. Covers both the locking of the quad cams and the crankshaft. Includes the special timing gauge essential for this application. Applications: V6 Cadillac Catera, Saab 900, 9000 and 9.5 plus Saturn L300.

AS4394 Camshaft Sprocket Holding Tool. Use as a counter holder when loosening or tightening sprocket retainer bolts. Used on all models with sprocket holes larger than 1/2" (12mm).

AS4645 Engine Timing Setting/Locking Kit.

Comprehensive selection of special service tools for maintaining engine timing position during timing belt replacement and valve train service work. Applications:

Chrysler: Cirrus, Sebring convertible 2.5 V6, Daytona Shelby, Dynasty E Class, Laser, LeBaron

Dodge: Avenger 2.5 V6, Colt Wagon 2.4, Stealth 4WD 3.0 V6, Stratus 2.5 V6, Colt 1.6, Aries, Caravan, Dakota, Daytona/Shelby, Dynasty Lancer, Mini Ram Van, Omni, Shadow, Spirit 2.2/2.5

Plymouth: Colt Vista 2.4, Colt 1.6/200, Laser 2.0, Reliant, Acclaim, Caravelle, Duster, Horizon, Scamp, Sundance, TC3, Turismo, Voyager

Acura: 2.2CL, 2.3CL, 3.0CL, 3.2TL

Honda: Accord 2.2, 2.3, 3.0 V6; Prelude 2.2, 2.2VTEC, 2.3;

Odyssey .2, 2.3, 3.5 V6

Hyundai: Elantra 1.6 - 1.8, Sonata 2.0

Isuzu: Oasis 2.2 - 2.3, Amigo 2.2, Rodeo 2.2

Mitsubishi: Diamante 3.0 V6, 3.5 V6; 3000GT 3.0 V6; Eclipse/Spyder 2.0, 2.4, 3.0; Galant 2.0, 2.4, 3.0; Expo 2.4;

Montero Sport 2.4, 3.0, 3.5 V6.



MT37A



A121A



A119B



A120



S6152



YA6555

Oil Pressure/Oil Pump

MT37A Oil Pressure Gauge Set. Use on diesel and gasoline engines. Includes standard and metric adaptors for most popular domestic and import cars, trucks, tractors and stationary engines. Features bright, easy to read gauge with green protective boot. Includes:

- 0-100 psi (0-700 kPa) Gauge Assembly
- Hose Assembly
- Adaptor (1/8-27 to 1/4-18)
- Adaptor (1/8-27 to 1/8-28 BSPT)
- Adaptor (1/8-27 to M10-1.0)
- Adaptor (1/8-27 to M12-1.5)
- Street elbow
- Coupling
- Adaptor (1/8-27 to 3/8-18)
- Adaptor (1/8-27 to M10-1.0)
- Adaptor (1/8-27 to M14-1.5)
- 2" Large nipple
- Storage case

A121A Oil Pressure Sender Switch Socket. For 1987 and later Ford, GM and Chrysler products. 1 3/16", 12-point wrench size, 3/8" drive. 3 11/16" long.

A119B Oil Pressure Sender Switch Socket. For 1986 and earlier Ford, GM and Chrysler products. 1 1/16" special wrench configuration, 3/8" drive. 2 1/16" long.

A120 Oil Pressure Sender Switch Socket. For 1987 and later Ford, GM, and Chrysler. Can also be used on 1999 Mitsubishi Eclipse with the 2L DOC non-turbo 420A engine. Same design as A119B but longer. 1 1/16" special wrench configuration, 3/8" drive. 3 11/16" long.

S6152 Oil Pressure Sender Switch Crowfoot Wrench. Same applications as A119B but designed for switches with difficult access. 1 1/16" wrench opening, 3/8" drive.

YA6555 GM Oil Pump Removal Tool-Blue-Point. Designed to work on most GM V6 engines. No need to remove the intake manifold. Makes removal of the oil pump drive fast and easy. Applications: GM 2.8L V6 (1987 to 1989), 3.1L V6 (1990 to 1994), 3100 V6 (1994 to 2005) and 3.4L V6 (1999 and later).



WARNING



• Read safety precautions on pages 594 to 597

ENGINE SERVICE

Service Tools



Cylinder Head-Blue-Point®

GDCT16 Combustion Leak Tester. Provides an easy and quick way to diagnose engine overheating problems. Checks for leaks between the combustion chamber and the cooling system. Test head and gasket for combustion leaks before removing the radiator. Double chamber in testing unit provides a high level of accuracy. For use on water cooled gas and diesel engines. Kit includes complete test chamber, 16 oz. bottle of testing fluid and instructions.

GDCT161 Leak Detector Fluid. 16 oz. bottle of leak testing fluid for the GDCT16 combustion leak tester.

S6018E Hex Head Driver. 10mm hex bit for cylinder head bolts. 1/2" drive. 6" long. Bit length is 4 1/2".

S6132A Metric Valve Cover Bolt Socket. For GM and 1976 and later Honda; other imports and domestics. 10mm, 12-point wrench size. Allows access to head bolts, valve and rocker covers, and oil pan bolts. Deep clearance for bolts with extended tip as used on spark plug wire harness. 3/8" drive; 1 1/16" OD. 4 1/8" long.

S6160 Extra Long Impact Head Bolt Socket. Use on 1986 and later Nissan engines with 12mm head bolts. 8" length reaches past cam and rocker assembly to service head bolts. Thin profile socket and shank will reach through the access hole and past overhead camshaft. Additional high torque applications: removal and installation of universal joint flange bolts on Ford/Mercury cars such as Mustang, Crown Victoria and Lincoln plus Ford Explorer, Ranger and F150/F250 trucks. 8" long. 12-point, industrial finish. 1/2" square drive.

S6194 Head Bolt Socket. Use on Toyota and Nissan cars and pickups plus Honda cars with 12mm head bolts. 4" length reaches past cam and rocker assembly to service head bolts. Thin profile socket and shank will reach through the access hole and past overhead camshaft. Additional high torque applications: removal and installation of universal joint flange bolts on Ford Explorer, Ranger and F150/F250 trucks. 4" long. 12-point, industrial finish. 1/2" square drive.

S6193 Head Bolt Socket. Use on all 1981 and later Toyota and Nissan cars and pickups and 1976 and later Honda and other import and domestic cars with 10mm head bolts. Additional uses include Ford drive shaft universal joint attaching bolts. 4 1/2" length reaches past cam and rocker assembly to service head bolts. Thin profile socket and shank will reach through the access hole and past overhead camshaft. 12-point, industrial finish.

S6195 Head Bolt Socket. Same as S6193 except for 14mm head bolts.

YA6611 Head Handler. Convenient and balanced T-handle design helps move cylinder heads faster and easier. No need to "bear hug" the cylinder head during movement. Attached floating washer for increased surface contact. Comfortable, secure gripping surfaces for hands. M6 x 1.0 threads. Package of 2.

YA6612 Head Handler. Same as YA6611 except has 1/4" x 20 threads. Package of 2.

YA6613 Head Handler. Same as YA6611 except has M8 x 1.25 threads. Package of 2.

YA6610 Head Handler Set. Includes (2) YA6611 head handlers (M6 x 1.0 threads), (2) YA6612 head handlers (1/4" x 20 threads) and (2) YA6613 head handlers (M8 x 1.25 threads) in convenient clamshell package.

FRT10 Spark Plug Insert Installer Set. Use to repair damaged heads from blown spark plugs with an alloy steel insert in as little as 15 to 45 minutes. Services modular cylinder heads on Ford 4.6L, 5.4L and 6.8L engines. Quality, foolproof repair system is fast, cost effective and simple to use. Includes tap (FRT10-1), core drill (FRT10-2), guide (FRT10-3), storage case (FRT10-CASE), instructional DVD (FRT10-DVD) and spark plug insert (FRT10-INS).



PMP410A



PMM410A



S5902

Drain Plugs

PMP410A Internal Metric Pipe Plug Socket. 10mm female square. For removing or replacing standard transmission drain plug. 3/8" drive. 3/4" OD. 1" long. Female pipe plug socket (for Renault LeCar).

PMM410A External Pipe Plug Socket. 10mm male square. For removing or replacing oil pan plug. 3/8" drive. 1 1/16" OD. 1" long.

S5902 Oil/Transmission Plug Wrench. Box ends are 17mm, 6-point and 21mm, 12-point. Designed for VW transmission drain plugs. 10 1/4" long.

Service Tools



ECK9

Engine Calibration and Setup Kit-Blue-Point®

ECK9 Engine Calibration and Setup Kit. Includes: YA871/YA870 Whistle Alert™ tools, YA866/YAL866 TDC indicators, YA868 compression gauge extension, YA865 engine lock and YA8661/YA8662 spark plug hole thread adaptors.

YA871 Whistle Alert (Flexible). Insert Whistle Alert into any 14mm spark plug hole, turn the engine over and listen for the whistle to locate top dead center for the compression stroke.

YA870 Whistle Alert (Rigid). Same as YA871 except it can also be used with YA866 compression gauge extension.

YA866 Top Dead Center Indicator. 14mm thread TDC indicator accurately positions any piston at top dead center. Remove the spark plug, screw in tool and rotate engine while observing graduation marks on the sliding shaft. Features include 1/8" graduation marks and stainless steel spring. Overall length of 6.25" (158.8mm).



YA866



YAL866



YA8661



YA8662

YAL866 Top Dead Center Indicator (Long). 14mm thread TDC indicator accurately positions any piston at top dead center. Easily locate TDC on Hemi style engines. Simply remove the spark plug, screw in the tool and rotate the engine while observing the graduation marks on the sliding shaft. Features include 1/8" graduation marks and stainless steel spring. Overall length of 10.5" (266.7mm).

YA8661 Spark Plug Hole Adaptor. Adapts the 14mm thread on YA866/YAL866 TDC Indicators, YA868 compression gauge extension and YA865 engine lock to accommodate 18mm spark plug threads.

YA8662 Spark Plug Hole Adaptor. Adapts the 14mm thread on YA866/YAL866 TDC Indicators and YA868 compression gauge extension to accommodate 12mm spark plug threads.



S6192A



CJ113B



CJ117C



CJ147A

Power Steering/Alternator/Water Pump

S6192A Water Pump Socket. 1/2" square drive socket features dovetail design to deliver positive engagement when applying high torque. Applications: 1992 to 1998 Cadillac Northstar 4.6L V8 and 1997 to 1998 Oldsmobile Aurora 4.0L. Black industrial finish.

S6192A-1 Water Pump Socket Stabilizing Strap. Bolts on water pump to secure S6192A water pump socket in place during water pump removal and replacement. Includes (2) M6 x 12 bolts for securing strap to water pump. Applications: 1992 to 1998 Cadillac Northstar 4.6L V8 and 1997 to 1998 Oldsmobile Aurora 4.0L. Black industrial finish.

CJ113B Power Steering/Alternator Pulley Installer. Designed for domestic cars. 1" pulley driver hex, 7/16" pressure screw hex, and 3/8"-16 thread. 4 5/8" long.

CJ113C4 Pulley Installer Shaft (Optional). Thread size of 5/8"-18UNF (puller end), 3/8"-16UNC (alternator end).

CJ117C Power Steering and Alternator Pulley Puller. Includes short adaptor to remove small flange type pulley; use long adaptor on GM200/Platform vehicles. Can also remove Chrysler alternator pulleys with double grooves. Replace pulleys with CJ113B installer. Long adaptor included to handle pulleys on GM mini vans. Nickel-chrome finish, industrial finish screw. Designed for most domestic cars (replace pulley with CJ122 sets).

CJ122 Power Steering Pulley Installer Set. Includes CJ113B installer and CJ113C4 pulley installer shaft. 3/8"-18 UNF-2A.

CJ124A Power Steering/Alternator Pulley Puller. Larger version of CJ117C. Designed for Chrysler, Ford and earlier GM vehicles.

CJ147A Power Steering Gear Lower Pinion Bearing Puller. Required tool to comply with GM Recall Bulletins #02049 and #03062 regarding power steering gear lower pinion bearing separation. To correct the problem, inspect the condition of the lower pinion bearing and replace the lower pinion bearing. In a few cases, replacement of the rack and pinion steering gear assembly may be necessary. Instructions included.

Applications:
Buick

- Regal 1996-1998
- Chevrolet Cavalier 1996-1998
- Lumina 1997-1998
- Lumina APV 1996
- Malibu 1997-1998
- Monte Carlo 1997-1998
- Venture 1997-1998

Oldsmobile

- Cutlass 1997-1998
- Cutlass Supreme 1996-1998
- Silhouette 1996-1998
- Intrigue 1998
- Pontiac Grand Prix 1996-1998
- Sunfire 1996-1998
- Trans Sport 1996-1998



WARNING



- Do not use chrome or industrial finish hand tool with impact drivers
- Read safety precautions on pages 594 to 597

ENGINE SERVICE

Service Tools



YA9025



SRD6



SBT26



YA9417



YA9350B



YA9340



SBIT1

Belt Tensioning Tools

YA9025 Belt Tensioning Tool. For 1988 and later Tempo and Topaz with 2.3L engines and 1986 to current Taurus and Sable with 2.5L engines. Reaches down and around alternator to reach spring loaded serpentine belt tensioner.

SRD6 Belt Tensioner Release Tool. 6" long adaptor with 1/2" male square. The female triple square drive allows the user more flexibility to work around obstacles by coming in at different angles with a 1/2" breaker bar. Similar to Snap-on® 6" torque adaptors but with a male square. If using with a torque wrench, please refer to Snap-on part # SS307G Torque Chart for formula to obtain the correct applied torque.

Heavy Duty Applications:

Serpentine belt tensioners with a 1/2" square drive opening found on Series 60 Detroit Diesel and Caterpillar engines or buses and delivery vans where the doghouse or engine shrouding make accessibility difficult.

Automotive Applications:

1/2" serpentine belt tensioners on Dodge/Chrysler (2.0L and 3.0L engines), Ford, Lincoln and Mercury (2.3L, 3.0L, 4.2L, 4.6L engines) plus GM (2.5L, 4.7L, 5.0L, 5.7L engines).

Belt Tensioning Tools—Blue-Point®

SBT26 Serpentine Belt Tool. Works on all serpentine belts. Clamping jaw allows user to position serpentine belt without the belt slipping out of the tool. Positive grip allows belt routing in tight access areas. Ergonomic handle provides comfort and ease in use. Lightweight steel body for durability and strength.

YA9417 Belt Tensioning Tool. General use belt tool for installation and removal of V-belts and timing belts. 2-pin design and long length allow user to push and pull belts as needed for access in restricted areas.

YA9350B Ratcheting Belt Tensioning Wrench Set.

Allows direct access to belt tensioners without removing engine accessories or frame components. Covers almost 90% of all vehicles equipped with spring loaded serpentine belt tensioners. Includes YA9350B1 wrench (15mm) and YA9350-2 through YA9350-9 adaptors. All adaptors feature a 15mm external hex drive for use with the YA9350B1 wrench. Applications: Chrysler (Dodge and Plymouth), Ford (Lincoln and Mercury), GM, Isuzu, Jeep, Lexus, Mazda, Mitsubishi, Saturn, Toyota and VW. Please visit www.snapon.com for a complete listing of applications.

YA9350B1 Belt Tensioning Wrench. 15mm single hex.

YA9350-2 Adaptor. 14mm single hex. 15mm external hex drive.

YA9350-3 Adaptor. 18mm single hex. 15mm external hex drive.

YA9350-4 Adaptor. 3/8" square drive. 15mm external hex drive.

YA9350-5 Adaptor. 1/2" square drive. 15mm external hex drive.

YA9350-6 Adaptor. 13mm single hex. 15mm external hex drive.

YA9350-7 Adaptor. 16mm single hex. 15mm external hex drive.

YA9350-8 Adaptor. 15mm single hex.

YA9350-9 Adaptor. 19mm single hex.

YA9340 Serpentine Belt Wrench. Use to release any serpentine belt tensioner with 1/2" square drive opening. Ratcheting action allows for better positioning of the tool, offering more swing angle than a solid type serpentine belt wrench. Reversible ratchet head is only 1" thick and will fit between the tensioner face and the fan blades on a Series 60 Detroit Diesel and some Caterpillar engines. Great for working on buses and delivery vans where the doghouse or engine shrouding make the work area very tight. Compact length keeps handle from coming in contact with radiator hoses, charged air cooler pipes, hydraulic lines or frame rails. Vinyl grip for comfort. 13" overall length.

SBIT1 Stretch Belt Tool. Aids stretch belt installation on vehicles that do not have a tensioner pulley. Applications:

- 2007 – 2009 Ford/Lincoln (Edge, MKZ/MKX) 3.5L used on water pump
- 2009 Chevrolet/GMC/Cadillac (Express, Silverado, Tahoe, Suburban, Colorado, Avalanche, Sierra, Savana, Yukon, Canyon, Escalade) 4.8, 5.3, 6.0, 6.2L used on AC compressor
- 2008 – 2009 Hummer (H3, H3T, H2) 5.3 and 6.2L used on AC compressor

GA424A Belt Tension Gauge—Blue-Point.

- Range is 30 to 180 lb. (130 to 800 N•m)
- Squeeze handle, place gauge on drive belt, release handle and read



GA424A



YA7200



PRT16



YA8640



YA6760



YA9870



YA4590A



YA65500



YA6551

Specialty Tools

YA7200 Ford Ignition Module Wrench. For 1982 and later Ford ignition modules. Ratcheting ends are offset 25 degrees. One end has 7/32", 6-point; other end a T20 Torx® Bit.

Specialty Tools—Blue-Point®

PRT16 Push Rod Remover. Use on GM V6 2.8L, 3.1L and 3.4L engines. Quickly removes push rods so intake gaskets can easily be replaced. No need to loosen and retighten the rocker arm. Tool pivots the rocker arm to compress the valve spring and free the push rod.

YA7200 Ford Ignition Module Wrench. For 1982 and later Ford ignition modules. Ratcheting ends are offset 25 degrees. One end has 7/32", 6-point; other end a T20 Torx® Bit.

YA8640 Cam Belt Wrench. For VW and Audi. For adjusting camshaft spur belts that have idler pulleys with pin holes. Vinyl handle grip.

YA6760 Timing Belt Pulley Holder (VW/Audi). Holds crank pulley stationary for crank bolt removal and installation to the factory torque requirement. 3 bolt design for secure holding. 1/2" drive for use with a breaker bar. Heat treated for strength. High quality black finish. Applications:

1.8L 4 cylinder turbo: VW and Audi 1998-2006

2.0L 4 cylinder: VW 1993-2005

2.0L 4 cylinder turbo: VW and Audi 2006 and later

YA9870 Tension Pulley Spanner Wrench. Easily adjust camshaft spur belts having idler pulleys with pin holes on Mitsubishi, Plymouth, and Eagle vehicles. The protruding pins on the wrench grip the center of the idler pulley and rotate it around its off-center retaining bolt. This rotation allows for the camshaft spur belt tension adjustment. Designed for use on: 1990-93 Mitsubishi Eclipse, Eagle Talon and Plymouth Laser 2.0L DOHC (non turbo), 1990-93 Plymouth Laser 2.0L DOHC (turbo), 1990 and later Mitsubishi Eclipse and Eagle Talon 2.0L DOHC (turbo), 1994-96 Mitsubishi Montero 3.5L DOHC, 1994 and later Mitsubishi Montero 3.5L SOHC, 1994 and later Mitsubishi Galant 2.4L SOHC and 1994 and later Mitsubishi Mirage 1.8L SOHC.

YA4590A Hood Prop. Three piece telescoping shaft locks in any position. Range is 20" to 48 1/2". Will work on front or sides of any car or truck. Made of steel tubing and features locking levers on each section. Includes holding support to prevent slippage.

YA65500 Cam Seal Remover. Special tool speeds camshaft seal removal on most Toyota and Lexus V6 engines. Unique press and pull cup design eliminates the difficult pick method. Use on Toyota 3.0L and 3.3L V6 (1996 and later) and Lexus 3.0L and 3.3L V6 (1990 and later). Kit includes cup, press rod, washer, nut and large stud. Manufactured from heat treated alloy steel.

YA6551 Cam Seal Remover/Installer. Kit provides accurate and fast camshaft seal removal and installation on Toyota (1996 and later) and Lexus (1990 and later) 3.0L and 3.3L V6 engines. Eliminates possibility of camshaft damage. Heat treated alloy steel and high quality hardware. Includes removal cup, press rod, washer, nut and large stud.



WARNING



• Read safety precautions on pages 594 to 597

ENGINE SERVICE

Service Tools



YA188G



YA6010



CJ146



HIW3



YA6490

Harmonic Balancer

YA188G Harmonic Balancer Installer-Blue-Point®. Includes 7 adaptors for use on a wide range of engines. Adaptor sizes: 7/16"-20, 1/2"-20, 9/16"-18, 3/4"-16, M12 x 1.5, M14 x 1.5 and M16 x 2.0.

YA188-13C Metric Adaptor. Optional M10 x 1.5 for YA188G.

YA6010 Harmonic Dampener Pulley Holding Tool-Blue-Point. Saves time during removal and installation of the crank bolt on most Honda and Acura engines. When used with a 1/2" drive breaker bar or ratchet, prevents the pulley from rotating when removing/installing the pulley bolt. Can be used on most Honda (Accord, Civic, CRV, Del Sol, Insight, Odyssey, Prelude and S2000) and Acura (CL, Integra, Legend, NSX, RL and TL) engines. Verify exact model year/engine size coverage with tool instructions.

CJ146 GM Crankshaft Harmonic Balancer Kit. Remove the crankshaft harmonic balancer on 1990 and later 3.3L and 3.8L GM engines. Shoulder bolt adaptors provide correct installation depth, preventing damage to the crank sensor and interrupter rings. Includes (3) CJ146-1 adaptors and (1) CJ146-2 extension plus vinyl storage pouch. Requires Snap-on® CJ98-1 yoke and CJ83-3 pressure screw for use, (not included).

YA6470 Harmonic Dampener Pulley Holding Tool. Harmonic dampener pulley holding tool for GM trucks and SUVs. Applications: 1999 and later GEN III 4.6L, 5.3L and 6.0L V8 engines. Easily removes and installs the bolt holding the pulley. Industrial black finish helps protect against corrosion.

HIW3 Hand Impact Wrench-Blue-Point. Remove/replace harmonic balancer pulleys without removing the radiator. Access restricted areas where an air impact wrench won't fit or when air supply is unavailable. Use with any 1/2" impact socket. Molded rubber hand guard. Max torque: 600 ft. lbs. Overall length: 22.06"

YA6490 Harmonic Damper Pulley Puller-Blue-Point.

Use on many Chrysler, Mitsubishi and GM engines. In most applications this compact tool eliminates the need to remove the radiator prior to removing the pulley. Includes 4 push rods for use on crankshafts that are not drilled full depth.

Applications:

- GM
- 2.8L Straight 4 cylinder: Chevy Colorado, GMC Canyon (2005 and later)
- 3.5L Straight 5 cylinder: Chevy Colorado, GMC Canyon (2004 and later), Hummer H3 (2006 and later)
- 4.2L Straight 6 cylinder: Chevy Trailblazer, GMC Envoy, Olds Bravada (2003 and later), Buick Rainier (2004 and later)
- 5.7L V8 (Gen III): Camaro, Corvette, Firebird and Trans-Am (1997 and later)
- Gen III trucks and SUV's with 4.8L V8, 5.3L V8, 6.0L V8 and 8.1L V8 (2000 and later)
- Chrysler
- 2.0L 4 Cylinder, 2.4L 4 Cylinder and 2.5L V6 (1985 and later automobiles)
- 2.7L DOHC V6, 3.2L SOHC V6 and 3.5L SOHC V6 (1998 and later automobiles)
- 3.3L V6: (1990 and later vans)
- 3.3L and 3.5L V6 (1993-1997 automobiles)
- 3.8LV6 (1994 and later vans)
- 4.7L V8 (1998 and later)
- 8.0L V10 (1994 and later pick-ups)
- Cadillac
- 4.5L V8: (1988-1992)
- 4.6L V8: (1993 and later)
- 4.9L V8: (1991-1995)
- 6.0L V8: Escalade
- Mitsubishi
- 2.0L DOHC non-turbo: Eclipse (1995-1999)
- Oldsmobile
- 4.0L V8: (1995 and later)

YA6491 Harmonic Damper Pulley Puller Update Kit.

Updates earlier YA9740 pullers to the same applications as the new YA6490. Kit will also update other pulley pullers that are similar to the YA9740 Series.



S9842A

Thermal Vacuum Switch

S9842A Thermal Vacuum Switch Socket. For domestic vehicles through 1988. 7/8", 6-point wrench opening, 1/2" drive. 3 1/8" long.



S6158

S6158 Engine Barring Socket. For 4L through 6.6L Chevrolet small block V8s. Designed to turn the engine over when it is on engine stand. 1/2" drive.



YA5500

Turning/Moving

YA5500 Flywheel Wrench. For domestic and import vehicles. Useful on cars where access is too limited for using spanner type wrenches. Slip over the rim of the flywheel and turn in the desired direction. 8 13/16" long. Vinyl covered handle.



YA8830

YA8830 Cylinder Head Stand. Holds cylinder head up and away from the workbench, allowing clearance for the manifolds. Steel bar clamps to a bench vise. Simply slide on the movable arms, which adjust to almost any steel or aluminum head configuration.



KRA16APV

KRA16APV Valve Rack. (16) 11/16" holes provide easy access to valves. Hang on roll cab or tool chest with 1/4" or more lip.



YA8895

Metric Jam Nut Type Adjustment Tools—Blue-Point®

Include an idle adjustment screwdriver within a socket and handle for holding adjustment screw in place while the jam nut is tightened. Handle pivots from one side to the other so the socket "window" is always visible.

YA8895 Valve Adjustment Tool.

For all cars with 10mm jam nut valve screws.

YA8880 Valve Adjustment Tool.

For all cars with 12mm jam nut valve screws.



S6132A

Cover Bolt Socket

S6132A Metric Valve Cover Bolt Socket. For GM and 1976 and later Honda; other imports and domestics. 10mm, 12-point wrench size. Allows access to head bolts, valve and rocker covers, and oil pan bolts. Deep clearance for bolts with extended tip as used on spark plug wire harness. 3/8" drive; 11/16" OD. 4 1/8" long.



YA8825

Valve Adjustment Tools—Blue-Point

Valve adjusting tools (for current VW). These 2 tools are designed to be used together on all late models requiring the VW #2078 tool, which includes all current 5 cylinder VWs and Audi 5000.

YA8825 Valve-Adjusting Tool. For Toyota and other overhead camshaft engines using spacer shims. Shim pliers push between the shim and camshaft, allowing the included YA8825-1 wedge tool to be placed between the valve lifter ledge and camshaft for easy shim replacement.

YA8825-1 Wedge Tool. Wedge tool to be placed between the valve lifter ledge and camshaft for easy shim replacement.



WARNING



• Read safety precautions on pages 594 to 597

VALVE

Lifters / Compressors



CF811B

Valve Lifters—Blue-Point®

CF811B C-Clamp Compressor. 1" to 2" capacity. For "L" head, valve-in-head, high compression engines and vehicles with overhead valves. Activating mechanism prevents cocking of valve spring as it is compressed.



CF19B

CF19B C-Clamp Compressor. This compact model includes CF19-3A jaws for 1/4" to 1 1/16" diameter springs on small, air cooled engines and CF19A5 jaws for both 17mm and 20.8mm diameter springs on Honda engines.



CF700B

CF700B Valve Spring Compressor. 7/8" to 2 1/2" capacity. Operates on 90 psi to 150 psi, but develops up to 3 times output pressure. Tool measures 1" x 8".

CF22E Replacement Jaw Set. Medium, offset jaws with 1" to 2" capacity. For CF811B and CF700B.

CF21B Optional Jaw Set. Small, straight jaws with 7/8" to 1 7/8" capacity. For CF811B and CF700B.

CF23A Optional Jaw Set. For CF811B and CF700B. Large, straight jaws with 1 1/2" to 2 1/2" capacity.



YA9140A

Valve Spring Compressors—Blue-Point

YA9140A Universal Valve Spring Compressor.

Removes/installs the valve spring without removal of the cylinder head from the engine. Domestic and import servicing of single and double overhead cam engines, including Audi, Chrysler, Infiniti, Honda, Hyundai, Lexus, Mazda, Mitsubishi, Nissan, Porsche, Saturn, Toyota, Volvo and VW.



YA3271

YA3271 Valve Spring Compressor. For most cars and trucks with overhead valves. Works with cylinder head on or off the engine. Removable hand wheel provides option to use 5/8" socket or wrench in confined quarters.



VST100

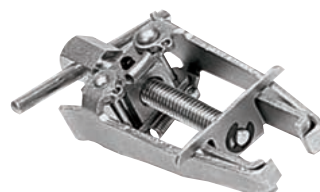
VST100 Cam Operated Valve Spring Compressor. Eliminates the need for cylinder removal and the need to readjust tool to each spring. Works on most overhead valve engines.



S6121

Valve Spring Depressors

S6121 Valve Spring Depressor. For current Pontiac L4 2.5L, V6 2.8L, and all current Chevrolet and Pontiac V8 engines. Also for 1980 AMC Spirit. Fastens under rocker arm stud and pivots on valve spring. Slot clears valve keeper for easy removal. 10" long.



CG90

CG90 Valve Spring Depressor. Self-leveling action compensates for any helix angle spring. Jaw length can be adjusted. Pulls with equal pressure on both jaws.



GA318A

GA317



GA285

YA6380

Valve Keeper Tools–Blue-Point®

GA318A Overhead Valve Tool.

- Removes and replaces valve keepers on all gas and diesel overhead valve engines, even VW Rabbit, motorcycle, marine and aircraft engines
- Magnetically retains keepers and won't bend valve stems. Use in place of c-clamp or other type of compressor
- Use only with a soft faced hammer

GA317 Metric Valve Keeper Remover/Installer.

- Quickly removes and installs valve keepers on most overhead cam engines with valve stems from 4.5 to 7.5mm
- Push or tap tool with hammer to remove valve keepers
- Magnet in tool body captures keepers for quick removal and valve disassembly
- To install keepers, load keepers then push or tap to install
- Used on vehicle or on workbench

Camshaft/Crankshaft Tools–Blue-Point

GA285 Camshaft Bearing Remover and Inserter Set.

- Removes and inserts bearings in all engines
- 5 driving plugs handle a range of 1.475" to 2.690"
- Fits slightly undersized or oversized bearings
- Sturdy storage box

YA6380 Camshaft Seal Installer Set.

- Quickly and easily install the crankshaft seal on most 4 cylinder and V6 engines that have 10mm and 12mm x 1.25 cam bolts



YA8230

GA264A



VL2

YA6290

YA6770

General Service–Blue-Point

YA8230 Valve Stem Seal Pliers.

- Removes valve stem seals from overhead camshaft engines including 4 valve per cylinder engines that have restricted access to the valve stem seal
- Gripping serrations in the pliers tip easily grab both OEM and aftermarket seals with ease
- Easy grip handles

GA264A Oil Deflector Set.

- For engines with pressure-lubricated push rods
- Deflectors clip onto rockers and deflect oil from feed holes to return oil to engine and eliminate splash
- 16 deflectors clipped to a metal storage panel

Valve Holders.

- Each includes 2 rubber suction cups for use when hand grinding flat head slotted valves
- Hardwood handle

VL2 Valve Holder. 5/8" and 13/16" diameter suction cups.

VL3 Valve Holder. 1 1/8" and 1 3/8" diameter suction cups.

YA6290 Valve Stem Seal Pliers.

- Use in restricted areas with a clearance problem above the cylinder head
- Pliers head rotates from 0° to 90°
- Jaw tip features a thin edge for hooking under stubborn valve stem seals
- 4 vertical ridges on jaws aid in holding the valve stem seal
- Vinyl handle grips for comfort and control

YA6770 Magnetic Washer Remover.

- Non-binding washer retrieval for hard to reach areas
- Dual ended tool with 3 small magnets designed to aid in the removal of hard to reach washers that are around most types of studs
- Also used to help the technician in the removal of valve adjusting buckets and pucks
- Light weight and durable glass-filled nylon plastic

Valve Guide Service Tools



PHG83A



AC10A

Metric Valve Guide Removers

Designed for use with Snap-on® air hammers. Can also be used as drift punches.

PHG97A Valve Guide Remover. 5.2mm pilot. 189mm long.

PHG96A Valve Guide Remover. 6.9mm pilot. 189mm long.

PHG83A Valve Guide Remover. 7.7mm pilot. 190mm long.

PHG86A Valve Guide Remover. 9.3mm pilot. 190mm long.

Valve Guide Brushes–Blue-Point

Brush wire is woven into twisted wire strands. Each features a fluted, wooden handle.

AC10A Valve Guide Brush. 5/16" diameter brush.

AC11A Valve Guide Brush. 11/32" diameter brush.

AC12A Valve Guide Brush. 3/8" diameter brush.



WARNING



• Read safety precautions on pages 594 to 597

CYLINDER/PISTON

Hones



CF61CS

Standard Duty–Blue-Point®

CF61CS Cylinder Hone.

- For 2" to 7" diameter cylinders
- Self-centering and self-bottoming with spread limiters to control hone diameter
- Spring action gives correct tension when using with an electric drill
- Includes (3) 220 grit (medium) stones
- All available stones are 3" long

CF61-100 Stone Set. (3) 100 grit (coarse) stones.

CF61-12S Stone Set. (3) 220 grit (medium) stones.

CF61-14S Stone Set. (3) 400 grit (fine) stones.

CF62CS Cylinder Hone. Similar to CF61CS but for 2" to 6 3/4" diameter cylinders with larger stones. Includes (3) 220 grit (medium) stones. All available stones are 4" long.

CF62-100 Stone Set. (3) 100 grit (coarse) stones.

CF62-12S Stone Set. (3) 220 grit (medium) stones.

CF62-14S Stone Set. (3) 400 grit (fine) stones.

Cylinder Service Tools



WR30A

Ridge Reamer–Blue-Point

WR30A Ridge Reamer.

- Lathe type reamer is for 3" to 5" diameter cylinders
- Centers itself in cylinder

WR30A10 Replacement Cutter Bit.



GA3627

Cylinder Bores

GA3627 Cylinder Bore Gauge.

- Measure cylinder wear without removing pistons
- Check cylinder diameter when used with micrometer
- Range is 2.6" to 7" in .001" increments and measures to a bore depth of 8"
- Includes gauge, 6 extensions (0.2", 0.4", 0.6", 0.8", 1.0" and 2.0") plus storage case

Piston Service Tools



PRS8



PRS10

Ring Expanders

PRS8 Piston Ring Expander.

- Installs piston rings from 3/64" to 1/4" thick
- Eliminates breakage or distortion of rings
- 7" long

PRS10 Piston Ring Expander.

- 2 3/4" to 4 1/4" ring capacity
- Remove or install both step cut and diagonal cut rings
- Spring tension eliminates the need for adjustment

PRS12 Piston Ring Expander.

- Similar to PRS10 but with 4 1/2" to 7" ring capacity
- Excellent for heavy duty diesel applications



RC150A



RC40C



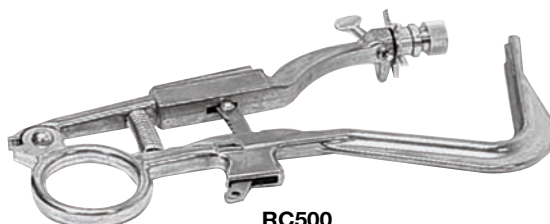
RCL30



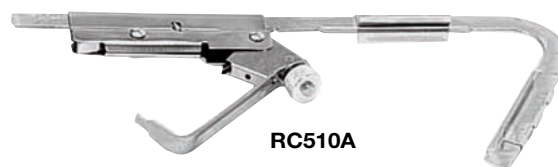
RCW60



RC980



RC500



RC510A

Ring Compressors

Clutch control holds tension band in position as piston is inserted into cylinder. 1/2" wide spring bands equalize tension over belt width so ring assembly may be compressed into groove until flush with piston. "V" beads on lower edge of belt keep tool from entering cylinder. RC40C can be used upside down for Chevrolet, Mercury and Ford trucks with angled blocks.

RC150A Ring Compressor. 4 band. 3 1/2" to 7" capacity. 7" deep.

RC50C Ring Compressor. 2 band. 3 1/2" to 7" capacity. 3 1/2" deep.

RC40C Ring Compressor. 2 band. 2 1/8" to 5" capacity. 3 1/2" deep.

RCL30 Ring Compressor. 1 band. 2 1/2" to 5" capacity. May be disassembled and removed from around connecting rod when used on small aircraft, motorcycle or other engines that require the cylinder to be pushed over the piston during assembly.

RCW60 Ring Compressor. 1 band. 3" to 5" capacity. 1 1/2" deep. Low-friction wrinkle band construction with thumbscrew for precise adjustment. Also on small aircraft and motorcycle engines where cylinders are pushed over piston during assembly.

RC980 Ring Compressor Set. Works both horizontally and vertically with pliers grip handle. Fine tooth ratcheting mechanism. Includes 6 hardened steel bands: 2 7/8" to 3 1/8", 3 1/8" to 3 3/8", 3 3/8" to 3 5/8", 3 5/8" to 3 7/8", 3 7/8" to 4 1/8", and 4 1/8" to 4 3/8".

RC980-7 Optional Band. 4 1/2" to 4 3/4" capacity.

RC980-8 Optional Band. 4 3/4" to 5" capacity.

RC980-9 Optional Band. 5" to 5 1/4" capacity.

RC980-10 Optional Band. 5 1/2" to 5 3/4" capacity.

RC980-11 Replacement Pliers.

Ring Groove Cleaners

RC500 Piston Ring Groove Cleaner. For pistons with grooves of 5/64", 3/32", 1/8", 5/32" and 3/16" with diameters from 2 1/2" to 5".

