

YELLOW JACKET®
System Tools –
everything you need
to do every job right

IMPROVED
Tool Cutters page 100
NEW
Service Wrench
page 108

Attention to detail – an ongoing process to assure you of getting full money's worth with every YELLOW JACKET® Tool.

On every service call and every installation, you can go with just the right YELLOW JACKET Tool. And go knowing that every tool passes a careful quality screening process that assures you of getting full value for your money.

This is an ongoing process that pays close attention to details. After all, with so many tools available in the industry, details often make the difference between the tools of one manufacturer and another.

On this page, you'll find an overview of YELLOW JACKET tools in which details contribute to a unique or innovative difference.



Premium Forged Service Wrenches – Enclosed ratcheting mechanism keeps out debris that could jam the high torquing action. 72 teeth per end for 5°/6° ratcheting (Page 108).



Deluxe 45° Flaring Tool – The only full range 1/8" to 3/4" O. D. flaring tool available for soft copper, brass, and aluminum tubing (Page 102).

Even with those more common tools on the following pages, attention to detail means you get reliable performance and the most features possible for your investment. For example, the heavy duty pipe wrench on page 109 includes a special design for instant grip and release. And the heavy duty service wrench on page 108 includes a ratcheting mechanism engineered for heavy use.

When evaluating whether or not a tool gets the Yellow Jacket name, we believe no detail is minor.

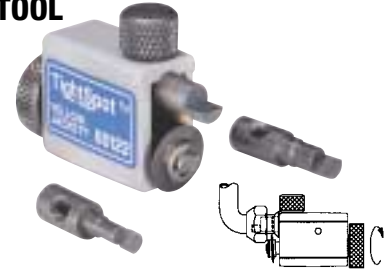


Swaging and 45° Flaring Tool – Swages 7 sizes: 3/16" through 3/4" O. D. (Page 104).



Ratchet Hand Bender – Versatile, easy-to-use bender for soft copper, aluminum and light wall hydraulic tubing (Page 107).

TIGHT SPOT™ FLARE CUT-OFF TOOL



Designed specifically for tight situations where only the flare must be removed, this cutter makes clean right angle cuts on 1/4", 5/16" and 3/8" O.D. copper tubing. Interchangeable arbors for the three sizes included.

Saves time —

1. Where flare nut cannot be moved back enough for regular cutter or saw.
2. Where it is critical not to shorten tubing.

UPC #	Description
60122	Flare cut-off tool with arbors
60196	1/4" support arbor
60197	5/16" support arbor
60198	3/8" support arbor

Tips for Cutting Tubing

Cutters are designed for different applications depending on the material to be cut. And for optimum performance the tools must be used properly.

Tubing cutters are designed for softer thinner-wall materials such as copper, aluminum and brass. The wheel is designed very specifically with a sharp edge for quick cutting. If used on black iron pipe, however, the wheel will quickly be destroyed. Neither the cutter nor the wheel are designed for the hardness or wall thickness of black iron pipe.

To ensure that lasting tool performance, use the correct cutters for copper and the correct pipe cutter for black iron pipe (see page 100).

YELLOW JACKET® PREMIUM TUBE CUTTERS



60101



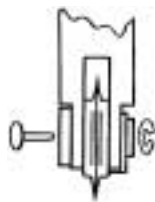
Retracted



Extended

Enclosed precision feed mechanism for easy, smooth cutting. Resists jams. Other features include:

- Wide rollers with flare cut-off groove for convenience. Ground surface for easy rolling.
- Wheel retracts into cutter body to save 1" in cutting radius.
- Textured finish is easier to grip and hold with oily hands and gives it a more professional look.
- Made from high quality alloy steel, YELLOW JACKET wheels have a sharper cutting wheel edge for less burr on copper, aluminum and mild steel tubing. Does not "bottom out." Pinned rather than screwed in position, so it rotates in either direction without the screw backing out.



Spare blade stored in handle

- Corrosion-resistant finish on lightweight aluminum frame.
- Small and large sizes available.
- Fold away tool steel reamer with turned cutting edge.
- Flare cut-off groove for quickly removing damaged flare.

CONSTRUCTOR/CUTTER

Cutter modified with blunt wheel to roll down the tube O.D. so it can be mated to a smaller tube, ie. capillary tube.



UPC #	Description
60101	Small cutter* for 1/8" to 1-1/8" O.D.
60102	Large cutter* for 1/4" to 1-5/8" O.D.
60103	Constrictor/cutter for 1/4" - 1-1/8" O.D.
60014	6 pk. 60101 Counter display
60015	6 pk. 60102 Counter display

* Conforms to Federal Specification GGG-C-771-d, 1-31, 64. Type II, Class 1. Spare parts listed on page 101.

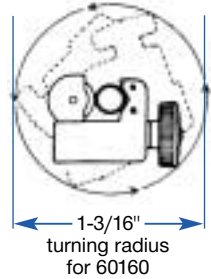


Counter display pack for increased attention and sales.

HEAVY DUTY MINI-CUTTERS



The pioneering **60121** Mini-cutter for heavy duty cutting from 1/8" to 7/8" O.D. – not a minor detail when you consider other minis with the same turning radius cut only up to 5/8".



Wide body for easy grip. Large rollers and flare cut-off groove.

Small-Mini 60160– Smallest version of the heavy duty model cuts 1/8" to 5/8" with a turning radius of only 1-3/16".



Big-Mini 60142– A larger version with a heavy duty cast body cuts from 1/4" to 1-1/8" O.D. and is still compact. Field proven.

UPC #	Description
60160	Small Mini for 1/8" to 5/8" O.D.
60121	Mini-cutter for 1/8" to 7/8" O.D.
60142	Big Mini for 1/4" to 1-1/8" O.D.

Spare parts listed on page 101.



Counter display pack for increased attention and sales.

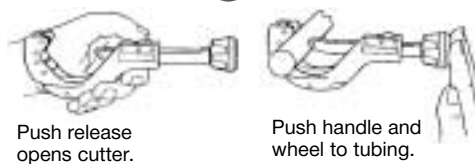
UPC #	Description
60016	12 pk. 60121 Counter display
60017	12 pk. 60142 Counter display
60018	12 pk. 60160 Counter display

YELLOW JACKET® LARGE TUBE CUTTERS — to 5-1/8" (130mm)



Improved spring loaded instant slide action feed is now simpler and stronger with heat treated components. The new stronger "I beam" design uses aluminum alloy for both strength and light weight. Wider body has longer rollers to hold tubing better and includes a flare cut off groove.

Contoured handle for better gripping also holds spare cutter wheel. Separate deburr tool slides into cutter body.



Push release opens cutter.

