

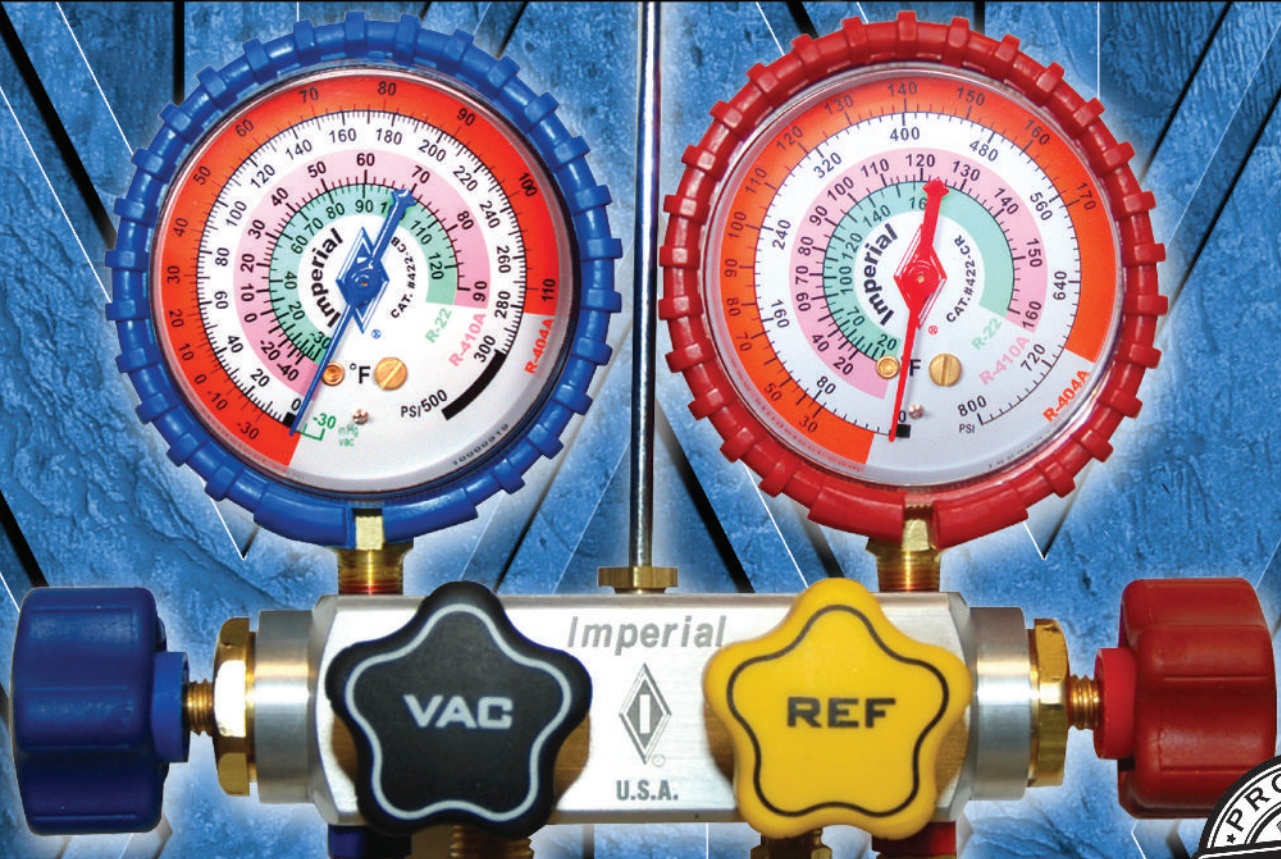


# Imperial<sup>®</sup>

DEPENDABLE UNDER PRESSURE<sup>®</sup>

## HVAC/R

SERVICE MANIFOLDS • GAUGES • HOSES • COUPLERS • ACCESSORIES • TUBE WORKING TOOLS



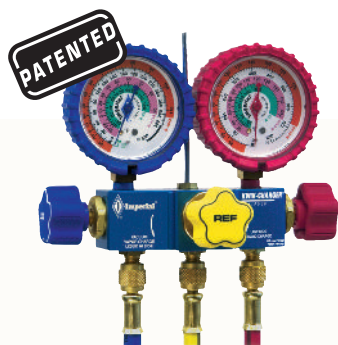
### TOOLS FOR THE HVAC/R PROFESSIONAL

## SERVICE MANIFOLDS



### 800 SERIES DEEP DRAW 4-VALVE MANIFOLD

- **4-Valve Efficiency** - Vacuum, low side, high side, and refrigerant lines are individually connected and controlled. No need to switch charging lines.
- **4 Times Faster Evacuation** - 3/8" vacuum port and oversize internal passages evacuate systems four times faster than ordinary manifolds. 3/8" port has greater area than combined inlets of high and low side lines.
- **Unique Deep Draw Vacuum Valve Design** - Proven diaphragm type, soft seat valves require only fingertip pressure to close completely. One turn to full open/close. "Deepest Draw Rated".
- **Precision Gauges & Protective Boots** - Unique design with easy to read color-coded scales provides superior resistance to shock, vibration and pulsation for superior performance and extended gauge life.



### 700 SERIES KWIK-CHARGER™ MANIFOLD

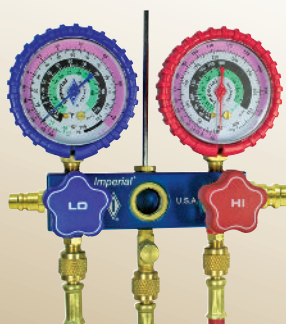
Charging the system is faster and easier than ever with these Imperial® manifolds with built-in Kwik Charge® control valve.

- **Dual Action Valve** - Operates as a conventional manifold, or engage the Kwik Charge® valve and the manifold accepts liquid refrigerant from cylinder and discharges into the low side of the system. Charging rate is up to eight times faster than vapor charging.
- **Safe** - Internal metering element reduces liquid flow to a level below capacity of the compressor. Assures a safe, fast charge without endangering the compressor.
- **All-in-One** - No connecting or disconnecting special adapters for charging new blended refrigerants.



### 600 SERIES 4-VALVE MANIFOLD

- **4-Valve Efficiency** - Vacuum, low side, high side, and refrigerant lines are individually connected and controlled. No need to switch charging lines.
