










Tubing Cutters

Tubing Cutter Selection

Pipe Cutter		Page No.	Diameter	Material / Diameter			
				Steel / Stainless	Copper	Aluminum	Plastic/PVC
Close Quarters Tubing Cutters		3.14	¼" - 1½"	•	•	•	
2-in-1 Close Quarters AUTOFEED™ Cutter		3.15	¼" - 1½"	•	•	•	
Constant Swing Tubing Cutters		3.15	½" - 1¾"	•	•	•	
Enclosed Feed Tubing Cutters		3.16	¼" - 2¾"	•	•	•	
Quick-Acting Tubing Cutters		3.16	¼" - 6¾"	•	•	•	•
Screw Feed Tubing Cutters		3.17	½" - 3½"	•	•	•	
Internal Tubing Cutters		3.17	2-4	•	•	•	•
Stainless Steel Duty Tubing Cutters		3.17	¾" - 2½"	•	•	•	
Plastic Pipe Cutters		3.19-3.21	½" - 1½"				•



Close Quarters Tubing Cutters

Specifically designed for use in restricted spaces on small diameter, hard and soft copper, aluminum, brass and plastic tubing.

- Rollers include grooves for close-to-flare cuts.
- Strong, lightweight slide and wheel housing, and large knurled feed screw knob give easy control of cutting pressure for clean cuts.
- Models 117 and 118 include a self-feeding cutter wheel that automatically cuts after tightening the knob only once (AUTOFEED®).
- The Model 118 features a special knob for easier tightening of the feedscrew.

Catalog No.	Model No.	Description	Std. Wheel	Capacity		Weight		Std. Pack
				in.	mm	lb.	kg	
40617	101*	Close Quarters Cutter	E-3469	1/4 - 1 1/8	6 - 28	1/2	0.23	6
32975	103	Close Quarters Cutter	E-3469	1/8 - 5/8	3 - 16	1/3	0.15	6
32985	104	Close Quarters Cutter	E-3469	3/16 - 15/16	5 - 24	1/3	0.15	6
97787	117*	2-in-1 Close Quarters AUTOFEED Cutter	E-3469	3/16 - 15/16	5 - 24	1/3	0.15	12
86127	118*	Close Quarters AUTOFEED Cutter Only	E-3469	1/4 - 1 1/8	6 - 28	5/8	0.26	6

*Models 101, 117 and 118 include spare cutter wheel in knob

(TOOL TIP)

For best cutting results, change the cutter's wheel pin at least once for every two cutter wheel replacements.

Tubing Cutters



2-in-1 Close Quarters AUTOFEED™ Cutter

The RIDGID® Model 118 Close Quarters AUTOFEED™ Cutter can now be enhanced with a ratchet handle that allows for easier cutting in tight, restricted spaces. Of rugged and compact design, the handle can be attached to the cutter and operated in ratchet steps as small as 10 degrees. This allows for fine indexing of the cutter to operate in tight spaces. The new ratchet handle allows more flexibility and mobility while keeping the AUTOFEED features of the model 118 Cutter, which is designed to cut hard and soft copper, aluminum and brass.

- Featuring the NEW 2-in-1 Close Quarters Cutter where the cutter can be used alone or with the ratchet handle, a light and ergonomic accessory to help use the cutter in tight and restricted spaces.
- Easy to use in hard-to-reach areas because the knob only needs to be tightened once.
- Adjustable to any size from 1/4" – 1 1/8" (6-28 mm) OD.
- Tubing cutter comes with a spare E-3469 Cutter Wheel in knob.
- New football-shaped knob in the cutter.
- Ratchet handle also compatible with Model 101 tubing cutter.

Catalog No.	Model No.	Description	Capacity		Weight		Std. Pack
			in.	mm	lb.	kg	
32573	118	2-In-1 Close Quarters Quick-Feed Cutter with Ratchet Handle	1/4 - 1 1/8	6 - 28	1 1/16	0.48	1
86127	118	Close Quarters AUTOFEED Cutter Only	1/4 - 1 1/8	6 - 28	5/8	0.26	6
32933	118	Ratchet Handle Only for 101 and 118 Tubing Cutter	-	-	5/8	0.26	1



Constant Swing Tubing Cutters

- Features an enclosed feed screw to eliminate clogging and jamming, grooved rollers for close-to-flare cuts, and a fold-away reamer.
- X-CEL Knob – cut tubing more quickly and easily with our larger, more ergonomic designs.
- X-CEL Wheel Pin – change your cutter wheel quickly using our new ball detent design...no tool needed...no lost clips!
- Spare cutter wheel included in the knob.
- Made from high-strength zinc alloy.
- Cuts copper, brass, and aluminum tubing and thin-wall conduit.