Push handle and wheel to tubing.

UPC #	Description	Capacity
60139	Tube cutter	3/8" to 2-5/8"
60146	Large tube cutter	2" to 5-1/8"
60165	Repl. Deburr tool for 60139	
60166	Repl. Deburr tool for 60146	

Spare parts listed on page 101.

PIPE CUTTER for black iron



Cuts black iron pipe more cleanly and quickly than other types of cutters. For durability, cast iron body holds heat-treated steel cutter wheel.

- Fine pitch threads assure easy cuts on black pipe.
- Large rollers for clean right angle cuts.

UPC #	Description	Capacity
60131	Pipe cutter 6 lbs.	1/8" to 2" pipe
60133	Pipe cutter 14 lbs.	2" to 4" pipe
60132	Pipe cutter wheel for 60131	
60134	Pipe cutter wheel for 60133	

PVC AND POLYETHYLENE PIPE CUTTER



Easy ratchet action and unique hooked tube-gripping jaws give an easy and clean cut. Other features: heat-treated steel alloy blade for long life, easily replaceable, and completely field repairable.

UPC #	Description
60190	PVC pipe cutter-up through 3/4"
60191	PVC pipe cutter-up through 1-1/4"
60152	PVC pipe cutter-up through 2-1/8"

Replacement blades

60193	Spare blade for 60190
60194	Spare blade for 60191
60155	Spare blade for 60152

Replacement blades for old models

60156	Spare blade for 60150 - individual
60153	Spare blades for 60150 - 5pk.
60154	Spare blade for 60151- individual

TUBE DEBURRING TOOL



For fast deburring, rotate blade.



UPC #	Description
60163	Deburring tool
60164	Replacement blade for 60163
60165	Economy deburr for 60139 tube cutter
60166	Economy deburr for 60146 tube cutter

TUBE REAMER / BURR REMOVER

Steel blades remove inner and outer burrs.



UPC #	Description
60161	Tube reamer - 1/16" up to 1-3/8"

MINI-SAW for tight places



Specially designed for cutting small or large objects in tight areas. Not meant for hardened steel.

UPC #	Description	O.A. Length	Blade Length
60071	Mini saw	10"	6"
60076	Blades	10 pkg.	6"

CAPILLARY CUTTER



Cleanly cut capillary tubing without flattening or constricting tubing.

UPC #	Description
60195	Capillary cutter

YELLOW JACKET™ TUBE CUTTER PARTS – ORGANIZED BY CUTTER							
UPC#	Qty.	Pkg.*	UPC#	Qty.	Pkg.*	Description	For cutter
60098	1	B	60099	10	B	Cutter wheels for stainless	60101, 60102, 60103
60079	1	B	60097	5	B	Pin and clip for wheel	60101, 60102, 60103
-	-	-	60094	5	B	Clip only for pins above	60101, 60102, 60103, 60122
60093	1	B	-	-	-	Pkg. one each wheel, pin, clip	60101, 60102, 60103
60100	1	B	60107	10	B	Cutter wheels for copper	60101, 60102, 60103
60106	1	B	60117	10	B	Constrictor wheels	60101, 60102, 60103
60077	1	B	60095	5	B	Reamer screw and washer	60101, 60102, 60103
60078	1	B	60096	5	B	Reamer (improved in '84)	60101, 60102, 60103
60108	1	B	60129	5	B	Screw for knob	60101, 60102, 60103
60074	1	B	60075	5	B	Screw for cutter wheel	60121
60072	1	B	60073	10	B	Cutter wheels	60121
60080*	1	B	60125*	5	B	Screw for cutter wheel	60121, 60123
60120*	1	B	60116*	20	B	Cutter wheels	60121, 60142
60144	1	B	60143	5	B	Cutter blade pin and clip	60142
60124	1	B	60115	10	B	Cutter wheels	60123, 60139
60136	1	-	60140	5	-	Screw/retainer	60139
60169	1	B	-	-	-	Handle	60139
60172	1	B	-	-	-	Screw for handle	60139
60173	1	B	-	-	-	Screw & handle	60139
60174	1	B	-	-	-	Spring for shaft	60139
60165	1	-	-	-	-	Replacement deburr tool	60139
60147	1	B	60148	5	B	Cutter wheels	60146
60141	1	B	60149	5	B	Screws for cutter wheels	60146
60166	1	-	-	-	-	Replacement deburr tool	60146
PARTS FOR IMPERIAL™ AND YELLOW JACKET 60122, 60160 CUTTERS							
60110	1	B	60088	10	B	Cutter wheel 32633	127-FB, 227-FA, TC1050, 60122 and 60160
60081	1	B	60085	10	B	Screw 26883	"
60111	1	B	60089	10	B	Cutter wheel 75015	174-F, 274-F, 312-FB, 374-FC, TC1000, TC 1020, TC 2050
60112	1	B	60090	10	B	Wheel for stainless 75046	"
60082	1	B	60086	10	B	Screw 74762	"
60113	1	B	60091	10	B	Cutter wheel 74761	206-FA
60083	1	B	60087	10	B	Screw and nut 77511	"



* SP: Skin Pack. B: Bagged with header.

* For old model with Ritchie imprint.

SERVICE COUNTER KIT 60130

SERVICE COUNTER CUTTER PARTS KIT 60130			
UPC#	Qty	Description	For cutter
60130		Counter selection - Tube cutter maintenance kit as below	
60179	1	Kit box only with label - empty	
60100	4	Cutter wheels for copper	60101 60102 60103
60079	3	Pin & clip for wheel	
60077	3	Reamer screw and spacer	
60078	3	Reamer	
60106	3	Constrictor wheel	
60098	3	Cutter wheel for stainless	
60108	3	Screw for knob	
60120*	6	Cutter wheels	
60072	3	Cutter wheel for new style 60121 with YELLOW JACKET imprint	
60125*	6	Screws for cutter wheel style	
60074	3	Screw for cutter wheel for new style 60121 with YELLOW JACKET imprint	60121 (old), 60142 60121 (new)
60144	3	Cutter pin and clip for wheel	60142
60124	3	Cutter wheels	60123, 60139
60080	3	Cutter wheel screw & retainer	60121 (old), 60123
60136	3	Cutter wheel screw & retainer	60139
60110	3	Cutter wheel 32633	Imperial TC 1050 127-FB 227-FA
60081	3	Cutter wheel screw 26883	

Kit quantities only. Order individual parts from chart above

UPC #	Qty	Description	For cutter
60111	3	Cutter wheel for copper 75015	Imperial TC 1000 274-FC, 174-F TC 1020, 374-FC TC 2050, 312-FC
60112	3	Cutter wheel for stainless 75046	
60082	3	Cutter wheel screw 26883	
60113	3	Cutter wheel 74761	Imperial 206-FB 227-FB
60083	3	Cutter wheel screw and nut 77511	

For restocking kits, use quantity packs in chart at top of this page.