- **4 Times Faster Evacuation** - 3/8" vacuum port and oversize internal passages evacuate systems four times faster than ordinary manifolds. 3/8" port has greater area than combined inlets of high and low side lines.
- **Deep Vacuum Valve Design** - Proven diaphragm type, soft seat valves require only fingertip pressure to close completely. One turn to full open/close. Superior for deep vacuum service.
- **Precision Gauges & Protective Boots** - Unique design with easy to read color-coded scales provides superior resistance to shock, vibration and pulsation for superior performance and extended gauge life.



### 510 SERIES 2-VALVE / 4-PORT R-410A MANIFOLDS

- **Auxiliary Valve Port** - Allows multiple hookups for vacuum gauge, vacuum pump, recovery unit and add-ons.
- **Dual O-Ring Seal** - For high-pressure valve use. Electroless nickel plate stem to reduce wear and gauling.
- **Ergonomic Handles** - Durable, soft-touch, non-slip surface, even with oily fingers.

### 520 SERIES 2-VALVE / 4- OR 5-PORT MANIFOLDS

- **Two Integrated Auxiliary Ports** - Provide additional hookups for use with a micron (vacuum) gauge, vacuum pump, adding tracer dye, adding oil, purging non-condensables.
- **Deep Vacuum Valve Design** - Proven diaphragm type, soft seat valves require only fingertip pressure to close completely. One turn to full open/close. Superior for deep vacuum service.



### 400 SERIES DELUXE 2-VALVE BRASS MANIFOLD

- **Dual O-Ring Valves** - Precision engineered with dynamic full-flow design for faster trouble-free evacuation and charging.
- **Precision Gauges & Protective Boots** - Unique design with easy to read color-coded scales provides superior resistance to shock, vibration and pulsation for superior performance and extended gauge life.
- **Soft Seat Valves** - Seat tightly with fingertip pressure.
- **Ergonomic Handles** - Durable, soft-touch, non-slip surface, even with oily fingers.

# HOSES

**Imperial® PolarShield® charging hoses are UL recognized** and meet UL-1963, SAE-J2196 & EPA requirements for strength, pressure and refrigerant permeation.