RC500-1 Replacement Cutter Blade. Replacement cutter blade.

RC500-11 Optional Cutter Blade. For 1/8", 1/4", 5/16", 2.5mm and 3mm grooves.

RC510A Piston Ring Groove Cleaner. For pistons with grooves of 5/64", 3/32", 1/8", 5/32" and 3/16" with diameters from 1" to 5".

RC510-1 Replacement Cutter Wheel.

RC510-6 Replacement Knurled Nut.

RC510-3 Adaptor. Adapts RC510A for use on pistons with diameters of 1" to 2 3/4".

RC510-7M Replacement Metric Cutter Wheel.



HLE24

Dead Blow Hammer

HLE24 Piston Dead Blow Hammer. Made of material that won't damage the piston. Shot filled head drastically reduces rebound. Head length is 7 3/4". Diameter is 1 1/4" to 1 1/2" with a reach of 5 1/2" to the handle shoulder. Overall length is 12 3/4".



WARNING



- Operate hone only while it is within cylinder.
- Read safety precautions on pages 594 to 597

BUSHING/SEAL

Inserter/Remover Set



A57Q

A57Q Bushing Remover/Inserter Set.

- For standard and specialized bronze, steel, rubber or Enlox bushings
- Range of adaptor sizes covers nearly all shackle and steering bushings
- New bushings are inserted by tightening screw, which forces the bushing into place without hammering

- Sleeve permits forcing out of old bushings
- Useful where limited space prevents driving them out
- The 5 smallest adaptors are used only with the smallest driver

Stock No.	Description
A57CA	Screw 1/2"-20)
A57-35	Screw (5/8"-18)
ME4A2	Nut (1/2"-20)
ME4A4	Nut (5/8"-18)
A57-3	Washer (1/2" ID, 1 1/4" OD)
A57-37	Sleeve Adaptor (.500" ID x .625" OD)
A57-39	Sleeve Adaptor (.640" ID x 2.047" OD)
A57-41	Sleeve Adaptor (1.000" ID x 2.047" OD)
A57-38	Sleeve Adaptor (1.500" ID x 2.047" OD)
ESD1428	Bearing (1/2" ID, 1" OD)
ME11A1	Bearing (5/8" ID, 1 1/8" OD)
A57-36	Sleeve (4 15/16" long, 2 1/16" ID)
A57-27	Puller (1/8"-27 taper thread)

Stock No.	Dimension, inches O.D.	Dimension, inches Small O.D.	Dimension, inches Large I.D.	Dimension, inches Large O.D.
A57-15	Bushing Driver for Adaptors A57-16 through A57-26			
A57-16	.339	.434	—	—
A57-17	.430	.497	—	—
A57-26	.492	.622	—	—
A57-18	—	.493	—	.559
A57-25	—	.554	—	.684
A57-14A	Bushing Driver for Adaptors A57-8 through A57-20			
A57-8	.555	.622	—	—
A57-19	.601	.668	—	—
A57-7	.618	.747	—	—
A57-6	.678	.809	—	—
A57-5	.728	.856	—	—
A57-24	.742	.997	—	—
A57-10	.789	.918	—	—
A57-11	—	.851	—	.980
A57-22	—	.907	—	1.046
A57-12A	—	.919	—	1.027
A57A13	—	.993	—	1.122
A57-46	—	1.034	—	1.136
A57-20	—	1.055	—	1.184
A57-23A	—	1.101	—	1.230
Large Adaptors				
A57-45	—	1.250	1.125	—
A57-42	—	1.406	1.187	—
A57-48	1.206	1.500	—	—
A57-29	1.222	1.372	—	—
A57-40	1.367	1.625	—	—
A57-44	—	1.812	1.375	—
A57-43	—	—	1.625	2.000
A57-47	—	—	1.859	2.000
A57-49	—	—	—	13/16 opening
A57-51	—	—	—	17/32 opening
A57-50	—	—	—	1 3/8 opening

A1310A Set Components

Stock No.	Description
A1306-1	Handle (5 3/4" long)
A1306-2	Collar (1 9/16" long)
A1306-3	Collar (1 3/4" long)
A1306-4	Collar (1 31/32" long)
A1306-5	Collar (2 5/16" long)
A1306-6	Collar (2 15/32" long)
A1306-7	Collar (2 27/32" long)
A1310-1	Collar (2 27/32" long)
A1310-2	Collar (3" long)
A1310-3	Collar (3 3/16" long)



A1310A

Bearing Race and Seal Driver Set

A1310A Bearing Race and Seal Driver Set—Blue-Point®. Collars fit most standard wheel bearing sizes. The 3 largest sizes fit most late model 4 wheel drive vehicles.

A157C Set Components/Adaptors

Stock No.	I.D., inches	O.D., inches	Stock No.	I.D., inches	O.D., inches
A157-1	Large Driver Handle	—	A157-11	5/8	3/4
A157-2	Medium Driver Handle	—	A157-12	11/16	13/16
A157-3	Small Driver Handle	—	A157-13	3/4	7/8
A157-4	Driver Nut, 5/16"-24	—	A157-14	13/16	15/16
A157-5	Driver Nut, 1/2"-20	—	A157-15	7/8	1
A157-6	3/8	7/16	A157-16	15/16	1 1/16
A157-22	15/32	17/32	A157-17	1	1 1/8
A157-7	7/16	1/2	A157-18	1 1/16	1 3/16
A157-8	1/2	5/8	A157-19	1 1/8	1 1/4
A157-9	9/16	11/16	A157-20	1 3/16	1 5/16
A157-10	5/8	11/16	A157-21	1 1/4	1 3/8



A157C

Standard Bushing Driver Set

A157C Standard Bushing Driver Set. Adaptors held on drivers with knurled nut. Small and medium drivers (A157-3 and A157-2) fit all smaller bushings (A157-6 through A157-12); large driver (A157-1) fits remaining bushings (A157-13 through A157-22). Set comes packaged in PB20 storage box.

A158B Set Components/Adaptors

Stock No.	I.D., inches	O.D., inches	Stock No.	I.D., inches	O.D., inches
A257-1	Large Driver Handle	—	A257-26	1 1/2	1 5/8
A157-5	Driver Nut, 1/2"-20	—	A257-27	1 9/16	1 11/16
A257-23	1 5/16	1 7/16	A257-28	1 5/8	1 3/4
A257-24	1 3/8	1 1/2	A257-29	1 11/16	1 13/16
A257-25	1 7/16	1 9/16	A257-30	1 3/4	1 7/8



A158B

Heavy Duty Bushing Driver Set

A158B Heavy Duty Bushing Driver Set. Includes 8 basic adaptors for servicing bushings on trucks, tractors and buses. Adaptors are secured to threaded driver shaft by knurled nut. Industrial finish. Set comes packaged in PB34 storage box.

A257 Set Components/Adaptors

Stock No.	I.D., inches	O.D., inches	Stock No.	I.D., inches	O.D., inches
A257-1	Large Driver Handle	—	A257-36	2 1/8	2 1/4
A157-5	Driver Nut, 1/2"-20	—	A257-37	2 3/16	2 5/16
A257-23	1 5/16	1 7/16	A257-38	2 1/4	2 3/8
A257-24	1 3/8	1 1/2	A257-39	2 5/16	2 7/16
A257-25	1 7/16	1 9/16	A257-40	2 3/8	2 1/2
A257-26	1 1/2	1 5/8	A257-41	2 7/16	2 9/16
A257-27	1 9/16	1 11/16	A257-42	2 1/2	2 5/8
A257-28	1 5/8	1 3/4	A257-43	2 9/16	2 11/16
A257-29	1 11/16	1 13/16	A257-44	2 5/8	2 3/4
A257-30	1 3/4	1 7/8	A257-45	2 11/16	2 13/16
A257-31	1 13/16	1 15/16	A257-46	2 3/4	2 7/8
A257-32	1 7/8	2	A257-47	2 13/16	2 15/16
A257-33	1 15/16	2 1/16	A257-48	2 7/8	3
A257-34	2	2 1/8	A257-49	2 15/16	3 1/16
A257-35	2 1/16	2 3/16			



A257

Complete Heavy Duty Bushing Driver Set

A257 Complete Heavy Duty Bushing Driver Set. Complements the A157C set by adding 27 larger adaptors for transmission work as well as many other automotive and industrial applications. Set is arranged in PB27 storage box. Industrial finish.



WARNING



• Read safety precautions pages 594 to 597

BUSHING/SEAL

Driver Sets



A160M

Standard Metric Bushing Driver Set A160M Metric Bushing Driver Set.

Includes 3 driver handles and adaptors in 10 to 42mm sizes. Packaged in PB118 storage box.



A261M

Metric Heavy Duty Bushing Driver Set A261M Metric Bushing Driver Set.

Includes an extra large driver handle and adaptors in 40 to 80mm sizes. Packaged in PB117 storage box.



YA2480

A160M Set Components

Stock No.	Description	Stock No.	Description
A157-1	Large Driver Handle	A160M6	Adaptor (18-20mm)
A157-2	Medium Driver Handle	A160M7	Adaptor (20-22mm)
A157-3	Small Driver Handle	A160M8	Adaptor (22-24mm)
A157-4	Driver Nut, 5/16"-24	A160M9	Adaptor (25-27mm)
A157-5	Driver Nut, 1/2"-20	A160M10	Adaptor (28-30mm)
A160M1	Adaptor (10-12mm)	A160M11	Adaptor (30-34mm)
A160M2	Adaptor (12-14mm)	A160M12	Adaptor (32-36 mm)
A160M3	Adaptor (14-16mm)	A160M13	Adaptor (35-40mm)
A160M4	Adaptor (15-17mm)	A160M14	Adaptor (38-42mm)
A160M5	Adaptor (16-18mm)		

A261M Set Components

Stock No.	Description	Stock No.	Description
A257-1	Large Driver Handle	A261M5	Adaptor (50-53mm)
A157-5	Driver Nut, 1/2"-20	A261M6	Adaptor (55-60mm)
A26M1	Adaptor (40-44mm)	A261M7	Adaptor (60-65mm)
A261M2	Adaptor (42-45mm)	A261M8	Adaptor (65-70mm)
A261M3	Adaptor (45-48mm)	A261M9	Adaptor (70-75mm)
A261M4	Adaptor (48-52mm)	A261M10	Adaptor (75-80mm)

YA2480 Seal Driver Set Components

Stock No.	Description	Stock No.	Description
A1306-1	Knurled Handle	YA2480-8	Adaptor (#8)
A1306-1-1	Adaptor Mounting Bolt	YA2480-9	Adaptor (#9)
YA2480-17	Steel Back up Washer	YA2480-10	Adaptor (#10)
YA2480-1	Adaptor (#1)	YA2480-11	Adaptor (#11)
YA2480-2	Adaptor (#2)	YA2480-12	Adaptor (#12)
YA2480-3	Adaptor (#3)	YA2480-13	Adaptor (#13)
YA2480-4	Adaptor (#4)	YA2480-14	Adaptor (#14)
YA2480-5	Adaptor (#5)	YA2480-15	Adaptor (#15)
YA2480-6	Adaptor (#6)	YA2480-16	Adaptor (#16)
YA2480-7	Adaptor (#7)		

Fender/Seat Covers

High density sponge rubber laminated to vinyl provides better protection and adherence to the fender. Less susceptible to creasing.



JCKS6A

JCKS6A Fender Cover.

- Measures 21" wide by 30" long
- Raised ribbing along the center section provides tool holding space



JCKS7A

JCKS7A Fender Cover.

- Measures 22 1/2" wide by 30" long
- For use on vehicles with broad fenders
- Raised ribbing along the center section provides tool holding space



JCK7DBL

JCK7DBL Fender Cover.

- Measures 26" wide by 36" long
- For use on shorter fenders of most new vehicles
- Raised ribbing

JCK7D Fender Cover. Same as JCK7DBL in red.



JCK8

JCK8 Fender Cover.

- Measures 26" wide by 36" long
- Non-slip, non absorbent surface conforms to the fender of any vehicle
- Red material with white lettering
- Easy to clean with soap and water



JCK15D

JCK15D Fender Cover.

- Heavy duty vinyl material protects all surfaces
- Measures 29" x 52"



KAC1224TCA

KAC1224TCA Motorcycle Gas Tank Cover.

- Fits Harley-Davidson® Dyna®, Softail and Touring models
- Fits various models of Yamaha, Victory, Triumph and Kawasaki plus many more
- Protects the finish while you perform routine maintenance
- Keeps dust and dirt off the gas tank
- Non-marring cover uses a non-abrasive inner liner that won't slide off



SEATCOVER1

Seat Covers**SEATCOVER1 Seat Cover.**

- 100% nylon with special stain protection impregnated in cloth
- Resistant to grease and water
- Will not tear when used over high headrests
- Black with red trim and red logo



CKM3020

CKM3020 Multi-Purpose Mat.

- Multi-purpose nylon mat offers paint and surface protection
- Use as fender cover, seat cover, floor mat or kneeling mat
- Webbed foam backing keeps mat from sliding on fender or seat back
- Large 31" x 18" size
- Machine washable

**WARNING**

• Read safety precautions on pages 594 to 597

CREEPERS

Standard Creepers

Headrest is 2-3/4" thick and pad is 1-3/4" thick for comfort



JCW65ABL



JCW8A

Stock No.	Pad Color	Overall Size, inches	Pad Length	Pad Width	Number of Casters	Caster Diameter	Adjustable
JCW60R	Red	40L x 17W x 4H	39"	11"	6	2 1/2"	
JCW60BL	Black	40L x 17W x 4H	39"	11"	6	2 1/2"	
JCW60SP	Red/Black	40L x 17W x 4H	39"	11"	6	2 1/2"	
JCW65AR	Red	40L x 17W x 4H	39"	11"	6	2 1/2"	•
JCW65ABL	Black	40L x 17W x 4H	39"	11"	6	2 1/2"	•
JCW8A*	Black	40L x 17W x 4H	39"	11"	4	2 1/2"	
JCW10*	Black	40L x 17W x 4H	39"	11"	4	2 1/2"	•

*Blue-Point®

Heavy Duty Creepers

Headrest is 2-3/4" thick and pad is 1-3/4" thick for comfort



JCW75ABL



JCW11A

Stock No.	Pad Color	Overall Size, inches	Pad Length	Pad Width	Number of Casters	Caster Diameter	Adjustable
JCW70AR	Red	40L x 22W x 5 3/4H	39"	13"	4	4"	
JCW70ABL	Black	40L x 22W x 5 3/4H	39"	13"	4	4"	
JCW75AR	Red	40L x 22W x 5 3/4H	39"	13"	4	4"	•
JCW75ABL	Black	40L x 22W x 5 3/4H	39"	13"	4	4"	•
JCW11A*	Black	39 1/2L x 19W x 4 1/2H	39"	13"	4	3"	

*Blue-Point

CREEPERS

Seat Creepers



JCW95R



JCW90BL



JCW9

Stock No.	Pad Color	Overall Size, inches	Seat Size, inches	Drawer Size, inches	Adjustable	Adjustment Range
JCW80R	Red	14 1/4L x 19W x 15H	10L x 14 1/4W	9 7/8L x 11 1/2W x 1 3/4D		—
JCW80BL	Black	14 1/4L x 19W x 15H	10L x 14 1/4W	9 7/8L x 11 1/2W x 1 3/4D		—
JCW85R*	Red	17 3/4L x 15W x 23H	17 3/4L x 10W x 8H	9 7/8L x 11 1/2W x 1 3/4D		—
JCW85BL*	Black	17 3/4L x 15W x 23H	17 3/4L x 10W x 8H	9 7/8L x 11 1/2W x 1 3/4D		—
JCW90BL	Black	15L x 15W x 21 1/2H	13 3/4L x 13 3/4W	—	•	14" to 19 1/4"
JCW95R*	Red	17 3/4L x 15W x 28 1/4H	17 3/4L x 10W x 8H	—	•	14" to 19 1/4"
JCW95BL	Black	17 3/4L x 15W x 28 1/4H	17 3/4L x 10W x 8H	—	•	14" to 19 1/4"
JCW9**	Black	17L x 20 1/2W x 15H	7L x 14W	—		—

* Bucket seats
** Blue-Point®

Specialty Creepers/Accessories



JCP38 Plastic Creeper.

- Body fitting design
- 38"L x 17"W x 4"H

JCP38



JCPW40B

JCPW40B Padded Creeper.

- 13" wide padded creeper with 6" all-rubber tires
- Provides a smooth ride over rough terrain
- Constructed from 1" 16 gauge steel tubing
- Overall dimensions: 39"L x 29"W x 9 1/2"H



JCW43A

JCW43A Multi Position Adjustable Creeper.

- 44" extra long steel frame creeper with seven configurations
- Upper frame adjusts to 4 positions for use as a lift back creeper
- Lower frame adjusts to 3 positions for stability as an adjustable creeper
- Overall dimensions: 44"L x 18"W x 6 3/4"H



KRJC23APV

KRJC23APV Creeper Hanger.

- Secures creepers to roll cabs
- Adjustable to 4 different creeper widths
- Hanger hooks over lip of roll cab and screws down
- Includes 2 hook bolts and a lock rod



WARNING



- Do not stand on or use as a cart • Do not exceed weight capacity
- Read safety precautions on pages 594 to 597

MEASURING

Micrometers and Sets



MIC1A



MIC103A

Digital Micrometers, inches

- Standard reading in .001" increments on both the handle and digit display
- Vernier style reading in .0001" increments
- Large easy to handle insulated frame, carbide tipped anvils, positive locking clamp and ratchet stop thimble

Stock No.	Range, inches	Increments, inches
MIC1A	0-1	.0001
MIC2A	1-2	.0001
MIC3A	2-3	.0001
MIC4A	3-4	.0001
MIC5A	4-5	.0001

MIC103A SAE Set-Blue-Point®. MIC1A, MIC2A and MIC3A in fitted case with standards.



MIC1MA



MIC103MA

Digital Micrometers, mm

- Standard reading in .01mm increments on both the handle and digit display
- Vernier style reading in .0001mm increments
- Large easy to handle insulated frame, carbide tipped anvils, positive locking clamp and ratchet stop thimble

Stock No.	Range, mm	Increments, mm
MIC1MA	0-25	0.001
MIC2MA	25-50	0.001
MIC3MA	50-75	0.001
MIC4MA	75-100	0.001
MIC5MA	100-125	0.001

MIC103MA Digital Metric Micrometer Set-Blue-Point. MIC1MA, MIC2MA and MIC3MA in fitted case with standards.



MICB1A



MICB103A

Outside Micrometers-Blue-Point, inches

- Standard reading in .001" increments on handle
- Vernier style reading in .0001" increments
- Large easy to handle insulated frame, carbide tipped anvils, positive locking clamp and ratchet stop thimble

Stock No.	Range, inches	Increments, inches
MICB1A	0-1	.0001
MICB2A	1-2	.0001
MICB3A	2-3	.0001
MICB4A	3-4	.0001
MICB5A	4-5	.0001

MICB103A SAE Set-Blue-Point. Includes: MICB1A, MICB2A, MICB3A (3 pcs) in fitted case with standards.



MICINSIDE12

MICINSIDE12 Inside Micrometer Set.

- Range is 2" to 12" in .001" increments
- Includes inside micrometer head and a series of coil spring pressure contact rods



MICED1A

MICED1A Electronic Digital Micrometer-Blue-Point.

- Display reads to 0.00005" (0.001mm)
- Zero set for absolute and incremental measuring modes
- Auto shutoff after 10 minutes
- Insulated frame, hardened body, carbide tipped anvil, positive locking clamp and ratchet stop thimble



DM6

DM6 Depth Micrometer Set.

- Measure depths of slots, counterbores, holes and keyways up to 6" in depth
- 4" satin chrome base for greater stability
- Graduated in .001" increments

Stock No.	Description
DM61	4" rod
DM62	5" rod
DM63	6" rod
DM64	7" rod
DM65	8" rod
DM66	9" rod
DM67	Micrometer Head



MIC22

Micrometer Test Gauges

- Test gauges are used as micrometer standards
- Accuracy meets Federal Specifications

MIC22	1"
MIC32	2"
MIC42	3"
MIC52	4"
MIC2M2	25mm
MIC3M2	50mm

Small Hole/Telescoping Gauge Sets



MROUND4

Small Hole Gauge Set

MROUND4 Small Hole Gauge Set.

- Knurled knob at handle for size adjustment
- Full round gauging surface with flat bottom

Stock No	Range, inches
CM4311	0.125 - 0.200
CM4312	0.200 - 0.300
CM4313	0.300 - 0.400
CM4314	0.400 - 0.500



MTEE6

Telescoping Gauge Set

MTEE6 Telescoping Gauges.

- Measurable depth is 4" to 5"
- Set of 6 is packaged in a plastic pouch

Stock No.	Range, inches
CM4349	5/16 - 1/2
CM4350	1/2 - 3/4
CM4351	3/4 - 1 1/4
CM4352	1 1/4 - 2 1/8
CM4353	2 1/8 - 3 1/2
CM4354	3 1/2 - 6

Calipers/Magnetic Bases/Divider



MCAL6A



PMF147A



MCAL12

Calipers-Blue-Point®

MCAL6A Electronic Digital Caliper.

- Range is 0" to 6" (0 to 150mm) in 0.0005" (0.01mm) resolutions
- Use for inside, outside, depth and step measurements
- Inch/metric conversion with one button
- Large LCD display
- Hardened stainless steel frame

MCAL12 Electronic Digital Caliper.

- Essential tool for working on larger vehicles, trucks, tractors and earth moving equipment
- Range is 0" to 12" (0 to 305mm) in 0.0005" (0.01mm) resolutions
- Use for inside, outside, depth and step measurements
- Inch/metric conversion with one button
- Large LCD display with floating zero set
- Locking nut and thumb roll for smooth action

PMF147A U.S./Metric Dial Type Caliper.

- Range is 0" to 6" (0 to 150mm) in 0.001" (0.1mm) increments
- Includes storage case



PMF129

Divider

PMF129 Divider.

- Spring type divider has virtually no torsion or side play
- 6"



CM6416

Magnetic Base

CM6416 Holder.

- Magnet has "On/Off" switch
- Base is 2 3/8" x 1 7/8" x 2 1/2"
- Post is 7" x 15/16". Rod is 6" x 25/64"
- Will grip flat or curved metal surfaces

Levels

TL100A Torpedo Level.

- 9" precision measuring tool designed for close quarter work
- Magnetic strips and v-grooving ideal for pipe and conduit work

YA328A Angle Locator-Blue-Point.

- Precise, accurate tool to determine angle measurements
- Ideal for checking drive shaft angle
- Red degree indicator located behind numbers for exact reading of graduations
- English and metric scales molded into base of tool in 1/8" and DM
- Large 1 7/8" x 7/8" magnet in base for secure retention



TL100A



YA328A



WARNING



• Read safety precautions on pages 594 to 597

MEASURING

Timing/Dial Test Indicators Gauges



GA3625A

Timing Gauges

GA3625A Timing Gauge.

- 2 Cycle and small engine timing gage
- 0-1" indicator with .0005" graduations
- Easy to read white on black dial face
- 14mm and 18mm adaptors included
- For finding top dead center



GA3400



GA3640

Dial Test Indicator Sets

GA3400 Universal Dial Test Indicator Set.

- Small dial indicator set
- .200" range with .001" graduations
- Easy to read white on black dial face
- Traditional fixed clamp style attachment
- Excellent choice for machining applications

GA3640 Long Range Dial Test Indicator Set.

GA3645 Long Range Dial Test Indicator Set.

GA3634 Ball Joint/Disc Brake Test Indicator Set.

- All purpose indicator sets
- Perfect for general use
- Indicator with 0-1" range and .0005" graduations
- Easy to read white on black dial face
- GA3640 uses a fixed magnetic base
- GA3645 uses a conforming magnetic base for more mounting options
- GA3634 uses locking pliers and a flexible gooseneck for non-magnetic applications and difficult areas: Ideal for brake and undercar work



GA3645



GA3634

GA3450 Universal Pinion Depth Gauge.

- Rear pinion depth gage
- Accurate pinion depth setup for vehicles up to 1 ton
- Pre-measure pinion depth to use with OEM gear sets

GA3460 Master Rear Axle Set.

- Master rear end setup set
- Includes everything needed to set up a replacement rear end and check axles
- Multiple mounting methods
- White on black easy to read dial face
- For domestic and import rear ends up to 1 ton



GA3450



GA3460

Dial Test Indicator Set Specifications

Stock No.	Range	Graduations	Reading
GA3400	.200"	.001"	0-100
GA3640	1.00"	.0005"	0-50
GA3645	1.00"	.0005"	0-50
GA3634	1.00"	.0005"	0-50
GA3450	0.00" to 4.00"	.0005"	0-50
GA3460	0.00" to 1.00" (0.00" to 4.00" with extension)	.0005"	0-50



GA3601

Contact Points and Extensions

GA3601 Dial Indicator Extension.

- Use with GA3400, GA3634, GA3640 and GA3645 dial test indicators
- 4-48 female thread allows the extension of any contact point for special applications
- 6" long.

GA3609 Contact Point Set.

- Use with GA3400, GA3634, GA3640 and GA3645 dial test indicators
- 4-48 female thread allows the extension of any contact point for special applications
- Extensions can be joined together to extend reach
- Contact points feature a polished tip with radius end and are manufactured from hardened steel
- Includes (4) 1" extensions, 4 contact points (0.2", 0.4", 0.6", 0.8") plus holder for set components



GA3609

MEASURING

Feeler Gauges—Blue-Point®



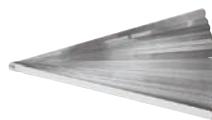
FB310B



FB325A



FB335



FBL325A



FBM320

General Use

Stock No.	No. of Blades	Blade Dimensions, inches	Blade Size	Increments	Description
FB310B	13	1/2 x 3	.001", .0015", .002" thru .008", .010", .012", .013", .015"	—	Double stamped with U.S. and metric sizes.
FB325A	25	1/2 x 3	.0015", .002" thru .025"	.001"	General Use Feeler Gauge (25 blades)
FB335	35	1/2 x 3	.0015", .002" thru .035"	.001"	Swedish steel feeler blade.
FBL325A	25	1/2 x 12	.0015", .002" thru .021", .025", .027", .030", .040"	.001"	Long blade, double stamped with U.S. and metric sizes.
FBM320	20	1/2 x 3	.05 thru 1mm	.05mm	Metric Feeler Gauge Set.



FB316B



FB326B

Ignition

Stock No.	No. of Blades	Blade Dimensions, inches	Blade Size	Increments	Description
FB316B	18	1/4 x 1 3/4	.010", .012", .013", .015" thru .022", .024" thru .026", .028", .030", .032", .035"	.001"	Short Blade, Ignition/Spark Plug Gauge Set, double stamped with U.S. and metric sizes
FB326B	26	1/2 x 3	.008", .010", .012", .013", .015", .017", .018", .020", .022", .024" thru .026", .028", .030", .032", .035"	.001"	Double stamped with U.S. and metric sizes.



FB300A



FB308D



FB322



FB328A



FBM322

Bent And Step Blades

Stock No.	No. of Blades	Blade Dimensions, inches	Blade Size	Increments	Description
FB300A	25	1/2 x 3	.006" thru .030"	.001"	Feeler Gauge Set, blade ends are angled at 45°.
FB308D	12	1/2 x 3	.008"- .010", .011"- .013", .013"- .015", .014"- .016", .015"- .017", .017"- .019", .018"- .020", .020"- .022", .023"- .025", .025"- .027", .026"- .028", .028"- .030"	.001"	Step Feeler Gauge Set
FB322	22	1/2 x 3 3/8	.004"- .006" thru .025"- .027"	.001"	"Go-No Go" blades with 2 sizes each.
FB328A	2	1/2 x 3	.011"- .013", .013"- .015"	—	For valve adjustment on GM 8.2L engines, double stamped with U.S. and metric sizes.
FBM322	2	1/2 x 3	.20-.30mm, .40-.50mm	—	10 3/4" long bent handle.



FB307D

Diesel

Stock No.	No. of Blades	Blade Dimensions, inches	Blade Size	Increments	Description
FB307D	14	1/2 x 4 1/2	.008", .011" thru .014", .016" thru .018", .020", .023" thru .025", .027", .029"	.001"	Bent Blade Cummins Diesel, blade ends are bent at 90° angle; blades are secured on FB307C1 ring.



WARNING



• Read safety precautions on pages 594 to 597

MEASURING

Feeler/Spark Plug Gauges



FB305A



FB3330



FBP10



FBS5

Specialty Feeler Gauges

Stock No.	No. of Blades	Blade Dimensions, inches	Blade Size	Increments	Description
FB305A	6	1/2 x 3	.006", .008", .010", .012", .014", .016"	.002"	Non-Magnetic, double stamped U.S. and metric sizes

FB3330 Easy Grip Feeler Gauge Set. Non-magnetic double stamped with U.S. and metric sizes. Includes 10 feeler gauges with orange screwdriver type handles. Blades are 4" long and feature a 45° offset for use on valve tappets and air gapping applications. Set is displayed in the FB33301 wood box. Blades included: .010", .012", .014", .016", .018", .020", .022", .024", .027", and .030". 25 blades available in all (.006" thru .030") in .001" increments.

FBP10 Pocket Feeler Blade. Flat, ramp style feeler gauge handles full range of spark plug gapping requirements from .020 to .080". Reverse side has metric scale to 2mm. Orange screwdriver type handle with pocket clip. 5 1/2" length.



FB301A



FB302A



GA461C



FB360C



FB303B



FB361A



FB6B040

Spark Plug Gauges/Gappers—Blue-Point®

FB301A Wire Gap for Point Ignition Systems Gauge. Includes 8 wires in sizes .020", .022", .025", .028", .030", .032", .035", and .040". Also includes an electrode bender.

FB302A Wire Gap for Aircraft, Motorcycle, and Small Engines Gauge. Similar to FB301A. Includes 8 wires in sizes .015", .016", .018", .020", .025", .028", .030", and .035". Also includes an electrode bender.

FB303B Wire Gap for Electronic Ignition Systems Gauge. Similar to FB301A. Includes 6 wires in sizes .044", .045", .050", .054", .060", and .080". Also includes an electrode bender.

GA461C Gap for Point Ignition Systems Gauge. Includes 6 wires protruding 1/4" from edge of metal disc. Wire sizes included are .025", .030", .034", .035", .040" and .045". Built in electrode bender. Double stamped with decimal and metric sizes.

FB360C Gap for Electronic Ignition Systems Gauge. Includes 6 wire sizes: .040", .044", .045", .050", .060", and .080". Double stamped with decimal and metric sizes.

FB361A Gapper Gauge. Pocket size gapper features an inclined ramp for setting gap. 1 1/2" in diameter. Range is .020" to .100". Double stamped with decimal and metric sizes.

Feeler/Gap Gauge Set

FBS5 Feeler and Gap Gauge Set. 5 pc set includes: FB300A bent blade feeler gauge, FB305A non-magnetic feeler gauge, and FB325A general use feeler gauge, plus GA461C and FB360C spark plug gap gauges in the FBS5-1 kit bag.

Feeler Blades and Holder—Blue-Point

FB6B0015 thru FB6B040 (12") Feeler Gauge Blades.

Use in the FB312 holder. When ordering, blade size is stock number suffix; prefix is FB6B. Includes 34 blades as follows:

Stock No.	Blade Size, Inches	Stock No.	Blade Size, Inches
FB6B0015	.0015	FB6B017	.017
FB6B002	.002	FB6B018	.018
FB6B0025	.0025	FB6B019	.019
FB6B003	.003	FB6B020	.020
FB6B004	.004	FB6B021	.021
FB6B005	.005	FB6B022	.022
FB6B006	.006	FB6B023	.023
FB6B007	.007	FB6B024	.024
FB6B008	.008	FB6B025	.025
FB6B009	.009	FB6B026	.026
FB6B010	.010	FB6B027	.027
FB6B011	.011	FB6B028	.028
FB6B012	.012	FB6B029	.029
FB6B013	.013	FB6B030	.030
FB6B014	.014	FB6B032	.032
FB6B015	.015	FB6B035	.035
FB6B016	.016	FB6B040	.040

Decimal/Metric Conversion Chart

Decimal, inches	Metric, mm	Decimal, inches	Metric, mm	Decimal, inches	Metric, mm	Decimal, inches	Metric, mm	Decimal, inches	Metric, mm	Decimal, inches	Metric, mm
0.0010	0.025	0.007	0.178	0.015	0.381	0.023	0.584	0.031	0.787	0.042	1.067
0.0015	0.038	0.008	0.203	0.016	0.406	0.024	0.610	0.032	0.813	0.044	1.118
0.0020	0.051	0.009	0.229	0.017	0.432	0.025	0.635	0.033	0.838	0.046	1.168
0.0025	0.064	0.010	0.254	0.018	0.457	0.026	0.660	0.034	0.864	0.052	1.321
0.0030	0.076	0.011	0.279	0.019	0.483	0.027	0.686	0.035	0.889	0.054	1.372
0.0040	0.102	0.012	0.305	0.020	0.508	0.028	0.712	0.036	0.914	0.056	1.422
0.0050	0.127	0.013	0.330	0.021	0.533	0.029	0.737	0.038	0.965	0.060	1.524
0.0060	0.150	0.014	0.356	0.022	0.559	0.030	0.762	0.040	1.016	0.080	2.032

Measuring Sets/Straight Edges/Steel Rules



SQUARECOMB12



SQUAREB12

Measuring Sets—Blue-Point®

SQUARECOMB12 Combination Measuring Set.

- Includes SQUAREB180 protractor, RULER12BSQ steel rule plus SQUAREB90 and SQUAREB45 sliding heads in fitted storage case

SQUAREB12 Machinist's Measuring Set.

- Includes SQUAREB90 sliding head and RULER12BSQ steel rule in fitted storage case

SQUAREB90 Sliding Head (90°).

- 90° square head with bubble level and scribe points

SQUAREB180 Protractor Head (180°).

- Protractor is graduated 180° in both directions
- Includes bubble level

RULER12BSQ Steel Rule (12").

- Precision ground and hardened steel blade for greater accuracy
- Graduated in 1/8" and 1/16" increments on one side and 1/32" and 1/64" increments on the other

SQUAREB45 Sliding Head (45°).

- Center head for 45° angles only



GA438A

Precision Straight Edges

- Use with feeler gauges to check for distortion in engine blocks, cylinder heads, flywheels, main bearing saddles, cam bearing saddles, cam covers and bell housings
 - Precision working edge ground to within .0002" per 12" in length
 - Great stability with 1/4" thickness and 1 1/2" width
 - Convenient hanging hole and edge protector
- GA435 18" long. GA438A 24" long. GA535 35" long.



RULER120



RULER602



RULER600



RULER601

Steel Rules

RULER120 U.S./Metric Steel Rule.

- 12" stainless steel rule
- U.S. edge is in 1/32" increments for first 3", 1/16" increments for last 9"
- Metric edge is etched with mm and cm increments

RULER600 Steel Rule.

- 6" stainless steel rule
- Graduated in 1/32" and 1/64" increments

RULER601 Steel Rule (6").

- 6" stainless steel rule
- Graduated in 1/10" and 1/50" increments on one side, 1/32" and mm increments on the other

RULER602 U.S./Metric Pocket Rule (6").

- 6" stainless steel rule with pocket clip
- U.S. edge in 1/32" and 1/64" increments on one side, mm and cm increments on the other

Tape Rules



TPMA10

TPMA12

TPMA25EM

TPMA25

TPMAM5

TPM100

Auto-Retracting Tape Rules

TPMA10 Tape Rule (10 ft.). 1/2" x 10 ft. tape. Includes inch/metric scale with fractions.

TPMA12 Tape Rule (12 ft.). 3/4" x 12 ft. tape. Includes inch scale with 16" stud markings.

TPMA25 Tape Rule (25 ft.). 1" x 25 ft. tape. Includes inch scale with 16" stud markings.

TPMAM5 Tape Rule (5m). 19mm x 5 meter tape. Includes metric scale.

TPMA25EM Tape Rule (25 ft.). 1" x 25 ft./7.5mm tape. Includes inch/metric scale with fractions.

Steel Housing Tape Rule

TPM100 Tape Rule—Blue-Point.

- Includes inch/metric scale
- Quick rewind design for ease of use
- Rewinding lever conveniently stored in housing
- Non-slip grip provides confidence and comfort



WARNING



• Read safety precautions on pages 594 to 597

MIRRORS



Hinged Mirrors–Blue-Point®

UIM2FL Flexible Inspection Mirror.

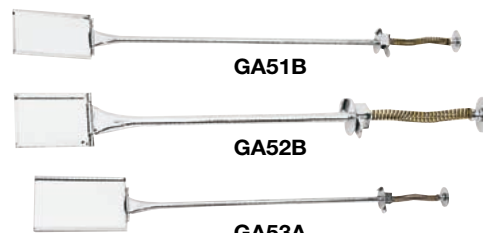
- 32" aluminum shaft can easily be bent to any angle
- 2 1/4" mirror is encased in a rugged stainless steel head
- All angle ball joint holds mirror head tightly at any angle
- Textured cushion grip will not slip in wet or oily hands

GA294 Rectangular Mirror.

- Double ball joints allow mirror to swivel 360°
- Electrolytic plated copper backing
- Non-rotating telescoping rods
- Vinyl grip
- 2 1/8" x 3 1/2" mirror
- Closed length is 11 1/4"; extended length is 15 1/4"

GA295

GA295 Round Mirror. Similar to GA294 except with a 2 1/4" diameter mirror. Closed length is 10"; extended length is 14".



