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## METAL TUBING

### TC-1550 PREMIUM TUBE CUTTER

For 1/8" to 1-1/8" (4mm-28mm) tubing

- Lower profile swing radius – 4-1/4".
- Retractable rotary style reamer for easy internal burr removal.
- Rollers feature flare cut-off grooves, enabling cuts to be made close to the damaged flare, minimising wasted copper.
- Lightweight die-cast solid aluminium body for strength and rigidity.
- Durable matt finish for improved wear resistance.
- Enclosed hardened steel, thrust bearing feed mechanism enables smooth cutting action and trouble-free operation.
- Imperial's unique design eliminates spiraling for clean right angle cuts.
- One-piece screw-type axle for easy access to the cutting wheel – no clip to lose or replace.
- Imperial cutter wheels are made of the highest quality wear and abrasion-resistant chromium steel. They are precision machined to exacting specifications for accurate cutting and long life.
- Each tool is supplied with a spare cutter wheel.

Part No.	Description
TC-1550	Pipe cutter for 1/8" to 1-1/8" (4 mm to 28 mm) O.D. tubing. Includes (2) S75015 general-purpose cutter wheels.

#### Spares

S75015	General-purpose cutter wheel
S75046	Wheel for continuous cutting of stainless steel and other hard temper tubing.



**All Imperial tube cutters are 100% factory tested to ensure accurate spiral-free cutting**

## 1000 SERIES VALUE TUBE CUTTERS

For 1/8" to 1-1/8" and 1/4" to 1-5/8" tubing

- Enclosed hardened steel, thrust bearing feed mechanism enables smooth cutting action and trouble-free operation.
- Imperial's unique design eliminates spiraling for clean right angle cuts.
- One-piece screw-type axle for easy access to the cutting wheel – no clip to lose or replace.
- Aluminium alloy body for strength and rigidity.
- Foldaway hardened steel reamer - The turned cutting edge enables the clean removal of inside burrs, whilst the filing surface removes outside burrs.
- Rollers feature flare cut-off grooves, enabling cuts to be made close to the damaged flare, minimising wasted copper.
- Imperial cutter wheels are made of the highest quality wear and abrasion-resistant chromium steel. They are precision machined to exacting specifications for accurate cutting and long life.
- Each tool is supplied with a spare cutter wheel.

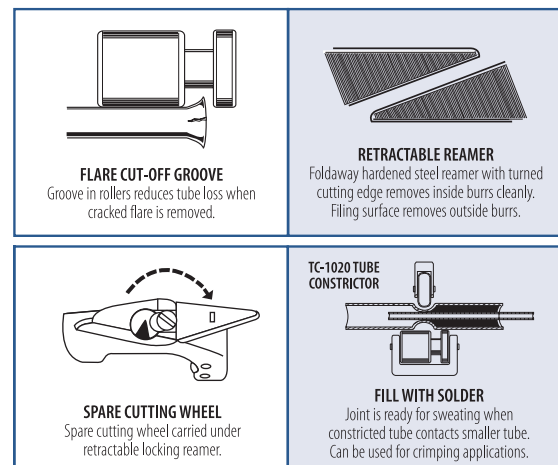


TC-1000

Part No.	Description
TC-1000	Pipe cutter for 1/8" to 1-1/8" (4 mm to 28 mm) O.D. tubing. Includes (2) S75015 cutter wheels.
TC-1010	Pipe cutter for 1/8" to 1-1/8" (4 mm to 28 mm) O.D. tubing. Includes (2) S75046 cutter wheels
TC-1020	Combination tube constrictor & tube cutter. For 1/8" to 1-1/8" (4 mm to 28 mm) O.D. tubing. Includes S76637 constrictor wheel and S75015 cutter wheel.
312-FC	Pipe cutter for 1/4" to 1-5/8" (7 mm to 41 mm) O.D. tubing. Includes (2) S75015 cutter wheels.

### Spares

S75015	General-purpose cutter wheel
S75046	Wheel for continuous cutting of stainless steel and other hard temper tubing.
S16003162	Replacement cutting wheel for soft copper & aluminium tubing is extra sharp to minimize burr buildup.
S76637	Constrictor wheel for producing sweat joints.



## JUNIOR TUBE CUTTER

For 1/8" to 3/4" (4 mm to 19 mm) O.D. tubing.

- Swing radius 2".

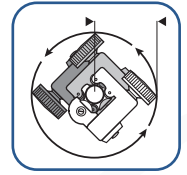


Part No.	Description
227-FA	Includes S32633 general-purpose cutter wheel.

## IMP™ MINI TUBE CUTTERS

For 1/8" to 5/8" and 3/16" to 7/8" O.D. tubing

- Big capacity, small sized tube cutter designed for use in tight spaces where other cutters won't fit.
- Enclosed feed screw minimises contamination, assuring continued smooth operation.
- Corrosion-resistant steel rollers positioned at the bottom of the cutter for a smoother cutting action.



Swing Radius  
1-1/4"



TC-1050

Part No.	Description
TC-1050	Pipe cutter for 1/8" to 5/8" and 4 mm to 15 mm O.D. tubing. Includes (1) S32633 general-purpose cutter wheel.
TC-2050	Pipe cutter for 3/16" to 7/8" and 5 mm to 22 mm O.D. tubing. Includes (1) S75015 general-purpose cutter wheel.

## RATCHETING TUBE CUTTER

For 1/8" to 5/8" (4mm to 15mm) O.D. tubing

- With a minimum clearance radius of just 1-1/4", the ratcheting tube cutter is ideal for use on pipe work in confined spaces or against walls.
- The unique ratcheting design enables the cutter to complete entire revolutions of the pipework, with maximum leverage, by simply moving the handle up and down.
- The TC-1050 cutter can easily be removed from the handle. Includes (1) S32633 general purpose cutter wheel.
- Ergonomic handle with non-slip grip.
- 100% factory tested to ensure accurate spiral-free cutting.
- Six independent drive pawls provide a 15° arc-swing.

