

## Hand Tube Benders – Inch

These are sturdy, easy-to-use hand tools for fast and accurate bending without kinks or visible flattening. Twelve individual sizes from -2 (1/8" O.D.) to -16 (1" O.D.) are available.

### Medium Duty Inch Hand Tube Benders

*Designed and built for fast, accurate bends and long service life.*

These are individual benders for eight inch tube sizes (1/8", 3/16", 1/4", 5/16", 3/8", 1/2", 5/8", 3/4"). All of these benders will bend copper, aluminum, annealed steel and stainless steel. These can be used in hands or mounted in a bench vise.

**HOW TO USE:** Simply align marks of the pressure arm and radius block, then bend to the desired angle (up to 180°) by pulling steadily on the slide block handle. Bend angles are indicated on the radius block, both front and back. (Detailed instructions are included with each bender.) See the table below for technical data and part numbers.

Size	Tube O.D. (in.)	Radius to Tube Centerline (in.)	Min. Wall Without Flattening (in.)	Recommended Max. Wall Thickness		Part No.
				Copper, Aluminum (in.)	Steel, Stainless Steel (in.)	
2	1/8	7/16	0.012	Any	0.032.....	<b>2-2829S</b>
3	3/16	9/16	0.020	Any	0.032.....	<b>3-2829S</b>
4	1/4	9/16	0.028	Any	0.083.....	<b>4-2829S</b>
5	5/16	15/16	0.032	Any	0.083.....	<b>5-2829S</b>
6	3/8	15/16	0.032	Any	0.083.....	<b>6-2829S</b>
8	1/2	1 1/2	0.042	Any	0.083.....	<b>8-2829S</b>
10	5/8	3	0.042	Any	0.049.....	<b>10-2829S</b>
12	3/4	3 3/4	0.049	Any	0.065.....	<b>12-2829S</b>



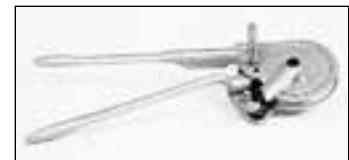
**Fig. S1 — Medium Duty Inch Hand Tube Bender**

### Ratchet Hand Tube Benders

These are individual benders for three tube sizes, 5/8", 3/4" and 7/8", in copper, aluminum, annealed steel and stainless steel. They can be used in hands or mounted in a bench vise.

**HOW TO USE:** Position the tube in the bender, close the latch and pull the ratchet handle away from radius block handle until the desired angle (up to 180°) is formed. Bend angles are indicated on the radius block. (Detailed instructions are included with each bender.) See the table below for technical data and part numbers.

Size	Tube O.D. (in.)	Radius to Tube Centerline (in.)	Min. Wall Without Flattening (in.)	Recommended Max. Wall Thickness		Part No.
				Copper, Aluminum (in.)	Steel, Stainless Steel (in.)	
10	5/8	3	0.042	Any	0.049.....	<b>10-2829</b>
12	3/4	3 3/4	0.049	Any	0.065.....	<b>12-2829</b>
14	7/8	3 3/4	0.049	Any	0.065.....	<b>14-2829</b>



**Fig. S2 — Ratchet Hand Tube Bender**

### Adjustable Handle Hand Benders

These are individual benders for three tube sizes (1/4, 3/8, 1/2). All of these benders can form accurate bends up to 180° in aluminum, copper, steel & stainless steel materials.\* These benders include rollers in the bending handle to reduce effort required for bending and they can be mounted in a bench vice.

**HOW TO USE:** Simply align marks on the slide block end of the pressure arm and radius block, then bend to the desired angle. For angles greater than 90°, the adjust-



**Fig. S3 — Adjustable Handle Hand Benders**

Dimensions and pressures for reference only, subject to change.

able handle can be used for reduced hand interference that occurs at the end of the bending operation.

\*Refer to max. wall/min. wall recommendations specified for medium duty inch benders.

Size	Tube O.D. (in.)	Radius to Tube Centerline (in.)	Min. Wall Without Flattening (in.)	Recommended Max. Wall Thickness		Part No.
				Copper, Aluminum (in.)	Steel, Stainless Steel (in.)	
4	1/4	9/16	0.028	Any	0.083 .....	<b>4-2829AH</b>
6	3/8	5/16	0.032	Any	0.083 .....	<b>6-2829AH</b>
8	1/2	1 1/2	0.042	Any	0.083 .....	<b>8-2829AH</b>

## 1" Hand Tube Bender

Part No. 16-2829

For 1" O.D. tube in soft copper and aluminum materials. This bender can be used in hands, but mounting in a bench vise is suggested, especially for heavier wall thickness tube.