GA51B

GA52B

GA53A

Stock No.	Overall Length, inches (mm)	Mirror Size, inches (mm)	Glass Replacement Mirror	Plastic Replacement Mirror
GA51B	16 1/2 (419.1)	1 11/16 x 2 9/16 (42.9 x 65.1)	GA51B1	GA51B1P
GA52B	11 (279.4)	1 3/16 x 1 1/2 (30.1 x 38.1)	GA52B1	—
GA53A	16 1/2 (419.1)	2 5/16 x 3 3/8 (58.7 x 85.7)	GA53A1	GA53A1P



PTM143

PTM157

Pocket Mirrors–Blue-Point

PTM143 Round Pocket Mirror.

- Handle extends from 4 1/2" to 17"
- Hinge mechanism allows 360° adjustment
- 1 1/4" in diameter
- Includes pocket clip

CF143MA Round Pocket Magnifying Mirror.

- Handle extends from 4 1/2" to 17"
- Hinge mechanism allows 360° adjustment
- 1 1/4" in diameter
- Includes pocket clip

PTM147 Round Pocket Mirror.

- Handle extends from 4 1/2" to 17"
- Hinge mechanism allows 360° adjustment
- 3/4" in diameter
- Includes pocket clip

PTM157 Oval Pocket Mirror.

- Handle extends from 4 1/2" to 17"
- Hinge mechanism allows 360° adjustment
- 1" x 2" oval
- Includes pocket clip



YA5160A

Lighted Mirrors–Blue-Point

YA5160A Lighted Adjustable Mirror.

- Mirror size is 1 1/8" x 2 1/8" with 1X magnification
- Thumb wheel adjustment on handle
- Light at base of 18" long flexible handle powered by 2(AA) batteries (included)

YA51601 Replacement Mirror. 1X.

YA51602 Replacement Mirror. 2X.

YA5160A3 Replacement Bulb.



UIM225

TKSS01MIR

UIM2LM

Telescoping Mirrors–Blue-Point

UIM125 Telescoping Inspection Mirror.

- 1 1/4" diameter mirror. 6 1/2" long, and extends to 35".

UIM225 Telescoping Inspection Mirror.

- 2 1/4" diameter mirror. 6 1/2" long, and extends to 35".

UIM325 Telescoping Inspection Mirror.

- 3 1/4" diameter mirror. 6 1/2" long, and extends to 29 1/2".

TKSS01MIR Telescoping Hinged Steel Mirror.

- Steel mirror won't shatter if dropped
- Hinged for accurate positioning, telescopes from 7" (177.8mm) to 28 1/2" (723.9mm)

- Mirror surface is 3.12" x 2" (79.4 x 50.8mm)

- In retracted position, it will easily fit in shirt pocket

UIM2LM Magnifying Inspection Mirror.

- Stainless steel handle telescopes from 11 1/2" to 51 1/2"
- 2 1/4" magnifying mirror enlarges viewing area
- All angle ball joint holds mirror head tightly at any angle



UIM2LTUV

UIM1LT

UIM2LT

UIM3LT

UIM2RSLT

LED Telescoping Mirrors–Blue-Point

UIM2LTUV Lighted Inspection Mirror.

- UV light great for working with A/C dye, coolant and multi dyes
- LED case illuminates dark hidden areas. Telescopes from 6-3/4" to 37" for accurate inspection
- All angle ball joint holds lighted mirror head firmly at any angle
- Use with ACTUUVLITE4 UV glasses to expose fluorescent dye leaks
- Also available: ACTUUVGUNA UV kit (with injection gun and dye) and ACTUUVGUNA8 (8 oz. A/C dye cartridge)

UIM1LT Lighted Inspection Mirror.

- Telescopes from 6 3/4" to 35 1/2". Mirror is 1 3/8" diameter.

UIM2LT Lighted Inspection Mirror.

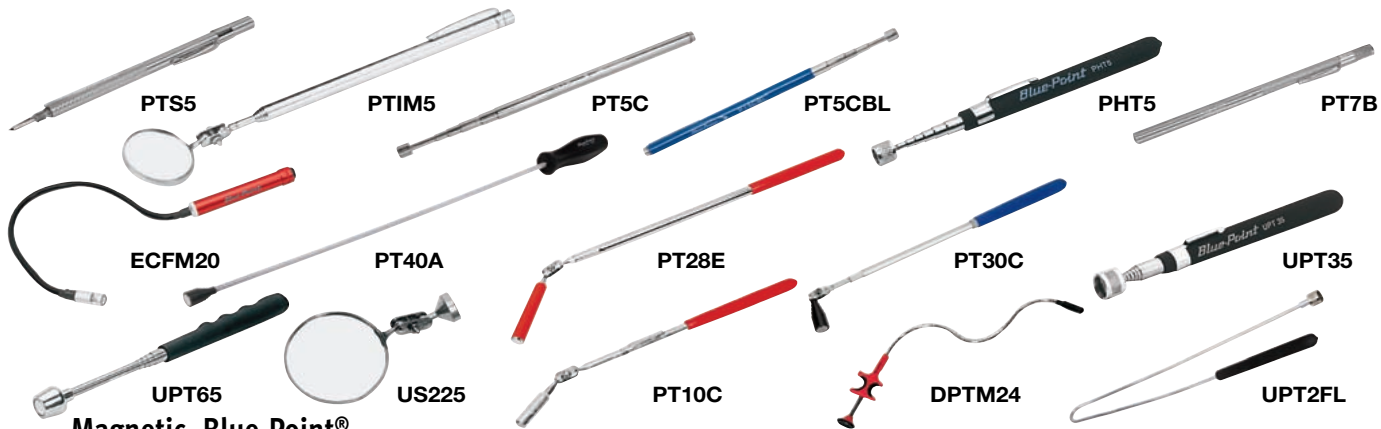
- Telescopes from 6-3/4" to 37". Mirror is 2 3/8" diameter.

UIM3LT Lighted Inspection Mirror.

- Telescopes from 6 3/4" to 30 1/4". Mirror is 3 3/8" diameter.

UIM2RSLT LED Lighted Inspection Mirror.

- Telescopes from 6 3/4" to 30" for fast, accurate inspections
- Mirror is 3 1/4" x 1 1/8"



Magnetic-Blue-Point®

Powerful magnets are fitted into the brass sleeve on these units. Adjustable hinged heads.

PTS5 Magnetic Pick Up Tool/Scribe.

- Magnet in one end and a replaceable carbide steel scribe tip at the other
- Includes pocket clip
- 5" long
- Do not use as a pry bar or punch

PTIM5 Pick Up and Inspection Tool.

- Magnet end lifts 1 1/2 lbs
- With pocket clip
- Length is 26 3/4" extended, closes to 5 7/8"
- Mirror end is 1 1/4" in diameter

PT5C Telescopic Magnetic Pick Up Tool.

- 5 7/8" extends to 25 9/16"
- Chrome
- Magnet lifts up to 2 lbs
- Lifetime Warranty
- Includes pocket clip

PT5CBL Telescopic Magnetic Pick Up Tool.

- Same as PT5C except blue

PHT5 Magnetic Pick Up Tool.

- Lifts 2 1/2 lbs
- Chrome plated shaft extends from 5 1/2" to 25 1/2"
- Black cushion grip will not slip in oily or wet hands
- Includes pocket clip

PT7B Magnetic Pick Up Tool.

- Lifts 1 lb
- 6" long

ECFM20 Flexible Magnetic Pick Up Tool.

- 18" (457.2mm) flexible shaft gets in tight places
- Long lasting, bright LED light source
- Anodized aluminum housing for lightweight and resistance to corrosion
- Powerful neodymium magnet lifts 1.1 lbs (0.5 kg)
- Powered by three "N" alkaline 1.5V batteries (included)

PT40A Flexible Magnetic Pick Up Tool.

- Magnet lifts 3 1/2 lbs.
- Length is 21", including a 14" flexible section

PT10C Pick Up Tool.

- Lifts 1 lb., 8 5/8" long



Lighted Magnetic Pick-up Tools-Blue-Point

UPT1LT LED Magnetic Pick-up Tool. Steel magnetic head lifts 8 lbs. and will not attach to unwanted metal surfaces. Telescopes from 6 3/4" to 27 3/4".

UPT2LT LED Magnetic Pick-up Tool. Rotating magnetic heads lifts up to 8 lbs. Telescopes from 8" to 32 3/4".

UPTLP2 Pen Light Pick-up Tool.

- Newly designed steel magnetic head lifts 8 pounds and shields the sides from attaching to unwanted metal surfaces
- LED light illuminates dark areas
- Stainless steel handle telescopes from 8" to 32-3/4"

PT28E Pick Up Tool.

- Lifts 2 lbs., 16 3/4" long, and extends to 26 3/4"
- Aluminum head
- Probe O.D. is .50"

PT30C Pick Up Tool.

- Lifts 6 1/2 lbs.
- 17" long, and extends to 27 1/8"

UPT15 Telescoping Magnetic Pick Up Tool.

- Lifts 2 lbs.
- 6 5/8" long, and extends to 33 1/4"

UPT35 Telescoping Magnetic Pick Up Tool.

- Lifts 4 1/2 lbs.
- 6 5/8" long, and extends to 33 1/4"

UPT50A Telescoping Magnetic Pick Up Tool.

- Lifts 10 lbs.
- 6 5/8" long, and extends to 33 1/4"

UPT65 Telescoping Magnetic Pick Up Tool.

- Goblet shaped magnetic head pushes the flux to the front of the magnet to lift 16 lbs
- Head shields the sides of the magnet from attaching to unwanted ferrous surfaces
- Telescopes from 9" to 34 1/4" (229 to 870mm)

UPTM65K Magnetic Inspection Kit.

- Includes UPT65 pick up tool and US225 inspection mirror in vinyl pouch

US225 Inspection Mirror.

- Attaches to UPT65 pick up tool
- 2 1/4" (57.2mm) diameter
- Dual ball adjustment provides infinite positioning

DPTM24 Flexible Magnetic Pick Up Tool.

- When retracted, magnet will not adhere to untargeted ferrous metals
- 24" flexible shaft easily maneuvers through tight spots
- Depress plunger to expose magnet from shroud and grab desired object
- Cushion grip handle provides comfort and control

UPT2FL Flexible Magnetic Pick Up Tool.

- 29" aluminum shaft can be easily bent at any angle
- Power cap slides over the magnet and shields its sides from attaching to unwanted metal surfaces
- Will pick up 5 lbs. with power cap



Claws (Flexible)

YA837A

Stock No.	No. of Claws	Max. Jaw Opening, inches (mm)	Flexible Section Length, inches (mm)	Overall Length, inches (mm)
GA265A	2	1 (25.4)	8 (203.2)	17 3/4 (450.9)
YA837A	4	3/4 (19.1)	16 (406.4)	23 1/2 (596.9)
GA353B	4	1 (25.4)	8 (203.2)	17 1/2 (444.5)
DPTC24	4	1 1/4 (31.7)	24 (609)	—
UPTC16LT	4	1 (25.4)	16 3/4 (425)	26 (660)



WARNING



• Read safety precautions on pages 594 to 597

BRAKE

Brake Lathes and Accessories

Bench Brake Lathes

EEBR312A Bench Brake Lathe.

- Designed for high volume repair shops that handle a full range of off the vehicle rotors and drums
- Heavy duty castings with bronze bearings
- 1 horsepower motor
- Supports drums or rotors up to 100 lbs. using the standard 1" (25.4mm) arbor
- Offers additional spindle travel to 9 7/8" (250.83mm) for machining wider brake assemblies with increased drum depth
- Multi-feed rate and spindle speed with 1 cut capability for technician ease of use
- Time saving, easily changed tool holders, variable feed motor and easy to position boring bar for fast setup
- Positive rake toolbits provide 1 cut capability and quality surface finish
- 3 speed spindle accommodates a wide range of rotor and drum diameters
- Adjustable cross feed speed allows for easy, rough cut/finish cut settings



EEBR312A



AMMCO902500S

Specifications	EEBR312A
Rotor Capacities	
Maximum Diameter	14 1/2" (Cross Feed Extension increases maximum rotor diameter to 20.0 (508mm))
Maximum Thickness	1 7/8"
Maximum Face Width	3 3/4"
Rotor Feed Rate	.002/.010" per revolution
Drum Capacities	
Minimum Diameter	6" (152mm)
Maximum Diameter	28" (711mm)
Drum Depth	up to 9 7/8" (251mm)
Feed Speeds	.002/.020"/ per revolution (0.05/0.50mm per revolution)
Spindle	
Spindle Travel	9 7/8" (251mm)
Spindle Speed (Inner Groove)	60 RPM
Spindle Speed (Middle Groove)	80 RPM
Spindle Speed (Outer Groove)	115 RPM
Spindle Feed Speed (Minimum)	0.002" (0.05mm) per revolution (infinitely variable)
Spindle Feed Speed (Maximum)	0.020" (0.50mm) per revolution (infinitely variable)
Cross Feed Speed (Fine)	0.002" (0.05mm) per revolution
Cross Feed Speed (Coarse)	0.020" (0.50mm) per revolution
Handwheel Graduations	0.002" (0.05mm)
Arbor	
Standard 1" Arbor	100 lbs (45.36 kg) maximum drum/rotor/flywheel
Power / Weight / Dimensions	
Motor	1 HP
Power requirements	60 Hz, 120VAC @ 20 amps
Floor space requirements	48" W x 34 1/2" D (1,219.2 x 901.7mm)
Spindle to Floor with Bench	39.75" (1,000mm)
Overall Height	17.25" (438mm)
Shipping Weight	410 lbs (186 kg)

EEBR312ABP Bench Brake Lathe. Includes: EEBR312A brake lathe, AMMCO902500S bench kit and AMMCO900002 basic adaptor kit.

EEBR312ADP Bench Brake Lathe. Includes EEBR312A brake lathe, AMMCO902500S bench kit and AMMCO900006 deluxe adaptor kit.

AMMCO902500S Bench Brake Lathe. Bench kit for Snap-on® brake lathes. Includes bench, sign, toolboard, chip funnel and bucket.



AMMCO908500

Micrometers

AMMCO908500 Brake Drum Micrometer. Use on brake drums (6-16 1/8"). Mechanical.

AMMCO908545 Brake Drum Micrometer. Use on brake drums (5-15", 127-382mm). Digital.

AMMCO902780 Rotor Micrometer. Use on brake rotors (0-2 13/32", 0-60.9mm). Digital.

Brake Lathes Accessories

Silencers

- AMMCO901175 Rotor Silencer.** Clip-on rotor silencer for OTV lathes.
- AMMCO901180 Rotor Silencer.** Clip-on rotor silencer for bench lathes.
- AMMCO905280 Silencer Band.** For passenger car/light truck drums. 1 3/4".
- AMMCO905290 Silencer Band.** For truck drums. 2 3/4".



AMMCO905280

- AMMCO906920 Silencer Band.** For ventilated rotors.
- AMMCO906921 Silencer Band.** For non-vented rotors (6 1/2") diameter. Package of 2.
- AMMCO906922 Silencer Band.** For non-vented rotors (9 1/4") diameter. Package of 2.
- AMMCO909800 Spring Silencer Assembly.** For ventilated rotors.



AMMCO900002



BTK10A



AMMCO900006

Adaptors

- AMMCO900002 Basic Adaptor Set.**
 - Double taper adaptor set (fits bearing race diameters 1 3/8" to 2 29/32")
 - Spacer, 1/2" long
 - Self-aligning spacer, 1/2" long
 - Hubless auto and light truck adaptor set range 1 27/32" to 3 27/32"
- AMMCO900006 Deluxe Adaptor Set.**
 - For most passenger cars and trucks through 1 ton, standard and composite rotors and drums both hubbed and hubless
 - Fits 1" lathe arbors
 - Includes standard double taper adaptor set from 1 3/8" to 1 23/32", double chuck adaptor set from 2 1/8" to 5 3/4", truck double taper adaptor set from 2 13/16" to 3 9/16", chuck key, spacer and self aligning spacer
- AMMCO909313 AdapteK Adaptor Set.**
 - Fits 1" arbor. I.D. range 3 3/4" to 5 1/2" diameter holes
 - Extends AMMCO90002 basic kit to 1 ton light truck applications
- AMMCO908994 Medium Duty Adaptor Set.**
 - Medium duty 1" and 1 7/8" I.D. adaptor set
- AMMCO904775 Heavy/Medium Duty Adaptor Set.**
 - Up to 8" hubs
 - Fits 1 7/8" arbor. I.D. range 2.000" to 8 3/16"
- AMMCO908995 Heavy Duty Adaptor Set.**
 - Heavy duty 1" and 1 7/8" I.D. adaptor set
 - Used to extend AMMCO908994 medium duty adaptor set
- AMMCO941412 Double Chuck Kit.**
 - 1" I.D. Range of 2 1/4" to 5 3/4"
 - Hubless rotors and drums through 1 ton vehicles
 - 3 backing plates
- AMMCO940928 4 x 4 Adaptor Set.**
 - 1" I.D.
 - 4 x 4 pressed rotor adaptor
- AMMCO903481 Arbor Set.**
 - 1 7/8" I.D.
 - Trucks and rotors up to 200 lbs
 - Includes arbor, arbor nut and wrench

Carbide Insert Bit Kits

- AMMCO9069141 Carbide Bits.**
 - Carbide insert (negative rake) bit kit contains 10 bits package along with locking screws
 - Use for Snap-on® EEBR309A and EEBR312A brake lathes
- AMMCO9076816 Carbide Bits.**
 - Carbide insert (positive rake) bit kit contains 6 bits package along with locking screws
 - Standard on EEBR310A and EEBR312A brake lathes
- AMMCO940410 Carbide Bits.**
 - Carbide insert (positive rake) bit kit contains 10 bits package along with locking screws
 - Use for JBC brake lathes
- AMMCO940415 Carbide Bits.**
 - For all Kwik-Way® lathes with replaceable insert feature as well as older Snap-on lathe models (YA282, YA278A and YA277 Series)
- AMMCO940435 Carbide Bits.**
 - For Accu-Turn® lathes
 - Carbide insert (positive rake) bit kit contains 10 bits package
- AMMCO940610 Round Toolbits.**
 - Round (positive rake) replacement toolbits for AMMCO940630 toolbit holder
 - Pack of 10
- AMMCO940630 Round Toolbits Holder.**
 - Roundbit tool holders can be used with EEBR308A, EEBR309A and EEBR312A
- BTA10 Carbide Bits.**
 - For Ammco models 3000, 4000, 4100, 6900, 7000, and 7700 disc rotor lathes
- BTF10 Carbide Bits.**
 - For all FMC lathes with replaceable insert feature
- BTK10A Carbide Bits.**
 - For all Kwik-Way lathes with replaceable insert feature as well as older Snap-on lathe models (YA282 Series, YA278A Series and YA277 Series)



WARNING



• Read safety precautions on pages 594 to 597

BRAKE

Brake Lathes and Accessories



YA180A

Front Wheel Drive Disc Brake Lathe

YA180A FWD Disc Brake Lathe.

- Use for on the car machining of front wheel drive rotors
- Mounts in place of the caliper
- Vehicle engine turns disc during the machining process
- Special mount fixture reduces set up time by providing a quick reference for spacer requirements and correct link spacing as well as cutting tool centerline
- Extension kit includes 3 1/4" slotted and support links along with 6 3/8" left and right tool holders to machine rotors on 4-wheel drive vehicles, 1 ton trucks and other large rotor applications
- Disc capacity 4" to 16"
- Maximum rotor thickness is 1 1/2": maximum rotor diameter is 12 1/2"
- Feed rate is .002" to .006"
- Lathe includes metal storage box and instructional video



YA189

YA189 Power Feed.

- Designed to adapt to the YA180A disc brake lathe
- **YA280 Disc Brake Power Drive.**
- Use with YA180A as a power source for turning the rotor without relying on the vehicle's engine
- Fully adjustable drive hub fits most 4, 5 and 6-bolt hubs
- Fully adjustable from 33" to 56"
- 1/2 HP motor, 1,750 RPM (135 RPM final drive)
- 120VAC, 60 Hz, single phase
- **YAH280-50 Disc Brake Power Drive.**
- 220V, 60 Hz version of YA280

Brake Bleeder Kits



BB500

BB700

BB700REF

Vacuum Type Brake Bleeders

BB500 Brake Bleeder Kit.

- Includes: BB5001 vacuum brake bleeder and BB5002 auto refiller bottle

BB5001 Vacuum Brake Bleeder.

- Fast, efficient, 1 person vacuum bleeding.
- Large 3 pint (1.5 liter) container. Generates 25 in Hg vacuum with air pressure of 100 psi
- Specially formulated seals allow unit to be used with a variety of fluids
- On/Off valve and flow regulator: seals when not in use to prevent spillage
- Quick release locking trigger, safety shutoff valve, overflow check valve
- Compact design fits under wheel well
- 19 1/2" suction hose
- Universal brake screw fitting

BB5002 Auto Refiller Bottle.

- Automatically keeps reservoir filled to the correct level
- 20 fluid oz. (592 ml) container
- Retaining clip for positive attachment
- Compact design fits under hood
- Positive venting system supplies continuous flow
- Fits virtually all master cylinder reservoirs: can be sealed when not in use to prevent spillage
- On/Off valve

Vacuum Type Brake Bleeders—Blue-Point®

BB700 Vacuum Brake Bleeder/Flusher.

- Unique dual mode throttle control allows dual fluid control: twist in one direction for vacuum bleed/flush mode, twist in the opposite direction for low pressure to return fluid into auto/truck system or to empty canister
- Bleed valve kit can be used when disconnected from air for mobile operation
- Dual use as either bleeder/flusher or fluid evacuator
- Unique hose disconnect system features a push ring for fast disconnections
- Hose wraps around head and locks on knob plus straw clamps in holder for easy toolbox or shelf storage
- Drains remaining fluid in hose after use to avoid messy cleanups
- 2.7 quart capacity canister
- Quiet operation
- O-ring seals for multiple fluids
- Seal ring opens and stays at top for easy service
- **BB700REF Refiller Bottle.**
- Eliminates need to check fluid levels
- Guards against air entering into the brake system
- Facilitates effective 1 person bleeding process

Diaphragm Type Brake Bleeder Adaptors—Blue-Point

Stock No.	Description
BB300B19	VW Water Cooled Adaptor
BB300B20	Dual Bleeding Attachment
BB300B21	Pop-off Valve
BB300B22A	Adaptor set, 7 pcs.
BB300B26G	Universal Adaptor
BB300B29G	3 1/4" Universal Round Adaptor
BB300B35G	Universal Adaptor
BB300B36G	GM Dual Reservoir Adaptor
BB300B39GC	GM/Chrysler Plastic Reservoir Adaptor
BB300B41-G9	Universal Rectangular Adaptor
BB300B42G	Universal Adaptor
BB300B45-G9	Universal Round Adaptor
BB300B47G	Chrysler Adaptor

Brake Bleeder–Blue-Point®

Non-Diaphragm Type Brake Bleeder

BB100C Nondiaphragm Type Brake Bleeder.

- 1 gallon capacity
- Self-contained, hand pressurized pump
- More than 10' of hose with shut-off, pressure gauge and quick coupler for use with other brake bleeder adaptors (such as any of the BB300B adaptors)
- Use only D.O.T. 3 or D.O.T. 4 automotive brake fluid



BB100C

Master Cylinder Pressure Cap

YA8925 Master Cylinder Pressure Cap.

- M45 x 3.50 thread adapts to fluid reservoir and 1/4"-18 and 3.5mm thread for pressure bleeder
- For Mercedes, BMW, Audi and Porsche



YA8925

Brake Service Tools

General Service Sets

BCS70A Disc Brake Caliper Driver Set.

For domestic vehicles (except Chrysler). 7 pcs.

Stock No.	Description
FA8E	1/4" Hex Driver
FA10E	5/16" Hex Driver
FA12E	3/8" Hex Driver
FAM8E	8mm Hex Driver
FTX40E	T40 Torx® Driver
FTXB45E	T40 Torx Driver
FTXB50E	T40 Torx Driver



BCS70A

BTK7A General Brake Service Set.

7 pcs in storage tray.

Stock No.	Description
B1356E	Spring Tool
B1458C	9" Bleeder Wrench
B1461	8 1/4" Adjusting Tool
B3404B	Adjusting Tool (for Bendix self adjusting brakes with star adjusting nut)
BT11	Spring Tool
S6112	Bleeder Wrench
B1467A	Bleeder Wrench (for GM, Ford, and Chrysler)



BTK7A



BT27



BT9



BT11



131A

Brake Spring Tools

BT27 Single Spring Brake Tool (GM)–Blue-Point.

- Tool releases tension on both large and small GM single brake springs during servicing

Large Spring Applications:

2005 and later Chevrolet Silverado, 2004 and later Chevrolet Colorado.

Small Spring Applications:

1991 and later GM H body (Bonneville, LeSabre and Delta 88), 1992 and later GM C and U body (Buick Electra, Olds 88, Cadillac Fleetwood and DeVille, Chevy Lumina APV, Pontiac Tran Sport and Olds Silhouette), and 1995 and later Chevy Lumina and Chevy Monte Carlo.

BT11 Brake Spring Tool.

- Services Bendix® brake springs and any spring attached to post
- Socket end removes; hook end replaces
- 9 3/4" long

131A Brake Spring Pliers.

- Removes or replaces Bendix, Lockheed® and other hydraulic and mechanical brake springs
- Steel hook on jaw is replaceable
- Handles provide socket type spring remover and hook end replacer
- 13 1/4" long



BTK5

BTK5 General Brake Service Set.

5 pcs in storage tray.

Stock No.	Description
131A	Spring Pliers
B1461	8 5/16" Adjusting Tool
S6110A	Bleeder Wrench (For GM, Datsun, and Honda)
S6118A	1/4" Drive Spring Cap Socket
SGT4BR	1/4" Drive, 5 3/4" Long Shank Driver



S6118A



BT19A



B1356E



BT15



BT17A

31-3B Replacement Hook.

- Replacement hook for 131A brake spring pliers

S6118A Spring Cap Socket.

- 1/4" drive double ended socket designed for subcompact brake spring on one end and larger domestic cars and light trucks on the other

- Industrial finish

- Use with TM4B driver

BT19A Heavy Duty Brake Spring Tool.

- Heavy duty design
- Remove or install import and domestic brake springs with or without anchor pins
- Maximum wire I.D. is 1/4", overall length is 8 7/8"

BT9 Brake Spring Tool–Blue-Point.

- Quickly and easily removes or replaces springs
- Allows mechanics to press spring into place with one simple motion, replacing the slide mechanism
- Includes 2 mechanisms to allow easy removal and replacement of springs on brakes
- 8-3/4" long

B1356E Brake Retainer Spring Tool.

- For use on 3/4" retainer spring caps found on most newer vehicles

BT15 Remover.

- For removing brake springs on full size cars and pick ups with drum-style brakes

- Industrial finish • 8 15/16" long

BT17A Retainer Spring Tool.

- For use on 5/8" diameter retainer springs found on most newer vehicles

- Industrial finish • 8 15/16" long



WARNING



• Read safety precautions on pages 594 to 597

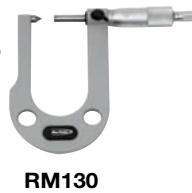
BRAKE

Brake Service Tools

Disc Brake Gauges and Micrometers

RM130 Rotor Micrometer-Blue-Point®.

- Range of .30" to 1.3" in .0001" graduations
- 3 1/2" deep frame
- Pointed anvil for checking grooves
- Includes 1" checking standard and storage case



RM130



DG530

RG430

Brake Drum/Rotor Gauges-Blue-Point

DG530 Digital Drum Gauge.

- Measures automotive and heavy duty brake drums
- Pointed anvils and 4 1/4" long arms allow increased measurement accuracy and coverage
- Easy to read digital display with inch/metric conversion
- Selectable depth stops for easier use
- Range 6" to 20.65" (150 to 515mm): graduations are .0005" (.01mm)

RG430 Digital Rotor Gauge.

- Measures brake rotors and ball joints
- Pointed anvil and 3 1/2" long arms for increased measurement accuracy and coverage
- Easy to read digital display with inch/metric conversion
- Selectable depth stops for easy use
- Range 0" to 5.50" (0 to 140mm): graduations are .0005" (.01mm)



S9523

HSA716

B1468

BSA916

BT4651

Truck Brake Adjusting Tools

S9523 Brake Adjuster.

- Star nut turning tool for Chevrolet trucks with overload springs
- Different angles at each end of tool for clearance
- Blades are 17/32" wide; tool is 5 1/4" long

B1468 Brake Adjuster.

- For use on GMC and Chevrolet 1 1/2 and 2 ton trucks
- Tips on each end are bent 45° and then twisted 45° to allow access to brake adjusting mechanism
- 9 1/4" long

BT4651 Heavy Truck Slack Adjuster Set.

- Rockwell style automatic slack adjuster tool set includes offset, reversible automatic release tool
- Release tool slides under the button of the pull-pawl on the automatic slack adjuster until fully seated while the wrench is used to adjust the brake to drum clearance
- Screwdriver handle for performance and comfort

HSA716 Slack Adjuster Wrench.

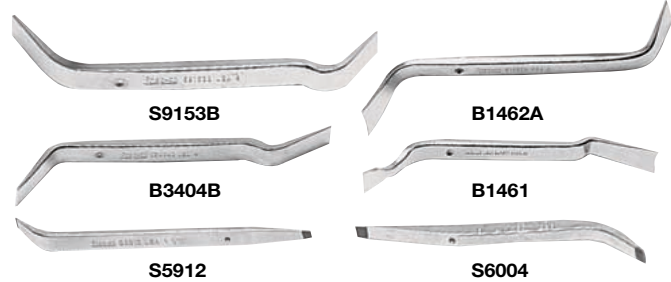
- For brake service and slack adjuster installation on heavy-duty trucks equipped with Haldex® automatic slack adjusters
- Use to turn the manual adjuster hex
- Extra deep 7/16" hex allows reach to recessed adjusters
- 14 5/8" overall length helps to overcome the anti-reverse mechanism
- Protective vinyl boot helps keep contaminants out of the ratchet mechanism for extended tool life



GA3634

GA3634 Ball Joint/Disc Brake Test Indicator Set.

- Check ball joint wear, brake rotor runout, gear backlash, valve guide and camshaft wear
- Locking pliers clamp securely to any convenient object
- Eliminates vibration problems and false readings
- Includes CM6563450 storage case



S9153B

B1462A

B3404B

B1461

S5912

S6004

Automotive Brake Adjusting Tools

S9153B Brake Adjuster.

- Designed to work around obstructions on GM vehicles
- Blades are 1/2" wide; tool is 7 7/8" long

B1462A Brake Adaptor.

- For rear brakes of those cars and trucks with trailing arm bolts
- Tang at each end is set at 68°, but in opposite directions for use on left and right hand sides
- 8 1/2" long

B3404B Brake Adjuster.

- For Bendix® self-adjusting brakes and other brakes with star adjusting nut (except Chevrolet)
- Blades are 17/32" wide with 1/32" tip thickness
- 8 3/16" long

B1461 Brake Adaptor.

- One end has a wide tang set at a 29° angle for rear brakes; other end is set at a 45° angle for front brakes
- 8 1/4" long

S5912 Brake Adjuster.

- For use on VW, Mazda, Omni and Horizon
- Each tang tapers to a 1/4" tip width
- One tang is straight; other is offset 45°
- 8 1/2" long

S6004 Brake Adjuster.

- For use on 1969 and later Toyota when self-adjusting brakes are being dismantled
- One end is offset 15°; other is 60°
- Tapers to 1/4" tips
- 5 1/4" long

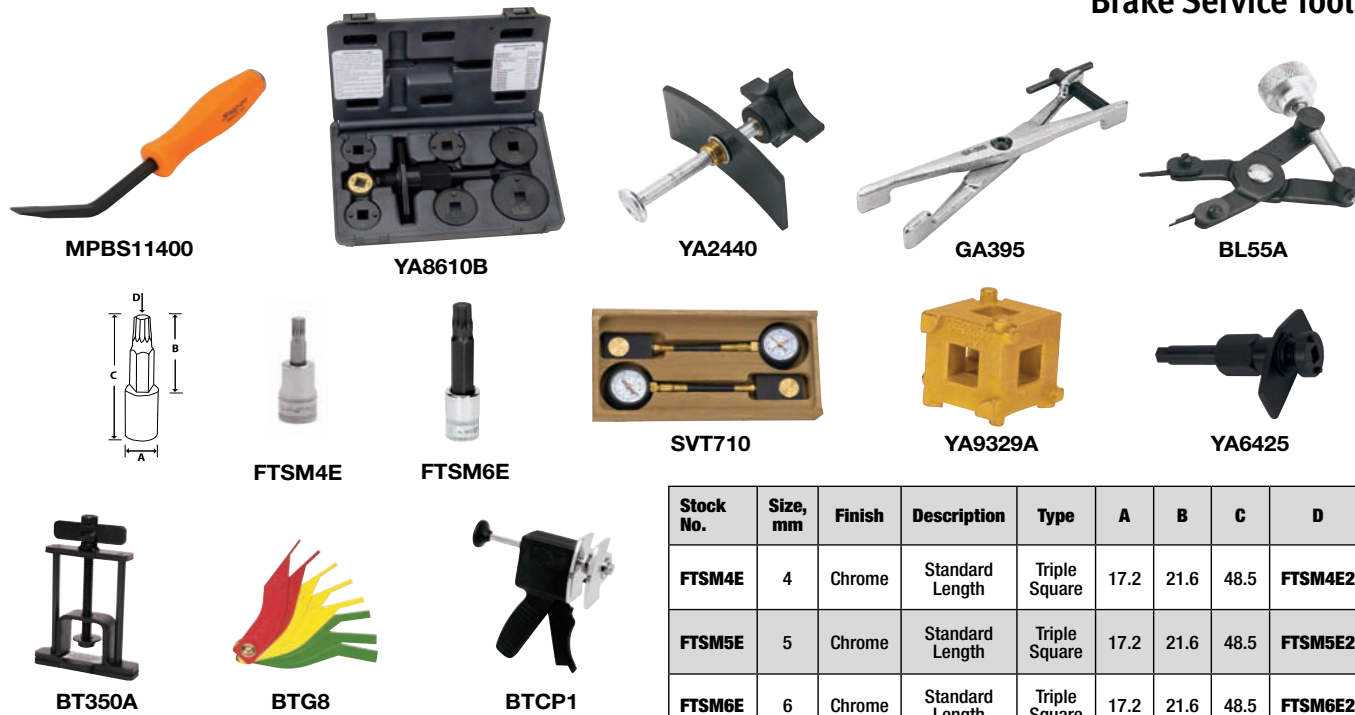
S6005 Brake Adjuster.

- Similar to S6004
- For use on 1969 and later Toyota when a complete dismantling of the self-adjusting brakes is required
- One end is angled at 60°; other end features a special offset
- Each tang tapers to a 1/4" tip width
- 5 1/4" long

BSA916 Slack Adjuster Wrench.

- For brake service and slack adjuster installation on heavy duty trucks equipped with Bendix automatic slack adjusters
- Use to turn the manual adjuster hex
- Extra deep 9/16" hex allows reach to recessed adjusters
- 14 1/2" overall length helps to overcome the anti-reverse mechanism
- Protective vinyl boot helps keep contaminants out of the ratchet mechanism for extended tool life

Brake Service Tools



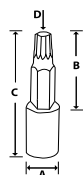
MPBS11400

YA8610B

YA2440

GA395

BL55A



FTSM4E

FTSM6E

SVT710

YA9329A

YA6425



BT350A



BTG8



BTCP1

Stock No.	Size, mm	Finish	Description	Type	A	B	C	D
FTSM4E	4	Chrome	Standard Length	Triple Square	17.2	21.6	48.5	FTSM4E2
FTSM5E	5	Chrome	Standard Length	Triple Square	17.2	21.6	48.5	FTSM5E2
FTSM6E	6	Chrome	Standard Length	Triple Square	17.2	21.6	48.5	FTSM6E2

Disc Brake Tools

MPBS11400 Prybar/Brake Tool. Perfect for high volume tire/brake shops and general automotive applications. Designed specifically for prying/aligning brake applications such as brake pistons, calipers or rotors. Strong 3/8" square alloy steel bar with straight tip. 11" total length with 40° offset ensures access into tight wheel wells. Large, comfortable, high visibility orange handle with striker cap allows a good grip unlike small, hard to hold brake adjustment tools. Handle length: 5-1/2". Exposed bar length: 5-1/2"; bar: 3/8"; tip width: 3/8"; Tip type: Straight tip.

YA8610B Universal Brake Caliper Tool Set-Blue-Point®. Assists in replacement of brake pads on most 4 wheel disc brake cars. Tool and adaptors position brake piston back into caliper to allow clearance for newer, thicker brake pads. Designed for most Audi, Chrysler Corporation, Ford, GM, Honda, Jaguar, Mazda, Mini Cooper, Mitsubishi, Nissan, Saturn, Subaru, Toyota, VW and Volvo. Set includes 1 tool and 6 adaptors in a storage case.

YA6730 Brake Caliper Tool Set. Combines the main body from the YA8610B set and the YA8610B-7 adaptor.

YA8610B-7 Brake Caliper Tool Adaptor. Use on Mazda 3 (2004 and later), Mazda 5 (2006 and later), Mini Cooper (all 2002 and later), Volvo S40 (2004 1/2 and later), Volvo V50 (2006 and later), Volvo C30 (2007 and later), Pontiac Solstice (2006 and later), Saturn Sky (2007 and later) and Jaguar X type (2006 and later).

YA2440 Pad Spreader-Blue-Point. For use on most domestic and import cars and light duty trucks with single piston disc brakes without parking brakes. Compresses the disc brake piston for easy pad installation.

GA395 Spreader-Blue-Point. For standard 4 piston caliper disc brakes. Frees hands to assemble caliper over rotor. 6 3/4" long.