Part No.	Description
TC-1050RH	Includes TC-1050 mini tube cutter and ratcheting handle in clamshell packaging.
TC-1051	Ratcheting handle only.



Use the TC-1050 cutter with or without the ratcheting handle - snaps into place in seconds

Handle allows complete revolutions with ease

Spiral-free cutting

Ideal for tight spaces

Six independent drive pawls give a small, 15° arc-swing



TC-1050RH

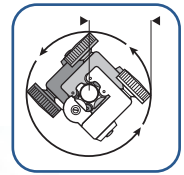
For hard or soft copper, aluminium, brass, thin wall steel, stainless steel, titanium and other tubing.

# TUBE CUTTERS

## "BIG IMP"™ TUBE CUTTER

For 3/8" to 1-1/8" (10 mm to 28 mm) O.D. tubing

Part No.	Description
174-F	Includes (2) S75015 general-purpose cutter wheels. Swing radius 1-15/16" (2-1/4" swing radius with 1-1/8" tube).



Swing Radius  
1-15/16"



174-F

S75015 - Spare cutting wheel

## ADJUST-O-MATIC™ TUBE CUTTERS

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

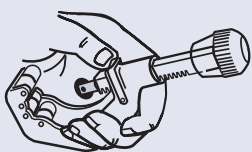
- Ratchet feed mechanism allows the quick placement and release of the cutter wheel onto the pipe.
- Extra wide rollers with flare cut-off groove stabilise the tubing whilst cutting.
- Spare cutting wheel is included under handle cap.
- Enclosed feed screw minimises contamination, assuring continued smooth operation.

Part No.	Description
206-FB	Pipe cutter for 3/8" to 2-5/8" and 10 mm to 66 mm O.D. tubing. Includes (2) S74761 general-purpose cutter wheels.
206-FBP	Pipe cutter for 40 PVC pipe up to 2". Includes one cutter wheel for PVC S10000770 and one general-purpose cutter wheel S74761.
406-FA	Pipe cutter for 2" to 4-1/8" and 51 mm to 104 mm O.D. tubing. Includes (2) S74833 general-purpose cutter wheels.



406-FA

206-FB



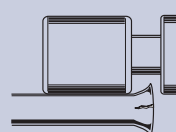
### RATCHET FEED

Ratchet release opens cutter instantly to maximum size.



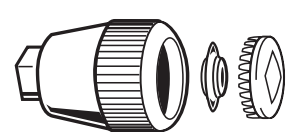
### RATCHET FEED

Push on handle to slide cutting wheel to tubing. Rotate handle for fine adjustment.



### FLARE CUT-OFF GROOVE

Wide flare cut-off groove in rollers to accommodate flares on large size tubing.



### SPARE CUTTING WHEEL

Spare cutting wheel included in handle under snap-off cap.



## LEVER-TYPE BENDERS

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

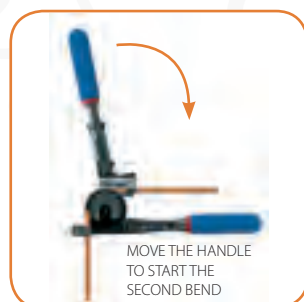
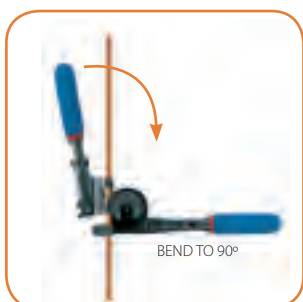
- Bends 3/16", 1/4", 5/16" and 3/8" O.D. tubing.
- Patented, quick-action indexing lever allows the repositioning of the two-stage handle midway through the bend.
- Allows the easy fabrication of bends up to 180° with reduced effort, better control and no crossing of the handles!
- Optimum bending radius for each size of tubing.
- Calibrated markings – for making accurate left-hand, right-hand and offset bends.
- Compact design.
- Cushion grips – for comfort and stability.
- Made of lightweight, die-cast aluminium.



Part No.	Description
470-FH	Tube Bender 3/16", 1/4", 5/16" and 3/8" O.D. tubing.

470-FH

TUBE O.D. (in.)	RADIUS TO CENTER OF TUBE (in.)
3/16	7/16
1/4	9/16
5/16	11/16
3/8	15/16





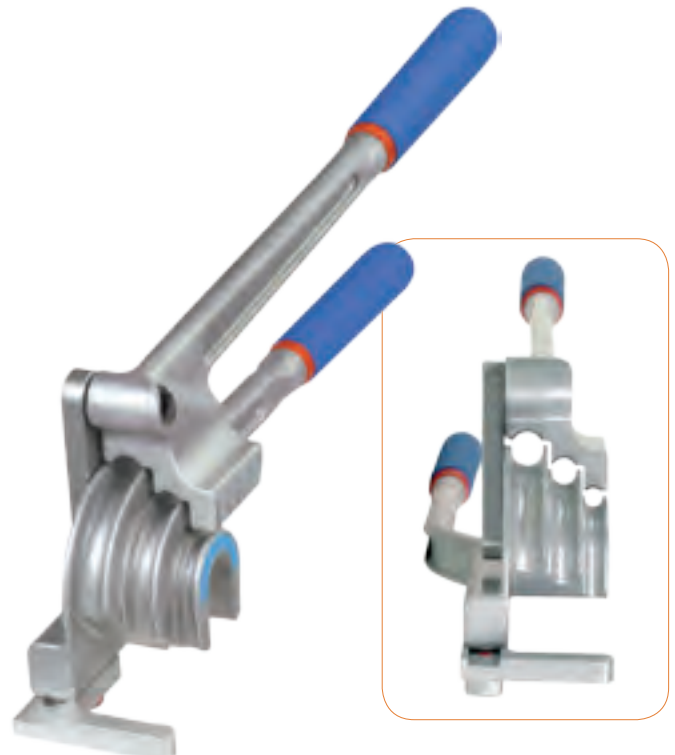
## TRIPLE HEAD 180° TUBE BENDER

- Bends 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 size of tubing.
- Cushion grips - for extreme comfort.
- Made of lightweight die-cast aluminium.