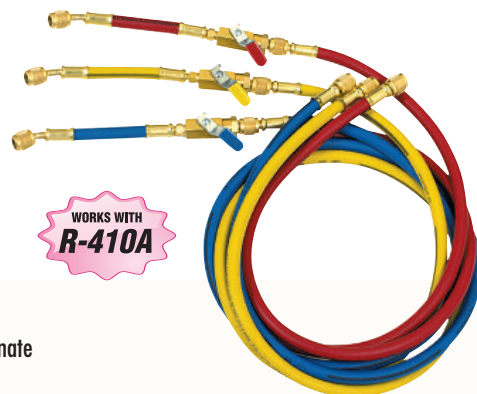
**Rugged Multi-Refrigerant Nylon Barrier Construction** - PolarShield® hoses are compatible with all CFC, HCFC & HFC refrigerants (R-410A, R-404A, R-407C, R-134a).



## 950 SERIES PolarShield® HOSES

LOW LOSS BALL VALVE SHUT-OFF AND 1/4" FFL CONNECTIONS

- Low loss ball valve shut-off.
- Multi-refrigerant hi-pressure barrier construction – 800 PSI working pressure, 4,000 PSI burst pressure.
- Flexible length of hose between valve and fitting for ease of use in tight quarters.
- UL recognized for strength, pressure and refrigerant permeation.



## 900 SERIES PolarShield® HOSES

AUTOMATIC SHUT-OFF VALVE

- Precision engineered automatic low loss 1/4" FFL shut-off valve traps refrigerant within the hose to eliminate venting and finger burn.
- Multi-refrigerant hi-pressure barrier construction – 800 PSI working pressure, 4,000 PSI burst pressure.
- Meets UL-1963, SAE-J2196 & EPA requirements for strength, pressure and refrigerant permeation.



## 850 SERIES PolarShield® HOSES

FOR R-410A SYSTEMS WITH 5/16" ACCESS FITTINGS (1/4" x 5/16" hose connections)

- 5/16" fittings.
- Multi-refrigerant hi-pressure barrier construction – 800 PSI working pressure, 4,000 PSI burst pressure.
- UL recognized for strength, pressure and refrigerant permeation.

## 800 SERIES PolarShield® HOSES

- Standard 1/4" fittings.
- Multi-refrigerant hi-pressure barrier construction – 800 PSI working pressure, 4,000 PSI burst pressure.
- UL recognized for strength, pressure and refrigerant permeation.



## 6" LOW LOSS BALL VALVE ADAPTER HOSES

- Connects to any standard 1/4" charging line.
- UL recognized.
- Non-restrictive for maximum flow.



# COUPLERS

## KWIK-COUPLER™ HOSE SHUT-OFF ADAPTERS

The Kwik-Coupler™ set is intended for use with refrigeration and air-conditioning service hoses when connecting to core valve type access fittings. Conventional threaded connecting is converted to push-pull operation which is faster, easier and positive sealing at all times. Valve cores are depressed automatically without adjustments or loss of refrigerant.

- Simplifies operation of charging critical amount of refrigerant into small systems.
- Eliminates hazardous discharge of refrigerant and oil from system when disconnecting hose.

- 16-C Straight Coupler (45° Flare) 1/4" female x 1/4" male.
- 17-C 90° Elbow Coupler (45° Flare) 1/4" female x 1/4" male.



## 23-C & 24-C HI-DUTY® SHUT-OFF COUPLERS

- Captures refrigerant within hose, eliminating refrigerant loss, atmospheric damage, and finger burns.
- Connects quickly and easily to any standard 1/4" SAE refrigerant hose.



For model numbers, specifications and application charts please visit our website at [www.imperial-tools.com](http://www.imperial-tools.com).

## WRENCHES For Refrigeration and Air - Conditioning Service



127-C Compressor access valve wrench. Chrome plated. Has 1/4", 3/8", 3/16" and 5/16" square drive ratchets and is specifically designed for use on compressors with access valves in hard to reach places. Reversible ratchets.



127-CO Same as the 127-C except with unique 25° offset that provides additional convenience in hard to reach places.