BL55A Brake Cylinder Retainer Remover. Use on late model GM cars including X-body cars. Expands and holds retainer for cylinder disassembly or assembly.

FTSM4E Metric Triple Square Driver. Use on VW/Audi door handle screws 1998 and later, brake drum fasteners on VW Toureg plus many other 4 and 5mm triple square applications.

FTSM5E Metric Triple Square Driver. Use on VW/Audi door handle screws 1998 and later plus many other 4mm and 5mm triple square applications. Also use on 2003 to 2008 Porsche Cayenne to loosen the cover on the adjustment cable for the emergency brake.

FTSM6E Metric Triple Square Driver. For VW disc brake caliper.

SVT710 Disc Brake Analyzer. Use analyzer to test for sticky brake caliper pistons and slides, air in hydraulic system, restricted flexible brake hose and other brake problems. Set includes (2) 0-5,000 psi capacity gauges in a wooden case. Red memory needle records highest reading.

YA9329A Piston Rotation Tool-Blue-Point. Use to rotate piston back into caliper cylinder when replacing pads. Also rotates parking brake cylinder back into the caliper cylinder on vehicles with 4 wheel disc brakes. For 1975 and later Ford and Mercury plus some imports.

BT350A Brake Piston Press-Blue-Point. Applications: most cars plus light and heavy duty trucks. Presses single or dual pistons. Quick and easy to use: no nuts or bolts involved in pressing operations.

YA6425 Universal Brake Caliper Tool (Left Hand Thread)-Blue-Point. Left hand thread is essential to service brake calipers on newer Ford models such as Freestyle, Ford 500 and Mercury Montego. Includes #2 adaptor.

BTG8 Brake Pad/Shoe Gauge Set-Blue-Point. Color coded gauges provide instant feedback on brake pad/shoe condition. Constructed from 20 gauge sheet metal with durable powder coat finish. Red indicates service required, yellow indicates caution and green indicates an OK situation. Includes 8 testing blades of various colors and thickness:

Red 2mm (0.0787")	Yellow 4mm (0.1575")	Green 8mm (0.3150")
Red 3mm (0.1181")	Yellow 5mm (0.1969")	Green 10mm (0.3937")
—	Yellow 6mm (0.2362")	Green 12mm (0.4724")

BTCP1 Brake Caliper Press-Blue-Point. Works on both fixed and floating calipers. Generates more than 1,600 ft. lbs. of force to retract the toughest caliper pistons. Single lever mechanism used to apply and release force for ease of operation and faster service. Prevents damage to pistons, hubs or calipers. Ensures parallel piston retraction on dual and quad piston calipers. Easy left and right side use.



WARNING



• Read safety precautions on pages 594 to 597

BRAKE

Brake Service Tools



Truck Brake Tools

B1359B Brake Retainer Spring Tool. For Chrysler and Ford 3/4 ton trucks equipped with Bendix® brakes. U-shaped end is offset 30° to 45° for easy removal of brake shoe to backing plate spring.

BT518 Brake Shoe Tool. For large trucks and trailers with air brakes with "S" cam design. Provides leverage to back out brake shoe and remove roller cam. Industrial finish.

BT12 Brake Spring Tool. Services brake shoe retracting springs on trucks using Bendix, Wagner® and Kelsey-Hayes® systems. Unique shape permits access and leverage.

YA9070A Rear Brake Adjusting Tool. For single axle Lucas-Girling brakes found on 1984 and later F-600 and larger Ford trucks and buses. Has all the right angles to reach through the backing plate. Industrial finish.

BT1360 Brake Spring Tool. Remove brake shoe retaining springs from heavy duty Ford, GM, Dodge and International trucks. Large, comfortable handle. Constructed for strength and durability. Applications:

Ford: F250, F350, P250, P350, P400

GM: 1 Ton, some 1/2 Ton

Dodge: B300, D200, D300, P200, P300

International: 1200 Series, 1300 Series

BT400 Brake Spring Tool (Heavy Duty)–Blue-Point®.

For brake springs on 3/4 ton and heavier trucks. T-handle for generating maximum torque when encountering stiff springs. Head may be rotated 360° to clear obstacles. Overall length of 7 3/4".

TAP1 Truck Anchor Pin and Bushing Press. Designed to remove brake anchor pins and bushings on 16 1/2" "Q type" S-cam tractor and trailer brake systems from Dana-Spicer, Arvin-Meritor (Rockwell), Eaton, Timkin and Fruehauf. Removes brake pins and bushings without removing wheel hub. Pressure pad retaining rings hold pads firmly in place. Only 2 hands needed to operate. Interchangeable pressure pads allow removal of bushing alone or simultaneous pin/bushing removal. Zerk grease fitting lubricates and flushes dirt from pressure screw for long life. Designed for use with 3/4" impact guns. Storage case.

Bleeder Wrenches

S6110A Bleeder Wrench. For GM, Nissan and Honda. 8mm, 6-point box end; 10mm on the other. Ends are offset for clearance. 192mm long.

B1460B Bleeder Wrench. Similar to S6110A. Has a 3/8" box end for brake bleeding work and a 7/16" box end for brake shoe eccentric bolt adjustment. Offset clears drag link arm and recessed backing plate on front wheel. 9 1/2" long.

B1467A Bleeder Wrench. For GM, Ford and Chrysler. Similar to S6110A. 5/16" and 3/8" single hex box ends are offset for access to bleeder fittings. 8 1/2" long.

S6143 Bleeder Wrench. For most imports. Similar to S6110A. 7 and 9mm, 6-point box ends are offset for clearance. 252mm long.

B1458C Bleeder Wrench. Includes 1/4" and 3/8" single hex box ends. 9" long.

B1463A Bleeder Wrench. 1/4" to 3/8", 6-point box ends are tapered for clearance. 3 3/4" long arms (for smaller bleeder fittings on most compact cars).

S8184 Bleeder Wrench. For fittings on most GM autos. Similar to B1463A. 3/8" and 5/16", 6-point box openings. 4" long arms.

B1470 Bleeder Wrench. Similar to B1463A. For late model GM and most imports. 8mm, 6-point box end; 10mm on the other. Wrench has a 90° bend for access. Arms are approximately 100mm long.

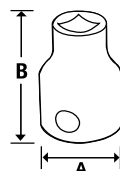
S6112 Bleeder Wrench. For some GM and Toyota, plus other imports. Similar to B1463A. 8mm, 6-point box on one end; 10mm on the other. Wrench has 90° bend for access. Arms are 130mm long.

S6111 Bleeder Wrench. Covers 90% of late model domestic applications including late model Chrysler, Dodge, Ford, GM, Audi, Mercedes and VW. 10mm and 11mm 6-point Flank Drive® wrenching configuration. Ends are offset for extra clearance. 235mm long.

Wrenches and Sockets

PMP406A Internal Metric Pipe Plug Socket. For rear brake adjustments on 1973 to 1986 Subaru. 3/8" drive, 6mm internal square socket.

mm	Stock No.	A	B
6	PMP406A	17.2	25.8



PMP406A

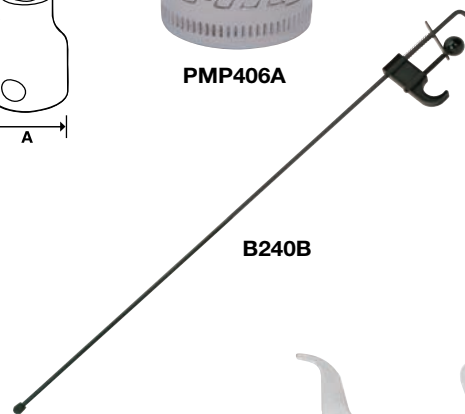
Throttle Depressor/Brake Resetting Gauge

B240B Throttle Depressor-Blue-Point®.

- Holds throttle at a constant RPM, easily adjusts to desired length
- Adjustment screw fine tunes desired RPM
- Rubber tip keeps the tool firmly positioned on the accelerator pedal
- Overall length of 40"

YA2780 Brake Resetting Gauge.

- Automatically sets brake shoe size when measuring against drum walls
- Positive locking section ensures an accurate reading every time
- Improved range of 6 1/2" to 13 1/4"



B240B

YA2780

Emergency Brake

SIML160 6-Point Extra Deep Impact Socket.

- Use for removing or replacing fuel tank retaining strap nuts
- Also has applications on emergency brake adjustment nuts and stabilizer retainers
- 1/2" square drive; 1/2", 6-point wrench opening
- 5" long

SIML180 Socket. Same design as SIML160, except hex size is 9/16"



SIML160

Emergency Brake-Blue-Point

BT22A Parking Brake Cable Tool.

- Designed to remove parking brake cables from the brake backing plate and chassis mounting bracket
- Double ended tool has Ford Escort, Topaz and Tempo applications on one end while the larger end services most other vehicles

BR1 C-Ring Pliers.

- Opens the C-ring on the emergency brake actuation lever when changing rear brake shoes on many domestic cars, trucks and imports

BR2 C-Ring Pliers.

- Holds the C-ring without slipping during installation



BT22A



BR1



WARNING



• Read safety precautions on pages 594 to 597

BRAKE

Brake Service Tools



YA4000B

Vacuum Pressure Pump Kit—Blue-Point® YA4000B Automotive Test Kit.

- Produces vacuum or pressure at the turn of a switch
- Comfortable ergonomic design
- One finger trigger vacuum/pressure release
- Durable, accurate diaphragm type pressure/vacuum gauge
- Handheld vacuum/pressure pump with 2" compound gauge and rubber boot
- 12 oz. fluid reservoir bottle with fluid transfer and storage lids plus fluid pick up tube
- 6 tapered adaptors for connecting to tubing from .09" to .50" ID
- 2 tapered manifold plugs
- 2 universal bleed screw adaptors
- 12 vacuum cap plugs, vacuum line T-adaptor
- (2) 1/4" ID x 24" long connection tubes with quick-change connector
- 5/32" ID x 1/4" ID tubing adaptor
- 5/32" ID x 3" long vacuum test tube
- Rubber cupped adaptor
- Master cylinder refill kit

Applications:

- Vacuum and pressure related engine performance diagnostics and tune-ups
- Brake bleeding
- Fluid transfer, evacuation and sampling

Hones—Blue-Point



JT64

Two-Arm Hone and Stone Sets

JT64 Two-Arm Hone. For 1/2" to 2 1/4" diameter cylinders. Includes 2 medium grit stones, each 1 1/8" long.

JT64-1 Stone Set. Set of 2 medium (220 grit) stones for JT64. 1 1/8" long.

JT64-14 Stone Set. Set of 2 fine (400 grit) stones for JT64. 1 1/8" long.



CF63

Three-Arm Hones and Stone Sets

CF63 Three-Arm Hone. For 3/4" to 2 1/2" diameter cylinders. Adjustable thumb nut to control tension.

CF68 Three-Arm Hone. For 1 1/4" to 3 1/2" diameter cylinders. Adjustable thumb nut to control tension.

Stone Sets

Stock No.	Grit	Length, inches
CF63-100	100 (3)	1 1/8
CF63-1	240 (3)	1 1/8
JT63-21	220 (3)	2
CF63-34	240 (3)	3/4
CF63-14	400 (3)	1 1/8
JT63-24	400 (3)	2



CJ107



CJ114



YA2002

Pullers

CJ107 Body Dent Puller.

- Slide hammer action pulls out dent for filling
- "L" hook included for larger jobs
- 4 lb. slide hammer

CJ114 Body Dent Puller.

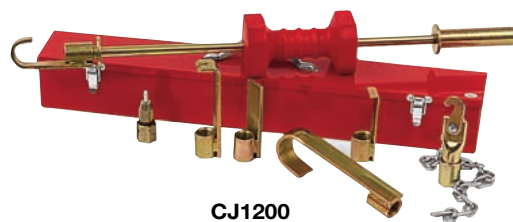
- Mainly for rocker, quarter, back and door panels
- Includes screw for puncturing sheet metal plus a bodyman hook and seal hook for larger jobs
- 3 lb. slide hammer

YA2002 Quarter Panel Puller.

- Removes dents from rear quarters and wheel wells
- (2) 12" tubes (with different dimensions) fit most wheel well openings
- Use with chain attached to frame machine or portable power unit

CJ1200 Slide Hammer Puller Set.

- Contains a 12 lb., contour-formed slide hammer and a variety of attachments for auto body repair work



CJ1200



BM175

Alignment Bar

BM175 Alignment Bar. Use to align bumpers, window posts, wheel wells, panels, hoods, decks, and brackets. 6', 1/4" chain has hooks welded to each end for easy attachment to body components. 4 1/2" long, 1 1/2" diameter tubing.



BM101

Push-Pull Jack

BM101 Push-Pull Jack. Capable of 3,000 lb. push-pull power. Aligns, straightens and removes dents. Multi-purpose hook on jack head, plus a hook on the 55" long friction rod. 3 position handle. Friction rod flexes to maintain constant pressure without bending, while the grooved end prevents slipping.

Body Repair Kits—Blue-Point®

YA1544A Body Repair Kit.

- 4 ton capacity kit includes hydraulic unit, 5 "Snap-Set" extensions, spreader and a full selection of attachments for most push applications: 18 pc kit includes durable storage case
- Auto pump overload system protects against damage to rams and equipment
- 1/2 ton capacity hydraulic spreader has 2" jaw and spreads from 5/8" to 3 3/4"
- Flex head includes permanently molded rubber pad
- Heavy walled extension tubes stand up to the toughest loads
- Long handle reduces required pumping effort

YA1545 Body Repair Kit.

- 10 ton capacity kit includes: hydraulic unit, 4 extensions (4", 10", 18" and 27"), spreader and full selection of attachments in custom-fitted, rugged, wheeled storage case
- Applications: pushing, spreading and pressing of vehicle body panels as well as various component parts and assemblies
- Pumps rated from 8,000 to 10,000 psi
- Portable for use on the road or in the shop



YA1544A



YA1545



WARNING



- Operate hone only while it is within cylinder
- Read safety precautions on pages 594 to 597

BODY

Hammers



BF618B



BF630B



BF610B



BF632B



BF604B



BF608B



BF611B



BF617B



BF631B



BF603B



BF614B



BF635

Hammers

BF618B Wide Nose Peen Hammer.

- Bumps odd fender contours

BF632B Door Panel Hammer.

- For door and body panel bumping
- Smaller diameter head is offset 45°
- Fiberglass handle

BF611B Picking and Dinging Hammer.

- Smooths small dents and general dinging

BF603B Long Spot Pick Hammer.

- For bumping when filing or where metal is covered with soundproofing material

BF630B Spot Pick Hammer.

- Same design as BF603B except with blunted pick end

BF604B Wide Nose Cross Peen Hammer.

- For finishing and caulking

BF617B Shrinking Hammer.

- Extra large faces for large area work
- Serrated for shrinking and smooth for finishing

BF614B Long Picking Hammer.

- For turret and fender work

BF610B Hammer Shrinking.

- Same design as BF617B except serrated shrinking face is square
- Finishing head on other end

BF608B Short Curve Cross Peen Hammer.

- Use under fenders with rolled edges: use finishing face for dinging

BF631B Cross Peen Shrinking Hammer.

- Combines pick end of BF604B and serrated face of BF617B

BF635 Door Skin Hammer.

- For door skin replacement
- Narrow, rectangular faces work in tight flange area
- High crown straight head with 1 5/16" radius for finishing thin sections without poking holes
- Medium crown head with 25° offset and 3 1/2" radius for working on narrow flanges against the door structure
- Fiberglass handle offers excellent balance and high strength

Hammer Specifications

Stock No.	Head Length, inches	Round Face Diameter, inches	Peen End Size, inches	Handle Length, inches	Head Weight, oz.
BF618B	5	1 9/16	3/16 x 7/8	12	12 1/2
BF632B	6 5/8	1 1/4 - 1 5/8	—	13	16
BF611B	4	1 15/32	—	12	8
BF603B	6 1/8	1 19/32	1/16 x 7/16	13	12 1/2
BF630B	6	1 19/32	1/4 x 7/16	13	12 1/2
BF604B	5 1/2	1 5/8	5/8	13	11 1/2
BF617B	4 1/2	1 7/8	—	13	16
BF614B	8 5/8	1 5/8	—	17	16
BF610B	4 1/4	1 7/8	—	13	16
BF608B	5 5/16	1 5/8	5/8 x 1/16	13	11 1/2
BF631B	5 1/2	1 7/8	5/8	13	11 1/2
BF635	7	1 7/16 - 1 5/8	5/8 x 1 1/2 5/8 x 2	12	16

Hickory Handles

Stock No.	Length, inches	Hammers Used On
BF603-2R	13	BF603B, BF604B, BF608B, BF617B, BF610B, BF630B, BF631B, BF633, BF634
BF611-2R	12	BF611B, BF615, and BF618B
BF614-2R	17	BF614B

Body Tool Sets

Body Tool Sets

2005BFA Body Tool Set.

- Contains CJ114 body dent puller plus BF608B and BF611B body hammers, BF716B dinging spoon, and BF711B heel dolly (5 pcs)

2007BFB Body Tool Set.

- 7 of the most common tools necessary for professional body work: BF716B spoon; BF608B, BF611B, and BF617B body hammers; and BF710B, BF711B, and BF712B dollies



2005BFA



2007BFB

Snips—Blue-Point®



CD12A

CD10A

CD16A

Tin Snips

Cut straight, circular or irregular patterns; right or left cuts.

CD7A Duckbill Snips. 1 1/2" blades, 7" long.

CD10A Duckbill Snips. 2 1/4" blades, 10" long.

CD12A Combination Snips. 3" blades, 12" long.

CD16A Bulldog Snips. 2 1/2" blades, 16" long.



SNP2A

Light Duty and All Purpose Snips

SNP2A Angled Multi-Purpose Heavy Duty Shears.

- For leather, cloth, plastic, rubber, sheet, cardboard, gasket material, rope and other materials
- Ergonomic handles can be used right or left-handed: soft molded grip for comfort and control
- Blade is notched for hard wire and twine
- Locking switch ensures safety during storage
- Control switch allows blades to be held in a tighter position for easier handling
- Angled shears allow easier cutting through flat materials

Aviation Snips

- Offset blades allow cut material to flow beneath your hand without curling
- Maneuverable for angle cutting or pattern configurations
- Cuts up to 18 ga. mild steel
- 1 1/8" cutting edge • 9 1/2" long

DAR9A Snips. Green handled. Right-hand cut.

DAL9A Snips. Red handled. Left-hand cut.



DAR9A

Shears/Cutters—Blue-Point



DAS10B

DAL10B

DAR10B

Metal Cutting Shears

DAS30 Metal Cutting Shears Set.

- Serrated cutting blades
- Narrow bodies allow metal to pass over shears
- Oil and grease resistant grips
- Each shear is 10 1/4" long. Includes:

DAS10B Shears. Yellow handled. Straight cut.

DAR10B Shears. Green handled. Right hand cut.

DAL10B Shears. Red handled. Left hand cut.

Shop Shears

HDSCISSORS

Heavy Duty Shop Scissors.

- For leather, cloth, plastic, rubber, sheet, cardboard, gasket material, rope and many other materials
- Ergonomic handles can be used right or left handed



HDSCISSORS

Vinyl Cutter

YA444B Vinyl Cutter.

- Cleanly cuts plastic, rubber, vinyl, upholstery, leather, hoses and rope
- Ergo® grip handle with safety lock
- Blade storage in handle
- Includes 3 stainless steel replacement blades (YA444B-1)

YA444B-1 Replacement Blades.

- Includes 3 replacement blades and anvil for YA444B



YA444B



WARNING



- Do not use chipped, mushroomed, or cracked hammers • Strike squarely, avoid glancing blows
- Do not strike hard surfaces, use only for striking sheet metal
- Read safety precautions on pages 594 to 597

BODY

Spoons and Dollies

Spoons

BF715B Spoon Dolly.

- For caulking and forming deep pockets in doors and panels
- Head size is 2 1/2" x 1" x 3": 14" total length

BF716B Light Dinging Spoon.

- Smooths and levels ridges
- Not for prying
- Head size is 4 1/4" x 2": 10" total length



BF715B



BF716B



BF710B



BF707



BF711B



BF712B



BF740

Steel Dollies B173.5 -1991 applies to all dollies.

BF710B Toe Dolly.

- For dinging flat surfaces
- Measures 4 3/4" x 2 1/4" x 11/16"
- 2 1/2 lb.

BF707 Heel Dolly.

- For use in sharp corners and wide radii
- Rubber coating provides cushioning effect
- Measures 3" x 2 1/2" x 1 1/2"

BF740 Shot Dolly.

- Heavy duty leather pouch is filled with 2 1/2 lbs. of shot
- Essential for supporting irregular shapes and contours on doors, fenders, and other body panels
- Thin profile to get in tight areas
- Will not scratch surface • 3 3/4" wide x 5 3/4" in length

BF711B Heel Dolly.

- For use in sharp corners and wide radii
- Measures 3" x 2 1/4" x 1 3/8" • 2 1/4 lb.

BF712B General Purpose Dolly.

- For deep, skirted fenders and shrinking when using heat
- Measures 3" x 2 1/4" x 1 3/8" • 2 1/4 lb.

Riveting



HP2

PL30



HP301C

HP310

HP302C

HP320

Riveting Tools—Blue-Point®

HP2 Rivet Tool.

- 4 nosepieces for 3/32" to 3/16" diameter rivets
- For 1/8" thru 5/8" thickness
- Made of aluminum alloy

HP30N Optional Rivet Nosepiece.

- Use with HP2 rivet tool to replace OEM welded studs on trim molding
- For rivets with 1/8" body diameter
- 13/64" head diameter

HP301C Pneumatic/Hydraulic Rivet Tool.

- Sets structural rivets, Klik-Fast® rivets from 5/32" to 1/4" diameter in all alloys plus Klik-Fast/Monobolt rivets from 3/16" to 1/4"
- Requires only 85 to 95 psi. 1/2" NPT threads
- Delivers 3,300 lbs. of work force at 5/8" stroke
- Includes 5/32", 3/16" and 1/4" nosepieces plus mandrel collection bottle
- Overall weight is 6.6 lbs.

HP302C Pneumatic/Hydraulic Rivet Tool.

- Smaller, lighter version of HP301C
- Sets blind rivets from 1/8" to 3/16" diameter in all alloys plus 3/16" Klik-Fast and Monobolt rivets
- Includes 1/8", 5/32" and 3/16" nosepieces plus mandrel collection bottle

PL30 Rivet Tool.

- Use with a wide range of open end rivets (3/32", 1/8", 5/32" and 3/16") and closed end rivets (1/8", 5/32" and 3/16")
- Compound link design provides a 30 to 1 mechanical advantage
- Innovative latch keeps handles closed without chains or wires
- Short handle design for true one hand operation
- Jam-free front end design
- 4 interchangeable nosepieces are stored on inside of handle

HP310 Pneumatic/Hydraulic Rivet Tool.

- Sets 3/32" to 1/4" diameter rivets in all materials
- Can also set T-Rivet/Klik-Split®, Klik-Lock™ and all other structural rivets
- Includes 3/32", 1/8", 3/16", 5/32" and 1/4" nosepieces plus mandrel collection bottle

HP320 Pneumatic/Hydraulic Rivet Tool.

- Sets 1/8" to 3/16" diameter rivets in all materials
- Includes: 1/8", 5/32" and 3/16" nosepieces plus mandrel collection bottle

Specifications	HP301C	HP302C	HP310	HP320
Recommended Air Pressure	85-95 psi	85-95 psi	85-95 psi	85-95 psi
Air Consumption, average, cfm (scfm) [l/min]	—	—	5 (36) [141.58]	5 (29) [113.27]
Air Inlet Thread Size	1/2" NPT	1/4" NPT	1/4" NPT	1/4" NPT
Traction Power	3,300 lbs.	1,985 lbs.	3,055 lbs.	1,983 lbs.
Stroke	5/8" (15.8mm)	5/8" (15.8mm)	9/16" (14.3mm)	9/16" (14.0mm)
Overall Length	—	—	12" (304.8mm)	11" (279.4mm)
Weight	6.6 lbs. (3.0 kg.)	4.2 lbs. (1.91 kg)	4.2 lbs. (1.91 kg.)	3.3 lbs. (1.50 kg.)

Riveting

Rivet Kits—Blue-Point®

HP200A Riveter Kit.

- Includes: HP2 rivet tool, 1/8" drill bit and 200 assorted rivets in 1/8" and 3/16" diameters plus a 120° countersink

HPKL2 Plastic Rivet Kit.

- For plastic rivets that hold fascia strips, inner fenders and other plastic parts on GM, Ford, Chrysler and VW
- Includes: rivet setter and 4 styles of plastic rivets [(2) 5mm types, (2) 6.3mm types]

HP300 Large Blind Rivet Kit.

- Extra long (21") handled riveter includes 3 nosepieces
- Includes a bag of 50 Klik-Split® rivets
- Reorder quantities of Klik-Split and Klik-Fast® rivets are packaged 50 per bag

PL300 Rivet Tool Kit.

- Includes: PL30 rivet tool, a wide assortment of open and closed rivets in 3/32", 1/8", 5/32" and 3/16" sizes plus storage case with individual storage compartments



HP200A



HPKL2



HP300



PL300

Nut Setting

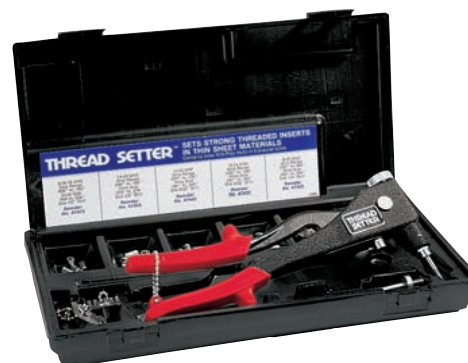
Nut Setting/Thread Setting Kits—Blue-Point

HP650 Thread Setter Kit.

- Includes: rugged thread setter tool and an assortment of fractional Klik Poly-Nuts: 12 each 8-32, 10-24, 10-32; (8) 1/4"-20 and (6) 5/16"-18 threads
- Includes required nosepieces and mandrels for setting the above sizes
- Packaged in a storage case

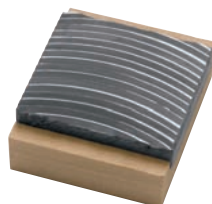
HP650M Metric Thread Setter Kit.

- Metric version of the HP650 with metric poly-nuts, including 25 each 4 and 5mm, (15) 6mm and (10) 8mm threads
- Includes thread setter tool, required nosepieces and mandrels in a storage case



HP650M

Files



BF193

Nib File

BF193 Nib File.

- Removes unwanted paint runs, helps eliminate dribbles and drops
- Gently shaves run without digging into surface



14V

Flexible Curved Tooth Files

14V Curved Tooth File. 14", 8 teeth per inch. Rough cut. Use with BF775C Handle.

14V12 Curved Tooth File. 14", 12 teeth per inch. Fine cut. Use with BF775C Handle.



GA616



BF775C

File Handles—Blue-Point

- Wooden, twist-on handles with case-hardened threaded steel inserts

GA616 File Handle. For 8CT curved tooth file.

GA617 File Handle. For 10CT curved tooth file.

GA618 File Handle. For 12CT curved tooth file.

BF775C Flexible File Holder.

- Light and rigid with a large aluminum handle, adjustable turnbuckle and permanently attached strap



WARNING



• Read safety precautions on pages 594 to 597

BODY

Window and Windshield



GA243

YA109C



WK100

Window and Windshield Removal Tools—Blue-Point®

GA243 Molding Release Tool.

- Use to remove window and windshield moldings on cemented glass

YA109C Windshield Removal Tool.

- Steel cable pull handle
- Replaceable steel cutting blades can be resharpened
- For GM, Chrysler and other cars with windshields set in place with sealant

WK100 Windshield Knife.

- Cuts hardened urethane down to the dash
- Flush blade retention screw helps prevent damage to the dash and moldings
- Rigid aluminum shaft will not flex
- Long length provides cutting leverage and reach
- Cushion grip handle for extra comfort
- Includes 1 blade
- Uses YA1860 replacement blades
- 18" long



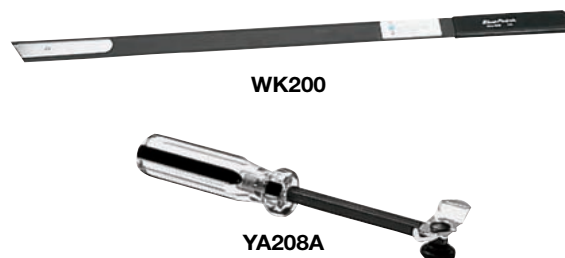
YA5200A

WSC2

Window Scrapers—Blue-Point

YA5200A Razor Blade Scraper. Unique shape fits into tight spots such as the area between dash and windshield. Use any standard, single edge razor blade. Storage for extra blades in screwdriver style handle. 11" long.

WSC2 Plastic Blade Window Scraper. Scrapes windows, windshields and more. Includes a plastic blade or use any standard, single edge razor blade. 8" long tool folds to only 4 5/8".



WK200

YA208A

WK200 Windshield Knife.

- Cuts hardened urethane down to the dash
- Flush blade retention screw helps prevent damage to the dash and moldings
- Rigid aluminum shaft will not flex
- Long length provides cutting leverage and reach
- Vinyl grip handle for extra comfort
- Includes 1 blade
- 24" long
- Uses YA1860 replacement blades

YA208A Windshield Locking Strip Installation Tool.

- Wedge openings in 2 widths make short work of installing nearly all locking strips
- Includes special tip for Dodge truck applications
- 4" contoured handle and 4" metal shank



A192



S9610

Window and Windshield Removal Tools

A192 Windshield Wiper Arm Removal Tool.

- Easily remove wiper arms on most vehicles
- Both wide and narrow prying ends
- Do not use on wiper arms bolted to the shaft

S9610 Window Sash Nut Spanner Socket.

- 3/8" drive and 15/32" long
- For GM and Chrysler cars and light trucks



YA6390

Window Holder—Blue-Point

YA6390 Window Holder.

- Holds side window glass up when working on the regulator
- Suction cups are attached to both sides of the glass with a cable over the door frame, preventing the glass from falling down the door

Door Tools—Blue-Point®



DHW1



DHS108



YA6220

Door Hinge Tools

DHW1 Ratcheting Bit Wrench. Reverse lever positioned for one hand operation. 10 3/4" overall length for leverage. Knurled wheel for fingertip control. Low head clearance gets in tight spots. Internal ring in square drive provides more secure bit retention than the magnetic type. EU - GB.

Stock No.	Description	Size	Hex Size, inches	Length, inches
BMAS60	Triple Square Bit	6mm	5/16	13/16
BMAS80	Triple Square Bit	8mm	5/16	13/16
BMAS100	Triple Square Bit	10mm	5/16	13/16
BMAS120	Triple Square Bit	12mm	5/16	13/16
SDMTAS30	Torx Bit®	T30	5/16	13/16
SDMTAS40	Torx Bit	T40	5/16	13/16
SDMTAS45	Torx Bit	T45	5/16	13/16

DHS108 Door Hinge Removal Set. Door hinge applications include VW, Audi, Jeep Cherokee (1997 and 1998) and early model Ford Escort. Various applications on Audi, VW, and Mercedes plus Mercedes rear toe adjustment and head bolts on some early models. Set includes DHW1 ratcheting bit wrench, BMAS60 through BMAS120 triple square sockets (6 to 12mm) and SDMTAS30 through SDMTAS45 Torx sockets (T30 to T45). Plastic storage pouch and bit holder included. EU - GB

YA6220 GM Door Hinge Bushing Installer. Use on GM vehicles with replaceable silicon bronze door hinge bushings. Tool provides easy access to restricted areas of the hinge. Accurately guides and holds the bushing in place while tapping with a hammer or squeezing with pliers. Applications include S10 and Sonoma (1982-2004), 1/2 and 3/4 ton trucks (1980-1999), 1 ton trucks (1980-2001), Blazer (1980-2005), Suburban (1980 and later), Tahoe (1980 and later), Astro and Express (1980 and later) and Avalanche (2002 and later).



LPK620



YA610A



YA520



YA511



YA501E



BF272



LOS145

Lock Picks/Lockout Tools

LPK620 Master Lock Pick Set. 37 pc set includes 6 pc import rocker pick set, 12 pc pick set for GM vehicles, 5 pc Ford automotive rocker lock pick set, 6 pc Chrysler lock pick set, 6 pc set for wafer locks on import vehicles, harpoon pick for removing broken keys, tweezer type universal lock turning wrench and a gas cap pick tool.

YA511 Lockout Tool Set. Contains 17 specialized tools for unlocking car, van and truck locks. Includes many of the components of the YA501E set plus additional service components. Also includes a penlight and instruction manual in a multi-compartment kit bag.

YA501E Lockout Tool Set. Contains 15 specialized tools for unlocking car, van and truck locks. Includes J-tool for Japanese vehicles as well as GM tool to service Caprice, Buick and Oldsmobile vehicles. The included Chrysler tool also services Camry vehicles. High intensity flashlight and instruction manual also included.

YA521 Lockout Tool Guide. Comprehensive and illustrated guide showing the best tool and method for unlocking most current model vehicles.

YA610A Lock Opening Reforming Tool. Reforms damaged lock openings to original contour on GM, Ford, Chrysler and most import cars.

BF272 Inflatable Wedge. Offers safe entry in a lock out situation without damage to the body finish. Slip the deflated unit between door frame and body, inflate wedge by slowly applying pumping pressure to pull the door away from vehicle body. Can also be used to gain entry by separating the weather stripping from the vehicle window or to adjust body panels.

YA520 Door Lockout Kit. Includes: 2 plastic wedges to create gap between door and frame, Day-Glo yellow easy access jim to reach inside door handles and plastic slip jam for use on door knobs.

LOS145 Door Lockout Set. No danger of airbag activation or disconnected door linkages. Actuate the door handle, manual lock button or electric lock button on most cars and trucks. Includes: 4 pc door-unlocking tool that screws together without couplers for easy assembly and storage, plastic slim jim, 2 glow-in-the-dark tips, 2 plastic wedges to create gap between door and frame without damaging door or weather stripping and BF272 inflatable wedge. Use the BF272 to easily separate door from body without damage to the vehicle. Unlocking tool features a middle extension piece to reach across the car in extended use applications. For sale to registered locksmiths, police and bona fide repair professionals only.



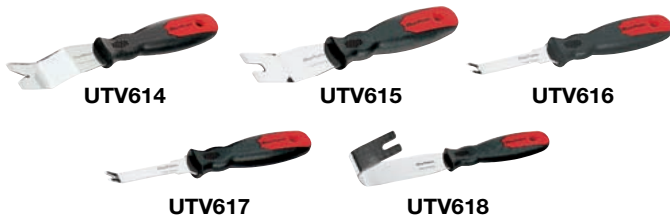
WARNING



• Read safety precautions on pages 594 to 597

BODY

Door Tools



Upholstery and Trim Tools

Remove door and trim panels quickly without damage. Wide blades on door tools reduce risk of damage during panel removal. Stainless steel blades are heat treated for rigidity. Comfortable composite handles feature a contour thumb stop for maximum control.



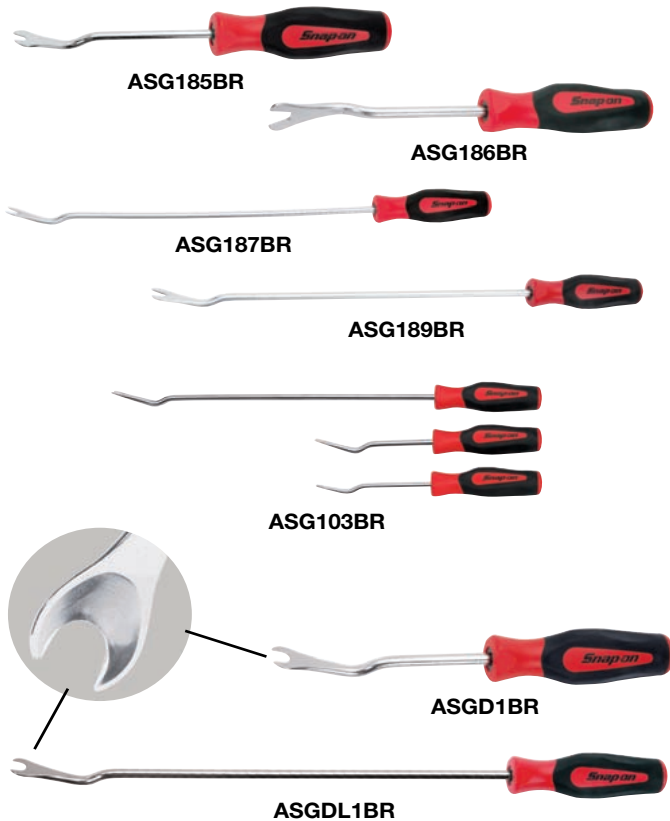
Specialty Door Tools—Blue-Point®

YA331 Clip Removal Tool. Tapered forks slide under most types of auto body clips. A squeeze of the handles pops the clips out.

YA1201 Door Panel Remover. For GM and Ford vehicles. Designed to prevent plastic barbed fasteners from being pulled through the panel.



YA214 Door Hinge Adjuster. Adjusts door hinge position on most vehicles. Works on either bolted or welded hinges. 2 headed pin adaptor allows adjustment on doors with both small and large latches. 24" overall length.



Soft Grip Trim Pad Tools

Remove fasteners that secure door panels and trim pieces without damage to panel or trim. Soft grip handles with contour thumb stop. Distinct pivot point is designed for appropriate leverage and to discourage twisting that may damage panel or trim piece.