TUBE O.D. (in.)	RADIUS TO CENTER OF TUBE (in.)
1/4	11/16
3/8	1-1/8
1/2	1-1/2

Part No.	Description
370-FH	Tube Bender for 1/4", 3/8" and 1/2" tubing.

**Bend 3 of the most popular sizes of soft copper, aluminium and thin wall steel tubing with one rugged, precise tool!**



370-FH

## IMP™ TRIPLE HEAD BENDERS

- For soft copper, aluminium and thin wall steel tubing.
- For 3/16", 1/4", 5/16", 3/8" O.D. tubing.
- Makes up to 90° bends.
- Calibrated markings for making accurate left-hand, right-hand and offset bends.
- Ninety degree start requires less effort – making bending fast and easy.
- Designed for soft copper, aluminium and steel.

Part No.	Description
368-FH	Tube Bender for 3/16", 1/4", 5/16" and 3/8" (6 mm and 8 mm) O.D. tubing.



368-FH

## LEVER-TYPE TUBE BENDERS

For 5/8" to 7/8" O.D. tubing

- Each of these tools will make smooth, tight radius bends up to 180° with minimum effort, with no scoring or flattening of the tubing.
- They also feature calibrated measurements to enable accurate bends, whilst a wide hook grips the tubing securely.
- All models features an open-side, enabling the user to slip them over the tube at any point.

Tube o.d. (In.)	Radius to center of tube (in.)
5/8	2-1/4
3/4	3
7/8	3

Each tool bends only one size.  
For bending annealed copper and aluminium tubing only.

Part No.	Description
364-FHA-10	Tube Bender for 5/8" O.D. tubing.
364-FHA-12	Tube Bender for 3/4" O.D. tubing.
364-FHA-14	Tube Bender for 7/8" O.D. tubing.

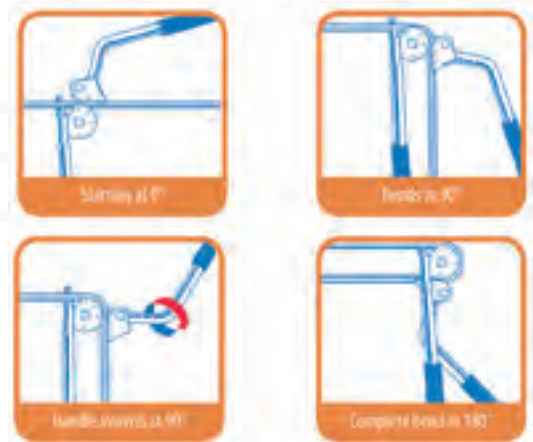


## SWIVEL LEVER-TYPE TUBE BENDER

For 1/2" O.D. tubing

- The patented 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 for the 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.

Part No.	Description
364-FHB-08	Tube Bender for 1/2" O.D. tubing.



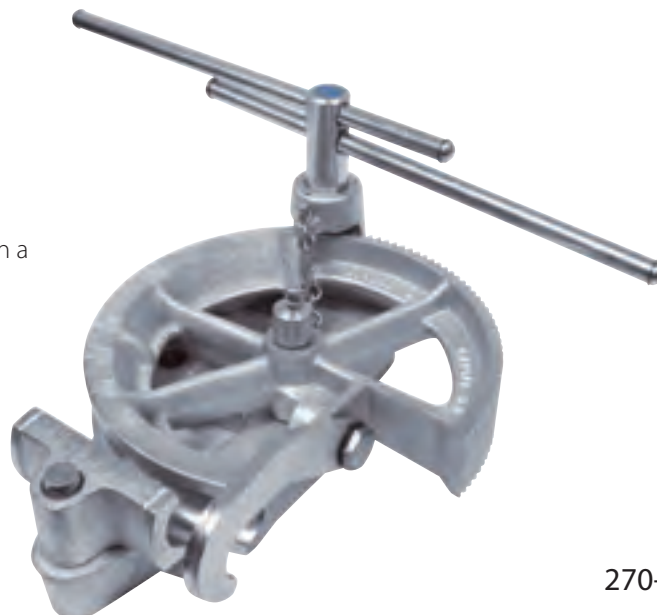


## GEAR TYPE BENDERS

### 270-F GEAR TYPE TUBE BENDER

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

Spur-gear type tube bender with a 10-to-1 ratio for easy bending of all tempered tubing. Floating shoe aligns the tube perfectly on the calibrated forming wheel. The pin on the wheel speeds up repositioning for bends over 90°. Can be used hand held, clamped in a vise or bolted to bench.



270-F

**271-F**

Pipe vise extension (fits all 270-F Benders). For use when clamping bender in pipe vise. Wt. 1.75 lbs.