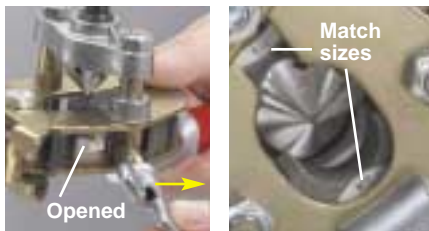
Imperial is a registered trade mark of Imperial Eastman Acquisition Corp.
* Old style 60121 with Ritchie imprint.

DELUXE 45° FLARING TOOL – full range 1/8" to 3/4" O.D.



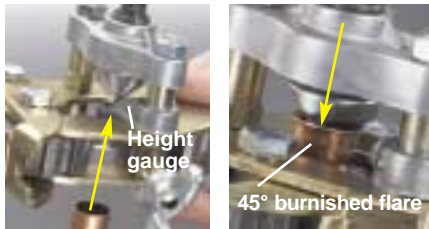
The only full range 1/8" to 3/4" O.D. flaring tool available for copper, brass and aluminum tubing.

- Self-centering yoke for precise 45° flares grips without marring or constricting tube.
- Automatic tube height gauge for correct tubing height .
- Multi-faceted burnishing cone to roll out smooth, polished flare seat for positive seal.
- Easy-to-use with 4 basic steps.



1. With cone up, open the two dies of the clamping yoke.

2. Select sizes on underside of dies to match tubing O.D.



3. Insert tubing until it touches the height gauge.

4. Turn the feed screw to flare the tubing.

UPC #	Description	Capacity
60280	Deluxe flaring tool	1/8" - 3/4"
60281	45° flare cone only	
60282	Yoke assembly only	Up to 3/4"

Additional parts in price sheet.

HEAVY DUTY 45° FLARING TOOLS 3/16" to 3/4"



This heavy duty tool, designed for tight places, features:

- Hardened steel flaring bar to resist tube slippage.
- Forged steel yoke that slips over bar and locks with a turn.
- Precision threaded feed screw and long handle to insure smooth and easy operation.

UPC #	Description	Capacity
60210	Flaring tool	3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 5/8" O.D.
60212	Flaring bar only	3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 5/8" O.D.
60230	Flaring tool	1/2, 5/8, 3/4" O.D.
60232	Flaring bar only	1/2, 5/8, 3/4" O.D.
60213	Yoke for 60210	Up to 5/8" flare
60214	Wing nut	
60233	Yoke for 60230	Up to 3/4" flare

LARGE SIZE 45° FLARING TOOLS 3/4" to 1-1/8"



Tool designed to flare on the larger size tubing – up to 1-1/8". Flaring bars are hardened and grip tubing securely. Yoke slips over flaring bar and locks in place. Long handle and precision threaded feed screw ensure easy flaring.

UPC #	Description	Capacity
60290	Large flaring tool	3/4, 7/8, 1, 1-1/8" O.D.
60293	Flaring yoke	for above
60292	Flaring bar	for above

UNIVERSAL 45° FLARE /BURNISH TOOL



Universal designed bar will hold all inch and metric size tubing up to 5/8" (16mm). Flare bar is more compact and easier to use in tight quarters. Multi-faceted cone rolls out precise 45° flare and polishes it at the same time. Flare is formed above flare bar.

UPC #	Description	Capacity
60275	Universal flaring tool	3/16" to 5/8" O.D.
60276	Flaring bar only	for above
60277	Flaring yoke only	for above

FLARE /BURNISH TOOL



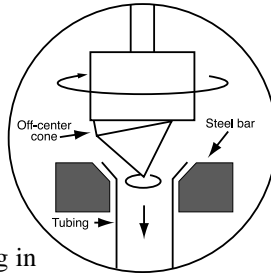
Multi-faceted cone rolls a precise flare and simultaneously polishes it on brass, copper and aluminum.

UPC #	Description	Capacity
60270	Flare/burnish tool	3/16" to 5/8" O.D.
60271	Flare yoke only	for above
60272	Flaring bar	for above

YELLOW JACKET® ECCENTRIC CONE FLARING TOOL



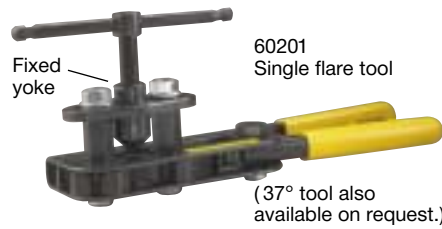
Off-center hardened steel cone produces a rolling action for uniform flare walls without galling in 3/16" to 3/4" O.D. tubing. Large feed screw handle turns with little effort for smooth operation.



- Black oxide-finished steel flaring bars are heat-treated for durability and secure grip on tubing
- Recommended for soft materials such as copper and aluminum
- Recommended by some mini-split manufacturers for R-410A flare

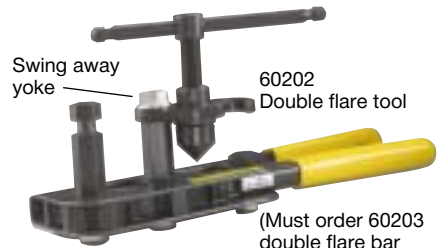
UPC #	Description
60295	Flaring tool with eccentric cone for 3/16" to 3/4" O. D.

YELLOW JACKET PREMIUM DOUBLE AND SINGLE FLARE 45° TOOL



60201
Single flare tool

(37° tool also available on request.)



60202
Double flare tool

(Must order 60203 double flare bar separately.)

One-piece tool single flares six sizes of copper, brass, aluminum and most mild steel tubing. Forms flare above clamping block without thinning flare. Deeper grooves in bar for improved gripping power.

- Hardened steel block; and steel handles and body for durability
- Automatic flare cone centering for consistent flare precision

60202 also features a swing away yoke so tool can also double flare 3/16" to 1/2" tubing when used with 60203

double flare bar (order separately)



Order 60203 bar separately

UPC #	Description	Capacity
60201	Single flare tool only - 45°	3/16, 1/4, 5/16, 3/8 1/2, 5/8" O.D.
60202	Double flare tool only - 45°	3/16, 1/4, 5/16, 3/8, 1/2, 5/8" O.D.
60203	Double flare bar for 60202 order separately	3/16 to 1/2" O.D.
60205	Flaring cone - 37°	—
60209	Flaring tool - 37°	—
60216	Flaring cone - 45°	—
60206	Roller and pin	—

YELLOW JACKET FLARING/CUTTING KITS



60260



60225

A wide variety of heavy duty tool kits for flaring 1/8" to 3/4" O. D.