124-C Combination wrench with the four sizes most needed for servicing air-conditioning and refrigerator equipment.

- 9/16" hex for dust cap on access valves and plug oil check on compressor.
- 1/2" hex for compressor mounting bolts.
- 1/4" square for valve stem and service valves and old style compressor valves.
- 3/16" square for valve refrigerant charging tanks.



125-C Rugged steel forged wrench with four sizes covering almost any application. Ratchet has 1/4" square drive on one end, other end has 3/16" and 5/16" square openings, plus 9/16" hex opening.



126-C Economy compressor access valve wrench. Chrome plated. Has 1/4", 3/8", 3/16" and 5/16" square drive ratchets and is specially designed for use on compressors with access valves in hard to reach places. Reversible ratchets.

## SERVICE ACCESSORIES

### KWIK-VISE™

Refrigerant Recovery Tool

**PT-109** Line piercing/refrigerant recovery tool pierces, seals and locks on to copper lines in one swift motion.

- Self-adjusting! No need to adjust the tool for different sizes of tubing. The tension system automatically locks pliers on copper tubing 1/4" to 1/2" (6 mm-12 mm) O.D.
- To use, simply position the PT-109 on the tubing to be pierced. Close the pliers quickly and firmly. The pliers will automatically adjust and lock into a tightly-sealed, secure position.

#### FEATURES

- Replaceable hardened, stainless steel pierce and brass valve assembly (S16002045).
- Capacity 1/4" thru 1/2" O.D. refrigerant copper tubing.
- Durable: made with high carbon, heat treated steel jaws.
- Works with all refrigerants CFC, HFC, HCFC, and Zeotropic/Azeotropic.
- 90° elbow valve eliminates tangling and interference problems.



PT-109

### KWIK CHARGE® LIQUID LOW SIDE CHARGER

Provides fast, safe charge - essential for today's blended refrigerants!

Accepts liquid refrigerant from the cylinder and discharges into the low side of the system. Internal Kwik Charge® metering element reduces liquid flow to a level below capacity of compressor. This assures a safe, fast charge without endangering the compressor.



535-C

WORKS WITH R-410A

#### FEATURES

- Up to 8 times faster than vapor charging.
- No need to heat refrigerant cylinder.
- Built-in check valve opens for drawing unrestricted vacuum.
- No pressure drop in cylinder.
- One charger services all units 1/2 ton or larger.



See our full line of HVAC & Specialty Tools at [www.imperial-tools.com](http://www.imperial-tools.com)

# HI-DUTY® TUBE CUTTERS

## TC-1550 TUBE CUTTER

For 1/8" to 1-1/8" (4 mm – 28 mm) O.D. tubing

- Lower profile swing radius – 4-1/4".
- Retractable rotary style reamer – can be used right - or left handed and with a clockwise or counter-clockwise motion for better ergonomic control.
- Rollers feature flare cut-off groove to reduce tube loss when damaged flare is removed.
- Lightweight die-cast solid aluminum body.
- Enclosed hardened steel, thrust bearing feed mechanism for smoothest cutting action and trouble-free operation.
- Includes (2) S75015 general-purpose cutter wheels.



TC-1550

## HI-DUTY® TUBE CUTTERS

For 1/8" to 1-1/8" and 1/4" to 1-5/8" O.D. tubing

**TC-1000** For 1/8" to 1-1/8" (4 mm to 28 mm) O.D. tubing. Includes (2) S75015 general-purpose cutter wheels.

**TC-1010** For 1/8" to 1-1/8" (4 mm to 28 mm) O.D. tubing. Includes (2) S75046 cutter wheels for continuous cutting of stainless steel and other hard temper tubing.

**TC-1020** Combination tube constrictor and tube cutter. For 1/8" to 1-1/8" (4 mm to 28 mm) O.D. tubing. Includes S76637 constrictor wheel and S75015 general-purpose cutter wheel.

**312-FC** For 1/4" to 1-5/8" (7 mm to 41 mm) O.D. tubing. Includes (2) S75015 general-purpose cutter wheels.

Conforms to Federal Specification GGG-C-771d, Type II, Class I.



