

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. R5 — 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) **Part No. BV06/18KPLX**



Fig. R6 — 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. R7 — BV20/25KPLX

Dimensions and pressures for reference only, subject to change.

Hand Crank & Hydraulic Tube Bender Capacity Guides

All benders listed in Tables S1 through S3 are capable of bending 1/2" O.D. and under fully annealed steel and stainless steel tube with no limit on wall thickness. For HARD copper and HIGH STRENGTH aluminum, use the wall thickness shown for stainless steel. Observe that VERY HARD materials may not be ductile enough to bend without fracture.

Inch Tube Sizes

| Tube O.D. | Material | Tube Wall Thickness (in.) | | | | | | | | | | | |
|-----------|----------|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | 0.035 | 0.049 | 0.058 | 0.065 | 0.072 | 0.083 | 0.095 | 0.109 | 0.120 | 0.134 | 0.156 | 0.188 |
| 3/4" | S | ABCD | ABCD | ABCD | ABCD | BCD | BCD | BCD | BCD | BCD | BCD | BCD | BCD |
| | SS | BCD | BCD | BCD | BCD | BCD | BCD | BCD | BCD | BCD | BCD | BCD | BCD |
| 1" | S | BCD | BCD | BCD | BCD | BCD | BCD | BCD | BCD | BCD | BCD | BCD | BCD |
| | SS | BCD | BCD | BCD | BCD | BCD | BCD | BCD | BCD | BCD | BCD | CD | CD |
| 1 1/4" | S | BCD | BCD | BCD | BCD | BCD | BCD | CD | CD | CD | CD | CD | CD |
| | SS | BCD | BCD | BCD | BCD | BCD | CD | CD | CD | CD | CD | C | C |
| 1 1/2" | S | BCD | BCD | BCD | BCD | BCD | CD | CD | CD | CD | CD | CD | CD |
| | SS | BCD | BCD | CD | CD | CD | CD | CD | CD | CD | CD | C | C |
| 2" | S | CD | CD | CD | CD | CD | CD | CD | CD | CD | CD | CD | CD |
| | SS | CD | CD | CD | CD | CD | CD | CD | CD | CD | CD | — | — |

Table R1 — Hand Crank and Hydraulic Tube Benders Maximum Capacity Guide – Inch Sizes

Inch Pipe Sizes

| Pipe Size | Material | Inch Pipe Schedule (IPS) | |
|-----------|----------|--------------------------|----|
| | | 40 | 80 |
| 1/2" | S | CD | CD |
| | SS | CD | CD |
| 3/4" | S | CD | CD |
| | SS | CD | CD |
| 1" | S | CD | CD |
| | SS | CD | CD |
| 1 1/4" | S | CD | CD |
| | SS | CD | CD |
| 1 1/2" | S | CD | CD |
| | SS | CD | CD |
| 2" | S | D | D |
| | SS | D | — |

Table R2 — Hand Crank and Hydraulic Benders Maximum Capacity Guide – Inch Pipe Sizes

Metric Tube Sizes

| Tube O.D. (mm) | Material | Tube Wall Thickness (mm) | | | | | | |
|----------------|----------|--------------------------|------|------|------|-----|-----|----|
| | | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 5 |
| 18 | S | ABCD | ABCD | ABCD | ABCD | BCD | BCD | CD |
| | SS | BCD | BCD | BCD | BCD | BCD | BCD | CD |
| 20 | S | ABCD | ABCD | ABCD | BCD | BCD | BCD | CD |
| | SS | BCD | BCD | BCD | BCD | BCD | BCD | CD |
| 22 | S | BCD | BCD | BCD | BCD | BCD | BCD | CD |
| | SS | BCD | BCD | BCD | BCD | BCD | BCD | CD |
| 25 | S | BCD | BCD | BCD | BCD | BCD | CD | CD |
| | SS | BCD | BCD | BCD | BCD | CD | CD | CD |
| 28 | S | BCD | BCD | BCD | BCD | CD | CD | CD |
| | SS | BCD | BCD | CD | CD | CD | CD | CD |
| 30 | S | BCD | BCD | BCD | BCD | CD | CD | CD |
| | SS | BCD | BCD | CD | CD | CD | CD | CD |
| 32 | S | BCD | BCD | CD | CD | CD | CD | CD |
| | SS | BCD | BCD | CD | CD | CD | CD | CD |
| 35 | S | BCD | CD | CD | CD | CD | CD | CD |
| | SS | BCD | CD | CD | CD | CD | CD | CD |
| 38 | S | BCD | CD | CD | CD | CD | CD | CD |
| | SS | CD | CD | CD | CD | CD | CD | CD |
| 42 | S | CD | CD | CD | CD | CD | CD | CD |
| | SS | CD | CD | CD | CD | CD | CD | — |
| 50 | S | CD | CD | CD | CD | CD | CD | — |
| | SS | CD | CD | CD | CD | CD | — | — |

Table R3 — Hand Crank and Hydraulic Tube Benders Maximum Capacity Guide – Metric Tube Sizes

***Codes:**

- (A) Model 412 — Tube (1/4" thru 3/4" and 6mm thru 20mm) — Worm & Gear
- (B) Model 424 — Tube (1/4" thru 1 1/2" and 6mm thru 38mm) — Worm & Gear
- (C) Model HB632 — Tubeg (3/8" thru 2" and 10mm thru 50mm) — Hydraulic
- (D) Model CP432 — Tube (1/4" thru 2") — Hydraulic

Dimensions and pressures for reference only, subject to change.