UPC #	Description
60240	Full range 45° flaring kit for 1/8" to 3/4" O.D. with yoke, two bars, case, instructions
60230	45° flaring tool only for 1/2"-3/4" O.D.
60250	45° flaring/cutting kit for 3/16" to 5/8" O.D. with 60210 flaring tool, 60101 cutter, case, instructions
60260	Full range 45° flaring/cutting kit for 1/8" to 3/4" O.D. same as 60240 with 60101 cutter, case, instructions
60225	45° double flaring kit with with five adapters for 3/16" to 1/2" O.D., case, instructions
60211	45° double flare five-adapter set for 3/16"-1/2" O.D.

Tips for Flaring

An incorrect flare is one of the most common sources of leaks. To help prevent leaks and call backs, cut tubing with sharp wheel in a quality cutter (page 99) for a clean right-angle cut. To avoid tube constriction, use a light hand on the feed screw.

Since unremoved burrs can break off into the tubing or scratch the flared surface, remove burrs with a deburring tool (page 100).

A flare tool with burnishing cone puts a high polish on the flare and rolls out a perfect 45° flare for a good seal. Over or under flaring prevents a good seal. Use drop of oil on the flaring cone and feed screw for precise action.

YELLOW JACKET® SWAGING AND 45° FLARING TOOL 3/16" to 3/4"



This combination tool both flares and swages soft or annealed copper and similar materials. Six hardened and plated alloy steel adapters are interchangeable to easily convert sizes and functions. Slip-on self-centering steel yoke has a feed screw with extra long handle. For a sure grip when

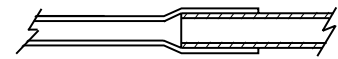
attaching adapters to the feed screw, adapters are deeply knurled. Flaring bars are hardened and chrome plated for durability.

Kit comes complete with six swage adapters, flaring cone, two flaring bars, yoke, and a deluxe case.

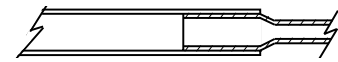


Swages 7 sizes: 3/16" through 3/4" O.D.

UPC #	Description
60440	Swage/flare kit complete 3/16" to 3/4" O.D.
60450	Swage/flare kit, case only
60444	3/16" and 3/8" adapter
60439	1/4" adapter
60445	5/16" adapter
60446	1/2" swage adapter
60447	5/8" swage adapter
60448	3/4" swage adapter
60449	Flare cone 3/8" to 3/4"
60442	"C" clip and nut
60441	Handle/feed screw/nut
60443	Complete yoke 60440/60453
60212	Flare bar 3/16" to 5/8" O.D.
60232	Flare bar 1/2" to 3/4" O.D.



Parallel Expansion Joint



Reduction Joint

SWAGE/45° FLARING TOOL 1/2" to 3/4"



Mid-size swaging and flaring tool for 1/2", 5/8" and 3/4" O.D. tubing.

UPC #	Description
60453	Swage/flare kit - complete 1/2" to 3/4" O.D.
60446	1/2" swage adapter
60447	5/8" swage adapter
60448	3/4" swage adapter
60449	Flare cone 1/2" to 3/4"
60441	Handle screw assembly
60442	"C" clip and nut
60443	Complete yoke for 60453/60440
60232	Flare bar 1/2" to 3/4" O.D.

LARGE SIZE SWAGE/45° FLARING TOOL 3/4" to 1-1/8" O.D.



Swages 3/4", 7/8" and 1-1/8" O.D. tubing. Flares 3/4", 7/8", and 1-1/8" O.D. tubing.

UPC #	Description
60455	Large swage/flare kit complete 3/4" to 1-1/8" O.D.
60448	3/4" swage adapter
60457	7/8" swage adapter
60458	1-1/8" swage adapter
60459	Flare cone 3/4" to 1-1/8"
60441	Handle screw assembly
60442	"C" clip and nut
60456	Complete yoke 60455
60292	Flare bar 3/4" to 1-1/8" O.D.

PUNCH-TYPE SWAGING TOOL



60475

Durable heat-treated and plated alloy steel tool expands one end of copper tubing for connecting same size tubes.



60460

UPC #	Swaging Sets
60475	Set - 4 pcs. in pouch - 1/4, 3/8, 1/2 and 5/8"
60476	Set - 5 pcs. in pouch - 1/4, 5/16, 3/8, 1/2 and 5/8"
60461	Set with clamping bar and 6 swaging punches 3/16 to 5/8"
60462	Clamping bar only

UPC #	Single Tools
60460	Multi swage punch 6 sizes 3/16" to 5/8"
60463	3/16" O.D. punch
60464	1/4" O.D. punch
60465	5/16" O.D. punch
60466	3/8" O.D. punch
60467	1/2" O.D. punch
60468	5/8" O.D. punch
60469	3/4" O.D. punch
60470	7/8" O.D. punch

YELLOW JACKET® TUBING EXPANDER/SWAGER 5/16" to 1-5/8" O.D.



Kit 60407

With long handles for comfortable leverage, you can easily expand 5/16" to 1-5/8" O.D. soft copper and aluminum tubing in seconds. Handles, tapered expanding pin, and other moving surfaces are heat treated for long-term durability. Select from nine expander heads to attach to the front of the handles.

Wide range of capabilities:

- Precise swaging on the job
- Re-round deformed tube and fitting ends
- Help salvage shorts and scrap to make couplings
- Use on .063" wall soft copper and aluminum to 1-5/8" O.D. (anneal hard copper prior to use)

- Use on .047" wall soft steel to 1-1/8" O.D.
- Use on .039" wall stainless steel to 7/8" O.D.

Sets in case

UPC #	Description
60407	Expander kit with handles; heads for 3/8", 1/2", 5/8", 3/4", 7/8", 1-1/8" tubing O.D.; deburring tool, steel carrying case, instructions
60412	Expander handles
60426	Steel carrying case

The savings of precise swages instead of couplings

- 100% of couplings
- 50% of solder points
- 50% of soldering material
- 50% of time
- possible leaks

Expander heads

UPC #	Description	Max. Wall Thickness	A	B
60413	5/16" expander head	0.039"	0.24"	—
60414	3/8" expander head	0.039"	0.35"	0.06"
60415	1/2" expander head	0.047"	.043"	0.06"
60416	5/8" expander head	0.047"	0.57"	0.06"
60417	3/4" expander head	0.047"	0.59"	0.06"
60418	7/8" expander head	0.047"	0.71"	0.06"
60420	1-1/8" expander head	0.063"	0.77"	0.09"
60422	1-3/8" expander head	0.063"	0.77"	0.09"
60424	1-5/8" expander head	0.063"	0.77"	0.09"

3-IN-1 SWAGING AND FLARING TOOL for hard and soft copper



This revolutionary tool swages soft and hard copper, and flares soft copper. Swaging hard copper lowers the cost of joining, eliminating the time and expense of annealing.