Catalog No.	Model No.	Description	Std. Wheel	Capacity Range		Weight		Std. Pack
				in.	mm	lb.	kg	
31622	150	Constant Swing Cutter	E-3469	1/8 - 1 1/8	3 - 28	1	0.44	6
31627	150	Above w/H-D Wheel(s)	E-4546	1/8 - 1 1/8	3 - 28	1	0.44	6
66737	150-L	Constant Swing Cutter	E-3469	1/8 - 1 3/8	3 - 35	1	0.44	6
66742	150-LS	Above with Heavy Duty Wheel	E-4546	1/4 - 1 3/8	6 - 35	1 1/8	0.47	6

PIPE/TUBE CUTTING & PREPARATION

Tubing Cutters

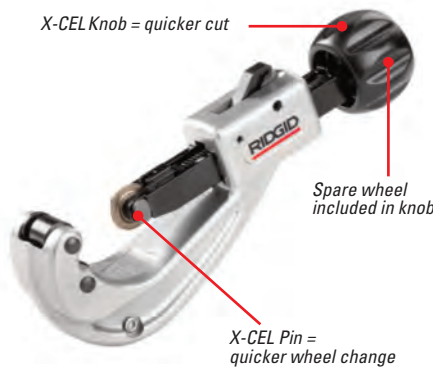


Enclosed Feed Tubing Cutters

- Features an enclosed feed screw to eliminate clogging and jamming.
- X-CEL Knob - cut tubing more quickly and easily with our larger, more ergonomic designs.
- X-CEL Wheel Pin - change your cutter wheel quickly using our new ball detent design..no tool needed.. no lost clips!
- Grooved rollers for close-to-flare cuts.
- Spare cutter wheel included in the knob.
- Fold-away reamer.
- Made from high-strength zinc alloy.
- Cuts hard / soft copper, aluminium, brass and multilayer tubes.

Catalog No.	Model No.	Description	Std. Wheel	Capacity		Weight		Std. Pack
				in.	mm	lb.	kg	
33055	205	Ratcheting Encl. Feed Cutter	E-3469	1/4 - 2 3/8	6 - 60	2	0.91	1
33070	205S*	Above with Heavy Duty Wheel	E-4546	1/4 - 2 3/8	6 - 60	2	0.91	1

*Model 205S is suitable for Stainless Steel



Quick-Acting Tubing Cutters

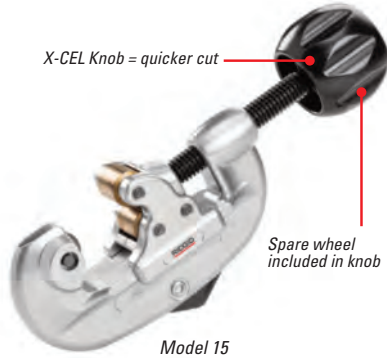
- Models 151-156 feature a quick-acting design, I-beam construction, hardened wear surfaces and thrust bearing slide assemblies for smooth operation.
- X-CEL Knob - cut tubing more quickly and easily with our larger, more ergonomic designs.
- X-CEL Wheel Pin - change your cutter wheel quickly using our new ball detent design..no tool needed.. no lost clips!
- Available in models for plastic pipe or metallic tubing.
- Models 151 and 152 feature fold-away reamers.
- Model 151-ML is suitable for cutting multilayer tubing.

Catalog No.	Model No.	Description	Std. Wheel	Capacity		Weight		Std. Pack
				in.	mm	lb.	kg	
31632	151	Quick-Acting Cutter	E-3469	1/4 - 1 7/8	6 - 42	1 1/4	0.56	6
31637	151-P	Above w/Wheel For Plastic	E-2155	1/8 - 1 1/4	10 - 40	1 1/4	0.56	6
66747	151-ML	Quick-Acting Tubing Cutter	E-545	1/8 - 1 1/2	10 - 50	1	0.50	1
31642	152	Quick-Acting Cutter	E-3469	1/4 - 2 5/8	6 - 66	2	0.92	1
31647	152-P	Above w/Wheel For Plastic	E-2155	1/4 - 2	10 - 63	2	0.92	1
36597	153	Quick-Acting Cutter	E-3469	1 1/4 - 3 1/2	32 - 90	2	0.92	1
36592	153-P	Above w/Wheel For Plastic	E-2155	1 - 3	25 - 75	2	0.92	1
31652	154	Quick-Acting Cutter	E-2558	1 7/8 - 4 1/2	48 - 116	3 7/8	1.72	1
31657	154-P	Above w/Wheel For Plastic	E-2156	1 1/2 - 4	50 - 110	3 7/8	1.72	1
31662	156	Quick-Acting Cutter	E-2558	4 - 6 5/8	100 - 170	5	2.23	1
31667	156-P	Above w/Wheel For Plastic	E-2157	4 - 6	110 - 160	5	2.23	1