TC-1000

## "IMP"® MINI TUBE CUTTERS

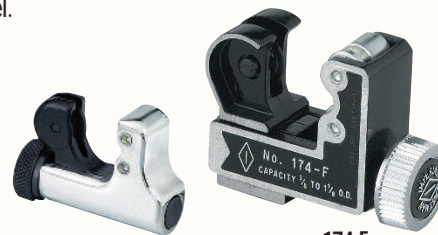
For 1/8" to 1-1/8" O.D. tubing

**TC-1050** For 1/8" to 5/8" (4 mm to 15 mm) O.D. tubing. Includes (1) S32633 general-purpose cutter wheel. Swing radius 1-1/4".

**TC-2050** For 3/16" to 7/8" (5 mm to 22 mm) O.D. tubing. Includes (1) S75015 general-purpose cutter wheel. Swing radius 1-11/16".

**TC-3050** For 1/8" to 1-1/8" (4 mm to 28 mm) O.D. tubing. Includes (1) S75015 general-purpose cutter wheel. Swing radius 2-1/2".

**174-F** For 3/8" to 1-1/8" (10 mm to 28 mm) O.D. tubing. Includes (2) S75015 general-purpose cutter wheels. Swing radius 1-15/16" (2-1/4" swing radius with 1-1/8" tube).



TC-1050

174-F



TC-3050



TC-3050RH

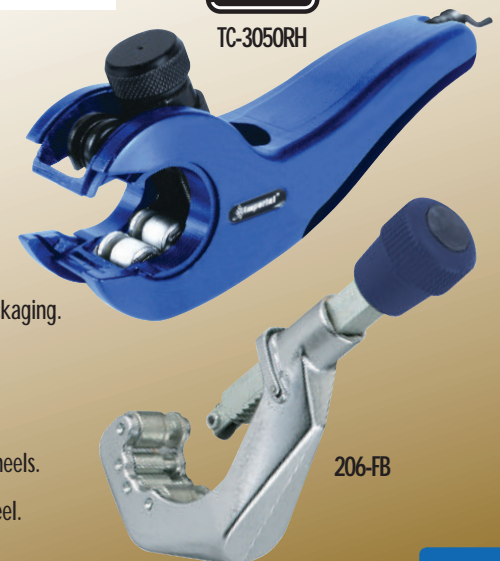
## RATCHETING TUBE CUTTERS

For 1/8" to 5/8" and 1/8" to 1-1/8" O.D. tubing

- Minimal clearance radius.
- Easily completes a full revolution, maximizing leverage.
- Cutter can be easily removed from the handle. Includes (1) general purpose cutter wheel.

**TC-1050RH** 2-Pc. set includes TC-1050 mini tube cutter and ratcheting handle in clamshell packaging.

**TC-3050RH** 3-Pc. set includes TC-3050 tube cutter, removable deburr tool and ratcheting handle in clamshell packaging.



206-FB

## ADJUST-O-MATIC™ TUBE CUTTERS

For 3/8" to 2-5/8" and 2" to 4-1/8" O.D. tubing

**206-FB** For 3/8" to 2-5/8" (10 mm to 66 mm) O.D. tubing. Includes (2) S74761 general-purpose cutter wheels.

**406-FA** For 2" to 4-1/8" (51 mm to 104 mm) O.D. tubing. Includes (1) S74833 general-purpose cutter wheel.

For model numbers, specifications and application charts please visit our website at [www.imperial-tools.com](http://www.imperial-tools.com).

## TRIPLE HEAD LEVER TYPE

**PATENTED**

370-FH



368-FH



**PATENTED**

470-FH



### 370-FH TRIPLE HEAD 180° TUBE BENDER

- Bends 3/16", 1/4", 3/8" and 1/2" tubing.
- Makes smooth, tight radius 180° bends.
- Calibrated markings – for making accurate left-hand, right-hand and offset bends.
- Adjustable hook.
- Optimum bending radius – for each tubing size.
- Made of lightweight die-cast aluminum.

### 368-FH IMP™ TRIPLE HEAD 90° BENDER

For soft copper, aluminum and thin wall steel tubing.

- For 3/16", 1/4", 5/16" and 3/8" (6 mm and 8 mm) O.D. tubing.
- 15/16" (17.5 mm) radius to center of tube.