- One-piece construction with hardened steel clamping dies.
- Quick-change swaging adapters heat-treated to take continual use.
- Automatic self-centering of swaging adapters and flaring cone for consistent results.
- Set includes heavy duty carrying case and 60161 tube reamer.

UPC #	Description
60480	Basic set – Swage 1/4", 3/8", 1/2" and 5/8" O.D. Flare 3/16" to 5/8" O.D.
60482	Complete set – 3/16" to 5/8" O.D.
60481	Tool only – less adapters
60483	Swage adapter – 3/16"
60484	Swage adapter – 1/4"
60485	Swage adapter – 5/16"
60486	Swage adapter – 3/8"
60487	Swage adapter – 1/2"
60488	Swage adapter – 5/8"
60489	Flaring cone
60490	Case only
60491	Detent pin
60492	Detent spring

FIN STRAIGHTENERS



61170

61150

61150 Fin Tool straightens condenser and evaporator fins quickly and easily – even severely damaged ones.

Also cleans away lint, rust, dirt and other debris.

Adjustable tension and sturdy metal body.

61170 is similar to 61150 with a longer comfort-grip handle making straightener easier to use. Head is 20% wider to straighten more fins in one pass.



Clean:
insert forward.



Straighten:
insert backward

UPC #	Description
61150	Fin straightener
61170	Fin straightener with large handle

SAFETY GOGGLES



Helps protect your eyes against metal particles, sparks, refrigerant gases, etc. when working on HVAC&R systems.

Safety goggles are recommended any time you work on a system.

UPC #	Description
11002	Safety goggles
11003	Ventilated safety goggles

ERGONOMIC FinFix™ COMBS for 14 different fin sizes



Color coded nylon fin combs are designed to easily straighten and clean fins on standard and high efficiency condensers and evaporators. Available individually bagged, or as a set of 6 assorted. One set of 6 covers 12 different fin sizes. Also bulk bag of 25 of the same size. Newest comb, 61157, is for high efficiency units.

Improved shape conforms to the hand and thumb for more comfortable grip.

Individual		Bag of 25		
Individual U.P.C. No.	Description	Fins per inch	Color	Bag of 25 U.P.C. No.
61151	FinFix 1	8 and 10	Orange	61161
61152	FinFix 2	9 and 15	Yellow	61162
61153	FinFix 3	11 and 13	Blue	61163
61154	FinFix 4	12 and 14	Green	61164
61155	FinFix 5	16 and 17	Lime	61165
61156	FinFix 6	18 and 20	Red	61166
61157	FinFix 7	21/22 and 23/24	Purple	61167
61158	Set of 6	8 to 20	Assorted	—

6-in-1 Fin Straightener



Fin straightener sizes are marked on head - 8, 9, 10, 12, 14, and 15 fins per inch. Compact 4" length.

UPC #	Description
61171	6-in-1 fin straightener
61172	Head only
61173	Handle only

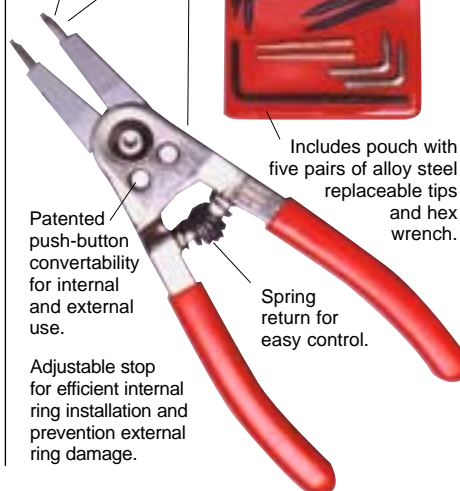
YELLOW JACKET® RETAINING RING PLIERS – COMBINATION INTERNAL/EXTERNAL

Six point broached jaw for accurate tip alignment. Adjustable for hex tips.

High handle-to-jaw ratio for increased mechanical advantage.



Includes pouch with five pairs of alloy steel replaceable tips and hex wrench.



Patented push-button convertability for internal and external use.

Spring return for easy control.

Adjustable stop for efficient internal ring installation and prevention external ring damage.

Compact pliers for use on SealRight™ coupler with interchangeable tips. Works on internal and external retaining rings in a variety of areas:

- Where bearings are used.
- Where a shaft must be held in a bore.
- Under the dashboard and more.

UPC#	Description
60593	Small pliers for 1/4" - 1" (8 mm - 26 mm) internal rings; 1/8" - 1" (3 mm - 26 mm) external rings.
60594	Medium pliers for 3/8" - 2" (10 mm - 48 mm) internal rings; 1/4" - 2" (7 mm - 48 mm) external rings
60596	Replacement tip set for 60593: straight .023" (0.6 mm), .036" (0.9 mm), .047" (1.2 mm); 90° .036" (0.9 mm), .047" (1.2 mm)
60597	Replacement tip set for 60594: straight .036" (0.9 mm), .047" (1.2 mm), .070" (1.2 mm); 90° .036" (0.9 mm), .047" (1.2 mm)

YELLOW JACKET® RATCHET HAND BENDER

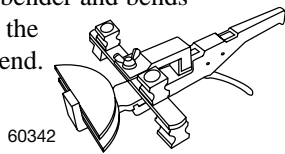


Bending
3/4" copper.

CAUTION: do not use with hard copper.

Optional reverse bend kit —

Attaches to bender and bends tubing from the outside of bend.



60342

The *original* one hand bending tool for soft copper, aluminum and light wall hydraulic tubing from 3/8" to 7/8".

- New stronger bending bar
- Bending shoes change quickly. Trouble free ratchet mechanism. Bend 3/4" tube to 90° in less than 10 seconds.
- Index marks ensure bending to length.

Complete swing bender kit includes all items shown to bend 3/8", 1/2", 5/8", 3/4" and 7/8" tubing per case.