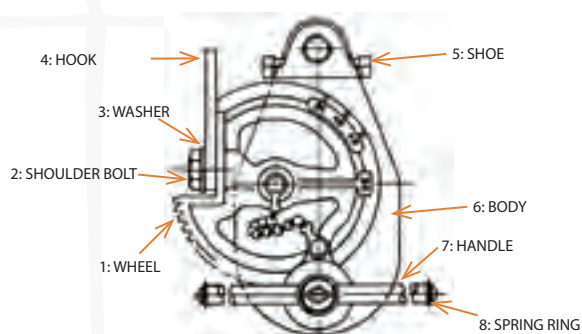
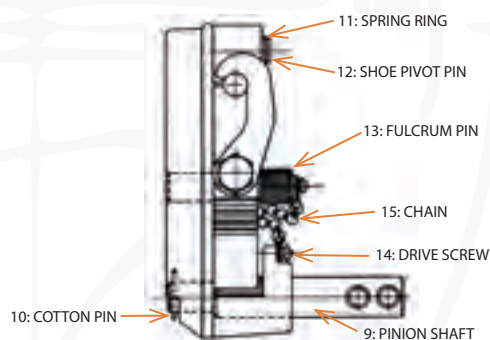


Part No.	TUBE O.D. (in.)	RADIUS FROM CTR. TO CENTER OF TUBE (in.)	MIN. RETURN FROM CENTER TO CENTER OF TUBE (in.)	WEIGHT EACH (lbs.)	WALL THICKNESS (in.)
270-F-06	3/8	1-3/4	4-1/2	3	.030 to .060
270-F-08	1/2	2-1/2	6	4.75	.035 to .065
270-F-10	5/8	3	7-1/2	8.5	.040 to .072
270-F-12	3/4	4	9-1/2	15	.042 to .083
270-F-14	7/8	4	9-1/2	14.75	.045 to .083
270-F-16	1	4	9-1/2	14.75	.065 to .095
270-F-18	1-1/8	4	9-1/2	14.75	.065 to .095

## REPLACEMENT PARTS

For Imperial 270-F Gear Type Tube Benders

Each tool bends only one size.



CATALOG NUMBER	size (in.)	1 part no.	2 part no.	3 part no.	4 part no.	5 part no.	6 part no.	7 part no.	8 part no.	9 part no.	10 part no.	11 part no.	12 part no.	13 part no.	14 part no.	15 part no.
270-F-06	3/8	S62244	S62245	S62246	S62247	S62250	S62251	S62252	S62253	S62254	S62255	S62257	S62258	S62838	S62836	S62839
270-F-08	1/2	S62261	S62264	S62246	S62263	S62262	S62260	S62269	S62253	S62268	S62255	S62266	S62265	S62840	S62836	S62839
270-F-10	5/8	S62275	S62280	S62279	S62278	S62277	S62276	S62284	S62285	S62283	S62255	S62281	S62282	S62841	S62836	S62842
270-F-12	3/4	S62305	S62294	S62298	S62307	S62306	S62288	S62292	S62297	S62291	S62255	S62296	S62295	S62835	S62836	S62837
270-F-14	7/8	S62302	S62294	S62298	S62304	S62303	S62288	S62292	S62297	S62291	S62255	S62296	S62295	S62835	S62836	S62837
270-F-16	1	S62299	S62294	S62298	S62301	S62300	S62288	S62292	S62297	S62291	S62255	S62296	S62295	S62835	S62836	S62837
270-F-18	1-1/8	S62287	S62294	S62298	S62290	S62289	S62288	S62292	S62297	S62291	S62255	S62296	S62295	S62835	S62869	S62837



## 45° FLARING TOOLS

### 45° FLARING TOOLS

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

- Designed to flare 7 sizes of tubing.
- Features a rugged forged steel slip-on yoke and hardened flaring bar.
- The positive clamping action of the bars prevents tube slippage.
- The flaring tool also incorporates a self-centering yoke with swivel-type, hardened steel, flaring cone which forms better flares with less effort.
- The design of the yoke enables flaring where there is little space between the nut and tube end.
- Satin finish nickel-chrome plated.



195-FC

Tube O.D. (in.)	3/16	1/4	5/16	3/8	7/16	1/2	5/8
Wall Thickness (in.)	.028	.035	.035	.035	.035	.035	.035

Part No.	Description
195-FC	45° flaring tool for 3/16", 1/4", 5/16", 3/8", 7/16", 1/2" and 5/8" O.D. tubing.

### 45° LARGE SIZE FLARING TOOLS

- Designed to flare larger tube sizes.
- Features a quick slip-on yoke with hard chrome-finished, swivel flaring cone which forms better flares with less effort.
- The positive clamping action of the flaring bar eliminates tube movement.
- Nickel chrome finish.



Tube O.D. (in.)	1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4
Wall Thickness (in.)	.025	.028	.035	.035	.035	.035	.035	.049	.049

Part No.	Description
375-FS	45° large size flaring tool for 1/8", 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 5/8" and 3/4" O.D. tubing.

## 45° ROL-AIR FLARING TOOL

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

- Features a faceted, hardened steel, chrome-finished cone which rolls out perfect 45° flares above the die block.
- The cone automatically burnishes the flare face, reducing the need for deburring.
- The 500-FC maintains the original wall thickness at the base of the flare.
- The slip-on yoke permits it to be used in tight quarters, where there is little space between the nut and tube end.
- Large handle, gives better leverage, and precision threads on the feed screw make flaring effortless.
- Satin chrome and black finish.



500-FC

Tube O.D. (in.)	3/16	1/4	5/16	3/8	1/2	5/8
Wall Thickness (in.)	.028	.035	.035	.035	.035	.035

Part No.	Description
500-FC	45° ROL-AIR flaring tool for 3/16", 1/4", 5/16", 3/8", 1/2" and 5/8" O.D. tubing.



The flares are rolled out above the die bar by a super-smooth faceted cone. Resulting in stronger flares.