Stock No.	Opening Size, inches	Blade Width, inches	Overall Length, inches	
ASG185BR	7/32	9/16	10	•
ASG186BR	3/8	13/16	10	•
ASG187BR	3/8	13/16	20	•
ASG188BR	7/16	13/16	10	
ASG189BR	7/16	13/16	20	
ASG190BR	3/8	13/16	20	

Soft Grip Dished Trim Pad Tools

Smooth dish profile and wide gap to fit vehicles utilizing conical x-mass style retainers for quick removal without damage. Dished blade for better door panel clip and retainer contact. Soft grip handle for comfort and control. Chrome finish helps prevent corrosion and facilitates cleanup. Applications: Ford, GM, Toyota and more.

Stock No.	Opening Size, inches	Blade Width, inches	Overall Length, inches	
ASGD1BR	7/16	13/16	10	•
ASGDL1BR	7/16	13/16	20	•

Door Tools/Specialty Tools

Door Handle/Trim Pad/Trim Nuts

DPT7A Door Tool Set. Includes the 7 most needed tools for removing or replacing door trim, trim pads and handles. Storage tray.

A159 Door Handle Tool. For most GM cars and trucks (except Cadillac), plus some Ford cars. Plastic dipped offset handle. 10 7/8" long.

A161B Trim Pad Remover. For GM, Ford and Chrysler. Features a screwdriver type handle. 7 3/4" long.

A177A Trim Pad Remover. For GM and most imports. Same design as A161B except for different applications. 7 1/2" long.

A179A Trim Pad Remover. For all GM door trim panels. Curved blade helps remove plastic clips and nail type clips without damage to either the clips or the trim.

S9614A Trim Nut Driver. For GM. Similar to S6103A but is for use with 5/16" internal hex trim nuts. 1/4" drive, 1 7/8" long overall.

S9538A Door Handle Tool. For most late model Chrysler cars. Hook end is designed for use on older style handles

S6103A Door Trim Palnut Driver. For Ford and GM vehicles. For easy servicing of 3/8" internal hex trim nuts used on door trim panels and molding. 1/4" drive, 1 7/8" long overall.

A181 Trim Pad Remover. Services plastic trim fasteners on Honda, Toyota, Acura, Hyundai and some Ford trucks. Similar in design to A161B. 7 1/2" long. Not included in DPT7A set.



DPT7A

A159



A161B



A177A



A179A



S9614A



S9538A



S6103A



A181

Suction Cups

BF801 Heavy Duty Suction Tool. Pull out dents or handle glass. Handle increases pulling power. 5" suction cup.

BF802 Heavy Duty Dual Suction Cup Tool. For pulling more stubborn dents or lifting larger materials. Handle has plenty of room for 2 hands. Trigger releases both 4" cups simultaneously.

BF803 Suction Cup. 2 finger grips for easy lifting, 2 projecting tabs for quick release. 3 1/4" diameter.

BFT800 Suction Cup Clamp Set. Use to secure windshield moldings, protective moldings, door moldings and emblems in place while gluing, setting up trim and other lightweight components. Set includes 5 suction cup clamps.



BF801



BF802



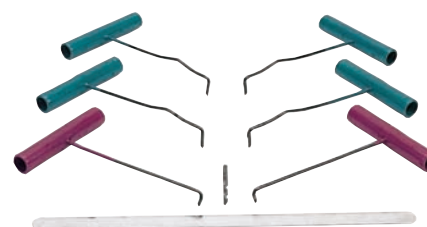
BF803



BFT800

Picks/Rods

BF200 Pull Rod Set. Drill 9/64" holes and pull metal to shape. Includes 4 pull rods, 2 pick pulls, a straight edge and a drill bit. Rods lift metal without distortion. No need to remove upholstery.



BF200



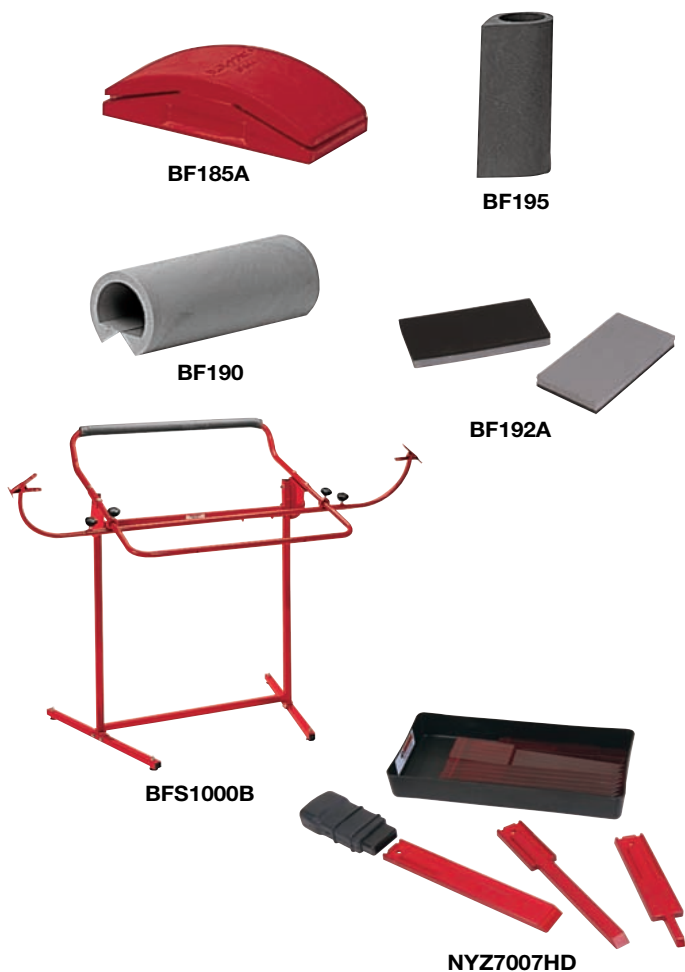
WARNING



- Plastic handle does not protect against electrical shock
- Read safety precautions on pages 594 to 597

BODY

Specialty Tools



Sanding-Blue-Point®

BF185A Sanding Block. For flat or curved surfaces with wet or dry sandpaper. 5" x 2 3/4".

BF189A Sanding Block. For flat or curved surfaces with wet or dry sandpaper. 9" x 2 3/4".

BF190 Sanding Block. All purpose, multi radius, edge and flat sander. Flexible body conforms to most sanding surfaces. 5 1/2" long.

BF192A Sanding Block. Double sided, wet/dry sanding block. Soft side sands irregular surfaces. Stiff side sands flat and curved surfaces.

BF195 Sanding Block. Multi-purpose, radius, groove angle and corner sander. Flexible body conforms to most surfaces. 5 1/2" long.

Bumper Cover Paint Stands

BFS1000B Bumper Cover Painting Stand. Stand holds the bumper cover securely for painting. 5 different locking positions on the stand and full 90° rotation provide maximum versatility. Lightweight at 23 pounds and compact to store. Casters provide full mobility.

Water Body Dye

YAUWATER Water Body Dye. Ideal for use by auto body and glass repair shops. Fluorescent dye easily detects gaps causing wind noise plus leaks around sunroofs, door trim, trunk lids, window seals and windshields. Simply mix bottled dye with water and spray over outer area. Check for leaks with UV lamp. Easily cleaned off with water after repair. Recommended for use with ACTUVLITEA UV light kit.

Mastic Removal Tools

NYZ7007HD Manual Mastic Removal Kit. Manual kit contains an assortment of 15 Nyroc™ blades and an ergonomic rubber handle. Ideal for aviation, automotive and industrial use, especially for delicate jobs and limited access scraping applications. The Nyroc blades are easily sharpened with sandpaper, small stone or optional pneumatic sharpener. Includes: (6) 1" Nyroc blades, (6) 1/2" Nyroc blades, (3) 1/4" Nyroc blades and (1) ergonomic rubber handle.

Antenna/Mirror/Radio



Mirror and Radio Trim Sockets

YA7575 Ford Radio Removal Tool-Blue-Point. Insert tool components into holes on the radio faceplate to release the retaining clips on the radio. Applications: 1987 and later Mustang, 1988 and later Tempo/Topaz, 1989 and later Continental, 1990 and later Taurus/Sable, Ranger Bronco II, Probe, Lincoln Town Car, Mark VII, Crown Victoria/Grand Marquis, Thunderbird/Cougar, F-Series pickups, E-Series vans, 1991 and later Explorer and 1995 and later Windstar. Same as Ford No. T87P-19061-A.

RRT105 Car Stereo Removal Tool Kit. Includes: 6 tools for car stereo removal. Applications: Audi, BMW, Ford, Land Rover, Lincoln, Mazda, Mercedes, Mercury, Merkur, Porsche, Saab and VW. Enclosed instruction sheet lists exact model application for each manufacturer. EU - GB.

S8703 Remote Control Mirror Socket. Hollow socket clears adjustment lever. 2 prong socket has a 3/8" square drive. 19/32" diameter on drive end; 21/32" diameter on socket end. 2 1/16" long. Nickel-chrome finish. Services many Ford and VW vehicles.

S9605B Radio Trim Nut Socket. Similar in appearance and function to S8703. 1/4" square drive. 7/16" diameter on drive end; 9/16" diameter on socket end. 2 5/16" long. Services some GM and Ford cars.

Antenna



S6166

Antenna Nut Socket

S6166 Antenna Nut Socket.

- 3 prong socket with 11/16" external hex
- 3/4" in diameter, 1 1/2" long
- Services 1987 later Chrysler vehicles



2160ANT

2160ANT Antenna Wrench-Blue-Point®.

- 4 configurations will fit most antenna bezel nuts on domestic and imported vehicles
- 10mm opening for removing mast type antennas
- Measures 7 1/4" x 1 1/2" x 1/8"
- Anodized finish

General Service Tools



SWDK4

Spot Weld-Blue-Point

SWDK4 Spot Weld Cutter Set.

- 4 pc cutter set designed for high speed cutting of up to 2,000 rpm
- Self centering points minimize walking
- SWDK412 Spot Weld Cutter.** 1/2".
- SWDK414 Spot Weld Cutter.** 1/4".
- SWDK438 Spot Weld Cutter.** 3/8".
- SWDK4516 Spot Weld Cutter.** 5/16".



BFLIGHT1500A



ETB1310

ET1400

Heat Guns

ETB1310 Heat Gun.

- Dual temperature selections of 600° F and 950° F
- UL Listed / CSA Certified

ET1400 Heat Gun.

- Variable temperature selection up to 1,050° F with 3 way switch
- UL Listed / CSA Certified

Infrared Curing Light

BFLIGHT1500A Infrared Curing Lamp (120VAC).

- Use to cure paint, primer, body filler, bonding adhesive and plastic repair products
 - Adjustable lamp height and pivot
 - 4 swivel casters for easy maneuverability
 - UL Listed
- Cure times at 18" from surface:
- 10 minutes - 2 K primers, waterborn base coat, filler/stoppers
 - 15 minutes - 2 K plastic repair, plastic body fillers, acrylic enamels
 - 30 minutes - 2K top coats, high build primers, structural adhesives
 - 35 minutes - polyurethane, synthetic enamels, high solids clear

Headlamp-Aiming



B4A13

B4A14

B4A5

B4A10

Headlight Aiming Adaptors

B4A13 Large Aerodynamic Adaptors.

For large lamps (one pair).

B4A14 Small Aerodynamic Adaptors.

For small lamps (one pair).

B4A5 Rectangular Adaptor. For 4" x 6 1/2" lamps with aiming pads in 4 lamp systems.

B4A10 Rectangular Adaptor. For 5 1/2" x 8" lamps in 2 lamp systems.

Headlamp Spring Tools

HE52B Headlamp Spring Tool.

- For servicing alignment springs
- 3/16" diameter shank anchored in a screwdriver style handle
- 7" long



RBYP445

YA2155

Headlamp Adjusters

RBYP445 Ratcheting Headlight Wrench.

- 8" overall length allows access to headlight adjustment screws
- Applications: late model Ford vehicles with 4 and 4.5mm adjusters (found on aerodynamic designs) and headlights with rear mount adjusters

YA2155 Headlight Retaining Clip Tool.

- Quickly remove/install headlight retaining clips on 1987 to current Ford vehicles without incurring damage to the clip
- Easily fits into confined spaces and is 9 3/8" long
- Chrome finish



YA2155



WARNING



• Read safety precautions on pages 594 to 597

PAINT SPRAY

Spray Guns—Blue-Point®

A new generation of Blue-Point® spray guns for primer, base and clear coat. Designed for the automotive refinishing painter. Lightweight and well-balanced while delivering a quality, first class automotive finish. Lowest trigger pull among guns in its class. Unmatched spray pattern size and quality repair kits. Optional interchangeable 125cc, 250cc and 600cc aluminum cups are available. Optional 3M® PPS adaptor is available. Full one year warranty.



Full Size/Miniature - HVLP

Stock No.	BLP13HVLP	BLP14HVLP	BLP15HVLP	BLP18HVLP	BLP10MHVLP
Fluid Tip (mm)	1.3	1.4	1.5	1.8	1.0
Air Consumption, scfm	9.5	9.5	9.5	9.5	7.0
Max. Inlet HVLP psi (bar, kPa)	29 (2.0, 200)	29 (2.0, 200)	29 (2.0, 200)	29 (2.0, 200)	29 (20, 200)
Dry Weight without Cup, oz. (grams)	12.6 (359)	12.6 (359)	12.6 (359)	12.6 (359)	11.4 (322)
Air Inlet Thread Size	1/4" NPSM	1/4" NPSM	1/4" NPSM	1/4" NPSM	1/4" NPSM
Cup Size, cc	600	600	600	600	125
Application	High solids, colors and clears	High solids, colors and clears	Medium solids, colors and clears	Primer, high viscosity materials	Primer, base and clear

Economy - HVLP

Stock No.	Fluid Tip	Air Consumption, scfm	Air Inlet Thread Size	Air Pressure Range, psi	Fluid (Water) Delivery	Cup Size, cc
BLPK14HVLP	1.4mm	14.5	1/4" NPSM	30 to 43	190 to 250 ml/min	600 ml



BLPK14HVLP



BLP14CONV

Full Size - Conventional

Stock No.	Fluid Tip	Air Consumption, scfm	Max. Inlet HVLP psi (bar, kPa)	Dry Weight without Cup, oz. (grams)	Air Inlet Thread Size	Cup Size, cc	Application
BLP14CONV	1.4mm	9.5	—	12.6 (359)	1/4" NPSM	600	All automotive colors and clears

Spray Gun Accessories



BF7130

Air/Fluid Hoses

BF7220 Fluid Hose. 25 ft. x 3/8" I.D. fluid hose with 3/8" F.P.T. connectors.

BF7130 Air/Fluid Hose Kit. 6 ft. hose kit for the BF652 pressure cup. Kit includes 5/16" I.D. air hose with 1/4" F.P.T. connectors and 1/4" I.D. fluid hose with 3/8" F.P.T. connectors.

Air Caps and Service Kits

BF16111 Air Cap. General-duty cap (red ring).

BF16113 Air Cap. Clear coat cap (gold ring).

BF16114 Air Cap. Material organizer cap (blue ring).

BF501RK Service Kit. For BF501 spray guns.

BF590RK Service Kit. For BF590 spray guns.

Pressure Cups and Tanks

BF602 Low Pressure Cup Assembly.

- 32 oz. capacity
- Recessed check valve to maintain cup pressure and relief valve to relieve cup pressure
- Use with BF595SYS30 and BF595SYS45

BF511 Detail Cup.

- 6 oz. capacity
- Tough, translucent, high-density polyethylene
- Use with BF510/BF515HVLV detail guns

BF503 Universal Siphon Cup.

- 32 oz. capacity
- Fits all leading spray guns
- Won't drip in any position
- 3/8" NPT(f) swivel nut attachment



BF602



BF511



BF503



BF525



BF555



BF550



BF1210



BF7000

Gravity Feed Cups

BF755 Aluminum Gravity Feed Cup.

- 34 oz. (1 Liter) capacity
- Aluminum gravity feed cup. Use with all Snap-on® HVLV gravity feed spray guns plus BF814A Non-HVLV gravity feed spray gun

BF7505 Aluminum Miniature Gravity Feed Cup.

- 4 oz. (125 cc) capacity
- Miniature aluminum gravity feed cup
- Includes adaptor to fit Snap-on HVLV gravity feed spray guns plus BF814A Non-HVLV gravity feed spray gun



BF755



BF521A



BF520A



BF540A



BF530A

Air Filters/Air Control Units

BF521A Air Control Unit.

- Includes regulator with 160 psi inverted gauge and air cock
- 2 regulated outlets
- 1 filtered main line outlet
- Air inlet: 1/2" NPT(f). Filter capacity: 75 CFM
- Regulator capacity: 50 CFM

BF520A Air Filter.

- Reusable edge-type 5-micron filter element
- Highly effective at removing water, oil and other contamination
- Air Inlet: 1/2" F.P.T. Air outlets: 3/8" F.P.T. and 1/4" F.P.T.(plugged). Filter capacity: 75 CFM

BF530A Air Filter.

- Reusable edge type 5-micron filter element
- Highly effective at removing water, oil and other contamination
- Air Inlet: 1/2" F.P.T. Air outlet: 2 outlets @ 3/8" F.P.T. filter capacity: 120 CFM

BF540A Mechanic's Air Filter.

- Portable, mounts easily anywhere
- Designed for use with quick couplers
- Air Inlet: 1/4" F.P.T. Air Outlets: 1/4" F.P.T. and 1/4" F.P.T. (plugged). Filter capacity: 75 CFM

Air Valves/Air Regulators

BF525 Air Pressure Regulator.

- 2 regulated outlets
- Includes 160 psi air gauge and air cock (1/4" M.P.T.)
- Capacity: 50 CFM

BF555 Air Adjusting Valve (with Gauge).

- Designed for use with HVLV spray guns
- Includes 160 psi pressure gauge
- Air Inlet: 1/4" M.P.T. air outlet: 1/4" F.P.T. (swivel nut)

BF550 Air Adjusting Valve.

- Precision tapered valve
- Full open to close with approximately 4 turns: infinitely adjustable
- Large, easy to handle knob
- Air inlet: 1/4" M.P.T. air outlet: 1/4" F.P.T. (swivel nut)

BF1210 "Green Zone" Air Regulator.

- Reads both inlet pressure and air cap pressures

BF7000 Disposable In-Line Filter.

- Disposable filter removes contaminants that condense in the air hose between wall mounted filter and spray gun
- Reduces paint defects
- Easy installation
- Card of 2 filters



BF1400



YA999

Air Pressure Regulators

BF1400 Air Pressure Regulator.

- Self-relieving diaphragm
- Maximum 100 psi inlet pressure
- 0 to 10 psi regulated pressure to cup
- 0 to 30 psi air pressure gauge

BF1410 Air Pressure Regulator.

- Small, lightweight, true diaphragm mini-regulator attaches to any spray gun (including HVLV models) for accurate air pressure regulation
- Push/Pull lock pressure setting
- Features easy to read 0-160 psi gauge
- Capacity of 22 CFM (158 SCFM) [623 L/MIN.]

YA999 Air/Water Separator.

- Separates water from compressed air
- Includes drain valve for periodic draining
- 3 1/2" long. 1 1/2" in diameter



WARNING



- Do not direct air or fluid stream at body
- Use in well-ventilated area
- Do not expose solvent to flames, sparks, or other sources of ignition
- Read safety precautions on pages 594 to 597

PAINT SPRAY

Spray Gun Accessories



AHCC90B



AHCCP90B

High Volume Hose Connectors

AHCC90B Quick Coupler. High volume 1/4" female quick coupler. Designed to deliver high volumes of air to spray guns and air tools.

AHCC91B Quick Coupler. High volume 1/4" male quick coupler. Designed to deliver high volumes of air to spray guns and air tools.

AHCCP90B Nipple (1/4" Female). Quick connect 1/4" female nipple. Designed to deliver high volumes of air to spray guns and air tools.

AHCCP97B Impact Wrench Adaptor. Use with AHCC98B high flow coupler to improve low pressure performance of 1/2" drive impact wrenches and other high air consumption tools.



MRB20

Paint Gun Hooks / Holders

MRB20 Magnetic Paint Gun Hook. Eliminates having to drill holes in your paint booth to hang your paint gun. 160 lbs. of magnetic force.

BF9893 Spray Gun Holder. Stand holds up to 3 gravity feed paint spray guns at one time for refilling. Adjustable strainer holder. Steel construction.



BF9893

Air Brushing



BF180A

Air Compressor

BF180A Compressor. Portable 1/10 HP oil-less diaphragm-type compressor features internal bleed. Compact, lightweight and quiet. Maximum running pressure of 33 psi. 115 volts, 60 Hz., 2.5 Amp.



BF170A

BF170A Airbrush Set. Dual action, internal mix, bottom feed airbrush. Single needle/nozzle design sprays a variety of reduced acrylics, enamels, lacquers, glazes and airbrush ready paints. Excellent choice for multiple applications. Includes: air brush, mixing jars, air hose, color cup, air brush hanger, extra needle and instruction manual.

Air Brush Sets



BF360

BF360 Airbrush Set. Rotating paint reservoir allows gravity or bottom feed. Engineered to require only 1 size tip, regulator and needle for application of any properly reduced medium including acrylics, gouache, inks, dyes, enamels, lacquers and stains. Includes: air brush, (2) 2 oz. jars, (1) 3/4 oz. jar, 6' braided hose, extra needle and tip plus foam lined storage case.



BF171

BF171 Airbrush Set. Single action, external mix, bottom feed airbrush. Air and paint mix outside the airbrush, creating a larger, coarser dot pattern while providing a heavier spray volume. For base coating, touch-up projects and automotive painters. Sprays higher viscosity materials like glazes, stains, enamels and lacquers. Includes: airbrush, mixing jars, air hose and instructions.



BF175TA

BF175TA Airbrush Set. Dual action, internal mix, bottom feed airbrush. Choice of fine, medium or heavy needle/heads. Sprays a wide range of properly reduced acrylics, enamels, lacquers, glazes and airbrush ready paints. Includes: air brush, mixing jars, air hose, color cup, air brush hanger, extra tip, spray regulator, needle and instruction manual in a storage case.



BF105

BF105 Gravity Feed Airbrush Set. Ideal for graphic arts and automotive illustration. Dual action, internal mix, gravity feed airbrush for professional results. Precise performance for tight line detail. Single needle, single tip configuration. 1/3 oz. permanently mounted color cup. Sprays any properly reduced paints. Operates with lower pressure. 10-15 psi. Optional needle, regulator and tip available to create a finer spray. Ergonomically balanced for hours of comfortable spraying.

PAINT SPRAY / ABRASIVE BLAST SYSTEMS

Paint Gun Cleaners



PGC500A

Cabinet Style Paint Gun Cleaner

PGC500A Paint Gun Cleaner. Cleans paint guns in less than 2 minutes. Meets SCAQMD air quality rule 1171. Air safety switch on lid. Features a high torque rotary vane air motor that requires only 7 CFM at 60 psi. Regulator and gauge are included. Seal-less magnetic drive pump supplies powerful cleaning action—no seals to wear out or replace. Sprays solvent at 85 psi. Reduces solvent consumption up to 90%. Measures 30" high, 26" long and 24" wide in the top.



YA7327



BFCB101

Paint Gun Cleaning Brushes—Blue-Point®

YA7327 Paint Gun Cleaning Brush (Set of 5). For "external" paint guns. Can be used with commonly used cleaning solvents (don't use with solvents marked "corrosive"). Nylon bristles. 7 1/2" long.

YA7329 Paint Gun Cleaning Brush (Set of 5). Similar to YA7327 but designed for "fluid tip" paint guns. 7 3/4" long.

BFCB101 Paint Gun Cleaning Brush Kit. General purpose spray gun cleaning kit. Includes 7 pc. stainless steel needle set with handle, 5 pc. precision mini-twisted brush set, 3/8" pick-up tube brush (12" long), 3/16" nylon end brush, 1/2" nylon body cavity brush, nylon bristle exterior body brush and 1/4" nylon HVLP brush.

Flammables Storage Cabinet

EQFSC45M Flammables Storage Cabinet.

Store volatile liquids like paints, solvents, alcohol, acetone, gasoline and other chemicals. 16 gauge walls with full 2" air walls. 45 gallon capacity with 5 gallon spill pan. Removable fork lift channels for convenient movement and placement of cabinet. Complies with OSHA #29 CFR 1910, NFPA Code #30, and UFC Code #79. Spill containment exceeds 5 gallon EPA requirement.



EQFSC45M

Specifications	EQFSC45M
Outside Height	65"
Outside Width	43"
Outside Depth	18"
Inside Height	60"
Inside Width	40"
Inside Depth	15"

Portable Pressure Blast Systems

Air Powered Portable Pressure Blast Systems

YA441 Pressure Blast System (250 lb.). For large, on site cleanups such as concrete, stone and steel, plus many other applications. Remote control feature lets operator shut down system without returning to the tank. 250 lb. sand capacity. Includes 1/4" nozzle plus 25' reinforced sandblast hose for reaching all parts of big jobs. Requires 80 CFM at 100 psi.

YA449A Pressure Blast System (100 lb.). Remote control feature is replaced by a solid carbon steel ball valve at the end of the sandblast hose. 100 lb. sand capacity. Includes 1/8" nozzle. Sandblast hose is 10' long. Requires 21 CFM at 100 psi.

YA448 Pressure Blaster System (40 lb.). Blasting action is controlled by a carbon steel ball valve at the operator end of sandblast hose for quick starts and stops. Equipped with 8' of sandblast hose and a pressure vessel with a 40 lb. sand capacity set on tripod legs for stability. Includes 1/8" nozzle. Requires 21 CFM at 100 psi.



YA441



YA448



YA432

Gravity Fed Portable Pressure Blast Systems

YA432 Gravity Feed Sandblast System. Its portability makes it practical for maintenance crews and spot cleanups. Also good for automotive engine and body work. Requires 10 or 18 CFM at 100 psi.



WARNING



- Use in well ventilated area
- Read safety precautions on pages 594 to 597

ABRASIVE BLAST SYSTEMS

Cabinet Type Abrasive Blast Systems

Snap-on® abrasive blast systems effectively clean metal parts right down to the bare substrate. The applications vary from automotive, manufacturing, restoration to tool and die shops, marine repair and electric motor rebuilders. Cabinet sizes vary from medium sized to larger pressure-fed systems.



YA3825

YA3825 Clam Shell Blast Cabinet.

- Trigger style variable output blast gun
- Efficient 135 CFM dust collection system uses an enclosed cartridge filter to separate dust from useable media, providing excellent operator visibility during use and minimizes wasted media
- Right-hand door for smaller parts and a unique clam shell lid that facilitates easy loading of heavy parts
- 2 fluorescent lights for increased visibility



YA3423

YA3423 Clam Shell Blast Cabinet.

- Clamshell style lid facilitates easy loading of heavy parts
- Hard rubber 3" diameter casters for portability
- Efficient 135 CFM dust collection system is quiet and uses an enclosed cartridge filter to separate dust from usable media
- Dust collection system also provides user excellent visibility during blasting
- Top mounted exterior lighting keeps bulbs isolated from blast area, giving you additional space



YA3626

YA3626 Abrasive Blast Cabinet-Blue-Point®.

- Features a trigger style variable output blast gun
- Efficient 100 CFM dust collection system uses an enclosed cartridge filter to separate dust from useable media, providing good operator visibility during use and minimizes wasted media
- Right hand door for smaller parts and a top opening lid for larger parts
- Fluorescent lighting for increased visibility



YA4826P

YA4826P Pressure Feed Auto Refill Blast Cabinet.

- Pressurized media system cleans up to 4 times faster than siphon systems
- Heavy duty blast cabinet with an industrial grade blast nozzle and foot pedal control is designed for continuous use and reduced operator fatigue
- Efficient 135 CFM dust collection system uses an enclosed cartridge filter to separate dust from useable media, providing excellent operator visibility during use and minimizes wasted media
- Features a right-hand door for smaller parts and a unique clam shell lid that facilitates easy loading of heavy parts
- Work area is lit with 2 fluorescent lights for increased visibility



YA3220

YA3220 Bench Top Blast Cabinet-Blue-Point.

- Large capacity, small footprint blast cabinet
 - Features a variable output blast gun
 - Top opening lid for parts loading
 - Interior lighting for extra visibility
- YA3220-1 Optional Stand.** Not shown.
YAD3976 Optional Dust Collector. 100CFM, 120 VAC, 60Hz. Not Shown.

Stock No.	Inside Dimensions, inches	Side Door Dimensions, inches	Top Opening Dimensions, inches	Overall Dimensions, inches	Air Supply Required	Electrical Requirements	European Models
YA3825	16 to 24H x 37 1/2W x 26D	12H x 17 1/2W	20H x 37 1/2W	70H x 38W x 26D	18 CFM @ 100 PSI	120 VAC, 60 Hz.	YAH3825EUR
YA3423	11 to 21H x 32W x 21-1/4D	—	16H x 34W	65H x 36W x 24D	18 CFM at 100 psi	120 VAC, 50/60 Hz.	YAH3423EUR
YA3626	23H x 35 1/2W x 23 1/2D	12H x 18W	14H x 37W	58H x 36W x 24D	18 CFM @ 100 PSI	120 VAC, 60 Hz.	—
YA4826P	14 to 23H x 48W x 24D	13H x 19W	24H x 48W	60H x 52W x 25D	45 CFM @ 100 PSI	120 VAC, 60 Hz.	—
YA3220	8 to 16H x 30W x 20D	—	11H x 28W	28H x 32W x 20D	18 CFM @ 100 PSI	120 VAC, 60 Hz.	—

NOTE: European model is 230VAC, 50/60 Hz, Single Phase.

TECHNICAL SUPPORT
1-800-253-3661

ABRASIVE BLAST SYSTEMS

Cabinet Type Abrasive Blast Systems



YA4224

YA4224 Abrasive Blast Cabinet with Foot Control.

- Heavy duty blast cabinet with an industrial grade blast gun and foot pedal control is designed for continuous use and reduced operator fatigue
- Efficient 135 CFM dust collection system uses a large polysateen bag to separate dust from useable media, providing better operator visibility during use and eliminates wasted media
- Features a right-hand door for smaller parts and a top opening lid for larger parts
- Work area is lit with 2 fluorescent lights for increased visibility



YA435

Front Opening YA435 Abrasive Blast Cabinet.

- Heavy duty blast cabinet features a trigger style variable output blast gun
- Efficient 270 CFM dust collection system uses two large polysateen bags to separate dust from useable media, providing excellent operator visibility during use and eliminating wasted media
- Right-hand door for smaller parts and full front opening door for larger parts
- 2 fluorescent lights for increased visibility



YA437

Side Opening YA437 Large Abrasive Blast Cabinet with Foot Control.

- Designed for large items and production volume cleaning
- Turntable facilitates cleaning multiple parts and provides the ability to rotate and clean larger parts
- Heavy duty blast cabinet with industrial-grade blast gun and foot pedal control designed for continuous use and reduced operator fatigue
- Efficient 405 CFM dust collection system uses 3 large polysateen bags to separate dust from useable media, providing excellent operator visibility during use and eliminating wasted media
- 2 fluorescent lights for increased visibility

TECHNICAL SUPPORT

1-800-253-3661

Stock No.	Inside Dimensions, inches	Side Door Dimensions, inches	Top Opening Dimensions, inches	Overall Dimensions, inches	Air Supply Required	Electrical Requirements	European Models
YA4224	29H x 41W x 23D	17H x 18W	12H x 39 1/2W	73H x 43W x 24D	25 CFM @ 100 psi	120 VAC, 60 Hz.	YAH4224EUR
YA435	15 to 23H x 40W x 26D	13H x 17W	39 x 24	66H x 40W x 27D	18 CFM @ 100 psi	120 VAC, 60 Hz.	YAH435-EUR
YA437	33H x 42 1/2W x 44D	35H x 42W	—	78H x 44W x 44D	25 CFM @ 100 psi	120 VAC, 60 Hz.	YAH437-EUR

NOTE: European model is 230VAC, 50/60 Hz, single phase.

Sandblasters



YA428A

Vacuum Sandblaster

YA428A Vacuum Sandblaster.

- Blasts away rust, dirt and old paint indoors as effectively as with a blast cabinet
- All action takes place within the blast head to help eliminate dust
- Sandblaster "blasts" away debris, immediately vacuuming it into the dust hopper
- For mobility, the YA428A includes a rugged, tubular steel cart with 8" semi pneumatic wheels and dual casters in front
- Blower has 90 CFM output
- Measures 49" x 18" x 18 1/2"
- Requires 14 CFM at 100 psi. Requires 120VAC

Small Sandblasters

PSB500AR Portable Sandblasting Gun.

- Portable, handheld capability for small scale abrasive sanding jobs
- Lightweight aluminum construction designed with a flat base to provide an upright resting position
- Underslung 4 lb. capacity sand holder improves balance and user comfort
- Requires 5 or 12 CFM at 100 psi



PSB500AR

PSB100R Speed Blaster.

- Cushioned pistol grip
- Compact, 1L, shatterproof tank provides a self contained sand supply
- Gravity-fed for uninterrupted, consistent sand flow
- Adjustable material flow valve
- Operating pressure is 60 to 125 psi. Working pressure is 200 to 125 psi. Maximum air consumption is 12 CFM at 125 psi
- 1/4" NPT fitting
- 24 oz. container size



PSB100R

PSB2020 Spot Blast Recovery System.

- Converts PSB100 Series speed blasters into spot blasters with recovery systems in just seconds
- Captures blast media in a fast and efficient manner and saves cleanup time



PSB2020



WARNING



- Use in well ventilated area
- Read safety precautions on pages 594 to 597

ABRASIVE BLAST SYSTEMS / VISES

Sandblasting Accessories



YAD100A



YAD10102A



YAD007A

Blast System Accessories

Stock No.	Nozzle	Air Jets	Blast Gun	Blast Gloves	Window Film Replacement	Replacement Filter
YA3626	YAD105	YAD104	YAD100A	YAD007A	YAD20061	YAD714
YA4826P	YAD2304	—	—	YAD007A	YAD20061	YADV723
YA3825	YAD105	YAD104	YAD100A	YAD007A	YAD20061	YAD714
YA4224	YAD10104A	YAD10105A	YAD10102A	YAD007A	YAD20061	YAD674
YA3423	YAD105	YAD104	YAD100A	YAD007A	YAD20061	YAD714
YA435	YAD115	YAD104	YAD100A	YAD007A	YAD20061	YAD019
YA437	YAD10104A	YAD10105A	YAD10102A	YAD007A	YAD20061	YAD018



YAD4003



YA414

Abrasives

YAD4000 Steel Grit Abrasive. Rough cleaning and removing rust and scale. 50 lb. bucket.

YAD4003 Steel Shot Abrasive. Peening and cleaning castings and forgings. 50 lb. bucket.

YA428-1 C-Garnet Abrasive. Does not break down as quickly as silica sand. Creates less dust. 50 lb. bucket.

YA461A Glass Bead Abrasive (Coarse). For coarse satin finish with minimum surface removal. 40-60 coarse grit, 50 lb. bucket.

YA462A Glass Bead Abrasive (Medium). For medium satin finish with minimum surface removal. 60-100 medium grit, 50 lb. bucket.

YA463A Glass Bead Abrasive (Fine). Use for fine satin finish with minimum surface removal. 100-200 fine grit, 50 lb. bucket.

YA466A Aluminum Oxide Abrasive. A tough abrasive used for fast removal of heavy oxidation and burrs. Low dust and good recycling. 50 lb. bucket.

Helmets/Hoods

YA414 Cotton Twill Hood. Bump cap protects head, face and neck from dust. Light duty protector for well ventilated areas.

Vises



BLPMV5

Bench Vises—Blue-Point®

- Single piece steel blocks for higher load capacity
- Extended anvil
- Lubrication points for maintenance
- Optional swivel base
- Capacity range from 3.5 ton to 9 ton at maximum opening
- Reinforced cantilever support
- Interchangeable jaws
- Diamond ground for better grip
- Heavy duty cast iron construction
- Precise jaw alignment
- Rolled thread spindle for easy locating and tightening parts
- Protected spindle

BLPMV4 Bench Vise. 4" jaws.

BLPMV5 Bench Vise. 5" jaws.

BLPMV6 Bench Vise. 6" jaws.

VICES

Vises

High Visibility Safety Vises

Coated in high visibility yellow, which conforms to the OSHA safety color standard for physical hazards regulation #1910.144. Powder coat finish resists scratches and gives a tough, durable finish. Handles and lockdowns are black oxide coated for additional corrosion resistance. Units feature a straight line design with totally enclosed spindle and nut, replacement pipe and serrated vise jaws. 360° swivel base.



WV1560VIS

Stock No.	Jaw Width, inches	Maximum Opening, inches	Pipe Capacity, inches
WV1550VIS	5	5 1/4	1/4-2 1/2
WV1560VIS	6	5 3/4	1/4-3 1/2



WV4044

Mechanic's Vises

For general purpose service and maintenance shops. Replaceable, reversible top jaws (one serrated steel, one smooth), built-in pipe jaws, swivel base and large anvil.



WV1745

Stock No.	Jaw Width, inches	Maximum Opening, inches	Pipe Capacity, inches	Throat Depth, inches	Copper Jaw Cap
WV1745	4 1/2	4	3 1/4	3	WV4044
WV1755	5 1/2	5	3/8 - 3	3 3/4	WV4045
WV1765	6 1/2	6 1/2	3/8 - 3 1/2	4	WV4046
WV1780A	8	7	1/8 - 3 1/2	4 3/4	WV4046



WV400N



WV400S

Machinist's Vises

Choice of swivel or non-swivel base. Large anvil, totally enclosed spindle and nut. 60,000 psi high ductile iron for main stress parts. Swivel models feature slip proof 360° base, serrated teeth and double lockdowns.