### 470-FH TRIPLE HEAD 180° TUBE BENDER WITH ROTO-LOK™ INDEXING HANDLE

- Bends 3/16", 1/4", 5/16" and 3/8" O.D. tubing.
- Patented, quick-action indexing lever repositions two-stage handle midway through bend when both handles begin to meet. This feature allows easy fabrication of bends up to 180° with reduced effort, better control and no crossing of handles!
- Makes smooth, tight radius 180° bends.
- Calibrated markings – for making accurate left-hand, right-hand and offset bends.
- Optimum bending radius – for each tubing size.
- Compact design for working in tight spaces.
- Made of lightweight die-cast aluminum.

## LEVER TYPE

**PATENTED**

664-FH



### 664-FH HEAVY-DUTY 180° TUBE BENDER WITH ROTO-LOK™ INDEXING HANDLE FOR TIGHT RADIUS BENDS

For 1/4" to 1/2" and 6 mm to 12 mm O.D. tubing.

- New design for accurate and tight bends up to 180° in stainless steel and other tough metals.
- Patented, quick-action indexing lever repositions two-stage handle midway through a bend when both handles begin to meet. This feature allows easy fabrication of bends up to 180° with reduced effort, better control and no crossing of handles!
- Rollers in bending handle reduce friction and bending effort; eliminate scoring of tubing.
- Durable nickel finish. • Vise lug for mounting in vise.

364-FHA



364-FHB



### 364-FHA LEVER TYPE TUBE BENDERS

For 1/8" to 1" and 6 mm to 12 mm O.D. tubing.

Each tool bends one size tubing. (11) fractional and (4) metric sizes available. Open-side type which slips over tube at any point. Makes smooth, tight radius bends up to 180° with minimum effort. No scoring or flattening of tubing. Calibrated to show angle of bend. Wide hook grips tubing securely.

### 364-FHB SWIVEL HANDLE TUBE BENDERS

For 1/4" to 1/2" and 6 mm to 12 mm O.D. tubing.

The 364-FHB series has a swivel handle that can be repositioned midway through a bend when both handles begin to meet. This simple feature allows easy fabrication of bends up to 180° with reduced effort, better control and without the crossing of handles, typical of most other lever type benders. Each tool bends one size tubing. (5) fractional and (4) metric sizes available.

## GEAR TYPE

270-F



### 270-F GEAR TYPE TUBE BENDERS

For 3/8" to 1-1/8" O.D. tubing.

For all bending work. Spur-gear type with 10-to-1 ratio for easy bending of all metal tubing of bending temper. Floating shoe aligns tube perfectly on calibrated forming wheel. Pull-pin on wheel speeds repositioning for bends over 90°. Portable. Can be hand held, clamped in vise or bolted to bench. Adapts to pipe vise with handle 271-F. Each tool bends one size tubing. (7) fractional sizes available.

## TUBE BENDERS CONT.

### SPRING TYPE TUBE BENDERS

For soft copper and aluminum tubing 1/4" to 7/8" O.D.

Tools allow hand bending of soft tubing to any shape without collapsing walls. Special spring steel, zinc finish. End belled for quick tube removal. Each tool bends one size tubing. (8) fractional sizes available - sold separately or in 3, 4, 6 or 8 piece sets.



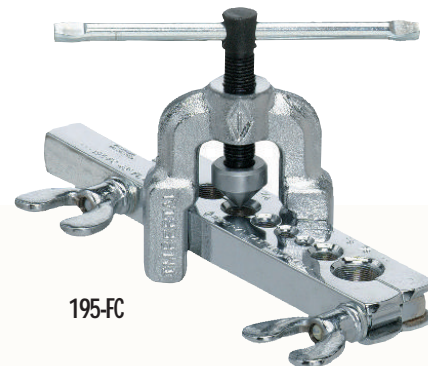
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## FLARING & SWAGING TOOLS

### 45° FLARING TOOLS

For 3/16", 1/4", 5/16", 3/8", 7/16", 1/2" and 5/8" O.D. tubing.

195-FC Flares 7 sizes of tubing. Rugged forged steel slip-on yoke and hardened flaring bar. Positive clamping action of bars prevents tube slippage. Self-centering yoke with swivel-type hardened steel, chrome-finished flaring cone forms better flares with less effort. Design of yoke permits flaring where there is little space between nut and tube end. Satin finish nickel-chrome plated.