RIDGID® Quick-Acting plastic cutter models are equipped to easily convert to cut copper or other metallic tubing.

1. Remove spare copper cutting wheel from knob.
2. Reverse knob position so that the "Cu" notation is visible inside the knob.
3. Screw knob back on to handle.
4. Using the X-CEL Wheel Pin, you can quickly replace the existing plastic cutting wheel with the copper cutting wheel. You're now ready to cut copper, aluminum, and brass tubing.
5. When you wish to revert to plastic cutting, follow the same instructions but make sure to reposition knob so that "PE" and "PVC" notations are visible inside knob.

Tubing Cutters



Screw Feed Tubing Cutters

- Clean, square cuts are easily made on copper, brass, aluminum and thin-wall steel.
- X-CEL Knob – cut tubing more quickly and easily with our larger, more ergonomic designs.
- Models 10, 15 and 20 feature a convenient fold-away reamer.

Catalog No.	Model No.	Description	Std. Wheel	Capacity		Weight		Std. Pack
				in.	mm	lb.	kg	
32910	10	Tubing and Conduit Cutter	F-158	1/8-1	3 - 25	7/8	0.40	6
32915	10	Above w/H-D Wheel	E-1240	1/8-1	3 - 25	7/8	0.40	6
32920	15	Tubing and Conduit Cutter	F-158	3/16-1 1/8	5 - 28	1/2	0.68	6
32925	15	Above w/H-D Wheel	E-1240	3/16-1 1/8	5 - 28	1/2	0.68	6
32930	20	Tubing and Conduit Cutter	F-158	5/8-2 1/8	16 - 54	1 3/4	0.79	1
32935	20	Above w/H-D Wheel	E-1240	5/8-2 1/8	16 - 54	1 3/4	0.79	1
32940	30	Tubing and Conduit Cutter	E-2558	1-3 1/8	25 - 79	3 1/2	1.60	1
32950	30	Above w/H-D Wheel (for steel)	E-2191	1-3 1/8	25 - 79	3 1/2	1.60	1

Stainless Steel Tubing Cutters

These tubing cutters have been designed for optimized performance on Stainless Steel tube.

- A contoured frame allows for easy alignment while adjusting the cutter to make a cut.
- Ergonomic knob allows for easy adjustments.
- Six individual bearings in the 15-SI and 35S and 12 in the 65S replace traditional rollers. The bearings create a smoother cut, and allow for increased speed around the tube.
- Specially designed Stainless Steel cutter wheel in 35S and 65S contains bearings in the hub, to decrease drag around the tube for a smoother cut.



Catalog No.	Model No.	Description	Std. Wheel	Capacity		Weight		Std. Pack
				in.	mm	lb.	kg	
97212	15-SI	Stainless Steel Tubing & Conduit Cutter	E-1525	3/16 - 1 1/8	5.0 - 28.0	1 1/2	0.68	1
29963	35S	Stainless Steel Tubing Cutter	E-635	1/4 - 1 3/8	5.0 - 35.0	7/8	0.40	1
31803	65S	Stainless Steel Quick-Acting Tubing Cutter	E-635	1/4 - 2 5/8	6.0 - 65.0	1 1/2	0.68	1
29973	E635	Stainless Steel Cutter Wheel with Bearings	E-635	-	-	1/32	0.01	1
32078	151 CSST	Quick-Acting CSST Cutter	E-4546	3/8 - 1	9.5 - 25.4	1.1	0.50	6

Internal Tubing Cutters

For trimming tubing below floor level for shower/floor drain installations, or above the ceiling for sprinkler head installations.

- Model 106 features a tool steel and aluminum body while 108 and 109P have cast iron bodies.
- Each model features hardened steel rollers and cutter wheels.
- Model 109P is equipped to cut PVC or ABS plastic.