Stock No.	Jaw Width, inches	Maximum Opening, inches	Throat Depth, inches	Base
WV300N	3	4 3/4	2 5/8	Stationary
WV400N	4	6 1/2	3 1/2	Stationary
WV450N	4 1/2	7 1/2	4	Stationary
WV500N	5	8	4 1/4	Stationary
WV600N	6	10	5 1/2	Stationary
WV800N	8	12	5 13/16	Stationary
WV300S	3	4 3/4	2 5/8	Swivel
WV350S	3 1/2	5 1/4	2 3/4	Swivel
WV400S	4	6 1/2	3 1/2	Swivel
WV450S	4 1/2	7 1/2	4	Swivel
WV500S	5	8	4 1/4	Swivel
WV600S	6	10	5 1/2	Swivel
WV800S	8	12	5 13/16	Swivel



WARNING



• Read safety precautions on pages 594 to 597

Utility Vises

Regular duty utility vises can be used for a variety of shop applications. Replaceable serrated jaws, built-in pipe jaws, swivel base and large anvil to handle a variety of jobs.



WV676

Stock No.	Jaw Width, inches	Maximum Opening, inches	Pipe Capacity, inches	Throat Depth, inches
WV674*	4 1/2	3 3/4	1/8 - 2	2 5/8
WV675	5 1/2	4 3/4	1/8-2	3 7/16
WV676	6 1/2	5 3/4	1/8-2 1/2	3 11/16
WV656	6	6	1/8-3	4 1/4
WV648*	8	7 1/2	1/8 - 3	4 1/2

*Features built-in pipe jaws, replaceable steel vise jaw inserts, a locking swivel base and rugged 30,000 psi body casting.

Pipe and Bench Vises

Large anvil, totally enclosed spindle and nut. 60,000 psi high ductile iron main stress parts. Replaceable steel vise jaw inserts and milled steel pipe jaws. Alloy steel slide bar.

Stock No.	Jaw Width, inches	Maximum Opening, inches	Pipe Capacity, inches	Throat Depth, inches
WVC0	3 1/2	4	1/8 to 2 1/2	4 1/2
WVC2	5	7	1/8 to 4 1/2	5 5/16
WVC3	6	9	3/8 to 6	6 5/8



WVE105RT

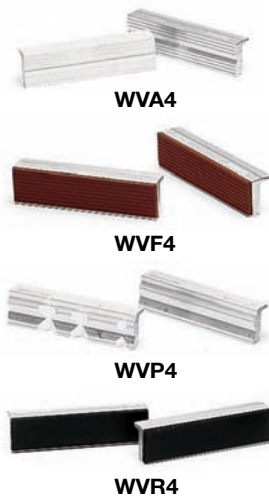
Forged Bench Vises

Hardened reversible jaws can be reversed for non-marring applications or replaced when worn. Competitive forged units do not offer replaceable jaws. 360° swivel base increases versatility because vise can be locked in virtually any position. Jaw adjustment screws ensure proper alignment and accuracy.

Stock No.	Jaw Width, inches	Maximum Opening, inches	Pipe Capacity, inches
WVE104RT	4	3 15/16	1/4 - 3/4
WVE105RT	5	5 7/8	1/2 - 2 1/2
WVE106RT	6	7 7/8	1/2 - 3
WVE107RT	7	8 7/8	3/4 - 4

VICES/WORKBENCHES

Jaw Caps



Jaw Caps

Stock No.	Description	Size, inches
WVA Series. Aluminum grooved caps hold uneven and circular pieces.		
WVA4	Aluminum Alloy Face	4
WVA5	Aluminum Alloy Face	5
WVA6	Aluminum Alloy Face	6
WVF Series. Caps with heat resistant, laminated fibers help prevent outside materials from being absorbed.		
WVF4	Fiber Face	4
WVF5	Fiber Face	5
WVF6	Fiber Face	6
WVP Series. Prism caps have horizontal and vertical grooves for marking out, center punching, light tapping, and thread cutting.		
WVP4	Prism Face	4
WVP5	Prism Face	5
WVP6	Prism Face	6
WVR Series. Caps have rubber covers.		
WVR4	Rubber Face	4
WVR5	Rubber Face	5
WVR6	Rubber Face	6

C-Clamps



CL537A

Medium Duty C-Clamps

- Maximum strength ribbed iron frame
- Steel screw with full standard threads and sliding T-handle
- Large anvil and steel swivel pad to ensure secure clamping
- Deep throat style

Stock No.	Throat Depth, inches	Capacity, inches	Spindle Diameter, inches
CL537A	3 1/2	2	5/16
CL546A	6 1/4	2 1/2	3/8

Work Benches



EQG2223K5



BPWORKBENCH



EQG245U5

Work Benches and Tables

EQG2223K5 Open Leg Work Bench.

- Heavy 12 gauge steel with die formed legs welded into a 1 pc unit for superior strength
- Includes storage drawer for mounting on an end or at the center of the bench
- 5"W x 29"D x 33 1/2"H

BPWORKBENCH Heavy Duty Workbench-Blue-Point®.

- Full bottom shelf and superior powder coat finish
- Net weight - 139 lbs.
- Weight capacity - 1,200 lbs.
- Top panel: 13 gauge steel
- Bottom shelf: 13 gauge steel
- Steel support: 12 gauge steel
- 60 1/16"W x 30 3/4"D x 34 1/16"H

EQG245U5 Pedestal Work Bench.

- Manufactured with a heavy 12 gauge top surface and an integral back flange
- 4 drawer pedestal is designed with roller drawer rails for smooth, non-binding operation
- 5"W x 27 1/2"D x 34 1/8"H

Hydraulic Floor and Bench Presses

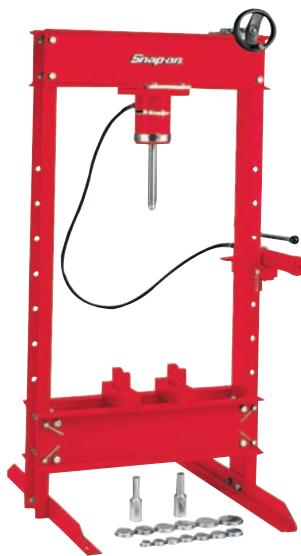
Hydraulic (50, 35, 20, 10, and 4 ton) presses will handle many pressing, straightening and assembling jobs. Rams may be moved in any lateral position. Two work blocks, included with each unit, are held in place by extended bosses at the bottom. Work rails can be raised or lowered in 7" increments on 50 ton unit, 5" increments on 35 ton unit, 3" increments on 20 ton unit, and 4" increments on the 10 ton bench models.



CG570BHY

50 Ton Floor Presses

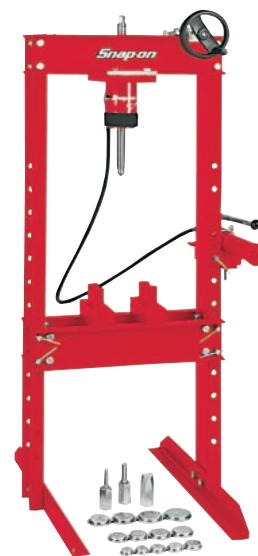
CG570BHY 50 ton Floor Press. Includes: table lifting mechanism, frame, ram, pump, work blocks and the accessories.
CG570BHY2S. CG570BHY with the 2 stage pump.



CG770HY

35 Ton Floor Presses

CG770HY 35 ton Floor Press. Includes: table lifting mechanism, frame, ram, pump, work blocks and the accessories.
CG770HY2S. CG770HY with the 2 stage pump.



CG473HY

20 Ton Floor Presses

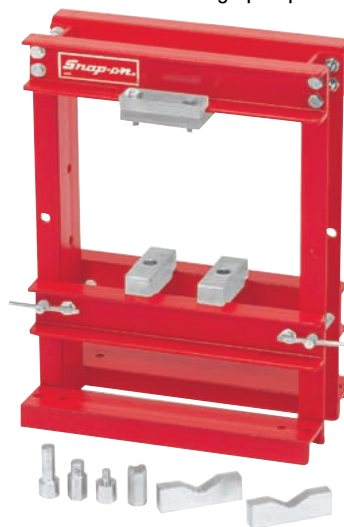
CG473HY 20 ton Floor Press. Includes: table lifting mechanism, frame, ram, pump, work blocks and the accessories.
CG473HY2S. CG473HY with the 2 stage pump.
CG470BHY. CG473HY without the table lifting mechanism.
CG470BHY2S. CG470BHY with the 2 stage pump.



CG170HY

10 Ton Bench Press

CG170HY 10 ton Bench Press. Includes: frame, ram, pump, work blocks and the accessories.



CG105HY

4 Ton Bench Press

CG105HY 4 ton Bench Press. Includes: frame, ram, pump and the accessories. Can be used with CG101 attachment set.



WARNING



- Shield or screen press applications
- Read safety precautions on pages 594 to 597

PRESSES

Hydraulic Floor and Bench Presses

Stock No.	Overall Height, inches	Base Area	Work Area Width, inches	Channel Width, inches			Working Dist., inches		V Block	Pressure Screw "V" Adaptor	Step Plate Set	Table Lifting Mechanism	Bull Nose Adaptor	
				Side Beam	Head Rail	Work Rail	(min.)	(max.)					Stock No.	Size, inches
50-ton														
CG570BHY	72	3' x 3 1/2'	36	8	10	10	3 3/4	39 1/4	CG471-2 (2)	—	CG471A	Included	CG550-13	1
CG570BHY2S	—	—	—	—	—	—	—	—	—	—	—	—	CG550-14	1 1/2
35-ton														
CG770HY	69	2 1/2' x 3'	28	5	10	10	2 1/4	40 7/8	CG471-2 (2)	—	CG471A	Included	CG770-1	7/8
CG770HY2S	—	—	—	—	—	—	—	—	—	—	—	—	CG770-2	1 1/8
20-ton														
CG473HY	60	2' x 3'	20 1/2	5	5	5	4	39 3/4	CG471-2 (2)	CG471-1 (2)	CG471A	Included	CG471-3	1/2
CG473HY2S	—	—	—	—	—	—	—	—	—	—	—	—	CG471-4	3/4
CG470BHY	60	2' x 3'	20 1/2	5	5	5	4	39 3/4	CG471-2 (2)	CG471-1 (2)	CG471A	CG472	CG471-3	1/2
CG470BHY2S	—	—	—	—	—	—	—	—	—	—	—	—	CG471-4	3/4
10-ton														
CG170HY	32 1/2	1' x 2'	18"	3	4	4	3 1/4	19 1/4	CG170-14 (2)	CG170-15	CG173	—	CG170-16	3/8
—	—	—	—	—	—	—	—	—	—	—	—	—	CG170-17	3/4
4-ton														
CG105HY	18	11" x 6"	9"	2	2	2	4"	12"	—	CG105-7	—	—	—	—

Step Plates

Use step plates for the pressing of bearings, bushings and general pressing applications.

CG173 Step Plate Set.

5 pc includes (components described in table at right):

CG173-1 CG173-4

CG173-2 CG173-5

CG173-3

CG471A Step Plate Set.

12 pc includes (components described in table at right):

CG471-6 CG471-9 CG471-12 CG471-15

CG471-7 CG471-10 CG471-13 CG471-16

CG471-8 CG471-11 CG471-14 CG471-17



CG471-9

Step Plates

Stock No.	Diameter, inches	Stock No.	Diameter, inches
CG173-1	5/8 and 1	CG471-9	1 3/4 and 2 3/16
CG173-2	3/4 and 1 1/8	CG471-10	1 7/8 and 2 5/16
CG173-3	7/8 and 1 1/4	CG471-11	2 and 2 7/16
CG173-4	1 and 1 3/8	CG471-12	2 1/8 and 2 5/8
CG173-5	1 1/8 and 1 1/2	CG471-13	2 1/4 and 2 3/4
CG471-5	1 1/4 and 1 5/8	CG471-14	2 3/8 and 2 7/8
CG471-6	1 3/8 and 1 3/4	CG471-15	2 1/2 and 3
CG471-7	1 1/2 and 1 7/8	CG471-16	2 3/4 and 3 1/4
CG471-8	1 5/8 and 2 1/16	CG471-17	3 and 3 1/2

Arbor Presses



CG100

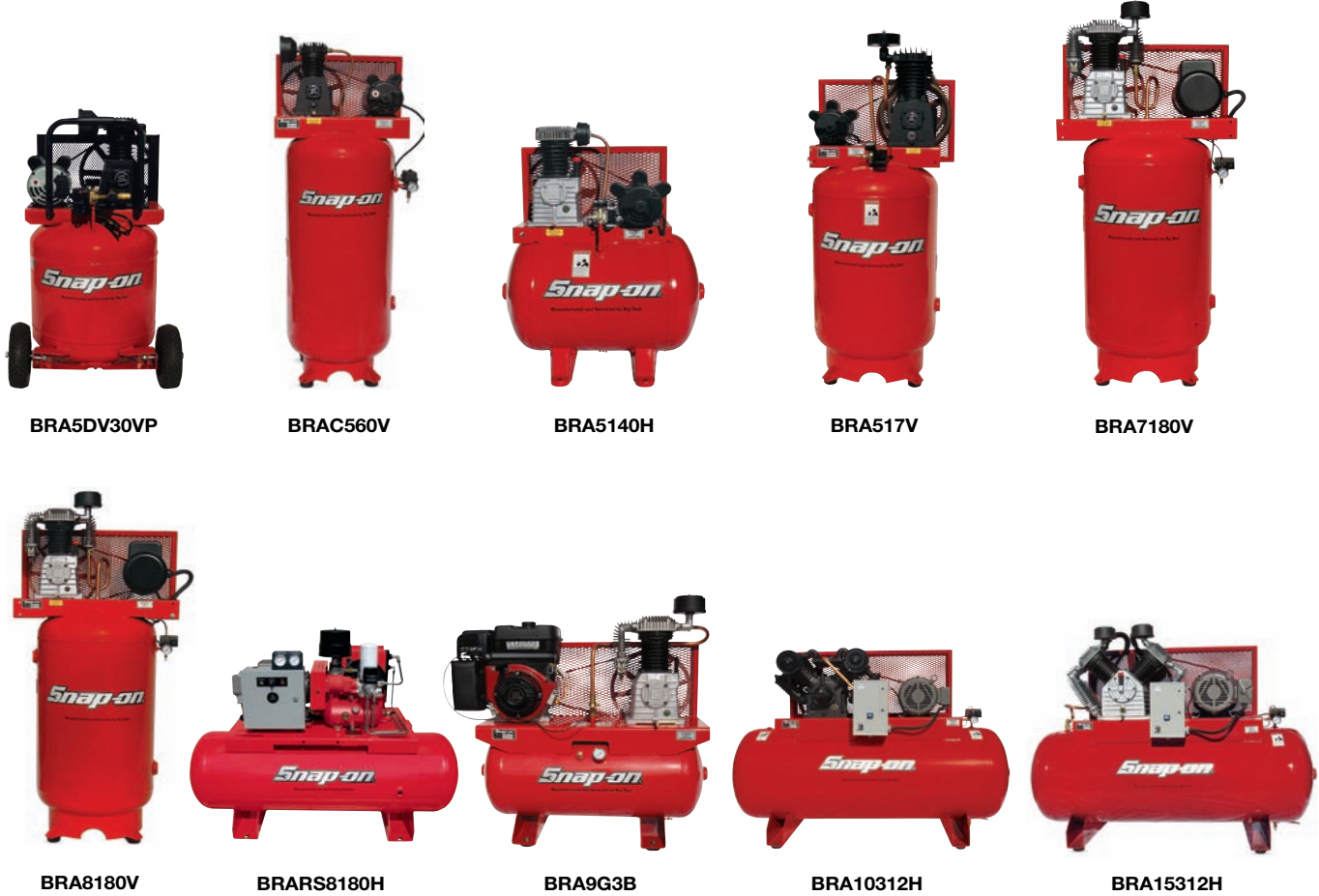
3 Ton Arbor Press

CG100. Frame is 2" steel channel. Bolts to work bench. Gearing multiplies handle pressure up to 3 ton force. Set includes arbor press frame, CG100-14 utility punch, CG100-15 work block, and CG100-16 adaptor to convert 1/2" drive to 5/16" round drive.

Specifications	Diameter, inches
Dimensions	18" high, 11 1/8" wide
Pressure, tons	3
Base Size	11 1/8" x 6 1/8"
Vertical Capacity	12 3/4"
Opening Width	9"
Width Between Work Brackets	9"
Pressure Shaft Stroke	9" (when utility punch is attached)

Optional Accessories for CG100: The adaptors from A57Q bushing driver set can be used with CG100-16 5/16" round drive adaptor. The CJ951 bearing separator fits neatly between the work support brackets. May also use components for the CG101 attachment set.

AIR COMPRESSORS



Snap-on® Signature Series Air Compressors

Stock No.	HP	Pump Stages	Tank Gallons	Tank Style	Electrical Requirement	Amp Service Requirement	Mag Starter	Hour Meter	Auto Drain	Air Delivery SCFM@psi	Max psi
BRA5DV30VP	5	Single	30	Portable	120 or 220V, single phase	30 @ 120V 15 @ 220V	Not Req.	No	No	7 @ 125	125
BRAC560V	5	Single	60	Vertical	208/230V, 1-phase	20 @ 208/230V	Not Req.	No	No	13.5 @ 140	140
BRA5140H	5	Dual	40	Horizontal	208/230V, 1-phase	30 @ 208/230V	Not Req.	No	No	14.0 @ 175	175
BRA517V	5	Dual	70	Vertical	208/230V, 1-phase	40 @ 208/230V	Yes	No	No	17.5 @ 175	175
BRA7180V	7	Dual	80	Vertical (2)	208/230V, 1-phase (1)	40 @ 208/230V	Yes	Yes	Yes	23.5 @ 175	175
BRA7180VEM	7	Dual	80	Vertical	208/230V, 1-phase	40 @ 208/230V	Yes	No	No	23.5 @ 175	175
BRA8180V	8	Dual	80	Vertical (2)	208/230V, 1-phase (1)	40 @ 208/230V	Yes	Yes	Yes	27.0 @ 175	175
BRARS8180H	8	Rotary Screw	80	Horizontal	208/230V, 1-phase (1)	40 @ 208/230V	Yes	Yes	Yes	35.0 @ 125	125
BRA9G3B	9	Dual	30	Horizontal	Gas Engine, Electric Start	—	—	No	No	23.0 @ 175	175
BRA10312H	10	Dual	120	Horizontal	208/230V, 3-phase (3)	40 @ 208/230V	Yes	No	Yes	36.0 @ 175	175
BRA15312H	15	Dual	120	Horizontal	208/230V, 3-phase (3)	75 @ 208/230V	Yes	No	Yes	48.0 @ 175	175
BRA20312H	20	Dual	120	Horizontal	208/230V, 3-phase (3)	100 @ 208/230V	Yes	No	Yes	75.0 @ 175	175

- (1) Three (3) phase motor available
- (2) Horizontal tank available
- (3) 440/460 volt wiring available



WARNING



- Use pressure regulator, lubricator and moisture filter on air line
- Follow maintenance requirements • Read safety precautions on pages 594 to 597

AIR COMPRESSORS

Air Processing Equipment

Quickclamp® Regulators, Filters and Valves

- System utilizes modular design of filters, regulators, lubricators and accessories
- Allows installation and removal of the AHR services units and accessories without breaking a pipe connection
- Clamping device holds AHR product components in rigid combinations

AHR428 Oil Filter Lubricator.

- Features a quick release bayonet bowl, a high visibility prismatic lens and a liquid level indicator
- Lubricates a single tool, cylinder or other air powered device
- Inlet/outlet port size is 1/2" NPT(f)

AHR424 General Purpose Filter.

- Excellent water removal characteristics
- Standard depth type 40mm filter element
- Particle removal per ISO 8573-1, Class 5 and Class 3
- Inlet/outlet port size is 1/2" NPT(f)

AHR430 General Purpose Filter/Regulator.

- Low torque, nonrising pressure adjustment knob has integral locking device
- Standard depth type 40 µm filter element
- Particle removal per ISO 8573-1, Class 5 and Class 3
- Inlet/outlet port size is 1/2" NPT(f)
- Gauge port is 1/4" NPT(f)

AHR423 Automatic Drain Valve.

- When fluid reaches full level it activates the float and drains unwanted oil and water automatically
- Can be used in place of a manual drain on the following units: AHR424 and AHR430

AHR426 General Purpose Pressure Regulator.

- Features full flow gauge ports and standard relieving regulators
- Low torque, non-rising pressure adjustment knob has integral locking device
- Balanced valve minimizes effect of variation in inlet pressure on the outlet pressure
- Inlet/outlet port size is 1/2" NPT(f)
- Gauge port is 1/4" NPT(f)



Filters/Regulators

Stock No.	Maximum Inlet Pressure, psi (bar)	Temperature Range, °F (°C)	Flow, scfm	Drain Connection Manual	Drain Connection Automatic
AHR424	250 (17.2)	175 (79)	150	7/16"-24 UNS (m)	1/8" NPT(f)
AHR426*	300 (20.7)	0-175 (-18-79)	—	—	—
AHR428	250 (17.2)	175 (79)	3.5-100	7/16"-24 UNS	—
AHR430	250 (17.2)	0-175 (-18-79)	—	7/16"-24 UNS	1/8" NPT(f)

*Blue-Point®

Regulators, Filters and Valves

Stock No.	Inlet/Outlet Port Size	Adjustable Pressure Range	Maximum Service Pressure	Oil Capacity	Operating Temperature Range
AHRB200	1/2" NPT (F)	5-120 PSIG (.5-8.5 kgf/cm2)	140 PSIG (9.9 kgf/cm2)	80 ml	41-140° F (5-60° C)

Protecting All Of Your Assets.

Snap-on® has what it takes to keep your shop clean and safe.

- Cleaning equipment—A clean garage is a safe, efficient garage. Snap-on has the answer for dirt, grease and grime. Keeping you and the shop in top form.
- Safety equipment—From basic safety glasses and ear protection to face protectors on the cutting edge of design, Snap-on helps you do your job safely and comfortably.
- Parts washers—Whether your shop needs solvent based or aqueous units, Snap-on carries a full line to meet your cleaning demands.

Increase Shop Profits.

Why pay a service fee to have used solvent carried away? A Snap-on parts washer is an investment in your shop and the environment. Using an advanced filtration system, you can eliminate the need for used solvent disposal, saving yourself money while protecting the environment.



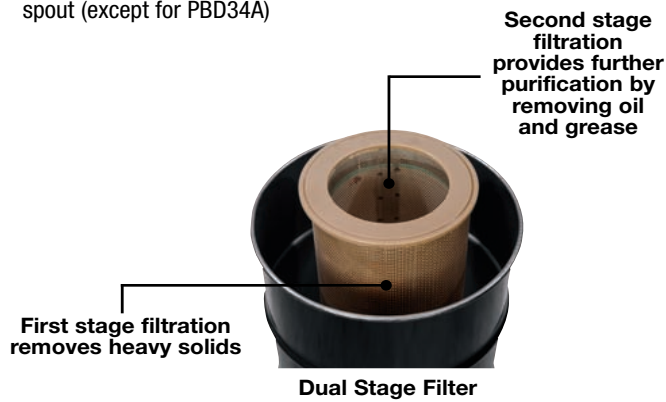
PARTS WASHERS

Solvent Based

Dual filter parts washers from Snap-on® provide a clean supply of solvent for washing parts. Filtration system virtually eliminates solvent changes.

Dual Filter Washer

- Composite dual stage filter provides continuous filtration of solvent
- Tubs are constructed of 16 gauge steel and feature an added lip for strength
- Complete with work lamp and flexible spout (except for PBD34A)



Specifications	PBD3222A	PBC4828	PBD34A*	PBD2622A	PBC3222A	PBC16
Filtration	Dual	Dual	—	Dual	Dual	—
Base	Drum	Square	Drum	Drum	Square	—
Interior Dimensions, inches	10H x 32W x 22D	14H x 48W x 28D	7H x 28W x 22D	7H x 26W x 17D	10H x 32W x 22D	6H x 15W x 16D
Fluid Requirements, gallons	20	20	10	10	20	5
Input Power Requirements	120VAC, 60Hz	120VAC, 60Hz	120VAC, 60Hz	120VAC, 60Hz	120VAC, 60Hz	120VAC, 60Hz
Pump Volume, gallons/hour	325	325	210	210	325	210
Output Pressure, psi	50	50	50	50	50	50
Overall Dimensions, inches	39H x 36W x 26D	45H x 52W x 32D	35H x 31W x 23D	34H x 30W x 21D	39H x 36W x 26D	10H x 17W x 23D
Open Height, inches	63	75	60	53	63	23
Replacement Filter	PBD3209	PBD3209	—	PBD3202	PBD3209	—
European Models, 230VAC, 50Hz	PBDH3222AEUR	PBCH4828EUR	—	PBDH2622AEUR	PBCH3222AEUR	—
PBD1751 Parts Tray	Included	Included	Optional	—	Included	—
PBA720A Drain Table	Optional	Optional	Optional	—	Optional	—

*Blue-Point®

TECHNICAL SUPPORT
1-800-253-3661

PARTS WASHERS

Aqueous Based



PBC42A

Electric/Medium Duty

PBC42A High Pressure Parts Washer.

- Fully enclosed aqueous parts washer
- Blast parts clean with a high pressure wand
- Soap solution is heated for additional effectiveness
- Automatic soak cycle loosens up grime
- Screen and contaminant trap to separate oil and grease from soap solution
- Includes 25 lbs. of YADW896A powdered soap

Specifications	PBC42A
Power Source	Electric
Depth, inches	24
Reservoir Capacity, gal.	12
Electrical Requirements	230VAC, 60 Hz
Pump Motor, hp	3/4
Output Pressure, psi	500
Volume, gal/h	180
Heater, watts	1,500
Open Height, inches	67
Inside Dimensions, inches	16 to 26H x 40W x 24D
Overall Dimensions, inches	62H x 46W x 27D

European Model - PBCH42AEUR (230VAC, 50Hz)



PBC33

PBC33 Standard Heated Aqueous Parts Washer.

- Clean parts with a pressurized cleaning spout
- Heated for additional effectiveness
- Heavy-wall polyethylene tub and solid base
- Integral oil skimmer removes oil and grease from the cleaning solution
- Includes 4 gallons of PBA728A cleaning solution concentrate

Specifications	PBC33
Power Source	Electric
Depth, inches (mm)	28 (711)
Reservoir Capacity, gal.	20
Electrical Requirements	120VAC, 60Hz
Output Pressure, psi	50
Volume, gal/h	325
Heater, watts	1,500
Open Height, inches	65
Inside Dimensions, inches	10H x 21W x 31 1/2D
Overall Dimensions, inches	42H x 37W x 28D

European Model - PBCH33EUR (230VAC, 50/60Hz)

Electric/Heavy Duty

PBC57A High Pressure Automatic Parts Washer.

- Automatically cleans engine blocks, cylinder heads, transmission cases and small parts
- Heated and pressurized soap solution
- 18 high pressure nozzles
- Turntable rotates and pulls out for ease of part loading
- Integral oil skimmer removes oil and grease from the soap solution
- Includes 25 lbs. of YADW896A powdered soap

Specifications	PBC57A
Power Source	Electrical
Reservoir Capacity, gal.	60
Electrical Requirements	230VAC, 60Hz (min 60A service)
Heater, watts	9,000
Pump Motor, hp	2
Turntable Capacity, lb.	500
Turntable Diameter, inches	30
Turntable Speed, rpm	3
Inside Dimensions, inches	41H x 35W x 35D
Overall Dimensions, inches	69H x 53W x 43D

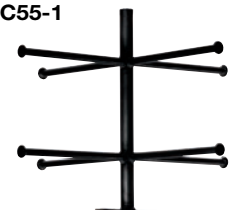
European Model - PBCH57EUR (230VAC, 50Hz)



PBC57A



PBC55-1



PBC55-3

PBC55-1 Parts Basket.

- Perforated steel basket for holding small parts

PBC55-3 Parts Tree.

- Welded steel tube rack for hanging smaller parts



WARNING



- Do not direct air or fluid stream at body
- Do not expose solvent to flames, sparks or other sources of ignition
- Use in well-ventilated area
- Do not use washer without fusible link or safety valve intact
- Read safety precautions on pages 594 to 597

PARTS WASHERS

Parts Washer Accessories



Parts Cleaning Brushes/Solvent & Aqueous Based-Blue-Point®

YA452 Parts Cleaning Brush.

- Stiff bristles with contoured, nonslip plastic handle
- Attaches to most parts washers
- Flared hose end fits 1/4" spouts: 24" long hose has internal spring to prevent kinking
- 35 1/4" overall length

GA501A Parts Cleaning Brush.

- Similar to YA452 without hose: 11 1/4" long

YA505 Parts Cleaning Brush.

- 2 pack for cleaning engine parts, machinery, wheel bearings and other metal components
- Polypropylene bristles withstand repeated use in cleaning solvents
- Diameter: 1 1/4" - overall length 10 3/4"



PBA728A



PBA729

Cleaning Solutions for Aqueous Based Parts Washers

PBA728A Water Based Cleaning Solution Concentrate.

- Odorless, low foaming solution for PBC33
- Best results when heated
- 4 gallon plastic pail

PBA729 Biodegradable Water Based Cleaning Solution.

- Clear green liquid detergent, low foaming
- Best results when heated
- Use in PBC33 and similar washers

- 4 gallon plastic pail

YADW896A Alkaline Powder Soap.

- Powder alkaline cleaner for PBC42A and PBC57A washers
- Low foaming; safe for use on aluminum, brass and steel
- Includes rust inhibitor additive
- 25 lb. plastic pail



PBA760

Cleaning Solution for Solvent Based Parts Washers

PBA760 Solvent.

- Petroleum solvent with 140° flash point
- Excellent for removing oil and grease
- Used in solvent based parts washers only
- 5 gallon plastic pail with pour spout



PBA725



PBA720A



PBD1751

Solvent Based Parts Washer Accessories

PBA725 Parts Basket.

- Hangs inside solvent based parts washers

PBD1751 Parts Tray.

- Helps drain excess solvent
- Attaches to outside of parts washer
- Measures 12 1/2" W x 18 1/2" D

PBA720A Drain Table.

- Helps drain excess solvent
- Attaches to outside of parts washer
- Measures 25-1/2"W x 18-1/2"D

Parts Cleaning



Hose Reels

YA730D Heavy Duty Air/Water Hose Reel.

- 50' of 3/8" ID low pressure hose
- Adjustable ball stop
- 24" connecting hose
- High carbon steel retraction spring
- Guide arm adjusts to 4 positions

YA729B Hose Reel.

- 30' of 3/8" ID low pressure hose
- Adjustable ball stop
- 12" connecting hose
- Metal construction
- Max. pressure 300 psi
- Max. water temperature 200° F

YA1729 Air Hose Reel.

- Spring tension brake controls reel rotation
- 1/4" NPT brass swivel allows free flow of air
- Easily attaches to the wall or work surface
- Hose not included

Specifications	YA1729
Air Supply Required	28 CFM at 90 psi
Diameter, inches	17 3/4
Height, inches	19
Reel Capacity, feet (3/4" O.D. hose)	100
Reel Capacity, feet (5/8" O.D. hose)	150
Width, inches	11

Water Nozzles and Hoses

YA571 Water Spray Nozzle.

- Sprays hot or cold water
- Clip locks spray at desired setting
- Nose bumper prevents scratches to auto paint
- Fits standard garden hose threads

YA297 Water Saving Hose Nozzle.

- Provides concentrated pressure stream
- Features special rocker-actuated check valve
- Fits standard garden hose threads
- 9" long

NOZZLE360A Water Spray Nozzle.

- Turns any standard 5/8" hose into a multi-function cleaning tool
- 5 different spray patterns
- 360° jetted nozzle is engineered from rugged extruded aluminum, forged stainless steel, high grade fiberglass and comfort grip santoprene
- 2 way shut off

GA299 Air-Solvent Gun.

- Used for degreasing or applying oils
- Quickly converts to long wanded air gun
- Includes 8' hose for siphoning chemicals into gun
- Operates on 35 to 175 psi

PRESSURE WASHERS

Cold Water

Includes ceramic plunger pump with stainless steel valves, trigger gun, chemical injection and adjustable pressure.



SEPW1500P



SEPW1000



SEPW1500SM



SEPW1600G

SEPW2700G

Electric Powered

Adjustable 0 to 60° spray nozzle and GFCI protection with 35' power cord.

Specifications	SEPW1500P Hand Carry	SEPW1000 Cart Mounted	SEPW1500SM Wall Mounted
PSI (bar)	1,450 (100)	1,000 (69)	1,450 (100)
GPM (lpm)	2 (7.6)	2 (7.6)	2 (7.6)
HP	2	1.5	2
Voltage	120V/20A/1 ph.	120V/15A/1 ph.	120V/20A/1 ph.
Chemical Tank Cap.	—	1 gal	—
Pump Max. Temp.	140°F	140°F	180°F
Thermal	Mechanical	Mechanical	Mechanical
Hose Length (feet)	26	50	40
Dimensions (L x W x H)	18" x 12" x 11"	21" x 16" x 36"	20" x 12" x 20"
Shipping Wt., lbs.	68	65	98

Gas Engine

Interchangeable or adjustable 0 to 40° spray nozzle plus powder coated tube frame cart with pneumatic tires.

Specifications	SEPW1600G Cart Mounted	SEPW2700G Cart Mounted
PSI (bar)	1,600 (110.4)	2,700 (183.3)
GPM (lpm)	3 (11.4)	3 (11.4)
HP	5	6.5
Engine	Honda GC	Honda GC
Fuel Tank Cap.	1.9 qts	3.9 qts
Chemical Tank Cap.	3 gal	3 gal
Thermal	165° F	165° F
Hose Length (feet)	50	50
Dimensions (L x W x H)	30" x 21.5" x 36"	30" x 21.5" x 36"
Shipping Wt., lbs.	87	108

Oil Fired Hot Water

Heats water to 200° F. Includes ceramic plunger pump with stainless steel valves, trigger gun, interchangeable nozzles, chemical injection, adjustable pressure, stainless steel cold wrap around coil, poly fuel tanks and GFCI protection. Powder coated tube frame cart with pneumatic tires for extra durability.



SEPW14SHDE



SEPW30SHDE



SEPW3000QH

Electric Power

Specifications	SEPW14SHDE	SEPW15SHDE	SEPW20SHDE	SEPW30SHDE
PSI (bar)	1,450 (100)	1,500 (103.5)	2,000 (138)	3,000 (207)
GPM (lpm)	2 (7.6)	3 (11.4)	4 (15.2)	4 (15.2)
HP	2	3	5	7.5
Voltage	120V/20A/1 ph.	230V/20A/1 ph.	230V/25A/1 ph.	230V/34A/1 ph.
Burner Fuel Capacity	5 gal	5 gal	5 gal	5 gal
Dimensions (L x W x H)	34" x 27" x 47"	34" x 27" x 47"	34" x 27" x 47"	34" x 27" x 47"
Shipping Wt., lbs.	350	350	570	600

Gas Engine

Specifications	SEPW3000QH
PSI (bar)	3,000 (207)
GPM (lpm)	4 (15.2)
HP	13
Engine	Honda
Fuel Tank Capacity	6.9 qts
Burner Fuel Capacity	5 gal
Dimensions (L x W x H)	54" x 32" x 49"
Shipping Wt., lbs.	600



WARNING



- Do not direct air or fluid stream at body
- Read safety precautions on pages 594 to 597

VACUUMS/SHOP FANS

Wet/Dry Vacuums

Industrial strength full wet and dry cleaning/drying machines combine the highest degree of suction/air-flow with ruggedly durable motors. Highest quality materials ensure long life. Ball bearing motor designs for strong performance with less motor strain. Engineered for easy portability and long life.



Specifications	YA1023	YA1105	YA1009SS	BLPVAC5*
Tank	23 Gal. Poly	Corrosion Resistant	Corrosion Resistant	5 Gal Polypro
Casters	Large Rear/Swivel Front	Four Swivel	Large Rear/Swivel Front	4 Metal Casters
Waterlift	91"	84"	84"	65"
Motor	2 Stage	2 Stage	2 Stage	1 Stage
CFM	142	78	78	117
Approval	UL and c-UL	UL and c-UL	UL and c-UL	UL and c-UL
Operation	Full Wet and Dry	Full Wet and Dry	Full Wet and Dry	Full Wet and Dry
Filter Assembly	YAT90448	YAT24519	YAT90445	- (Washable Cartridge Filter)
Includes	1.5" Wet/Dry Tool Set (hose w/swivel end, crevice tool, upholstery tool, 2 straight extensions, floor tool housing with carpet face, brush face, squeegee face)	1.5" Wet/Dry Tool Set (hose w/swivel end, crevice tool, upholstery tool, 2 straight extensions, floor tool housing with carpet face, brush face, squeegee face)	1.5" Wet/Dry Tool Set (hose w/swivel end, crevice tool, upholstery tool, 2 straight extensions, floor tool housing with carpet face, brush face, squeegee face)	7' hose (1-1/4" dia.), 3 extension wands, washable cartridge filter, reusable foam sleeve, 10" floor/squeegee nozzle, utility nozzle with brush and crevice tool

*Blue-Point®



Handheld Vacuums

AV1000A Deluxe Air Vacuum Kit.

AV1000A

- Ideal for vehicle media and body shops or any applications in need of picking up dust, metal shavings or broken glass
- Includes 8.7" aluminum extension tube, pointed nozzle, flexible tube and crevice tool with brush
- Large collection bag includes a debris baffle and sliding bag clamp for emptying debris
- Lightweight ergonomic handle design

Specifications	AV1000A*
Air Consumption, Average, DFM (SCFM) [l/min]	3 (21) [84.95]
Sound Level, Free Speed, dBA	81.2
Sound Level, Working, dBA	81.2
Recommended Hose Size, inches	3/8
Length (without bag), inches (mm)	13 (330)
Brush Head Size, inches (mm)	1 1/8 x 2 5/8 (28.5 x 66.7)
Bag Size, inches (mm)	6 1/2 x 11 1/4 (165 x 285)
Weight, lbs. (kg)	0.88 (0.4)

*Blue-Point

Shop Fans

WIND100 Heavy Duty Air Mover.