**HOW TO USE:** Align marks and bend the tube to the desired angle (up to 180°) by pulling steadily on the operating handle. The handle may be re-positioned for maximum leverage. Bend angles are indicated on the radius block. (Detailed instructions are included with the bender.) See the table below for technical data and part numbers.

Size	Tube O.D. (in.)	Radius to Tube Centerline (in.)	Min. Wall Without Flattening (in.)	Recommended Max. Wall Thickness		Part No.
				Copper, Aluminum (in.)	Steel, Stainless Steel (in.)	
16	1	3 1/2	0.065	Any	Not ..... Recommended	<b>16-2829</b>



Fig. S4 — 1" Hand Tube Bender

## Hand Tube Benders – Metric

These are sturdy, easy-to-use hand tools for fast and accurate bending without kinks or visible flattening. Individual sizes in ten models from size 5mm to 25mm are available.

### Medium Duty Metric Hand Tube Benders

*Designed and built for fast, accurate bends and long service life.*

These are individual benders for six metric tube sizes (5mm, 6mm, 8mm, 10mm, 12mm and 14mm). All of these benders will bend copper, aluminum, annealed steel and stainless steel. These can be used in hands or mounted in a bench vise.

**HOW TO USE:** Simply align the marks on the slide block and radius block, then bend to the desired angle (up to 180°) by pulling steadily on the slide block handle. Bend angles are indicated on the radius block, both front and back. (Detailed instructions are included with each bender.) See the table below for technical data and part numbers.

Tube O.D. (mm)	Radius to Tube Centerline (mm)	Min. Tube Wall Thickness (mm)	Recommended Max. Wall Thickness		Part No.
			Copper, Aluminum (mm)	Steel, Stainless Steel (mm)	
5	14.3	0.5	Any	1.0.....	<b>2829-5mm</b>
6	14.3	1.0	Any	1.5.....	<b>2829-6mm</b>
8	23.8	1.0	Any	1.5.....	<b>2829-8mm</b>
10	23.8	1.0	Any	2.0.....	<b>2829-10mm</b>
12	38.1	1.0	Any	2.0.....	<b>2829-12mm</b>
14	38.1	1.0	Any	2.0.....	<b>2829-14mm</b>

Dimensions and pressures for reference only, subject to change.



Fig. S5 — Medium Duty Metric Hand Tube Bender

## Bench Mount Metric Hand Bender and Cutting Guide

This bender combines a tube cutting guide with the bender for sizes 6mm, 8mm, 10mm, and 12mm. There are three bender rollers that cover all sizes. The bender mounts easily to a work bench or table.

### Part Description

Bench Mount Tube Bender (6mm, 8mm, 10mm, 12mm).....

### Part No.

**BAV06/12KPLX**



Fig. S6 — BAV06/12KPLX

## Vise Mount Metric Hand Benders

### Vise Mount Metric Bender – 6/18mm

This bender has six interchangeable rollers to cover tube sizes 6mm, 8mm, 10mm, 12mm, 14mm, 15mm, 16mm, and 18mm.

### Part Description

Vise Mount Tube Bender

(6mm, 8mm, 10mm, 12mm, 14mm, 15mm, 16mm, 18mm) ..... **BV06/18KPLX**

### Part No.



Fig. S7 — BV06/18KPLX

Tube O.D. (mm)	Bend Radius (mm)	Max. Wall Thickness (mm)
6	33	2.5
8	34	2.5
10	36	2.5
12	37	2.5
14	37	2.0
15	44	2.0
16	44	2.0
18	52	2.0

### Vise Mount Metric Bender – 20/25mm

This bender has three interchangeable rollers to cover tube sizes 20mm, 22mm, and 25mm. All bend radii are 86.5mm. Pressure arm is not included with the BV20/25KPLX, however it can be manufactured on site with a piece of tube, or it can be ordered separately with part number BV20/2510X. Maximum wall thickness for all sizes is 2.0mm.

### Part Description

Vise Mount Tube Bender (20mm, 22mm, 25mm) .....

### Part No.

**BV20/25KPLX**

Pressure Arm .....

**BV20/2510X**



Fig. S8 — BV20/25KPLX

## Programmable Vise Mount Metric Bender – 6/18mm

This bender has 6 interchangeable rollers which cover tube sizes 6mm, 8mm, 10mm, 12mm, 14mm, 15mm, 16mm, and 18mm. Also standard with the bender is the program rail, guide rail and dimension rail in either one or two meter lengths. The BVP can be manually programmed to offer repeatability of bends. For bend radii and maximum wall thickness, see [BV06/18KPLX](#) above.

### Part Description

Programmable Vise Mount Tube Bender

(6mm, 8mm, 10mm, 12mm, 14mm, 15mm, 16mm, 18mm) ..... **BVP06/181**

### Part No.



Fig. S9 — BVP 06/181

Dimensions and pressures for reference only, subject to change.