UPC#	Description	Bending Radius
60331	Complete kit	—
60332	3/8" mandrel	1-3/16"
60333	1/2" mandrel	1-3/8"
60334	5/8" mandrel	1-15/16"
60335	3/4" mandrel	2-13/16"
60336	7/8" mandrel	3-3/8"
60337	Crossbar assembly	—
60338	Steel case with inserts	—
60342	Reverse bend adapter	—
60339	Ratchet body	—
Replacement parts for 60331		
60328	Fillister head screw	—
60343	Bending body housing (10)*	—
60344	Catch pin (13)*	—
60345	Catch lever (16)*	—
60346	Flat spring (17)*	—
60347	Feed lever (19)*	—
60348	Wing nut and E-clip (1-1/8)*	—
60349	Tension spring	—
60340	Ratchet bar (9)*	—

* Designates the call-out number from the parts diagram on the 60331 instruction sheet.

FULL RANGE HEAVY DUTY TUBE BENDERS for 1/4" to 7/8" radius



60390

Make fast bends on almost every size of soft copper, brass, aluminum, steel and soft stainless steel tubing to 180°.

60390 is a compact three-in-one bender for 1/4", 5/16" and 3/8" O.D. tubing. Calibrated markings for bends up to 180° help you duplicate angles.

The balance of the line features special hardened wearing surfaces to help maintain accuracy. Conforms to Fed. Spec. GGG- B-191-a Type III, Class 2.

UPC #	Description	Bending Radius
60390	1/4"-5/16"-3/8" 3-in-1 tube bender	15/16"
60373	1/4" tube bender	9/16"
60374	5/16" tube bender	11/16"
60375	3/8" tube bender	15/16"
60377	1/2" tube bender	1-1/2"
60378	5/8" tube bender	2-1/4"
60379	3/4" tube bender	3"
60380	7/8" tube bender	3"
60395	Bolt for bender hook	NA
60396	Hook/bolt 60378	NA
60397	Hook/bolt 60379	NA
60398	Hook/bolt 60380	NA

PRECISION TUBE BENDER for hard and soft copper



Mount in a vise

Make precision bends in hard and soft copper, and soft steel in commercial applications. Patented bending shoe gives two bending points for accuracy even on hard copper. Bends to 180° for vise mounting. Includes one handle.

UPC #	Tube O.D.	Bending Radius	Wall Thickness		(Ref. #)
			Min.	Max.	
60321	5/8"	2.50"	0.040"	0.080"	(2.5216)
60323	7/8"	3.25"	0.040"	0.080"	(2.5222)

SPRING TUBE BENDER for 1/4" to 7/8"



Specially designed YELLOW JACKET spring benders slip over soft copper and aluminum tubing during bending to help prevent tube collapse.

- Silver-plated finish.
- Conforms to Fed. Spec. GGG-B-191-a Type IV.

UPC #	Single Bending Springs
60354	1/4" O.D. bending spring
60355	5/16" O.D. bending spring
60356	3/8" O.D. bending spring
60357	7/16" O.D. bending spring
60358	1/2" O.D. bending spring
60359	5/8" O.D. bending spring
60360	3/4" O.D. bending spring
60361	7/8" O.D. bending spring
60351	Set-6 sizes-1/4", 5/16", 3/8", 7/16", 1/2" and 5/8" O.D.
60352	Set-4 sizes-1/4", 3/8", 1/2" and 5/8" O.D.
60353	Set-4 sizes-1/2", 5/8", 3/4" and 7/8" O.D.

SERVICE WRENCHES STRAIGHT



60613

Standard reversible ratchet wrench with square openings: 1/4" and 3/16" at one end; 3/8" and 5/16" at other end.

HEAVY DUTY



60618

Heavy duty version of original 60613 with heavier handle and larger gear. Stronger gear teeth are combined with strong reversing mechanism for long service life.

Square opening 3/16" and 1/4" at one end; 3/8" and 5/16" at other end.

OFFSET



60616

KNUCKLE SAVER design for convenience in tight areas. Square opening 1/4" and 3/16" one end; 3/8" and 5/16" at other.

For large service valves



60615

Reversible wrench for larger service valves. 3/8" square one end; 1/2" square at other.

7" LONG RATCHET WRENCH for service valves



60612

Heavy duty reversible ratchet wrench with hex openings 1/2" and 9/16" at one end; and square 3/16" and 1/4" at other end.

Service wrenches

UPC#	Description
60613	Straight service wrench
60618	Heavy duty service wrench
60616	Off-set service wrench
60615	Refrigeration wrench for large valves
60612	Heavy duty wrench – 7" long

CAUTION: Do not use cheater bars.

YELLOW JACKET® PREMIUM FORGED SERVICE WRENCHES



Patent pending

- Enclosed ratcheting mechanism to keep out debris that could jam the action.
- Higher torque ratings than 60613.
- 72 teeth per end for 5°/6° ratcheting.

- No reversing mechanism to wear out; simply turn wrench over for reversing.
- Uses less work room for ratcheting.
- Heat-treated chrome vanadium forging for durability.

UPC#	Description
60600	Forged wrench 1/4" and 3/8" sq.
60601	Forged wrench 3/16" and 5/16" sq.
60629	Set of 60600 and 60601 above
60619	Display pak 60600 (25 pcs.)
60620	Display pak 60601 (25 pcs.)

SERVICE WRENCH AND ADAPTER



Combination service wrench with 60609 hex adapter for accessing liquid and suction based valves on residential and commercial units up to 7.5 tons. Heat-treated hex works for 3/16" and 5/16" hex valves. Black oxide plated. New adapter for some York/Coleman units.



UPC#	Description
60609	Hex key adapter
60610	60613 service wrench and 60609 adapter
60638	Shorter 3/16" and 5/16" hex key adapter to fit some York/Coleman units

SPORLAN VALVE WRENCH



Spanner end tightens packing nut around super heat adjustment stem. 1/8" square end adjusts Sporlan solenoid valves with manual lift stems as on Series B6 and E6 through MA 50. Also 3/16" square at same end for expansion valves.



UPC#	Description
60617	Sporlan valve wrench

PINCH-OFF TOOLS



60665 will pinch off and reround 1/4, 5/16, 3/8 and 1/2" copper.

60661 pinches off copper and other lines quickly. Trigger release.

60666 is the ViseGrip® pinch-off tool.

UPC#	Description
60665	Bar-style pinch-off and reround tool
60661	Plier type pinch-off tool
60666	ViseGrip® RR pinch-off tool

YELLOW JACKET® RATCHETING BIT WRENCHES



60584

- Reverse direction with a flip of the reversing pawl.
- Knurled spinner wheel for finger tightening of fasteners.

These bit wrenches allow access where conventional screwdrivers and bit drivers fail to reach.

- 25° offset angle keeps your knuckles up and away from the work surface.

UPC #	Description
60584	Set includes bit #1 and #2 Phillips, 1/4", and 9/32" slotted.
60585	Ratcheting driver wrench only
60586	#1 Phillips bit (5pk)
60587	#2 Phillips bit (5pk)
60588	Small slotted bit (5pk)
60589	Medium slotted bit (5pk)

E-Z GRIP RATCHETS with comfort grip handles



Easy-to-hold handles and reversing mechanism provide comfortable

operation even when used frequently. Heat-treated gear hex for long life.