- For heavy duty air circulation applications
- Use for drying carpets, upholstery or hard floors plus removing vapors from enclosed spaces
- Maximum 2,500 CFM output
- 3 position discharge adjustment
- 3 speed switch



WIND100

Portable Spotter

YA1102 Portable Spotter.



YA1102

- Use on carpeting, seat fabrics and other cleaning needs
- Durable molded tank
- Large 2 gal. capacity
- Powerful 55 psi solution pump motor
- Strong recovery with 94 CFM vacuum rating
- Quick disconnect solution hose at body
- Includes hose and hand tool
- Use with CLEAN1A cleaner solution (32 oz.) sold separately
- UL and CSA Certified
- ETL and ETL-c Listed
- 84" waterlift
- Bypass 1.2 HP motor

Specifications	WIND100
Power	120VAC/60 Hz
Speeds	3
Air Delivery	1,600 - 2,000 - 2,500 CFM
Air Flow Direction	0°/30°/90°
High Output Fan Size	10 3/4 Dia. x 10 1/2 W
Motor	.5 Hp
Motor Rating	Continuous Duty
Power Cord	15' (18/3)
Size, (LxWxD), inches	18 H x 14 W x 20 1/2 D

Back Supports/Arm Protectors/Knee Pads

Stock No. Back Supports	Size	Color
BACK1M	Medium 31" to 36" waist	Red
BACK1L	Large 35" to 40" waist	Red
BACK1XL	X-Large 39" to 44" waist	Red
BACK1XXL	XX-Large 43" to 48" waist	Red
BACK1SBK	Small 27" to 32" waist	Black
BACK1MBK	Medium 31" to 36" waist	Black
BACK1LBK	Large 35" to 40" waist	Black
BACK1XLBK	X-Large 39" to 44" waist	Black



BACK1LBK



BACK1XL

Back Supports

- Curved, firm support pads help reduce back fatigue
- Unique patented lumbar pad design to firmly support the lower back
- Not a replacement for proper workplace design and proper training in lifting, twisting and bending movements

Arm Protectors/Knee Pads



HS700A

HS700A Arm Protector.

- Protects arm from burns when working around engines
- Fits either right or left arm, protecting hand and forearm
- 2 layer heat resistant Kevlar® for extra protection
- Washable
- 15" (381mm) overall length



KNEEPAD2

KNEEPAD2 Kneepads.

- Polypropylene cap protects against floor debris
- Outer cap is securely attached to padded nylon inner pad for maximum comfort
- Extra wide Velcro® straps for easy On/Off
- Lightweight



KNEEPAD3

KNEEPAD3 Gel-Cushioned Kneepads.

- Wide neoprene rear lower flap reduces chafing
- Gel-cushioned for maximum comfort
- Velcro straps for easy On/Off, secure fit and comfort
- Hinged pad extensions for a comfortable fit

Mitchell1® Service Programs

Mitchell1 Service Manuals

SKECAG10 Emission Control Application Guide Mitchell1 Manual.

Covers 1966 - 2008 Domestic vehicles and 1968 - 2008 Import vehicles.

- General information
- How to use the Mitchell1 Emission Control Application Guide
- Emission control visual inspection procedures
- Diagnostic connector locations
- State emission standards
- Service reminder indicator reset procedures
- Engine displacement conversion table
- Emission control abbreviations
- Emission control applications
- EGR function testing
- Base ignition timing specifications
- EPA emission recalls
- Traction control disable procedures
- Drive cycle section



SKECAG10

SKTPMS09 Tire Pressure Monitoring Systems MITCHELL1 Manual.

- TPM servicing requirements
- List of specialty tools
- Model-specific articles
- Overview of the TPM system
- Warning indicator reset procedures
- System retrain/relearn procedure
- Dismounting/mounting cautions and notes
- Tire pressure sensor replacement procedures
- Wheel nut torques
- Tire pressure sensor nut torques



SKTPMS09



WARNING



• Read safety precautions on pages 594 to 597

SHOP SUPPLIES

Lubrication



ULUBE1



AS4



AS8



AS16

Synthetic Lubricant

ULUBE1 Synthetic Lubricant.

- Easy to apply spray extends tool life
- Specially formulated for use with bearings and other rotating devices
- Case of (12) 5.5 oz. cans

Anti-Seize Lubricant

- Premium general purpose copper/graphite blend anti-seize compound
- Formulated to prevent seizing and galling at high temperatures (resistant to 1800° F)
- Lubricates and protects against corrosion
- Eases assembly and disassembly of metal parts while reducing friction and wear

AS4 Anti-Seize Lubricant. 4 oz. bottle with applicator brush attached to cap.

AS8 Anti-Seize Lubricant. 8 oz. bottle with applicator brush attached to cap.

AS16 Anti-Seize Lubricant. 16 oz. bottle with applicator brush attached to cap.

Auto Care/Detailing

Cleaners, Polishes and Sealants



POLISH1CSA

POLISH1CSA Polish/Sealant.

- Clean, polish and seal in one fast, simple application
- Performs superbly on acrylic, enamel, lacquer, urethane, all clear coats, fiberglass and plastics
- Removes dirt, carbon contamination, pollutants and oxidation while restoring original depth and luster
- Contains no wax or free silicones
- Case of (12) 16 oz. bottles
- Use with POLISHD8C detailing pad for best results



POLISH2

POLISH2 Metal Polish.

- Can be used on aluminum, chrome, stainless steel, brass, copper, silver and gold
- Comes with cloth like applicator
- Case of (12) 3 oz. units



CLEAN1A

CLEAN1A Cleaning Solution.

- Fresh scent
- Multi-surface cleaner for tires, aluminum and alloy wheels, carpets, seats and other interior fabrics
- Recommended for easy removal of UV dyes from AC units
- Designed to work alone or with Snap-on® YA1102 dirt and stain extractor
- Case of (12) 32 oz. spray bottles

Buffing and Detailing

- Use on base and clear coat paints, acrylics, enamels, lacquers, urethane, fiberglass and plastics
- 2" thick high density foam is tear resistant and durable
- Concave surface minimizes splatter for efficient material use
- Balanced pads feature a backup plate for even application and reduced fatigue



POLISHD8C

POLISHD8C Detailing Pad.

- 8" pad for use with electric and pneumatic power tools
- 5/8"-11 thread
- Use with POLISH1CSA polish/sealant



POLISHB8C

POLISHB8C Buffing Pad.

- 8" pad for use with electric and pneumatic power tool
- 5/8"-11 thread



POLISHW8A

POLISHW8A Wool Buffing Pad (8").

- Ideal for cutting, buffing and removal of scratches and paint imperfections
- 1 1/2" wool pile lasts longer than standard wool pads
- Can be used with AT450BP, AT460BP and ETB1580A polishers

SHOP SUPPLIES

Auto Care/Detailing

Buffing Kits—Blue-Point®

BUFF3KIT1 Foam Pad.

- 3" diameter wavy foam pads for fine polishing applications
- 5 pads in storage tube EU - GB

BUFF3KIT2 Lambswool Pad.

- 3" diameter lambswool pads for ultra fine polishing applications
- 5 pads in storage tube EU - GB

BUFF3KIT3 Twisted Wool Pad.

- 3" diameter twisted wool pads for aggressive buffing applications
- 5 pads in storage tube EU - GB

BUFF3KIT4 Fibral Wavy Pad.

- 3" diameter fibral wavy pads for ultra coarse buffing applications
- 5 pads in storage tube EU - GB

BUFF3KIT5 Shur-Grip Pad Holder (3" diameter).

- Use with buffing/polishing pads in the BUFF3KIT series
- 1/4" shaft
- 3" diameter EU - GB



BUFF3KIT Miniature Buffing Kit.

BUFF3KIT

- Ideal for buffing and polishing autos, boats, motorcycles, aircraft and more
- Use on all painted surfaces, metal, chrome and wood
- Varied pad selection from ultra fine to very aggressive
- Wavy edge allows user to reach tight places
- Hook and loop retention system for quick, easy and secure pad/driver connection
- Includes (1) 1/4" shaft, 3" diameter Shur-Grip pad holder and 1 each of the following: blue wavy foam pad (fine polishing), black lambswool pad (ultra fine polishing), twisted wool pad (aggressive buffing) and fibral wavy pad (ultra coarse buffing) EU - GB

Medicated

Hand Cleaners



WOD303CSA

WOD503CSA

- Quickly dissolves and removes stubborn dirt and stains while antiseptic properties protect the skin

WOD303CSA Medicated Hand Cleaner.

- Fresh orange scent
- Case of (4) 4 1/2 lb. cans

WOD503CSA Medicated Hand Cleaner.

- Case of (4) 4 1/2 lb. cans



WOD2025ACSA

WOD2325ACSA

WOD2018ACSA

Water Activated Hand Cleaners

- Soybean based, water activated and concentrated formula with fibril scrubbers
- Contains antiseptic ingredient and conditioners for maximum skin protection
- Redline hand cleaner offers the highest performance skin cleaning with fibril/pumice double scrubbing action

WOD2025ACSA Water Activated Hand Cleaner.

- Case of (4) 84 oz. bottles
- Requires WOD1027 pump dispenser

WOD2325ACSA Redline Hand Cleaner.

- Case of (4) 84 oz. bottles
- Requires WOD1027HT pump dispenser

WOD2018ACSA Water Activated Hand Cleaner.

- Portable size is perfect for a tool box, cart or at home
- Squeeze bottle with no drip nozzle
- Case of (12) 18 oz. bottles

Hand and Shop Towels

WOD5020 Hand and Tool Cleaning Towels.

- Convenient hand towels for cleaning tools or hands of oil and grease
- Towels contain lanolin and rust preventatives
- 6 per case



WOD5020



WARNING



- Do not ingest or use on face
- Read safety precautions on pages 594 to 597



WOD1000

Pumice

Hand Cleaners



WOD423CSA

WOD623CSA

WOD1050CSA

- Extra strength pumice hand cleaner with antiseptic ingredient

WOD423CSA Pumice Hand Cleaner.

- Fresh orange scent
- Case of (4) 4 1/2 lb. cans

WOD623CSA Pumice Hand Cleaner.

- Case of (4) 4 1/2 lb. cans

WOD1050CSA Pumice Hand Cleaner.

- Fresh orange scent
- Case of (4) 1 gal. bottles



WOD507

WOD1027

WOD1027HT

Hand Cleaner Dispensers

WOD507 Heavy Duty Hand Cleaner Dispenser.

- Convenient for wall mounting
- 4 1/2 lb. cans of hand cleaner

WOD1027 Pump Style Hand Cleaner Dispenser.

- Wall mounted, pump style dispenser for WOD2025ACSA or WOD2325ACSA hand cleaners in 84 oz. bottles

WOD1027HT Pump Style Hand Cleaner Dispenser.

- Wall mounted, pump style dispenser for WOD2025ACSA or WOD2325ACSA hand cleaners in 84 oz. bottles

SHOP SUPPLIES

Wire Brushes



Wire Brushes

- Ergonomic cushion grip handle designed for maximum comfort and control
- Use with both hands to maximize pressure
- Heavy 28 gauge stainless gives units maximum strength and durability
- Choice of brush width and length allows you to cover a wide range of applications

Applications:

- Ideal for cleaning rusted threads, battery terminals and gaskets
- Removes body rust prior to welding on various metal parts
- Cleans off caulk and interpanel grinding welds

Stock No.	Description
WBBS2	2 inch miniature brass wire brush
WBSS2	3 inch stainless steel wire brush
WBSS3	5 inch stainless steel wire brush
WBSS5	7 3/4 inch stainless steel wire brush
WBSS8	8 3/4 inch stainless steel wire brush
WBSS14	6 3/4 inch stainless steel wire brush
WBSET	Includes (2) WBBS2 miniature brass wire brushes and (1) WBSS2 miniature stainless steel wire brush
WBSS5CAL	11 inch stainless steel wire brush
WBMSSET	Includes (1) WBSS8 stainless steel wire brush (1) WBSS9 stainless steel wire brush (1) WBSS14 stainless steel wire brush and (1) WBSET wire brush set
WBSS2BKT	Includes (25) WBSS2 stainless steel wire brushes
WBBS2BKT	Includes (25) WBBS2 brass wire brushes



Specialty Brushes—Blue-Point®

AC5B Hand Scratch Brush. Stainless wire bristles for use where corrosive materials are found. 7 7/8" long.

AC58D Wire Brush. Larger version of AC5B. 13 3/4" long.

AC64A Shoe Handle Scratch Brush. Carbon steel bristles. 10" x 1 1/16". 5" long.

Glue Guns



Product Feature	GLUEGUN3	GLUEGUN4KT
Power Range	175 Watts	125 Watts
Run Time	3 hours	2 hours
Melt Rate	3.5 lbs/hr	1.6 lbs/hr
Trigger Squeeze (inches)	1/8 bead - 16 long	1/8 bead - 8 long
Stick Diameter (inches)	STD 1/2 - 12mm	STD 1/2 - 12mm
Temp. Range	383F/195C	383F/195C
Warm-up Time	4 minutes	3 minutes
Ignition Source	Piezo Self-Igniting	Piezo Self-Igniting
Therma Fuse	Yes	Yes
Gas View Window	Yes	Yes
Can use optional Nozzles	Yes	No

Cordless Glue Gun Kits—Blue-Point

GLUEGUN3 Compact Cordless Glue Gun.

- Melt rates of up to 3.5 lbs./hr. with 4 minute warm up time
- Fuel tank is stainless steel and holds fuel for up to 3 hours of use
- Quick 30 second refill time
- Cooled exhaust gas port and ventilated heat chamber
- Performance grip and trigger for accurate flow control
- Fuel tank is tested to 100 bar, with a 40 bar release valve
- Includes gun stand

GLUEGUN4KT Compact Cordless Glue Gun Kit.

Includes cordless, self igniting, refillable butane gas powered glue gun, 7 general purpose glue sticks and hinged wire stand.

Stock No.	Description
GLUEGUN2KT1	Diagonal Orifice Nozzle, 1 1/4" (30mm) for GLUEGUN3
GLUEGUN2KT2	Needle Orifice Nozzle, 1 1/4" (30mm) for GLUEGUN3
GLUEGUN2KT3	Flat Orifice Nozzle, 1 1/4" (30mm) for GLUEGUN3
GLUEGUN2GS8	General Purpose glue sticks. 8 pack.
GLUEGUN2KT9	Gun stand for GLUEGUN3.

Grinder Discs and Accessories

Grinder Accessory—Blue-Point®

WD12 Grinding Wheel Dresser.

- Removes glaze and trues up wheel
- New cutters can be easily inserted
- Hood protects cutter

WD13 Grinder Wheel Dresser.

- Helps true up grinding wheels
- Hardened and serrated steel disks
- 11" long, 1.5" diameter wheels



WD12



WD13

Wire Wheels

Crimped Wire Wheels

- Crimped bristles help prevent bending or breaking and are anchored without welds or crimps in flanges
- .014" wire size

AC48ADAPT3/4

- Adapts the AC48A to a 3/4" shaft

AC48ADAPT1

- Adapts the AC48A to a 1" shaft



AC26E



AC48A



AC48ADAPT3/4



AC48ADAPT1

Crimped Heavy Duty (Non-tempered Wire)

Stock No.	Brush Dia., inches	Width, inches	Arbor Hole, inches	Maximum Safe Free Speed, RPM
AC26E	6	29/32	5/8, 3/4, 1	6,000
AC28E	8	1 1/8	5/8, 3/4, 1	4,500

Crimped Industrial (Tempered, High Density Wire)

Stock No.	Brush Dia., inches	Width, inches	Arbor Hole, inches	Maximum Safe Free Speed, RPM
AC48A	8	1	5/8	4,500



AC614B



AC207A

Twisted Tuft

Tufts are 1 1/4" long and are twisted about 2/3 of the way.

Stock No.	Wheel Dia., inches	Wheel Width, inches	Wire Size, inches	Arbor Hole, inches	Maximum Safe Free Speed, RPM
AC614B	6	1/2	.016	1/2, 5/8	9,000

Encapsulated

- Individual wire tips are encased in synthetic elastomer material (gradually wears away to expose only wire tips) for consistent stiff brushing action
- Ideal for auto body and surface applications

Stock No.	Wheel Dia., inches	Wheel Width, inches	Wire Size, inches	Arbor Hole, inches	Maximum Safe Free Speed, RPM
AC207A	2	1/4	.014	3/8, 1/2	18,000
AC217A	3	1/4	.014	3/8, 1/2	18,000



WARNING



- Do not use wire wheels above their maximum rated RPM
- Read safety precautions on pages 594 to 597

SAFETY EQUIPMENT

Gloves



GLOVE500BXL



GLOVE500RL



GLOVE501BXL



GLOVE501RL

	Stock No.	Color	Size
Technician's SuperCuff® Gloves	GLOVE500BS	Black	Small
	GLOVE500BM	Black	Medium
	GLOVE500BL	Black	Large
	GLOVE500BXL	Black	X-Large
	GLOVE500BXXL	Black	XX-Large
	GLOVE500RS	Red	Small
	GLOVE500RM	Red	Medium
	GLOVE500RL	Red	Large
	GLOVE500RXL	Red	X-Large
	GLOVE500RXXL	Red	XX-Large
Impact SuperCuff Gloves	GLOVE501BS	Black	Small
	GLOVE501BM	Black	Medium
	GLOVE501BL	Black	Large
	GLOVE501BXL	Black	X-Large
	GLOVE501BXXL	Black	XX-Large
	GLOVE501RS	Red	Small
	GLOVE501RM	Red	Medium
	GLOVE501RL	Red	Large
	GLOVE501RXL	Red	X-Large
	GLOVE501RXXL	Red	XX-Large



GLOVE301RM



GLOVE502BXL



GLOVE502RL



GLOVE302RM

	Stock No.	Color	Size
Impact Gloves (M-Pact® Series)	GLOVE301RS	Red	Small
	GLOVE301RM	Red	Medium
	GLOVE301RL	Red	Large
	GLOVE301RXL	Red	X-Large
	GLOVE301RXX	Red	XX-Large
Heavy Duty SuperCuff Gloves	GLOVE502BS	Black	Small
	GLOVE502BM	Black	Medium
	GLOVE502BL	Black	Large
	GLOVE502BXL	Black	X-Large
	GLOVE502BXXL	Black	XX-Large
	GLOVE502RS	Red	Small
	GLOVE502RM	Red	Medium
	GLOVE502RL	Red	Large
	GLOVE502RXL	Red	X-Large
	GLOVE502RXXL	Red	XX-Large
Impact Gloves (M-Pact II Series)	GLOVE302RS	Red	Small
	GLOVE302RM	Red	Medium
	GLOVE302RL	Red	Large
	GLOVE302RXL	Red	X-Large
	GLOVE302RXXL	Red	XX-Large

Technician's SuperCuff Gloves (Glove 500 Series)

- SuperCuff design provides total freedom of wrist movement
- Dual fingertip layers for protection and control
- Single piece palm protects hands from nicks and bruises

Impact SuperCuff Gloves (Glove 501 Series)

- SuperCuff design provides total freedom of wrist movement
- Dual fingertip layers for protection and control
- Thermal plastic rubber protection panels help eliminate cuts and scrapes
- Built-in tool rest provides extra support with pneumatic tools
- Gel padding in palm reduces impact

M-Pact Impact Gloves (Glove 301 Series)

- M-Pact series impact gloves are designed for extra protection
- Anti-vibration palm protection and reinforced fingers
- Molded TPR (Thermal Plastic Rubber) top helps prevent cuts, scrapes and bruises

Heavy Duty SuperCuff Gloves (Glove 502 Series)

- SuperCuff design provides total freedom of wrist movement
- Dual fingertip layers for protection and control
- Thermal plastic rubber protection panels help eliminate cuts and scrapes
- Built in tool rest provides extra support with pneumatic tools
- Gel padding in the palm reduces impact
- 5mm EVA foam
- Accordion-style knuckle protection

M-Pact II Impact Gloves (Glove 302 Series)

- M-Pact II Series impact gloves deliver extra protection and durability
- Molded TPR (Thermal Plastic Rubber) top helps prevent cuts, scrapes and bruises
- Extra palm padding for extra comfort



GLOVE100L

Unlined Leather Work Gloves

- Use for heavy duty work and wear
 - Comfort fit thumbs for dexterity and flexibility
 - Embossed Snap-on® logo on reverse
- GLOVE100M Size Medium.
GLOVE100L Size Large.
GLOVE100XL Size X-Large.



GLOVE101L

Lined Leather Work Gloves

- For heavy duty work and wear
 - Lined for protection and warmth
 - Embossed Snap-on logo on reverse
- GLOVE101L Size Large.
GLOVE101XL Size X-Large.

Technician's Gloves



GLOVE400L

Abrasion Resistant Nitrile Gloves—Blue-Point®

- Nitrile dipped coating for protection on dirty jobs
- Ergonomically pre curved design for comfort
- High abrasion resistance protects hand on sharp edges
- Incredible grip and dexterity on wet and dry surfaces
- CE rated for abrasion, blade cut, tear and puncture resistance

GLOVE400S Pack of 3. Small.

GLOVE400M Pack of 3. Medium.

GLOVE400L Pack of 3. Large.

GLOVE400XL Pack of 3. X-Large.

GLOVE400XXL Pack of 3. XX-Large.



GLOVE103MA



GLOVE103MAB

Washable Work Gloves—Blue-Point

- Stretch knit with padded back for extra feel and flexibility
- Extra knuckle protection
- Heat resistant synthetic double layered leather palm

GLOVE103MA Black. Medium size. 1 pair.

GLOVE103LA Black. Large size. 1 pair.

GLOVE103XLA Black. X-Large size. 1 pair.

GLOVE103MAB Blue. Medium size. 1 pair.

GLOVE103LAB Blue. Large size. 1 pair.

GLOVE103XLAB Blue. X-Large size. 1 pair



GLOVEHOLDERA

Glove Dispenser

GLOVEHOLDERA Latex Glove Dispensing Rack.

- Holds GLOVE1, GLOVE3, GLOVE5, GLOVE6, GLOVE7 and GLOVE8 Series gloves
- Metal construction prevents damage
- Magnetic base allows attachment to tool storage unit or other ferrous metal surface
- 3 “springs” secure box firmly in holder
- Mounting holes for attachment to non-ferrous surfaces
- 10" x 5 5/8" x 3 7/8"
- Black



GLOVE6L



GLOVE1M



GLOVE3LB

	Stock No.	Color	Size
Black Nitrile Technician's Gloves	GLOVE8M	Box of 100	Medium
	GLOVE8L	Box of 100	Large
	GLOVE8XL	Box of 100	X-Large
Nitrile Technician's Gloves	GLOVE5M	Box of 100	Medium
	GLOVE5L	Box of 100	Large
	GLOVE5XL	Box of 100	X-Large
Heavy Duty Nitrile Technician's Gloves	GLOVE7M	Box of 50	Medium
	GLOVE7L	Box of 50	Large
	GLOVE7XL	Box of 50	X-Large
Latex Technician's Gloves (Light Powder)	GLOVE1M	Box of 100	Medium
	GLOVE1L	Box of 100	Large
	GLOVE1XL	Box of 100	X-Large
Latex Technician's Gloves (Powder Free)	GLOVE3MB	Box of 100	Medium
	GLOVE3LB	Box of 100	Large
	GLOVE3LXB	Box of 100	X-Large
Heavy Duty Latex Technician's Gloves	GLOVE6M	Box of 50	Medium
	GLOVE6L	Box of 50	Large
	GLOVE6XL	Box of 50	X-Large



GLOVE8M



GLOVE5M



GLOVE7L

Black Nitrile (Glove 8 Series)

- Powder free plus excellent tear resistance
- Use for mechanical repairs, spray painting and refinishing applications
- Resists auto detailing chemicals

Nitrile (Glove 5 Series)

- Gloves resist nicks, cuts and abrasions and protect against chemical splashes
- 3 times the puncture resistance of natural latex or vinyl gloves
- Light powdering facilitates removal with minimal residue
- Micro textured for better gripping

Heavy Duty Nitrile (Glove 7 Series)

- Use for paint mixing, parts cleaning, transmission rebuilds and more
- Superior puncture resistance to that of natural latex or vinyl gloves
- Resists nicks, cuts, and abrasions and protects against chemical splashes
- Thick 8 mil nitrile construction
- Extra long “sleeve” for additional protection
- Powder-free. Textured for better gripping.

Latex (Light Powder) (Glove 1 Series)

- Hypo-allergenic gloves reduce the chance of allergic reaction
- Protects hands from paint, grease, and harsh chemicals
- Light powder. Disposable. 6 mil thick

Latex (Powder Free) (Glove 3 Series)

- Hypo-allergenic gloves reduce the chance of allergic reaction
- Protects hands from paint, grease, and harsh chemicals
- 6 mil thick

Heavy Duty Latex (Glove 6 Series)

- 14 mil thickness for heavy duty usage
- Textured fingers and palm for maximum grip
- Lightly powdered for easy on and off
- Will resist most shop chemicals
- Long cuff



WARNING

• Read safety precautions on pages 594 to 597

SAFETY EQUIPMENT

Ear and Face Protection



Ear Protection

Specifications	GA3000A*	GA3200*	YA160A	YA1160	BLPEP1
Noise Reduction Rating, dB	25	28	25	27	21
Headband	Cushioned	Cushioned	Plastic	Plastic	Plastic
Ear Piece	Cushioned	Cushioned	Foam	Foam	Foam
Adjustable Ear Pieces	•	•			
Ear Piece Replacements			YA160A1	YA11601	BLPEP1-1
Weight, lbs.	.49	.77	.06	.06	.05

*Blue-Point®



Face Protection

Specifications	GA224B	GA225*	EFPKILLA	EFPBONEHD	EFPSTRIKER	EFPCODERD	EFPNITESTLKR	EFPHANNIBAL
Shield Style	Flat	Flat	180° Peripheral	180° Peripheral	180° Peripheral	180° Peripheral	180° Peripheral	180° Peripheral
Shield Size	8" x 12" x 0.04"	7 3/4" x 15 1/4"	35 1/2 sq. in. Viewing Area	35 1/2 sq. in. Viewing Area	35 1/2 sq. in. Viewing Area	35 1/2 sq. in. Viewing Area	35 1/2 sq. in. Viewing Area	35 1/2 sq. in. Viewing Area
Headband	•	•	•	•	•	•	•	•
Adjustable Headband	•	•	•	•	•	•	•	•
Impact Resistance	•	•	•	•	•	•	•	•
Shield Included	Clear	Clear	Clear and #10 Welding	Clear and #10 Welding	Clear and #10 Welding	Clear, #10 Welding, and Auto-Darkening Welding	Clear, #10 Welding, and Auto-Darkening Welding	Clear, #10 Welding, and Auto-Darkening Welding
Replacement Shields	GA224B1 (Clear) GA224B1G (Dark Green)	GA225-1 (with PETG) GA225-2 (with PC)	EFPCLLENSREP (Clear) EFP10WLDLENS (#10 Welding) EFP3WLDLENS (#3 Welding) EFP5WLDLENS (#5 Welding) EFP8WLDLENS (#8 Welding) EFP12WLDLENS (#12 Welding)	EFPCLLENSREP (Clear) EFP10WLDLENS (#10 Welding) EFP3WLDLENS (#3 Welding) EFP5WLDLENS (#5 Welding) EFP8WLDLENS (#8 Welding) EFP12WLDLENS (#12 Welding)	EFPCLLENSREP (Clear) EFP10WLDLENS (#10 Welding) EFP3WLDLENS (#3 Welding) EFP5WLDLENS (#5 Welding) EFP8WLDLENS (#8 Welding) EFP12WLDLENS (#12 Welding)	EFPCLLENSREP (Clear) EFP10WLDLENS (#10 Welding) EFP3WLDLENS (#3 Welding) EFP5WLDLENS (#5 Welding) EFP8WLDLENS (#8 Welding) EFP12WLDLENS (#12 Welding)	EFPCLLENSREP (Clear) EFP10WLDLENS (#10 Welding) EFP3WLDLENS (#3 Welding) EFP5WLDLENS (#5 Welding) EFP8WLDLENS (#8 Welding) EFP12WLDLENS (#12 Welding)	EFPCLLENSREP (Clear) FP10WLDLENS (#10 Welding) EFP3WLDLENS (#3 Welding) EFP5WLDLENS (#5 Welding) EFP8WLDLENS (#8 Welding) EFP12WLDLENS (#12 Welding)

*Blue-Point

Eye Protection

Safety Glasses/Glass 1, 4, 5, 6 Series



Specifications	GLASS1R	GLASS1BK	GLASS4A	GLASS5A	GLASS6A	GLASS6AAM
Lens	Clear	Clear	Clear XTR	Espresso XTR	Mirror XTR	Amber XTR
Frame	Red	Black	Black (Nylon)	Black (Nylon)	Black (Nylon)	Black (Nylon)
Anti-fog Lens Coating	•	•	•	•		•
Anti-scratch Lens Coating	•	•				
Temple Length Adjustment	•	•	3-Position	3-Position	3-Position	3-Position
Tilt Adjustment	•	•				
Design	Contemporary & Lightweight	Contemporary & Lightweight	Six base lens curve and folded back lens	Six base lens curve and folded back lens	Six base lens curve and folded back lens	Six base lens curve and folded back lens
Lens Replacement Available	•	•				
Meets Requirements	ANSI Z87.1, CSA Z94.3-1992, EN166	ANSI Z87.1, CSA Z94.3-1992, EN166	ANSI Z87.1	ANSI Z87.1	ANSI Z87.1	ANSI Z87.1
Additional Info	—	—	Increased peripheral vision and protection	Increased peripheral vision and protection	Increased peripheral vision and protection	Increased peripheral vision and protection



Safety Glasses/Glass 9, 10, 11, 12, 13 Series

Specifications	GLASS9BK	GLASS10BK	GLASS11BK	GLASS12BKA	GLASS13CPA
Lens	Clear	Brown	Mirror	Clear	Brown
Frame	Black	Black	Black	Black Ear Pieces	Black Ear Pieces
Anti-fog Lens Coating	•	•			
Anti-scratch Lens Coating	•	•			
Temple Adjustment	•	•	•	5 Position	5 Position
Design	Contemporary, sporty wraparound	Contemporary, sporty wraparound	Contemporary, sporty wraparound	Frameless, Sleek, Contemporary	Frameless, Sleek, Contemporary
Lens Replacement Available	•	•	•		
Meets Requirements	ANSI Z87.1	ANSI Z87.1	ANSI Z87.1	ANSI Z87.1	ANSI Z87.1



Safety Glasses/Glass 20 Series

Specifications	GLASS20BK	GLASS20R	GLASS20BKY	GLASS20RM	GLASS20BLM	GLASS20BKW	GLASS20BL
Lens	Clear	Clear	Amber	Mirror	Mirror	Dark Green (Shade #5)	Clear
Frame	Black	Red	Black	Red	Blue	Black	Blue
Lens Replacement Available	—	—	—	—	—	GLASS20LENSW	—
Additional Info	White Snap-on Logo on Temples	White Snap-on Logo on Temples	White Snap-on Logo on Temples	White Snap-on Logo on Temples	White Snap-on Logo on Temples	White Snap-on Logo on Temples	White Snap-on Logo on Temples

Complies with ANSI Z87.1, CSA Z94.3 and MIL-STD-662 standards.



Safety Glasses/Glass 30 and 31 Series

Specifications	GLASS30R	GLASS30BK	GLASS31R	GLASS31BK
Lens	Clear	Clear	Clear	Clear
Frame	Red	Black	Red	Black
Anti-fog Coating	•	•	•	•
Anti-scratch Coating	•	•	•	•
Ventilation Channel	•	•		

Complies with ANSI Z87.1-2003.



GLASSVIS

Protective Eyeshields

GLASSVIS Protective Eyeshields.

- Will fit over prescription glasses or can be worn alone
- Wraparound side shields, impact resistant, antiglare guard
- Clear uncoated lens with black frames
- Complies with ANSI Z87.1, CSA Z94.3 and MIL-STD-662 standards



GLASSIBOTG

GLASSIBOTG Protective Eyeshields.

- Single panoramic lens offers increased visibility
- Protective coating resists fogging, scratching, static and UV rays
- Frames adjust horizontally and vertically for comfort
- Side impact protection
- Universal nose bridge
- Snap-on® logo on ear piece
- Exceeds ANSI specifications



WARNING

• Read safety precautions on pages 594 to 597

SAFETY EQUIPMENT

Eye Protection



GAC1575B

GOGGLE1

GOGGLE2ATOR

Safety Goggles

GAC1575B Dust/Impact Goggles.

- Plastic lenses conform to American National Safety Standards and OSHA requirements for high mass and high impact tests
- Soft, perforated, vent style form fitting plastic frame
- Meets or exceeds ANSI Z87.1-1989

GOGGLE1 Protective Goggles.

- Durable molded frame with soft and flexible elastomer that seals for a custom fit
- Quick adjust headband clips permit fast and easy fitting
- Indirect ventilation system channels and directs airflow over the lens, minimizing fogging and improving vision potential while providing superior splash and impact protection
- Uvex 4C+™ lens coating to protect against fogging, scratches and UV rays
- Meets ANSI specifications

GOGGLE2ATOR Safety Goggles.

- Durable molded frame with soft and flexible elastomer that seals for a custom fit
- Quick adjust headband clips permit fast and easy fitting
- Indirect ventilation system channels and directs airflow over the lens, minimizing fogging and improving vision potential while providing superior splash and impact protection
- Uvex 4C+™ lens coating to protect against fogging, scratches and UV rays
- Meets ANSI specifications



YA127C

Respirators and Filters

YA127C Half Mask Respirator.

- Includes organic vapor cartridges and N95 Prefilters
- Approved by NIOSH and meets OSHA regulations governing particulate respirators under 42 CFR 84
- Large sealing surface and advanced yoke design for excellent non-slip fit
- Helps protect against organic vapors, dusts and mists when used with YA1991 N95 pre-filter and YA1992 organic vapor cartridge
- Do not exceed maximum use concentrations established by regulatory standards



YA127C9

YA127C9 Pre-Filter/Filter Set.

- Includes plastic cover, YA1991 N95 pre-filter and YA1992 organic vapor cartridge



YA1991

YA1991 N95 Pre-Filter.

- 95% filter efficiency level
- Effective against particulate aerosols free of oil
- Includes 6 pair
- Do not exceed maximum use concentrations established by regulatory standards



GAC1125

GAC1150A

GAC1175A

GAC1100C

Biker Style Safety Goggles

- Adjustable side vent for increased airflow
- Lightweight and comfortable with wide pivot headband to allow optimal placement
- Cushioned eye cups for extra comfort, anti-fog lens is standard
- Folds easily for compact storage
- Meets ANSI Z87.1 standards

GAC1125 Safety Goggles. Amber anti-fog lens.

GAC1150A Safety Goggles. Smoked anti-fog lens.

GAC1175A Safety Goggles. Clear anti-fog lens.

GAC1100C Safety Goggles. Green tinted lens for acetylene torch work.



YA199

YA199 Full Face Respirator.

- Includes 2 organic vapor cartridges and 2 N95 prefilters
- Provides a comfortable fit with durable silicone face piece standard nose cup to prevent fogging and exceptional wide view anti-scratch lens
- Helps protect against organic vapors, dusts and mists when used with YA1991 N95 pre-filter and YA1992 organic vapor cartridge
- Do not exceed maximum use concentrations established by regulatory standards



YA1992

YA1992 Organic Vapor Cartridge.

- Protects against organic vapors
- Includes 1 pair
- Do not exceed maximum use concentrations established by regulatory standards
- Do not use with isocyanates



Warranty for Products

Snap-on Logistics Company, or its assigns, ("Snap-on") warrants to customers who purchase products from authorized Snap-on distribution channels that Snap-on® brand products and Blue-Point® brand products will be free from defects in workmanship and materials for a duration described in each product's warranty code. The warranty duration depends upon the nature of the product. Prior to a product purchase, or if the product information for purchased product does not include a warranty code with the applicable duration, customer can obtain the product warranty code and warranty duration from a Snap-on franchisee or representative. If customer is not serviced by a Snap-on franchisee or representative, then the product warranty code and warranty duration may be obtained by contacting the Snap-on Customer Care Center via telephone at 877-762-7664 or e-mail ncccsupport@snapon.com. Outside North America, contact the closest sales office shown on pages 613-614. Consumable products are warranted, at the time of sale, only against defects in workmanship or materials that prevent their use. Consumable products are goods reasonably expected to be used up or damaged during use, including but not limited to drill bits, saw blades, grinding discs, sanding discs, knife blades, files, and batteries. To the extent permitted by law, this warranty only extends to the original customer and cannot be transferred or assigned.

During the applicable duration of the warranty, at its option, Snap-on will repair or replace its products which fail to give satisfactory service due to defective workmanship or materials, or provide a refund by repaying or crediting customer with an amount equal to the purchase price of such products. Repair, replacement or refund shall be at the election and expense of Snap-on, and is customer's exclusive remedy in place of all other rights and remedies. Any products or parts replaced or for which Snap-on has provided a refund are the property of Snap-on and will not be returned.

To obtain warranty service, return products to a Snap-on franchisee or representative.