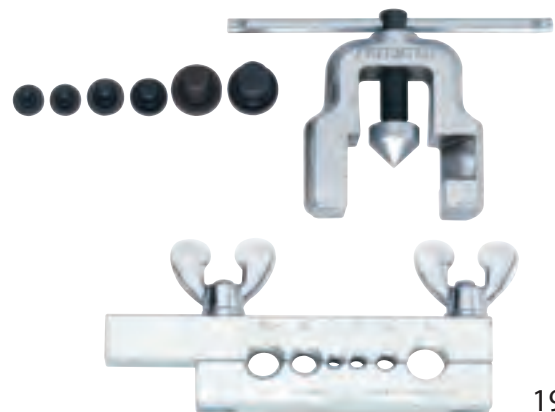


Unique mechanism for the quick engagement and release of the die block

## 45° DOUBLE FLARING TOOL

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

- Designed for use on automotive air-conditioning.
- Makes double flares in soft copper or aluminium tubing (wall thicknesses up to .035").
- Easy to operate, ball bearing swivel-type, with a hard chrome-finished flaring cone.
- Quick slip-on yoke. Flaring bar offers a positive grip of the tubing.
- The 195-FB is also able to make single flares.
- Includes a metal case.



195-FB

Part No.	Description
195-FB	45° double flaring tool for 1/4", 5/16", 3/8", 1/2", 5/8" and 3/4" O.D. tubing.



## FLARING (45°) & SWAGING TOOL

For 1/8" to 3/4" and 4 mm to 22 mm O.D. tubing.

- The 275-FS is a versatile tool which flares and swages.
- Converting between the two is quick and easy with its interchangeable, hardened steel chrome finished, swivel-type swaging adapters and flaring cone.
- Two bars are included, covering 9 pipe sizes in total.
- Due to its compact size, it is ideal for use in close quarters.
- The 275-FS is also self centering and features a slip-on forged steel yoke.
- Supplied in a tool case.



275-FS

Part No.	Description
275-FS	Kit for flaring 1/8", 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 5/8" and 3/4" O.D. Includes 5 swage adapters that swage 7 tube sizes 3/16", 1/4", 5/16", 3/8", 1/2", 5/8", 3/4" O.D.

Tube O.D (in.)	1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4
Wall Thickness (in.)	.020	.028	.035	.035	.035	.035	.035	.035	.035

### Spares

278-FS-03	Adapter 3/16"
278-FS-04	Adapter 1/4"
278-FS-05	Adapter 5/16"
278-FS-06	Adapter 3/8"
278-FS-08	Adapter 1/2"
278-FS-10	Adapter 5/8"
278-FS-12	Adapter 3/4"
S38600	Flaring Cone



## 37° FLARING TOOLS

### 37° ROL-AIR™ FLARING TOOL

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

- The 400-F forms 37° flares in steel, stainless steel, titanium and other metal tubing.
- A positive stop gauge on the 400-F assures the correct size of flare.
- Whilst a special burnishing action polishes the flare face, reducing the need for deburring.
- Three rollers in the flaring cone, roll out a 37° flare above the die block.
- The roller action cuts the effort required; maintains the original wall thickness and eliminates the stress concentration.
- The 400-F also features an extension on the yoke, enabling it to be clamped in a vise.
- Satin chrome and black finish.
- Supplied in a sturdy tool case.



400-F

Tube O.D. (in.)	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"
Wall Thickness (in.)	.035	.049	.065	.065	.065	.065

Part No.	Description
400-F	37° ROL-AIR™ flaring tool for 3/16", 1/4", 5/16", 3/8", 1/2" and 5/8" O.D. tubing.

## 37° FLARING TOOL

For 6mm, 8mm, 10mm, 12mm, 15mm and 16mm O.D. tubing.

- The 507-FBM features a faceted, hardened steel, chrome-finished cone which rolls out perfect 37° flares above the die block.
- The cone automatically burnishes the flare face, reducing the need for deburring.
- The 507-FBM maintains the original wall thickness at the base of the flare.
- The slip-on yoke permits it to be used in tight quarters, where there is little space between the nut and tube end.
- Large handle, gives better leverage, and precision threads on the feed screw make flaring effortless.
- Satin chrome and black finish.



507-FBM

Part No.	Description
507-FBM	37° flaring tool for 6mm, 8mm, 10mm, 12mm, 15mm and 16mm O.D. tubing.

Tube O.D. (mm)	6	8	10	12	15	16
Wall Thickness (mm)	1	1	1	1	1	1

## LARGE SIZE 37° ROL-AIR™ FLARING TOOL

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

- Three rollers in the flaring cone, roll out a 37° flare above the die block.
- Designed to flare soft steel, copper, aluminium and fully annealed stainless steel tubing.
- The roller action cuts the effort required; maintains the original wall thickness and eliminates the stress concentration.
- A feed release and burnishing action enables the cone to spin, polishing the flare, without applying any additional downward pressure.
- The 537-F also features an extension on the yoke, enabling it to be clamped in a vise.
- The heat treated dies will clamp tubing without marking it.
- Satin chrome and black finish.
- Supplied in a tool case.



537-F

Part No.	Description
507-FBM	Large size 37° ROL-AIR flaring tool for 3/4", 7/8", 1" and 1-1/4" O.D. tubing.

Tube O.D. (in.)	3/4"	7/8"	1	1-1/4"
Wall Thickness (in.)	0.65	0.65	0.65	0.83





## SWAGING TOOLS

### PUNCH TYPE SWAGING TOOLS

- Imperial swaging tools enables engineers to make tubing connections without fittings. The swaging tool allows the engineer to enlarge the end of the tube, allowing another tube of original O.D. size to be inserted. The two can then be brazed together, creating the connection.
- Multipack contains 4 swaging punches 1/4", 3/8", 1/2" and 5/8" O.D. tubing.

