



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                        | 4-2829AH |
| 6    | 3/8             | 5/16                            | 0.032                              | Any                             | 0.083                        | 6-2829AH |
| 8    | 1/2             | 1 1/2                           | 0.042                              | Any                             | 0.083                        | 8-2829AH |

### 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.



Fig. S4 — 1" Hand Tube Bender

| 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              | 16-2829  |

## 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.



Fig. S5 — Medium Duty Metric Hand Tube Bender

| 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                         | 2829-5mm  |
| 6              | 14.3                           | 1.0                           | Any                             | 1.5                         | 2829-6mm  |
| 8              | 23.8                           | 1.0                           | Any                             | 1.5                         | 2829-8mm  |
| 10             | 23.8                           | 1.0                           | Any                             | 2.0                         | 2829-10mm |
| 12             | 38.1                           | 1.0                           | Any                             | 2.0                         | 2829-12mm |
| 14             | 38.1                           | 1.0                           | Any                             | 2.0                         | 2829-14mm |

Dimensions and pressures for reference only, subject to change.