UPC #	Description	Hex Sizes
60664	Set 6 wrenches	1/4" to 9/16"
60655	Ratchet wrench	1/4"
60656	Ratchet wrench	5/16"
60657	Ratchet wrench	3/8"
60658	Ratchet wrench	7/16"
60659	Ratchet wrench	1/2"
60660	Ratchet wrench	9/16"

KNUCKLE-SAVER™ HEX WRENCH SETS - 3 pc. or 5 pc.



The unique offset design of these YELLOW JACKET® wrenches save your knuckles in tight places.

- Accurately sized and broached ends for correct fit.
- Heat-treated critical wear parts for long life.
- Finger control reversing.
- Chrome plated for durability.

UPC #	Description	Hex Sizes
60630	Set - 5 wrenches	1/4" to 7/8"
60631	Set - 3 wrenches	1/4" to 9/16"
60633	Ratchet wrench	1/4" x 5/16"
60634	Ratchet wrench	3/8" x 7/16"
60635	Ratchet wrench	1/2" x 9/16"
60636	Ratchet wrench	5/8" x 11/16"
60637	Ratchet wrench	3/4" x 7/8"

UTILITY CHAIN WRENCH



Lightweight tool with double heat-treated forged steel handle and tempered steel chain. Reach tight places near walls and areas most wrenches cannot be used.

UPC #	Capacity	Weight
60654	4" dia.	1.9 lbs.

REFRIGERANT RECOVERY PLIERS



The fastest and easiest way to evacuate refrigerant before disposal of a unit. Snaps onto refrigerant line and punctures super large hole for immediate and maximum full flow to recovery unit. One adjustable tool fits all sizes from 3/16" to 7/8" O. D. hard tubing. Replaceable hardened steel needle.

UPC #	Description
60667	Refrigerant recovery pliers
60668	Replacement needle and gasket
19022	Replacement gasket only (5 pkg)

HEAVY DUTY PIPE WRENCH



Designed for strength and durability with malleable iron construction, this heavy duty wrench features:

- Replaceable heat treated jaws.
- Instant grip and release jaws.

UPC#	Description	Capacity	weight
60641	8" Pipe wrench	1"	.9 lbs.
60642	10" Pipe wrench	1-1/2"	1.7 lbs.
60644	14" Pipe wrench	2"	3.3 lbs.
60645	18" Pipe wrench	2-1/2"	5.2 lbs.
60646	24" Pipe wrench	3"	8.2 lbs.

STRAP WRENCH



Easy-to-use strap attaches easily for quick gripping of chrome or nickel finished pipe without gouging the finish. Sturdy one-piece construction.

UPC #	Capacity	Weight
60651	17 "	0.7 lbs.

YELLOW JACKET® FAN BLADE PULLER

This all purpose tool is designed tough to last.

All steel design includes a 15/16" hex head and 5/8" shaft milled back 1-1/2" and undersized for 1/2" shaft opening. A self centering alignment tool is included.

Four fingers attach to the fan blade. For durability they are made of hardened 4140 chrome moly steel.

- All purpose tool.
- Remove squirrel cage type blower wheels.
- Pull off fan blades.
- Remove pulleys or sheaves.
- Fits 1-3/4" hub max.



UPC #	Description
60590	Fan blade puller complete
60591	Replacement "fingers" (4)
60592	Bolt for 60590

12" HEX KEY WRENCHES

- Heat treated for long life.
- Chamfered ends for easy insertion into sockets.
- Black finish.



UPC # 25 per pkg.	Size	A	B	UPC # Individual
60750	Set 7 pcs. Hex Key wrenches, includes all sizes below			
60757	5/64	12"	1-3/4"	60857
60758	3/32	12"	1-3/4"	60858
60760	1/8	12"	1-3/4"	60860
60762	5/32	12"	1-3/4"	60862
60763	3/16	12"	1-3/4"	60863
60764	7/32	12"	1-3/4"	60864
60765	1/4	12"	1-3/4"	60865

YELLOW JACKET HEX KEYS

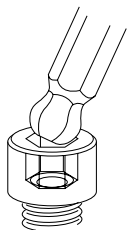
All YELLOW JACKET hex keys from .050" to 5/16" are premium 8650 heat-treated steel alloy for rugged use.

Other features:

- Chamfered square cut ends for easy socket insertion.
- Corrosion-resistant finish.
- Patented organizer case with identifying slots that lock keys in place when not in use.



UPC # Std. End	Description		UPC # Ball End
	Size	Length	
60670	12 pc. set w/case		60685
60669	Metric - 12 pc. set w/case		-
All individual keys below are in 10 pkg.			
60671	.050	2.8 inches	60686
60672	1/16	3.0 inches	60687
60673	5/64	3.2 inches	60688
60674	3/32	3.4 inches	60689
60675	7/64	3.6 inches	60690
60676	1/8	3.7 inches	60691
60677	9/64	3.9 inches	60692
60678	5/32	4.1 inches	60693
60679	3/16	4.5 inches	60694
60680	7/32	4.9 inches	60695
60681	1/4	5.1 inches	60696
60682	5/16	6.0 inches	60697
60683	-	Case	60698



Ball end keys ease tightening of fasteners where sockets are up to 30° off axis.

Provides fast full socket engagement where regular hex keys cannot do the job.

FOLD-UP HEX KEY SETS

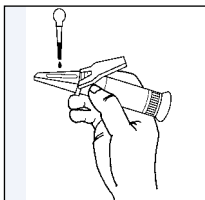


Locate the correct key size easily. For rugged use, each key is premium 8650 heat-treated steel alloy. Other features:

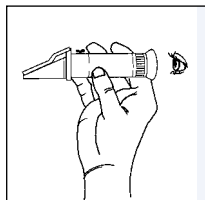
- Chamfered square cut ends for easy socket insertion.
- Corrosion-resistant finish.
- Smooth one-piece handle with sizes clearly marked.
- Keys snap to work position for leverage and fold into handle for compact storage.
- Replacement keys available.

UPC #	Description
60700	Hex key set - 8 sizes - .050, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32"
60710	Hex key set - 9 sizes - 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4"

HAND-HELD REFRACTOMETER



Place sample liquid on prism and close cover.



Look through the eyepiece and focus for scale reading.

For retrofitting a mineral oil system with Solest® HFC, this field tool can accurately predict remaining mineral oil in the system down to 1%. Acceptable levels of remaining oil depend on compressor/system manufacturer requirements.