Catalog No.	Model No.	Description	Std. Wheel	Capacity		Depth		Weight		Std. Pack
				in.	mm	in.	mm	lb.	kg	
33005	106	Internal Cutter	E-2558	2 - 3	50 - 75	1/4 - 2 5/8	6 - 67	2 3/8	1.1	1
83240	108	Internal Cutter	E-2558	1 1/4 - 2	6 - 50	1/4 - 1 3/4	6 - 45	2	0.9	1
83290	109	2-Handle Internal Cutter	E-2558	2 1/2 - 4	60 - 100	1/4 - 2 1/8	6 - 54	4	1.8	1
83295	109-P	Above w/Wheel for Plastic	E-5299	2 1/4 - 4	60 - 100	1/4 - 2 1/8	6 - 54	4	1.8	1

PIPE/TUBE CUTTING & PREPARATION

Tubing Cutter Replacement Wheels

Always use genuine RIDGID® Cutter Wheels. These wheels are precision-machined from high-grade steel and are engineered for long life and maximum cutting accuracy.

Tubing Cutters (Original Product)				Catalog No.																																			
Catalog No.	Model No.	Std. Pack	Blade Exp.		32910	32920	97212	29963	31803	32078	32930	32940	32945	32955	40817-46127	101118	100104117	32975-32985-9787	33005	83240	83290	83295	31622	31632	31637	31642	31647	36597	36592	31652	31657	31662	31667	33055	93492	10973	Application/Material		
33210	E-702	1	.500																																				Heavy Wall PVC, ABS
33165	E-1240	12	.162	▲	▲	▲																									▲		▲				Steel – SS		
33200	E-1740	1	.147												▲	▲						▲		▲						▲							Soft Flexible Pipe		
74720	E-2155	1	.286																						●		●		●									PE, PB, PP, Std. & Heavy Wall	
74730	E-2156	1	.412									●																				●		▲				PE, PB, PP, Std. & Heavy Wall	
74735	E-2157	1	.500																													▲		●				PE, PB, PP, Std. & Heavy Wall	
33175	E-2191	6	.292								▲		▲																		▲		▲			●	▲	Steel Tubing	
33170	E-2558	6	.220								●		●						●	●	▲									●		●						Aluminum & Copper	
83235	E-2880	1	.747														▲	▲													▲		▲					PE, PB, PP, Std. & Heavy Wall	
33205	E-2990	1	.112	▲	▲					▲																												Steel, Aluminum & Copper	
33185	E-3469	12	.149											●	●							●	●			●								●				Aluminum & Copper	
34695	E-3495	1	.290																				▲			▲	▲							▲				Aluminum	
33190	E-4546	6	.120						●														▲		▲	▲									▲			Steel – SS	
33195	E-5272	6	.290																					▲			▲											PVC, ABS, Std. Wall	
33180	E-5299	6	.412								▲							▲	▲		●											▲		▲				PVC, ABS, Std. Wall	
33160	F-158	12	.149	●	●					●																												Aluminum & Copper	
88260	E-10279	1	.185																												▲		▲					Thin-Wall PVC	
96397	E-1525	1	.120			●																																Stainless Steel	
33551	122SS	1	.292																																▲	●		Stainless Steel	
29973	E-635	1	.120				●	●																														Stainless Steel	
33190	E-4546	1	.120						●																														Stainless Steel

● Denotes Cutter Wheels furnished with original product. ▲ Denotes alternate Cutter Wheel.

Lever Benders



300 Series Plumbing Benders

- Designed to bend K and L soft copper tubing to a maximum of 180°.
- Offset cushion grip handles and a 90° start angle, together with a specially engineered plastic shoe, combine to ease bending effort.

Catalog No.	Model No.	Description	Tube Size Capacity (actual O.D.)	Bend Radius	Weight	
			in.	in.	lb.	kg
36962	310/316M*	Lever Bender	5/8	2 1/4	6 1/2	2.86
36972	312	Lever Bender	3/4	2 7/8	7	3.13

*This product is dual-purpose, being both inch and metric.

Metric

Catalog No.	Model No.	Description	Tube Size Capacity (actual O.D.)	Bend Radius	Weight	
			mm	mm	lb.	kg
36942	310M	Lever Bender	10	42	4	1.81
36947	312M	Lever Bender	12	42	4	1.81
36952	314M	Lever Bender	14	56	6 1/2	2.86
36957	315M	Lever Bender	15	56	6 1/2	2.86
36962	310/316M*	Lever Bender	16	56	6 1/2	2.86
36967	318M	Lever Bender	18	72	7	3.13

*This product is dual-purpose, being both inch and metric.