Part No.	Description
193-S	Swaging tool multipack contains 4 swaging punches 1/4", 3/8", 1/2" and 5/8" O.D. tubing.

#### Spares

92-S-03	Swaging Punch for 3/16" O.D tubing
93-S-04	Swaging Punch for 1/4" O.D tubing
93-S-05	Swaging Punch for 5/16" O.D tubing
93-S-06	Swaging Punch for 3/8" O.D tubing
93-S-08	Swaging Punch for 1/2" O.D tubing
93-S-10	Swaging Punch for 5/8" O.D tubing
93-S-12	Swaging Punch for 3/4" O.D tubing
93-S-14	Swaging Punch for 7/8" O.D tubing



193-S

Tube O.D (in.)	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"
Wall Thickness (in.)	.028	.035	.035	.035	.035	.035	.035	.045

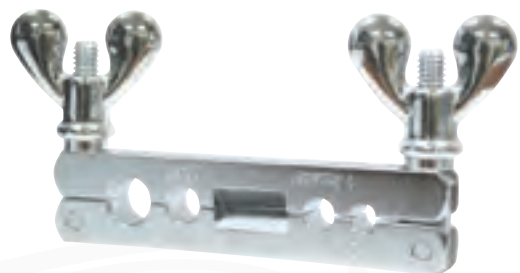


## TESTING AND SERVICE TOOLS

### PINCH-OFF TOOL

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

- Temporarily closes soft copper, aluminium or steel tubing so no liquid or gas passes the sealed part. Lets you disconnect the line whilst making repairs without the loss of liquid or gas.
- Features forming holes for 1/4", 3/8" and 1/2" O.D. tubing, allowing the flow to be restored after the repair has been made.



105-FF

Part No.	Description
105-FF	Pinch-Off Tool for 1/4", 5/16", 3/8" and 1/2" O.D. tubing.

### WRENCHES

For Refrigeration and Air Conditioning Service

Wrenches for:

- Hard to reach compressor access valves.
- Dust caps on access valves.
- Oil check plugs on compressors.
- Compressor mounting bolts.
- Valve stem and service valves.
- Old style compressor valves.
- Valve refrigerant charging tanks.



127-C



127-CO



124-CO

Part No.	Description
127-C	Compressor access valve wrench. Chrome plated. Has 1/4", 3/8", 3/16" and 5/16" square drive ratchets.
127-CO	Compressor access valve wrench. Chrome plated. Has 1/4", 3/8", 3/16" and 5/16" square drive ratchets. Features 25° offset for hard to reach places.
124-C	Combination air conditioning and refrigeration service wrench - 9/16" & 1/2" hex, 1/4" & 3/16" square.

## DEBURRING TOOL

- The rotary style blade is perfect for removing burrs from the inside edge of pipe.
- The large ergonomic handle makes the tool easy to use and reduces user fatigue.
- The 210-F features a handy internal storage cavity for up to two extra blades.
- It is ideal for use on copper, steel, aluminium, zinc, cast iron, brass and plastic tubing.
- An extra reamer blade is included and is stored inside the handle.
- Length 5-3/4". Wt. 1.5 oz.

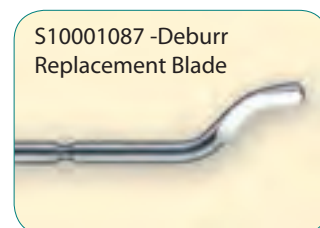
Part No.	Description
210-F	Deburring tool

### Spares

S10001087	Deburr replacement blade
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210-F



S10001087 -Deburr Replacement Blade

## INNER-OUTER REAMING AND DEBURRING TOOLS

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

- Reams both the inside and outside edges of tube with 3 hollow ground cutters.
- Tough die cast body.
- Deburrs both clockwise and counterclockwise.
- Fluted body is shaped to fit comfortably in the hand.

Part No.	Description
208-F	Reamer for copper, aluminium and brass tubing. Hardened steel cutter blades. Blue finish.
208-FSS	Reamer for aircraft grade stainless steel tubing, hard or soft copper, aluminium, brass and steel tubing. Tungsten hardened tool steel cutter blades. Black finish.