195-FC

### 45° LARGE SIZE FLARING TOOLS

For 5/8", 3/4", 7/8" and 1-1/8" O.D. tubing.

203-FA Quick slip-on yoke with hardened steel, chrome-finished swivel flaring cone reduces effort. Positive clamping action of flaring bar eliminates tube movement. Nickel chrome finish.



WORKS WITH  
R-410A

500-FC

### 45° ROL-AIR™ FLARING TOOLS

Flares and burnishes 3/16", 1/4", 5/16", 3/8", 1/2" and 5/8" O.D. tubing.

500-FC Faceted, hardened steel, chrome-finished cone rolls out perfect 45° flares above die block, and automatically burnishes flare face reducing the need for deburring. Original wall thickness is maintained at base of flare. New slip-on yoke permits use in tight quarters, where there is little space between nut and tube end. Larger handle, with better leverage, and precision threads on feed screw make flaring effortless. Heat treat dies grip tubing without scoring. Satin chrome and black finish.



### FLARING (45°) & SWAGING TOOL

For 1/8" to 3/4" O.D. tubing.

275-FS Flares and swages. Converts quickly. Screw-type feed. Ideal for use in close quarters. Two bars included cover 9 sizes. Swivel-type swaging adapters and flaring cone are hardened steel, chrome-finished for easy operation. Self-centering, slip-on forged steel yoke. Includes tool case. Flares 1/8", 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 5/8" and 3/4" O.D. tubing. Includes 5 swage adapters that swage 7 tube sizes: 3/16", 1/4", 5/16", 3/8", 1/2", 5/8" and 3/4" O.D.



275-FS

### PUNCH TYPE SWAGING TOOLS

Make tubing connections without fittings. Enlarges end of tube, to allow insertion of another tube of original O.D. size to solder together.

95-S One tool swages 3/16", 1/4", 5/16", 3/8", 1/2" and 5/8" O.D. tubing. Hi-alloy steel, heat-treated for rugged use. Hex design for ease of extraction.

193-S Vinyl case contains 4 swaging punches for 1/4", 3/8", 1/2" and 5/8" O.D. tubing.



95-S

### CUTTING AND FLARING KITS

Each kit contains No. TC-1000 tube cutter for 1/8" to 1-1/8" O.D. tubing and a 45° or 37° flaring tool. Includes tool case.

1226-FA TC-1000 Tube cutter, 195-FC (45°) Flaring tool with 3/16" to 5/8" O.D. range.



1226-FA



193-S

## 210-F DEBURRING TOOL

Rotary style blade is perfect for removing burrs from holes and edges. Large ergonomic handle reduces user fatigue. Extra blade stores inside handle. Ships complete with two heavy duty blades. For copper, steel, aluminum, zinc, cast iron, brass and plastic tubing.



## 208-F INNER-OUTER REAMING AND DEBURRING TOOL

For 3/16" to 1-1/2" O.D. tubing

Reams both inside and outside edges of tube with 3 hollow ground, hardened steel cutters. Tough die cast body. Deburrs both clockwise and counterclockwise. Fluted body is shaped to fit comfortably in palm. For copper, aluminum and brass tubing.



## 105-FF PINCH-OFF TOOL

For 1/4" to 1/2" O.D. tubing

Temporarily closes soft copper, aluminum or steel tubing so no liquid or gas passes sealed part. Lets you disconnect line while making repairs without loss of liquid or gas. For 1/4", 5/16", 3/8" and 1/2" O.D. tubing.

## LIFETIME WARRANTY

Any product manufactured by Stride Tool Inc. that fails to render service due to defect in workmanship or materials will be replaced or repaired at no charge. Product failures due to misuse, abuse, normal wear and tear or alterations are not covered by the Lifetime Warranty. Wear items will need to be replaced over time, and are not included (such as cutter wheels, seals, gaskets, o-rings and gauges). Stride Tool Inc. makes no other warranty, expressed or implied. Tools should be returned to the Buyer's place of purchase.



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For model numbers, specifications and application charts please visit our website at [www.imperial-tools.com](http://www.imperial-tools.com).



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