400 Series Instrument Benders

- Designed for bending annealed copper, steel and stainless with a wall thickness less than or equal to 0.06" (1.5 mm) to a maximum of 180°.
- Offset cushion grip handles for comfort when forming 180° bends. A 90° start angle and unique oil-absorbing shoe minimize bending effort while forming accurate bends.



Imperial

Catalog No.	Model No.	Description	Tube Size Capacity (actual O.D.)	Bend Radius	Weight	
			in.	in.	lb.	kg
36117	403	Lever Bender	3/16	5/8	1 1/2	0.86
36122	404	Lever Bender	1/4	5/8	1 1/2	0.86
36092	405/408M*	Lever Bender	5/16	15/16	2 3/4	1.18
36097	406	Lever Bender	3/8	15/16	2 3/4	1.18
36132	408	Lever Bender	1/2	1 1/2	5 1/2	2.45

*This product is dual-purpose, being both inch and metric.

Metric

Catalog No.	Model No.	Description	Tube Size Capacity (actual O.D.)	Bend Radius	Weight	
			mm	mm	lb.	kg
36112	406M	Lever Bender	6	16	1 1/2	0.68
36092	405/408M*	Lever Bender	8	24	2 3/4	1.18
36102	410M	Lever Bender	10	24	2 3/4	1.18
36127	412M	Lever Bender	12	38	5 1/2	2.45

*This product is dual-purpose, being both inch and metric.

Lever Benders



Model 456 Tri-Bender

- Designed to easily bend three different sizes of soft copper tubing with the same tool. Ideal for plumbing and HVAC applications.
- A 90° start angle minimizes effort required to form a bend. Handy reference marks indicate the angle for quick bends through 90°.

Catalog No.	Model No.	Description	Capacity	Bend Radius	Weight	
			in.	in.	lb.	kg
44852	456	Tri-Bender	1/4, 5/16, 3/8	1.01, 0.98, 0.95	1 1/10	0.48

600 Series Heavy-Duty Instrument Benders

- The 'stainless steel' specialist!
- High quality bending performance on stainless steel, and other hard tubing such as steel and titanium.
- Two stage design allows for in-place bending from 90° to 180° without ever crossing handles. Lock/unlock with a half turn rotation of the bending handle.
- Extra long 16" (40 cm) handles increase leverage and roll dies in the bending form reduce force needed.
- Vise clamp built into bending form for extra stability.



Imperial

Catalog No.	Model No.	Description	Tube Size Capacity (actual O.D.)	Bend Radius	Weight	
			in.	in.	lb.	kg
38028	603	Heavy-Duty Instrument Bender	3/16	5/8	1 3/4	0.78
38033	604	Heavy-Duty Instrument Bender	1/4	5/8	1 3/4	0.76
38038	605/608M*	Heavy-Duty Instrument Bender	5/16	15/16	4	1.84
38043	606	Heavy-Duty Instrument Bender	3/8	15/16	4	1.84
38048	608	Heavy-Duty Instrument Bender	1/2	1 1/2	6	2.76

**This product is dual-purpose, being both inch and metric.

Metric

Catalog No.	Model No.	Description	Tube Size Capacity (actual O.D.)	Bend Radius	Weight	
			mm	mm	lb.	kg
38053	606M	Heavy-Duty Instrument Bender	6	16	1 3/4	0.76
38038	605/608M*	Heavy-Duty Instrument Bender	8	24	4	1.84
38058	610M	Heavy-Duty Instrument Bender	10	24	4	1.84
38063	612M	Heavy-Duty Instrument Bender	12	38	6	2.76

**This product is dual-purpose, being both inch and metric.

Ratchet Benders



Geared Ratchet Tube Benders

- High geared mechanical ratios, bend heavy-wall steel tube (up to 1/8" wall thickness), stainless steel tube (up to 3/32" wall thickness) and hard copper water tube (types K and L).
- Benders produce uniform bends up to 180°, with no need to anneal tubing or use special temper grade tubing.
- Reduce bending effort to a minimum.