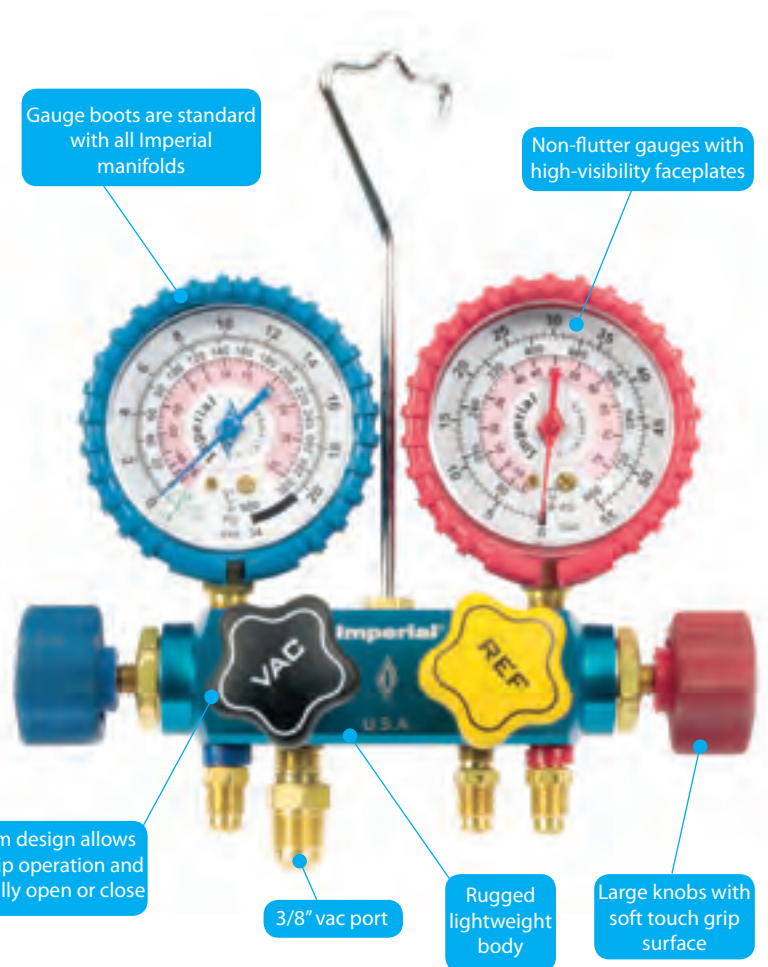
208-F



## SERVICE MANIFOLDS

### 600 SERIES 4-VALVE MANIFOLD

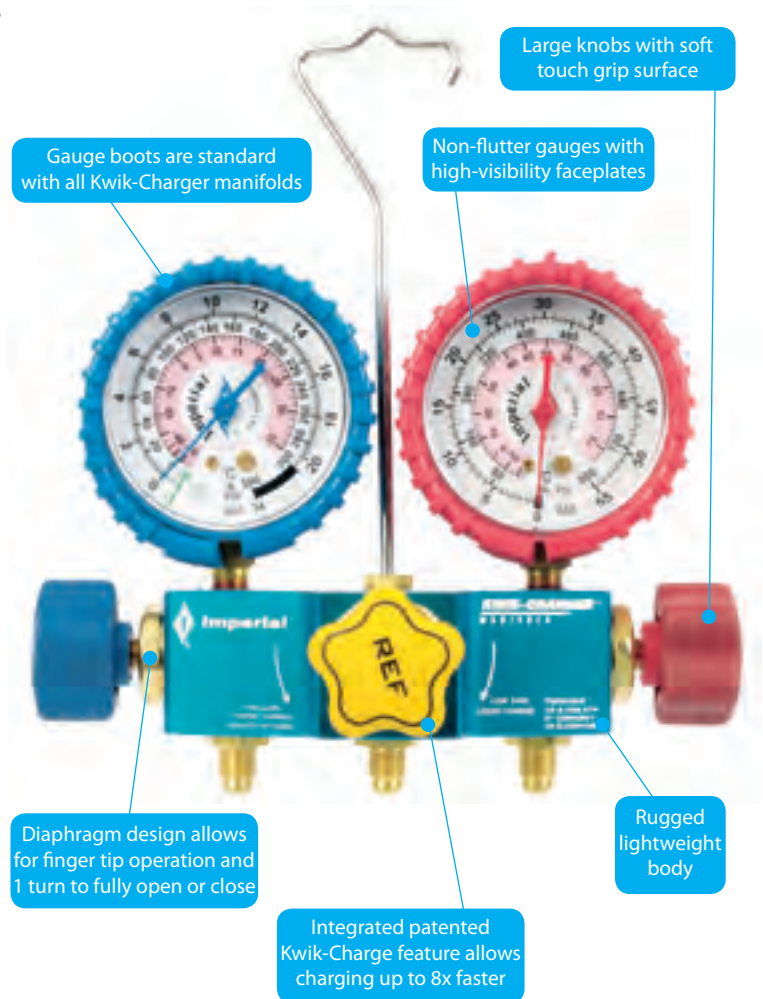
- 4-Valve Efficiency - Vacuum, low side, high side, and refrigerant lines are individually connected and controlled. No need to switch charging lines.
- 4 Times Faster Evacuation - 3/8" vacuum port and oversize internal passages evacuate systems four times faster than ordinary manifolds. 3/8" port has 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.
- Precision Gauges & Protective Boots - Unique gauges provide superior resistance to shock, vibration & pulsation for accurate performance and extended gauge life.
- UL® Recognized - The 600 Series manifold is recognized by UL.
- Ergonomic Handles - Durable, soft-touch non-slip surface, even with oily fingers.
- Swivel Hanger
- PSI & BAR



Part No.	Description
660-CB	600 Series Manifold for R-404, R-407C & R-134a.
640-CB	600 Series Manifold for R-410a.

## 700 SERIES KWIK-CHARGE™ MANIFOLD

- Charging the system is even faster and easier with Imperial® manifolds with built-in Kwik-Charge™.
- Dual Action Valve - Operates as a conventional manifold, or with the Kwik-Charge valve engaged the manifold accepts liquid refrigerant from the cylinder and discharges into the low side of the system. Charging rate are up to eight times faster than with standard vapor charging.
- Safe - An internal metering element reduces the liquid flow to a level below the capacity of the compressor. Assuring a safe, fast charge without damaging the compressor.
- No pressure drop in the cylinder - No need to heat the refrigerant cylinder.
- Works with all Refrigerants - CFC, HFC, HCFC, Zeotropic and Azeotropic.
- Filters in all the manifold port fittings - To keep out particulate materials that may be present in the refrigerant during recovery or reclaim. The filters are easily serviceable.
- Deep Vacuum Valve Design - Proven diaphragm-type, soft seat valves require only fingertip pressure to close completely. One turn to full open/close.
- Precision Gauges & Protective Boots - Unique gauges provide superior resistance to shock, vibration & pulsation for accurate performance and extended gauge life.
- Ergonomic Handles - Durable, soft-touch non-slip surface, even with oily fingers.
- Swivel Hanger
- PSI & BAR



Part No.	Description
740-CBC	700 Series Kwik-Charge Manifold for R-404, R-407C & R-134a.
745-CBC	700 Series Kwik-Charge Manifold for R-410a.