For customers not serviced by a Snap-on franchisee or representative, contact the Snap-on Customer Care Center via telephone at 877-762-7664 or e-mail ncccsupport@snapon.com. Outside North America, contact the closest sales office shown on pages 613-614. The following information will be required with customer's warranty request: (1) date of purchase, (2) where customer purchased the product, (3) full name, (4) shipping address, (5) phone number, (6) e-mail address, and (7) item number(s) or approximate weight of return package. Warranty requests that do not include all the required information may have a processing delay. Once the warranty request is validated, the customer will be sent a shipping label either electronically thru e-mail or thru the U.S. mail, and must ship the product to Snap-on. Upon receipt of the product, the warranty claim will be reviewed and the product will be inspected. If the warranty request is found to be valid, the product will be repaired and returned to the customer or a replacement product or refund will be shipped to the customer. If the warranty claim is found to be invalid, the original product will be returned to the customer. By repairing or replacing a product, or providing a refund, Snap-on does not waive a claim that a product nevertheless has been subject to abnormal use.

If customer chooses not to (1) use a carrier that offers tracking or (2) insure or declare the full value of the product, customer will be responsible for any loss or damage to the product during shipping. Replacement or refund will not be issued unless a valid proof of delivery can be provided.

In addition to any limitations outlined in warranty codes provided with the product, Snap-on does NOT provide any warranty for (1) products labeled other than Snap-on or Blue-Point or (2) products subjected to "abnormal use". Products that are not labeled Snap-on or Blue-Point are subject to the warranty provided by the manufacturers of those products and Snap-on will pass along any such warranties, to the extent that it is permitted to do so, but it is not responsible for warranty services or processing warranty claims. "Abnormal use" includes misuse, accident, modification, unreasonable use, abuse, neglect, lack of maintenance, use in product-related service, or use after the product is significantly worn. Abnormal use of tool storage units also includes, without limitation, situations when a unit is pulled using a mechanical vehicle, rolled over large drops, used in a highly corrosive environment, used as a step stool, modified with non-Snap-on parts, overloaded or modified in any way.

THE FOREGOING WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES NOT EXPRESSLY SET FORTH HEREIN, WHETHER EXPRESS, IMPLIED OR COLLATERAL, BY OPERATION OF LAW OR OTHERWISE, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Descriptions of product contained in this catalog are for the sole purpose of identifying product and shall not be construed as an express warranty.

LIMITATION OF LIABILITY. SNAP-ON AND ITS AFFILIATED COMPANIES AND THIRD PARTY SUPPLIERS SHALL NOT BE LIABLE FOR ANY INCIDENTAL, SPECIAL OR CONSEQUENTIAL LOSSES, COSTS OR DAMAGES INCURRED BY CUSTOMER OR OTHERS, INCLUDING PERSONAL INJURY OR DEATH, DIRECTLY OR INDIRECTLY ARISING FROM THE SALE, HANDLING OR USE OF THE PRODUCTS, OR FROM ANY OTHER CAUSE WITH RESPECT TO THE PRODUCTS OR THE FOREGOING WARRANTY, WHETHER SUCH CLAIM IS BASED UPON BREACH OF CONTRACT, BREACH OF WARRANTY, STRICT LIABILITY IN TORT, NEGLIGENCE OR ANY OTHER LEGAL THEORY (INCLUDING WITHOUT LIMITATION, LOST PROFITS, REVENUES, ANTICIPATED SALES, BUSINESS OPPORTUNITIES, GOODWILL, OR INTERRUPTION OF BUSINESS OR OTHER INJURY OR DAMAGE).

To the extent allowed by applicable law, this warranty and all rights and obligations hereunder shall be governed by and construed in accordance with the laws of the State of Wisconsin, without reference to principles of conflicts of laws. The rights and obligations of the parties hereunder shall not be governed by the 1980 U.N. Convention on Contracts for the International Sale of Goods.

All parts of this warranty apply to the extent permitted by law and unless restricted or prohibited by law. You may have greater rights pursuant to the legislation of your jurisdiction. Any provision which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability but shall not affect the enforceability of such provision in any other jurisdiction.

Snap-on Incorporated
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Kenosha, Wisconsin 53143

Your Safety Is Important To Us

Personal safety and the proper use of tools and equipment are reflected in safety statements found throughout this catalog. More safety precautions for these products are detailed on pages 594-597. Using the right tool and using it properly for the job it is designed for are both very important. It will help to safeguard the user as well as the tools and equipment.

Important Notice

We reserve the right to make changes in design or construction at any time without incurring any obligation in incorporating such changes in tools or equipment previously sold. We also reserve the right to discontinue the manufacture or offering for sale through Snap-on dealers of any tools or equipment at such time as we consider necessary. We cannot accept the responsibility for the results of using tools which have been abused or badly worn, such as punches and chisels mushroomed by hammer blows, or the incorrect use of tools, or tools repaired by others. This catalog is distributed by Snap-on Incorporated globally and not all items may be available in each country. For detailed information about the availability and pricing, please contact your local Snap-on representative.

Tool Dimension Accuracy

Dimensions shown in this catalog have been rounded to the nearest fractional size or nearest tenth millimeter and are not exact product specifications. Ask your Snap-on representative for product specifications if required.

ISO 9001 Certified

Snap-on's Quality Management System, including merchandised product procurement, is certified to ISO 9001

ISO 14001/OHSAS 18001 Certified

Snap-on facilities are guided by the Snap-on Environmental, Health and Safety Management System which is certified to ISO 14001 and OHSAS 18001.

These certifications demonstrate that Snap-on's Quality, Environmental, Health and Safety Management Systems conform to internationally recognized quality standards as verified by independent audits.



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Important Words

About Safety

for Users and Bystanders

Following these basic safety rules is a good start toward protecting yourself — and others in the vicinity — from injury while using tools.

Wear safety goggles

Use the right tool

Use the tool properly

Maintain the tool regularly

Keep tools away from children

Do not use tools on live electrical circuits

unless specifically designed for such use

Read and follow instructions



THIS SYMBOL INDICATES PROHIBITED ACTION



DO NOT OVER-TORQUE NO PIPES OR LEVER EXTENSIONS



NO HAMMERING



NO PRYING



DO NOT STRIKE HARD OBJECTS



NO IMPACT/POWER DRIVE



DO NOT STEP IN OR ON DRAWERS



DO NOT OPEN MULTIPLE DRAWERS



DO NOT PULL TO MOVE



KEEP CHILDREN AWAY



THIS SYMBOL INDICATES MANDATORY ACTION



MANDATORY EAR PROTECTION



MANDATORY FACE SHIELD



MANDATORY MASK



MANDATORY RESPIRATOR



MANDATORY PROTECTIVE CLOTHING



MANDATORY PROTECTIVE GLOVES



MANDATORY EYE PROTECTION



MUST READ INSTRUCTIONS BEFORE USE



THIS SYMBOL INDICATES A HAZARD ALERT
RED BACKGROUND – DANGER
ORANGE BACKGROUND – WARNING
YELLOW BACKGROUND – CAUTION



VIBRATION HAZARD



RISK OF EXPLOSION



OVERHEAD/OVERLOAD HAZARD



RISK OF ELECTRIC SHOCK



RISK OF FIRE



RISK OF ENTANGLEMENT

Safety messages in this catalog use the guidelines of the American National Standard ANSI Z535.4 for Product Safety Signs and Labels and ANSI Z535.3 Criteria for Safety Symbols. Messages associated with specific products use a triangular hazard alert symbol, signal word (CAUTION, WARNING, DANGER) and how to avoid the hazard. Each message refers to pages (594-597) which provides additional safety symbols and three part messages advising of:

- The hazard
- How to avoid the hazard
- The probable consequence of not avoiding the hazard

PLEASE READ AND FOLLOW these messages to avoid injury to yourself and bystanders.

Air Chucks, Tire Fillers



WARNING

- Tanks labeled NOT REFILLABLE can rupture if pressurized



Wear safety goggles. (User and bystanders)
Do not use air tank conversion kit with container labeled NOT REFILLABLE.



- Tank can rupture if over-pressurized
- Wear safety goggles. (User and bystanders)**
Do not exceed the lower of 160 psig or container rated pressure.
A ruptured tank can cause injury.

AVR Battery Testers



WARNING

- Electrical equipment or rotating engine can cause flying particles



Wear safety goggles. (User and bystanders)
Flying particles can cause eye injury.



- Batteries produce explosive gases and can explode



Wear safety goggles. (User and bystanders)
Keep flames and sparks away from batteries.



Battery explosion and ignited gases can cause injury.

Battery Chargers, Starting Units



WARNING

- Electrical equipment or rotating engine can cause flying particles



Wear safety shield. (User and bystanders)
Flying particles can cause eye injury.



- Sparks occur when connecting or disconnecting leads while charger is ON



Charger must be OFF when connecting or disconnecting leads.



Sparks can cause explosion or fire.



- Batteries produce explosive gases and can explode



Wear safety shield. (User and bystanders)
Keep flames and sparks away from batteries.

Battery explosion and ignited gases can cause injury.

Blow Guns



WARNING

- Blow guns create flying particles, noise and pressure



Wear safety shield. (User and bystanders)
Do not direct air at yourself or bystanders.



Wear hearing protection. (User and bystanders)



Keep out of reach of children.

Vented:

- Do not use if air supply is above 135psig
- Do not obstruct vents

High pressure air blast can cause injury.

Non-Vented:

- Do not use if air supply is above 30psig
- Flying particles, noise and high pressure can cause injury.*

Body Dollies



WARNING

- Dolly block can chip



Wear safety shield. (User and bystanders)
Do not strike dolly block with a hammer or use as a hammer.



Flying chips can cause injury.

Brake Tools



WARNING

- Brake cylinder hones can fly apart if used outside cylinder



Wear safety goggles. (User and bystanders)
Operate only while hone is within cylinder.

Flying parts can cause injury.

Butane Mini-Torches



WARNING

- Butane can explode
- Store at a temperature below 120° F. Dispose of butane in accordance with regulations.**
Explosion or flames can cause injury.



Compressors



WARNING

- Air from compressors may contain oil mist and other harmful materials for breathing



Do not use air from this compressor as a breathing supply.

Oil and other impurities in breathing supply air can cause injury.

- Compressor systems contain air under pressure which can create a high pressure stream or ruptured vessel



Wear safety goggles. (User and bystanders)
Relieve pressure before servicing.

Do not modify/repair/rework pressure vessel or change safety relief pressure setting.

A pressurized air stream or rupturing pressure vessel can cause injury.

- Moving components inside



Do not use without all guards in place.

Moving components can cause injury.

- High voltage will create an electrical shock



Disconnect all power before servicing.

High voltage can cause injury.

Diagnostic Equipment



WARNING

- Use of diagnostic equipment poses risk of flying particles and entanglement



Wear safety goggles, use caution in routing cables and test leads.

Flying particles can cause injury. Poorly routed cables and test leads can create an unsafe condition.



- Use of diagnostic equipment can cause electrical shock, fire and explosion



Use caution and proper procedures when disconnecting leads. Avoid sparks if gasoline vapor or other fuels are present.



Electrical shock, flames and explosion can cause serious injury.



- Read and follow all safety precautions accompanying the product



Each diagnostic tester has specific procedures that must be followed to avoid equipment damage and/or personal injury.

Extractors



WARNING

- Drilling pilot holes, inserting extractors and using extractors can cause flying chips



- Extractors can break if overloaded

Wear safety goggles. (User and bystanders)
For hand use only.

Flying chips and broken tools can cause injury.

Fuel Management



WARNING

- Flammable liquid and fumes can ignite



Wear safety shield. (User and bystanders)
Pressurized flammable liquid; avoid ignition.



Ignited liquid and fumes will cause injury.



- Accumulated fumes can ignite



Wear safety shield. (User and bystanders)
Use only in well ventilated area.



Flames can cause injury.

Geared Head Torque Multipliers



WARNING

- Use of gear head torque multipliers for torque control may result in inaccurate torque application

For accurate control of torque use an Electrotork®, a Torqometer® or other measuring device located directly on the fastener.

Limited accuracy of the torque ratio of a geared head torque multiplier may cause improper pre-load of the fastener if it is used for torque control.

Grinders, Grinding Wheels, Power Tool Accessories

(drill bits, wire brushes, grinding burrs, abrasive wheels, grinding wheels, valve grinders, valve grinding wheels)



WARNING

- Grinding causes flying particles. Power tool accessories can break



Wear safety goggles. (User and bystanders)
Do not operate without eyeshields, guards and holders in place.



Do not use power tool accessories at speeds faster than their maximum rated RPM.

Flying particles and broken tools can cause injury.



- Wire bristles can break and fly off

Wear safety goggles. (User and bystanders)
Flying particles can cause injury.

- Force on the side of grinding wheels or discs can break them

Do not grind on the side of a grinding wheel or disc.

Broken grinding wheel or disc can cause injury.

Hammers (See Striking and Struck Tools)

Hand Tools



WARNING

- Chrome and industrial finish hand tools can break if overloaded or used for the wrong application



Wear safety goggles. (User and bystanders)
Do not use chrome or industrial finish hand tools with power drivers.

Use only impact sockets and accessories with impact wrenches.

Use only power sockets and accessories with power wrenches.

Broken hand tools, sockets or accessories can cause injury.

Handles



WARNING

- Tool breakage and slippage can occur

Do not use "cheater bars" on handles. Fully engage socket with the fastener.

Pull, do not push on handle.

Broken tool or slippage can cause injury.

Heat Gun



WARNING

- Heat gun and sandblaster create flying particles



Do not use near flammables.

Wear safety shield. (User and bystanders)



Flying particles can cause injury.

Impact Drivers



WARNING

- Impact drivers can cause tool breakage or flying objects



Wear safety goggles. (User and bystanders)
Flying objects can cause injury.



Wear hearing protection. (User and bystanders)

Knives



WARNING

- Blades are sharp and can cut
 - Blades can break causing flying objects
- Wear safety goggles. (User and bystanders)**
Do not pry or bend blade.
Keep away from children.
Sharp edges and flying objects can cause injury.



Leak Detectors, Circuit Testers, Spark Plug Tools



WARNING

- Propane will explode or burn when ignited
 - Accumulated fumes can ignite
- Do not expose propane to flames, sparks or other sources of ignition.**
Use in well ventilated area.
Explosion or flames can cause injury.
- Propane fumes can cause breathing problems
- Use in well ventilated area.**
Breathing propane can cause injury.
- Electrical equipment or rotating engine can cause flying particles
- Wear safety goggles. (User and bystanders)**
Flying particles can cause injury.



Lift Equipment

(jacks, stands, hoists, ramps)



WARNING

- Vehicles supported by jacks are not stable. Improperly supported vehicle can fall
 - Inadequate support surface can cause jack to tip
- Do not work on vehicle supported by jack; use jack stands.**
Position jack properly before lifting vehicle.
Use jacks only on hard, strong and level surface.
Unstable vehicle can fall and cause injury.
- Vehicle may tip if supported only on one jack stand
 - Rolling vehicle can cause jack stand to tip
- Use jack stands in pairs.**
Chock wheels to prevent vehicle from rolling.
Tipping vehicle or jack stand can cause injury.
- Jack or jack stands can collapse if overloaded
- Do not exceed rated capacity of jack or jack stand.**
Collapsed jack or jack stand can cause injury.
- Off center loading can cause car stands to tip
- Center car stands under all four tires before lowering vehicle.**
Tipping of car stand can cause injury.
- Improperly installed lift can collapse
- Lifts must be installed by experienced installer.**
Collapsed lift can cause injury.
- Ramp and Hoist can accidentally lower
 - Inadequate hoist capacity can cause failure under load
- Properly position the leveling and safety legs to support the ramp.**
Use ramp only with hoist having rated capacity or greater to lift ramp and vehicle.
Accidental lowering or failure of the hoist can cause injury.
- Ramp can break if overloaded. People in the vicinity can be hit by a moving ramp
- Do not exceed rated load.**
Do not raise or lower ramp unless area is clear.
Broken ramp or contact with a moving ramp can cause injury.
- Raised vehicles can cause falling particles
- Wear safety goggles. (User and bystanders)**
Falling particles can cause injury.



Lighting



WARNING

- Electrical shock can result from absence of grounding prong
- Do not remove or by-pass the grounding prong in any electrical plug.**
Disconnect power before servicing.
Electrical shock can cause injury.



Pliers/ Cutters



WARNING

- Broken tips or cut material can fly
- Wear safety goggles. (User and bystanders)**
Flying material can cause injury.



Power Tools (impact wrenches, ratchets, hammers, sanders, grinders)



WARNING

- Power tools can cause flying particles
- Wear safety goggles. (User and bystanders)**
Flying particles can cause injury.
- Power tools generate noise
- Wear hearing protection. (User and bystanders)**
Prolonged exposure to noise can cause hearing loss.
- Power tools vibrate
- Avoid prolonged exposure to vibration.**
Prolonged exposure to vibration can cause injury.
- Improper use of power tools and accessories can cause broken tools
- Do not use without all guards in place.**
Use accessories rated at tool RPM or higher.
Read and follow instructions before using power tools.
Broken tools can cause injury.
- Some dust created by sanding, grinding and drilling activities contains chemicals known to cause cancer, birth defects and other reproductive harm
- Wear dust mask.**



Pressure Equipment and Pressure Gauges

(all equipment using pressurized air or hydraulic fluid)



WARNING

- Pressurized equipment, systems or tanks can break or leak
- Do not exceed the maximum pressure rating of equipment. Wear safety goggles or shield and protective clothing appropriate to the fluid.**
Pressurized fluid striking the body can cause personal injury. Flammable fluids such as gasoline, propane, etc. can ignite or explode and cause injury.
- Fluids can leak or escape
- Use only in well ventilated areas.**
Breathing vapors or fluids from leaks can cause illness or injury.
- Pressurized air or fluid stream can propel dust or particles
- Do not direct air or fluid stream at your body or at others.**
Flying particles, air or fluid entering body can cause injury.
- Improper use or maintenance of pressurized equipment can cause leaks or rupture
- Read and follow instructions.**
Leaking of pressurized equipment can cause injury.



Prybars



WARNING

- Prying can cause flying chips. Chipped or cracked prybars can cause flying chips
- Wear safety goggles. (User and bystanders)**
- Prybars can chip if struck
- Do not use pipe or lever extension.**
Do not use a prybar if chipped or cracked.
Do not use a prybar as a punch or hammer.
Flying chips can cause injury.



Pullers, Presses



WARNING

- Puller parts under stress can break
- Wear safety goggles. (User and bystanders)**
Broken parts can cause injury.



Punches / Chisels (See Striking and Struck Tools)

Ratchets



WARNING

- Ratchet mechanism may slip or break if dirty
 - Mismatched or partially worn parts can cause ratchet to slip or break
- Frequently inspect, clean and lubricate all non-sealed ratchet mechanisms with light oil.**
Do not immerse sealed ratchet in fluids.
Do not replace worn parts individually, use entire contents of the service kit.
Ratchets that slip or break can cause injury.

Sanders



WARNING

- Sanding disc or accessories can break if used above maximum rated RPM
- Wear safety shield. (User and bystanders)**
Do not use sanding discs or accessories above their maximum rated RPM.
Broken sanding disc or accessories can cause injury.
- Wear hearing protection. (User and bystanders)**
Some dust created by sanding, grinding and drilling activities contains chemicals known to cause cancer, birth defects and other reproductive harm
- Wear dust mask.**



Scrapers



WARNING

- Scrapers and putty knives can break if used for prying or chiseling
- Wear safety goggles. (User and bystanders)**
Do not use a scraper or putty knife as a prybar or chisel.
Broken tools can cause injury.



Screwdrivers



WARNING

- Screwdrivers can break if used as prybar, chisel or punch
- Wear safety goggles. (User and bystanders)**
Do not use a screwdriver as a prybar, chisel or punch.
Broken screwdriver can cause injury.
- Plastic screwdriver handles do not provide electrical insulation
- Do not use on or near live electrical circuits.**
Electrical shock can cause injury.



Socket Usage

Select the proper type of socket for the application.

- **Hand Sockets** - All chrome plated sockets and black finished sockets identified as hand sockets are for hand use only
- **Power Sockets** - Sockets designed and intended for use with power nut runners; do not use with impact drivers
- **Impact Sockets** - Sockets designed for durability when used with impact drivers; use only impact sockets with impact drivers

Sockets, Power



WARNING

- Power sockets or accessories can break if used on impact drivers
- Wear safety goggles. (Users and bystanders)**
Do not use power sockets or accessories with impact drivers.
Broken tools can cause injury.
- Flexible sockets and swivel joint tools rotate under power during use
- Wear safety goggles. (Users and bystanders)**
Do not hold flexible sockets and swivel joint tools during use.
Rotating power tools can cause injury.



Spray Guns



WARNING

- Spray guns create flying particles
- Wear safety goggles and breathing apparatus. (Users and bystanders)**
Flying particles can cause injury.



Striking and Struck Tools, Punches/Chisels



WARNING

- Striking and struck tools can break or chip
- Chipped or mushroomed punch and chisel ends or metal weakened by improper grinding can fragment
- Oversized hammer can chip the punch or chisel



Wear safety goggles. (Users and bystanders)

Do not use punch or chisel having mushroomed ends; dress edges or mushroomed ends to original shape with a hand file.

Hammer head diameter should be approximately 3/8" larger than head of punch or chisel.

Flying objects can cause injury.

- Steel punches and chisels can cause sparks during use

Do not use near flammable substance.

Flammable substances can ignite causing injury.

Hammers



WARNING

- Hammers can cause flying chips. Chipped, mushroomed or cracked hammers can cause flying chips



- Glancing blows can cause flying chips
- Striking hard surface can cause flying chips
- Body hammers can chip or break if struck against hard surfaces

Wear safety goggles. (Users and bystanders)



Do not use chipped, mushroomed or cracked hammers.

Strike squarely and avoid glancing blows. Do not strike other hammers or similar hard surfaces.

Use body hammers only for striking automotive type sheet metal; do not strike hard surfaces.

Flying chips can cause injury.

- Steel hammers can cause sparks during use
- Do not use near flammable substance.**

Flammable substances can ignite causing injury.

- COMPOTHANE® or urethane hammers can rupture or ignite if exposed to liquid oxygen
- Do not use COMPOTHANE or urethane hammers near liquid oxygen.**

Ruptured and/or ignited COMPOTHANE or urethane can cause injury.

Threading



WARNING

- Threading and rethreading tools can cause flying chips



Wear safety goggles. (Users and bystanders)

Flying chips can cause injury.

Tire Chargers



WARNING

- Tires can explode
- Wear safety goggles.**
Do not over-pressurize tire.
Read and follow all safety precautions in User's Manual
Exploding tire can cause serious injury.



Tool Storage Units



WARNING

- Storage units can tip or strike you
- Do not open more than one loaded drawer at a time.**
Keep children away.
Close lid and lock drawers and doors before moving.
Apply brakes on locking casters when not moving unit.
Do not step in or on drawers.
Secure units together with fasteners.
Read and follow instruction manual.
Tipping of storage unit or unit striking you can cause injury.
- Units edges can cut or pinch
- Do not pull; push to move.**
Wear gloves when lifting by edges.
Keep feet and fingers clear of edges when stacking, hanging or moving units.
Unit edges can cause injury.



Torque Testers



WARNING

- Calibration weights can cause tester and its base to tip
- Wear safety goggles. (Users and bystanders)**
Counterbalance or anchor mounting base. Tipping base can cause injury.



Torque Wrenches



WARNING

- Overtorquing can cause breakage
 - Wrench can break while breaking fasteners loose
 - Force against flex stops on flex head torque wrenches can cause head breakage
 - An out of calibration torque wrench can cause part or tool breakage
- Wear safety goggles. (Users and bystanders)**
Do not exceed rated torque.
Do not use a torque wrench to break fasteners loose.
Do not force head of flex head torque wrenches against stops.
Periodic recalibration is necessary to maintain accuracy.
Broken tools can cause injury.



Unibody and Frame Straightening Equipment



WARNING

- Improper usage can damage or break equipment
- Read and follow all instructions in User's Manual.**
Broken parts of the frame straightener or vehicle can cause personal injury.
- Risk of entanglement
- Do not stand on or near ramps or rack when raising or lowering the rack.**
Moving parts can cause injury.
- Parts under high stress can break
- Do not exceed maximum capacity of lowest rated component of pull system.**
Broken parts can cause injury.

Welders, Cutters



DANGER

- Electric welding or plasma cutting cause ultra violet rays and weld spatter
- Bystanders will be exposed to ultraviolet rays and weld spatter.**
Wear welding helmet with appropriate shade lens while using electric welders or plasma cutters.
Do not allow bystanders while welding or cutting.
Wear safety shield and protective clothing.
Read and follow instruction manual.
Ultraviolet rays will burn eyes; weld spatter can cause injury.



Welding Accessories



WARNING

- Welding produces heat, sparks, hazard of electric shock and/or hazardous vapors
- Wear appropriate gloves, helmets or goggles and other protective clothing.**
Follow all instructions and safe practices while welding or cutting.
Keep bystanders away from immediate area.
Byproducts of welding can cause burns or other bodily injury.

Wheel Alignment



WARNING

- WA171D can break or slip if over-torqued
- Wear safety goggles. (Users and bystanders)**
Loosen suspension bolts before using WA171D; do not over torque.
Breakage or slippage of tool can cause injury.
- WA92 can break or spring disengage if torqued over 30 lb. ft.
- Do not torque WA92 coil spring compressor over 30 lb. ft.**
Broken tool or disengaged spring can cause injury.



Wheel Balancers



WARNING

- Wheel balancers can cause flying particles
- Wear safety goggles. (Users and bystanders)**
Flying particles can cause injury.



Wrenches



WARNING

- Excess force can cause crowfoot or flare nut wrench slippage
- Do not over torque, no pipes or lever extensions.**
Use only moderate force on crowfoot and flare nut wrenches.
Broken or slipping wrenches can cause injury.
- Slimline wrenches can break if overloaded
- Wear safety goggles. (Users and bystanders)**
Broken wrench jaw can cause injury.
- User can slip or fall if wrench breaks or fastener breaks loose
- Pull, do not push, on wrench handle.**
Injury can occur if user loses balance



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CONVERSION CHART

Showing Millimeter Sizes, Fractional and Decimal Inch Sizes, and Drill Number Sizes

Note: To convert from inches to millimeters, multiply by 25.4; to convert from millimeters to inches, multiply by 0.03937

M	DE	F	DN	M	DE	F	DN	M	DE	F	DN	M	DE	F	DN	M	DE	F	M	DE	F
0.10	0.0039	—	—	1.85	0.0728	—	—	—	0.1660	—	19	7.25	0.2854	—	—	13.49	0.5313	17/32	35.00	1.3780	—
0.15	0.0059	—	—	—	0.0730	—	49	4.25	0.1673	—	—	7.30	0.2874	—	—	13.50	0.5315	—	36.00	1.4173	—
0.20	0.0079	—	—	1.90	0.0748	—	—	4.30	0.1693	—	—	—	0.2900	—	L	13.89	0.5469	35/64	36.51	1.4375	1 7/16
0.25	0.0098	—	—	—	0.0760	—	48	—	0.1695	—	18	7.40	0.2913	—	—	14.00	0.5512	—	37.00	1.4567	—
0.30	0.0118	—	—	1.95	0.0768	—	—	4.37	0.1719	11/64	—	—	0.2950	—	M	14.29	0.5625	9/16	38.00	1.4961	—
—	0.0135	—	80	1.98	0.0781	5/64	—	—	0.1730	—	17	7.50	0.2953	—	—	14.50	0.5709	—	38.10	1.5000	1 1/2
0.35	0.0138	—	—	—	0.0785	—	47	4.40	0.1732	—	—	7.54	0.2969	19/64	—	14.68	0.5781	37/64	39.00	1.5354	—
—	0.0145	—	79	2.00	0.0787	—	—	—	0.1770	—	16	7.60	0.2992	—	—	15.00	0.5906	—	39.69	1.5625	1 9/16
0.40	0.0156	1/64	—	2.05	0.0807	—	—	4.50	0.1772	—	—	—	0.3020	—	N	15.08	0.5938	19/32	40.00	1.5748	—
0.40	0.0157	—	—	—	0.0810	—	46	—	0.1800	—	15	7.70	0.3031	—	—	15.48	0.6094	39/64	41.00	1.6142	—
—	0.0160	—	78	—	0.0820	—	45	4.60	0.1811	—	—	7.75	0.3051	—	—	15.50	0.6102	—	41.28	1.6250	1 5/8
0.45	0.0177	—	—	2.10	0.0827	—	—	—	0.1820	—	14	7.80	0.3071	—	—	15.88	0.6250	5/8	42.00	1.6535	—
—	0.0180	—	77	2.15	0.0846	—	—	4.70	0.1850	—	13	7.90	0.3110	—	—	16.00	0.6299	—	42.86	1.6875	1 11/16
0.50	0.0197	—	—	—	0.0860	—	44	4.75	0.1870	—	—	7.94	0.3125	5/16	—	16.27	0.6406	41/64	43.00	1.6929	—
—	0.0200	—	76	2.20	0.0866	—	—	4.76	0.1875	3/16	—	8.00	0.3150	—	—	16.50	0.6496	—	44.00	1.7323	—
—	0.0210	—	75	2.25	0.0886	—	—	4.80	0.1890	—	12	—	0.3160	—	O	16.67	0.6563	21/32	44.45	1.7500	1 3/4
0.55	0.0217	—	—	—	0.0890	—	43	—	0.1910	—	11	8.10	0.3189	—	—	17.00	0.6693	—	45.00	1.7717	—
—	0.0225	—	74	2.30	0.0906	—	—	4.90	0.1929	—	—	8.20	0.3228	—	—	17.07	0.6719	43/64	46.00	1.8110	—
0.60	0.0236	—	—	2.35	0.0925	—	—	—	0.1935	—	10	—	0.3230	—	P	17.46	0.6875	11/16	46.04	1.8125	1 13/16
—	0.0240	—	73	—	0.0935	—	42	—	0.1960	—	9	8.25	0.3248	—	—	17.50	0.6890	—	47.00	1.8504	—
—	0.0250	—	72	2.38	0.0938	3/32	—	5.00	0.1969	—	—	8.30	0.3268	—	—	17.86	0.7031	45/64	47.63	1.8750	1 7/8
0.65	0.0256	—	—	2.40	0.0945	—	—	—	0.1990	—	8	8.33	0.3281	21/64	—	18.00	0.7087	—	48.00	1.8898	—
—	0.0260	—	71	—	0.0960	—	41	5.10	0.2008	—	—	8.40	0.3307	—	—	18.26	0.7188	23/32	49.00	1.9291	—
0.70	0.0276	—	—	2.45	0.0965	—	—	—	0.2010	—	7	—	0.3320	—	Q	18.50	0.7283	—	49.21	1.9375	1 15/16
—	0.0280	—	70	—	0.0980	—	40	5.16	0.2031	13/64	—	8.50	0.3346	—	—	18.65	0.7344	47/64	50.00	1.9685	—
—	0.0292	—	69	2.50	0.0984	—	—	—	0.2040	—	6	8.60	0.3386	—	—	19.00	0.7480	—	50.80	2.0000	2
0.75	0.0295	—	—	—	0.0995	—	39	5.20	0.2047	—	—	—	0.3390	—	R	19.05	0.7500	3/4	51.00	2.0079	—
—	0.0310	—	68	—	0.1015	—	38	—	0.2055	—	5	8.70	0.3425	—	—	19.45	0.7656	49/64	52.00	2.0472	—
0.79	0.0313	1/32	—	2.60	0.1024	—	—	5.25	0.2067	—	—	8.73	0.3438	11/32	—	19.50	0.7677	—	52.39	2.0625	2 1/16
0.80	0.0315	—	—	—	0.1040	—	37	5.30	0.2087	—	—	8.75	0.3445	—	—	19.84	0.7813	25/32	53.00	2.0866	—
—	0.0320	—	67	2.70	0.1063	—	—	—	0.2090	—	4	8.80	0.3465	—	—	20.00	0.7874	—	53.98	2.1250	2 1/8
—	0.0330	—	66	—	0.1065	—	36	5.40	0.2126	—	—	—	0.3480	—	S	20.24	0.7969	51/64	54.00	2.1260	—
0.85	0.0335	—	—	2.75	0.1083	—	—	—	0.2130	—	3	8.90	0.3504	—	—	20.50	0.8071	—	55.00	2.1654	—
—	0.0350	—	65	2.78	0.1094	7/64	—	5.50	0.2165	—	—	9.00	0.3543	—	—	20.64	0.8125	13/16	55.56	2.1875	2 3/16
0.90	0.0354	—	—	—	0.1100	—	35	5.56	0.2188	7/32	—	—	0.3580	—	T	21.00	0.8268	—	56.00	2.2047	—
—	0.0360	—	64	2.80	0.1102	—	—	5.60	0.2205	—	—	9.10	0.3583	—	—	21.03	0.8281	53/64	57.00	2.2441	—
—	0.0370	—	63	—	0.1110	—	34	—	0.2210	—	2	9.13	0.3594	23/64	—	21.43	0.8438	27/32	57.15	2.2500	2 1/4
0.95	0.0374	—	—	—	0.1130	—	33	5.70	0.2244	—	—	9.20	0.3622	—	—	21.50	0.8465	—	58.00	2.2835	—
—	0.0380	—	62	2.90	0.1142	—	—	5.75	0.2264	—	—	9.25	0.3641	—	—	21.83	0.8594	55/64	58.74	2.3125	2 5/16
—	0.0390	—	61	—	0.1160	—	32	—	0.2280	—	1	9.30	0.3661	—	—	22.00	0.8661	—	59.00	2.3228	—
1.00	0.0394	—	—	3.00	0.1181	—	—	5.80	0.2283	—	—	—	0.3680	—	U	22.23	0.8750	7/8	60.00	2.3622	—
—	0.0400	—	60	—	0.1200	—	31	5.90	0.2323	—	—	9.40	0.3701	—	—	22.50	0.8858	—	60.33	2.3750	2 3/8
—	0.0410	—	59	3.10	0.1220	—	—	—	0.2340	—	A	9.50	0.3740	—	—	22.62	0.8906	57/64	61.00	2.4016	—
1.05	0.0413	—	—	3.18	0.1250	1/8	—	5.95	0.2344	15/64	—	9.53	0.3750	3/8	—	23.00	0.9055	—	61.91	2.4375	2 7/16
—	0.0420	—	58	3.20	0.1260	—	—	6.00	0.2362	—	—	—	0.3770	—	V	23.02	0.9063	29/32	62.00	2.4409	—
—	0.0430	—	57	3.25	0.1280	—	—	—	0.2380	—	B	9.60	0.3780	—	—	23.42	0.9219	59/64	63.00	2.4803	—
1.10	0.0433	—	—	—	0.1285	—	30	6.10	0.2402	—	—	9.70	0.3819	—	—	23.50	0.9252	—	63.50	2.5000	2 1/2
1.15	0.0453	—	—	3.30	0.1299	—	—	—	0.2420	—	C	9.75	0.3838	—	—	23.81	0.9375	15/16	64.00	2.5197	—
—	0.0465	—	56	3.40	0.1339	—	—	6.20	0.2441	—	—	9.80	0.3858	—	—	24.00	0.9449	—	65.00	2.5591	—
1.19	0.0469	3/64	—	—	0.1360	—	29	6.25	0.2460	—	D	—	0.3860	—	W	24.21	0.9531	61/64	65.09	2.5625	2 9/16
1.20	0.0472	—	—	3.50	0.1378	—	—	6.30	0.2480	—	—	9.90	0.3898	—	—	24.50	0.9646	—	66.00	2.5984	—
1.25	0.0492	—	—	—	0.1405	—	28	6.35	0.2500	1/4	E	9.92	0.3906	25/64	—	24.61	0.9688	31/32	66.68	2.6250	2 5/8
1.30	0.0512	—	—	3.57	0.1406	9/64	—	6.40	0.2520	—	—	10.00	0.3937	—	—	25.00	0.9843	—	67.00	2.6378	—
—	0.0520	—	55	3.60	0.1417	—	—	6.50	0.2559	—	—	—	0.3970	—	X	25.00	0.9844	63/64	68.00	2.6772	—
1.35	0.0531	—	—	—	0.1440	—	27	—	0.2570	—	F	—	0.4040	—	Y	25.40	1.0000	1	68.26	2.6875	2 11/16
—	0.0550	—	54	3.70	0.1457	—	—	6.60	0.2598	—	—	10.32	0.4063	13/32	—	26.00	1.0236	—	69.00	2.7165	—
1.40	0.0551	—	—	—	0.1470	—	26	—	0.2610	—	G	—	0.4130	—	Z	26.99	1.0625	1 1/16	69.85	2.7500	2 3/4
1.45	0.0571	—	—	3.75	0.1476	—	—	6.70	0.2638	—	—	10.50	0.4134	—	—	27.00	1.0630	—	70.00	2.7559	—
1.50	0.0591	—	—	—	0.1495	—	25	6.75	0.2656	17/64	—	10.72	0.4219	27/64	—	28.00	1.1024	—	71.00	2.7953	—
—	0.0595	—	53	3.80	0.1496	—	—	6.75	0.2657	—	—	11.00	0.4331	—	—	28.58	1.1250	1 1/8	71.44	2.8125	2 13/16
1.55	0.0610	—	—	—	0.1520	—	24	—	0.2660	—	H	11.11	0.4375	7/16	—	29.00	1.1417	—	72.00	2.8346	—
1.59	0.0625	1/16	—	3.90	0.1535	—	—	6.80	0.2677	—	—	11.50	0.4528	—	—	30.00	1.1811	—	73.00	2.8740	—
1.60	0.0630	—	—	—	0.1540	—	23	6.90	0.2717	—	—	11.51	0.4531	29/64	—	30.16	1.1875	1 3/16	73.03	2.8750	2 7/8
—	0.0635	—	52	3.97	0.1563	5/32	—	—	0.2720	—	I	11.91	0.4688	15/32	—	31.00	1.2205	—			