Catalog No.	Model No.	Radius Bend at Center of Tube		Tube O.D.		Weight	
		in.	mm	in.	mm	lb.	kg
35170	358	3	76	5/8	16	7 1/2	3.25
35175	368	3 3/4	95	3/4	19	13 1/2	6.25
35180	378	3 3/4	95	7/8	22	13 1/2	6.25

Swaging Tools



Swaging Tools

- RIDGID® Swaging Tools are quality-made and zinc-plated for accuracy and durability.
- Set of four tools is packaged in handy vinyl pouch.
- Designed for copper, aluminum or brass tubing.

Catalog No.	Model No.	Description	Tube Size Capacity (actual O.D.)		Weight	
			in.	mm	oz.	g
52420	570	Kit-4 Tools	-	-	16	454
52425	562	Swaging Tool	1/4	6	2	57
52430	563	Swaging Tool	3/8	10	4	113
52435	564	Swaging Tool	1/2	12	5	142
52440	565	Swaging Tool	5/8	16	8	227

Flaring Tools



Precision Ratcheting Flare Tools

- Flares steel, stainless steel, hard copper and brass tubing through a wall thickness of 0.035" (0.9 mm).
- Easy to use – Ratcheting handle reduces effort required especially in confined areas.
- Quick set-up – Improves productivity.
- Durable – Eccentrically mounting, hardened steel flaring cone.
- Smooth Flares – Handle clutch releases when flare is complete to iron and smooth flare.
- Versatile – Produces 45 degree flare in sizes from 1/8" - 3/4".

Model 445R

Catalog No.	Model No.	Type	Sizes (in.)	Weight	
				lb.	kg
42153	445R	45 degree SAE Flares	1/4, 3/8, 1/2, 5/8, 3/4	3 ³ / ₁₀	1.5

Model 458R Extended

Catalog No.	Model No.	Type	Sizes (in.)	Weight	
				lb.	kg
83037	458R	45 degree SAE Flares	1/8, 3/16, 1/4, 5/16, 3/8, 1/2, 5/8, 3/4	3 ⁹ / ₁₀	1.77

456R, DESIGNED FOR 410A REFRIGERANT

Catalog No.	Model No.	Type	Sizes (in.)	Weight	
				lb.	kg
70677	456R	45 degree R410A Flares	1/4, 5/16, 3/8, 1/2, 5/8, 3/4	3 1/2	1.6

Flaring Tools



345 Manual Flare Tools

- Model 345 is a precision designed tool for producing 45° flares in soft copper, brass, aluminum and mild steel tubing.
- A hardened, smooth cone provides fast, 45° flares either single or double lap.
- A single clamp screw provides for easy clamping and removal of tubing.

Catalog No.	Model No.	Description	Sizes (in.)	Weight	
				lb.	kg
23332	345	45° SAE Flares	$\frac{3}{16}, \frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}, \frac{5}{8}$	2 $\frac{3}{4}$	1.20
23337	345-DL	45° SAE-(double flares)	Above w/adapters for double lap flares; $\frac{3}{16}, \frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}$ O.D. Tubing	3	1.30
24797	345/150	45° SAE-(double flares)	No. 345 w/No. 150 Tubing Cutter and Case Kit	3 $\frac{1}{2}$	1.60
33927	345/150DL	45° SAE Flares	No. 345/DL w/No. 150 Tubing Cutter and Case Kit	3 $\frac{1}{2}$	1.60
31597	-	-	$\frac{3}{16}$ " Double Lap Adapter	-	-
31602	-	-	$\frac{1}{4}$ " Double Lap Adapter	-	-
31607	-	-	$\frac{5}{16}$ " Double Lap Adapter	-	-
31612	-	-	$\frac{3}{8}$ " Double Lap Adapter	-	-
31617	-	-	$\frac{1}{2}$ " Double Lap Adapter	-	-
31502	-	-	Case Only	-	-



Heavy Duty Flare Tools

- Recommended for aluminum and soft copper. Also flares steel, stainless steel, hard copper and brass
- This precision tool provides smooth, uniform flares with minimum effort.
- Hardened steel flaring cone, eccentrically mounted in needle bearings, produces rolling action for even metal flow, giving uniform flare walls without galling.
- Special ironing features ensures a smooth flare.

Catalog No.	Model No.	Description	Sizes	Weight	
			in.	lb.	kg
41285	375	37 degree SAE Flares	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}, 1$	6 $\frac{3}{4}$	3.1
41295	454-W	45 degree SAE- Nominal Water Tube	$\frac{3}{8}, \frac{1}{2}, \frac{3}{4}, 1$	6 $\frac{1}{4}$	2.8
41300	455	45 degree SAE Flares	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}, 1$	6 $\frac{3}{4}$	3.1