## CHARGING & RECOVERY TOOLS

### KWIK-VISE™ REFRIGERANT RECOVERY TOOL

- The Kwik-Vise™ pierces, seals and locks onto copper lines in one swift motion. It is self-adjusting, with no need to alter the tool for different sizes of tubing.
- It also features the patented tension system which automatically locks the pliers onto 1/4" to 1/2" (6 mm-12 mm) copper tubing.
- To use, simply position the Kwik-Vise™ onto the tubing to be pierced. Close the pliers quickly and firmly. The pliers will automatically adjust and lock into a tightly sealed, secure position.
- Replaceable hardened, stainless steel pierce and brass valve assembly (S16002045).
- Compatible with copper tubing 1/4" to 1/2" (6mm-12mm).
- Durable: made with high-carbon, heat treated steel jaws for a long service life.
- Works with all refrigerants CFC, HFC, HCFC and Zeotropic, Azeotropic.
- 90° elbow valve eliminates tangling and interference problems.



Part No.	Description
PT109	Kwik-Vise Refrigerant Recovery Tool

## KWIK-CHARGE™

- The Kwik-Charge accepts liquid refrigerant from the cylinder and discharges it into the low side of the system. This results in charging rates which are up to eight times faster than vapor charging.
- In addition, liquid charging is required when using R-410A and other blended refrigerants.
- The Kwik-Charge is simply attached to the low side of the charging manifold. The charging hose is connected from the Kwik-Charge outlet to the low side of refrigeration system.
- An internal metering element within the Kwik-Charge reduces the liquid flow to a level below the capacity of the compressor, assuring a safe, fast charge without damaging the compressor.
- A built-in ball check valve automatically opens when drawing a vacuum to assure rapid, unrestricted evacuation.
- The Kwik-Charge can be used with all fluorinated hydrocarbon refrigerant systems.
- Up to 8 times faster than vapor charging.
- No need to heat the refrigerant cylinder.
- Built-in check valve opens for drawing an unrestricted vacuum.
- No pressure drop in the cylinder.

Part No.	Description
535-C	Kwik-Charge 1/4" female SAE flare inlet, 1/4" male SAE flare outlet.

CONNECTION TO MANIFOLDS  
(connect all hoses as usual)



2-Valve Manifold: Connect the Kwik-Charge™ to the low side fitting with the arrow pointing downward.



Kwik-Charge™ can be connected to a refrigerant cylinder rather than a manifold.



4-Valve Manifold: Unscrew the Kwik-Charge™ end fitting & reverse it, then connect it to the refrigerant fitting as shown in the diagram (flow arrow on the body must point upwards).



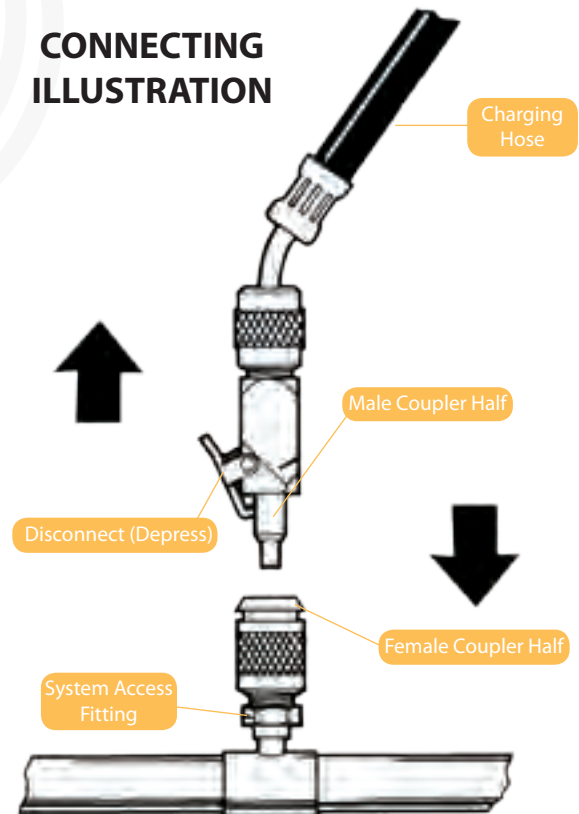
## KWIK-COUPLER™ - SERVICE HOSE SHUT-OFF

- Kwik-Couplers are intended for use with refrigeration and air-conditioning service hoses, enabling fast and simple connection to access fittings.
- Eliminates hazardous discharge of refrigerant and oil from the system when disconnecting the hose.
- Kwik-Couplers simplify the operation of charging refrigerant systems.
- Due to their 'No Refrigerant Loss' operation, Kwik-Couplers will prevent finger burns when connecting or disconnecting.
- Core depressors in the hose ends are no longer necessary - speeding up the servicing of systems with hand valves.
- The coupler halves can be separately connected to the access fitting and the hose end. Then the easy push on connection will automatically open or close the system.

Part No.	Description
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.
26-C	Straight Coupler (45° Flare) 5/16" female x 5/16" male.
27-C	90° Elbow Coupler (45° Flare) 5/16" female x 5/16" male.



### CONNECTING ILLUSTRATION



**WARNING:** Do not allow any refrigerant cylinder, connected for charging, to be exposed to system high side pressure cylinder - explosion could result!



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**Advanced Engineering Limited,**  
Guardian House, Stroudley Road,  
Basingstoke, Hampshire,  
RG24 8NL, UK  
+44 (0)1256 460300  
[sales@advancedengineering.co.uk](mailto:sales@advancedengineering.co.uk)  
**[www.advancedengineering.co.uk](http://www.advancedengineering.co.uk)**