Refractive range 1.435 to 1.520 at room temperature.

UPC #	Description
69000	Hand-held refractometer w/case

VALVE CORE TOOL

Self contained tool for quickly removing and replacing cores. Handle contains six cores.

UPC #	Description
19306	Valve core tool

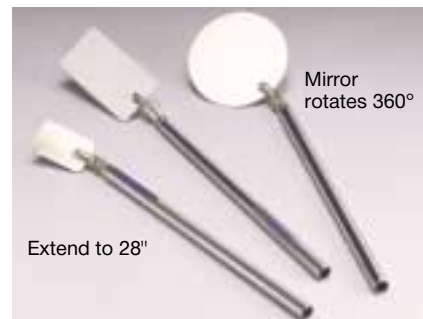
GLASS MIRRORS — telescoping

All mirrors have telescoping feature. Some have clips for pockets and magnifying glass. Replaceable mirrors.



UPC #	Description	Extension
78094	2-1/4" round	9-1/4" to 14-1/4"
78097	2-1/4" round magnified	9-1/4" to 14-1/4"
With pocket clip and insulated head		
78098	1-1/4" round	7" to 19"
78099	1-1/4" round magnified	7" to 19"
78103	2" x 3-1/2" rectangular	11" to 15-1/2"
78104	1" x 2" oval	7" to 19"
Replacement mirrors only		
78105	2-1/4" round glass	
78106	2" x 3-1/2" rectangular glass	
78107	1" x 2" oval glass	

INSPECTION MIRRORS — stainless telescoping



Extend to 28"

Mirror rotates 360°

Check leaks in hard to see places. Stainless steel mirror on ball joint rotates 360°. Handle telescopes to 28".

UPC #	Description
78100	Round 3-3/4" diameter
78101	Rectangular 3-3/4" x 2"
78102	Rectangular 2" x 1-1/4"

SAFETY GOGGLES



Helps protect your eyes against metal particles, sparks, refrigerant gases, etc. when working on HVAC&R systems.

Safety goggles are recommended any time you work on a system.

UPC#	Description
11002	Safety goggles
11003	Ventilated safety goggles

AUTOMOTIVE R-134a and R-12 CAN TAPS



With side tap, handles slip around and close to pierce the can. Small inserts for use with lubricant cans.

Check valve on side taps help prevent back pressure into can.

Not for use with other refrigerants.

UPC #	Description
36192	R-134a side can tap
36193	R-12 side can tap
36194	Gaskets for side can tap (10 pak)

MAX-FLOW™ COMBINATION OIL PUMP

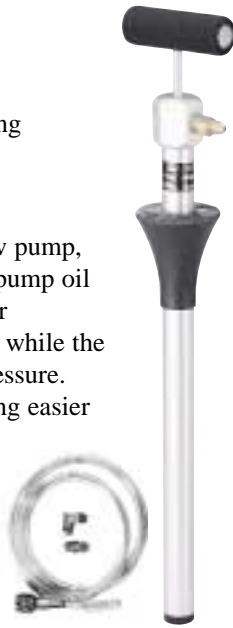
- Remove oil for recovery and conversion.
- Add oil to existing systems.

With the Max-Flow pump, you can smoothly pump oil into the compressor *on the down stroke* while the system is under pressure. This makes pumping easier with a positive stroke.

Pumps 2.6 ounces or 78 ml per stroke.

Other features:

- Pumps against 200 psi pressure.
- Comfort-grip rubber handle.



- Universal stopper automatically adjusts to all standard openings in 1, 2 1/2 and 5 gallon oil containers.
- Suction transfer hose and fittings included. Connects to bottom of unit to pump oil from equipment quickly and efficiently.
- Use with alkyl-benzene, ester-based, polyol ester, mineral, and synthetic oils.

UPC#	Description
77940	Improved Max-Flow combination oil pump with tubing
77941	Automatic stopper for oil container openings for new 77940 pump
77942	"O"-ring kit for 77940
77919	Automatic stopper for oil container openings for original 77900 pump
77920	Adapter fitting straight – 1/8" NPT Male x 1/4" flare
77921	Adapter fitting 90° angle – 1/8" NPT Male x 1/4" flare
77922	24" suction hose – 1/4" fitting one end only

Note: Not for use ammonia laden oil.

MAX-FLOW™ DELUXE OIL PUMP

- Remove oil for recovery and conversion.
- Add oil to existing systems.
- Fits all size oil containers



Optional accessories

Improved for added reliability and a more powerful stroke, the Max-Flow deluxe oil pump is a high capacity unit for quick charging. Pumps 3.8 ounces (112.38 ml) per stroke.

Other features:

- Foot stand base provides support and leverage while pumping against the high pressures of a running compressor.



- Operating unit in reverse with adapter hose accessory removes oil from equipment quickly and efficiently.
- Use with alkyl-benzene, ester-based, polyol ester, mineral, and synthetic oils.
- Will pump against 250 psi pressure.

UPC#	Description
77930	Max-Flow Deluxe oil pump
77924	3/8" NPT Male x 1/4" Fe. elbow
77925	Plastic seat
77931	"O" ring kit for 77930 (10 pak)
77932	Piston rod assembly
77935	Ball spring – 2 each
77936	Replacement suction copper tube with 1/2" flare nut at one end
77933	Replacement fittings – 3/8" NPT Male x 1/2" fl. – 90°
77937	Replacement fittings – 3/8" NPT Male x 3/8" fl. – 90°
77938	Optional 1/2" flexible suction hose, 24" long – fitting one end only
77939	Optional 3/8" flexible drain hose, 24" long – fitting one end only
59653	1/2" copper gasket soft (10 pak)

REFILLABLE OIL INJECTORS



Body and cap are rugged aluminum with an "O"-ring seal. Male fitting at one end with Schrader. A ball valve for control on other end with a short length of hose. Valve depressor in female end.

Saves time on many applications:

- Add oil to system.
- Put oil in after changeout.
- Add scanner fluorescent solution.
- Add additives to system.
- Refrigerant sampling.
- 600 psi maximum working pressure.

UPC#	Description
69560	1/2 oz. oil injector 1/4" Male flare x 1/4" Female Q.C.
69561	2 oz. oil injector 1/4" Male flare x 1/4" Female Q.C.
69562	4 oz. oil injector 1/4" Male flare x 1/4" Female Q.C.
69563	"O"-ring 1/2 oz. injector (5 pk)
69564	"O"-ring 2 & 4 oz. injector (5 pk)
69565	1/2 oz. R-134a auto injector w/hose and service coupler
69566	2 oz. R-134a auto injector w/hose and service coupler
69567	4 oz. R-134a auto injector w/hose and service coupler