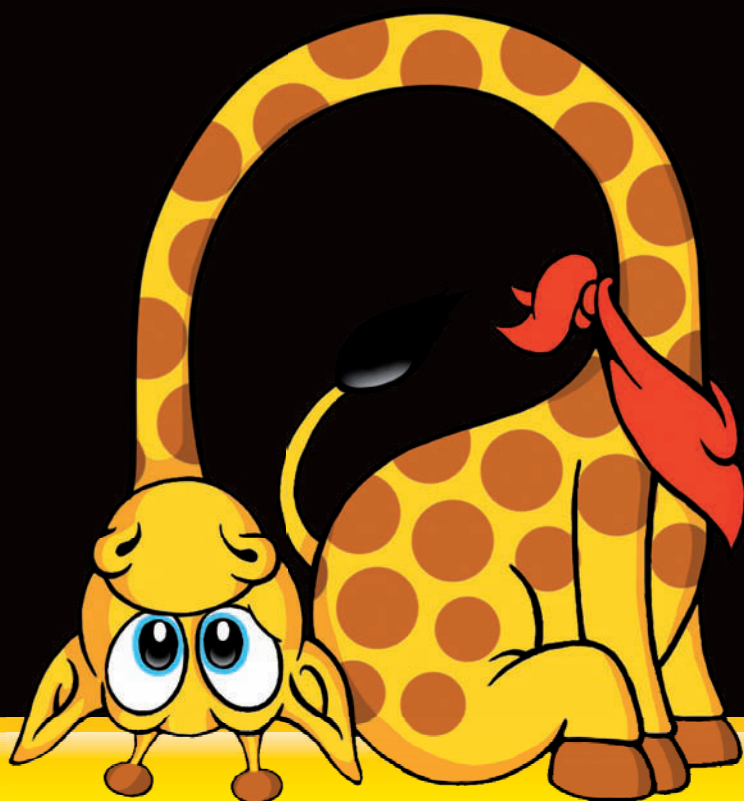


GELBER- BIEGER GmbH



Main Catalogue

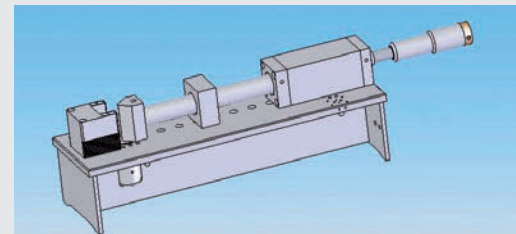


... Gelb biegt besser!

From construction through to sales:
everything from a single source!

Production

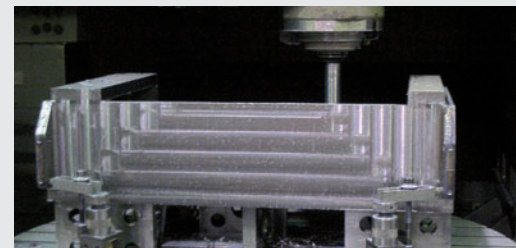
We plan, design and develop our products in-house.



Production

Construction

We manufacture in our own production plants or have products built under licence.



Construction

Assembly

Final assembly and quality control take place at our logistics centre.



Assembly

Marketing

We are present at trade fairs in Germany, Europe and worldwide.



Marketing

Sales and Marketing

We sell our products through the Internet, dealerships and also by presenting our products to you locally.



Sales and Marketing

>>> Information on press brake 4 – 5

| | |
|-----------------------------|-------|
| Press brake GB 28 | 6 – 7 |
| Press brake GB 30 NC | 8 – 9 |

>>> Information on tube grinder 10 – 11

| | |
|--------------------------|---------|
| Tube grinder RS-2 | 12 – 13 |
|--------------------------|---------|

>>> Information on profile bender 14 – 15

| | |
|--|---------|
| Profile benders Alfa 40 / 50 / 70 | 16 – 17 |
| Profile benders Alfa 100 / 160 | 18 – 19 |
| Profile benders Delta 40 / 50 / 60 / 80 / 100 | 20 – 23 |
| Profile benders Slalom 20 / 50 / 60 | 24 – 25 |
| Profile benders DS 40 / 50 / 80 / 120 | 26 – 27 |
| Profile benders Vario | 28 – 29 |

>>> Information on mandrel bender 30 – 31

| | |
|--|----|
| Mandrel benders S-03 28 and S-03 42 | 32 |
| Mandrel benders S-03 42 RL and S-03 50 | 33 |
| Mandrel benders S-03 60 Light and S-03 60 RL | 34 |
| Mandrel benders S-03 70 and S-03 70 RL | 35 |
| Mandrel benders S-03 80 | 36 |

>>> Information on rotary bender 38 – 39

| | |
|---------------|---------|
| Rotary bender | 40 – 41 |
|---------------|---------|

>>> Information on mobi-bender 42 – 43

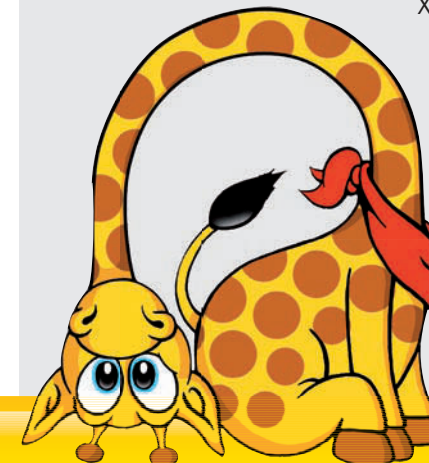
| | |
|--|---------|
| Mobi-bender Basic | 44 – 45 |
| Mobi-bender Basic NC | 46 – 47 |
| Mobi-bender 130 | 48 – 49 |
| Mobi-bender Rotary | 50 – 51 |
| Mobi-bender Cutting, flaring and notching of tube | 52 – 53 |

>>> Information on XL and XL-PLUS 54 – 57

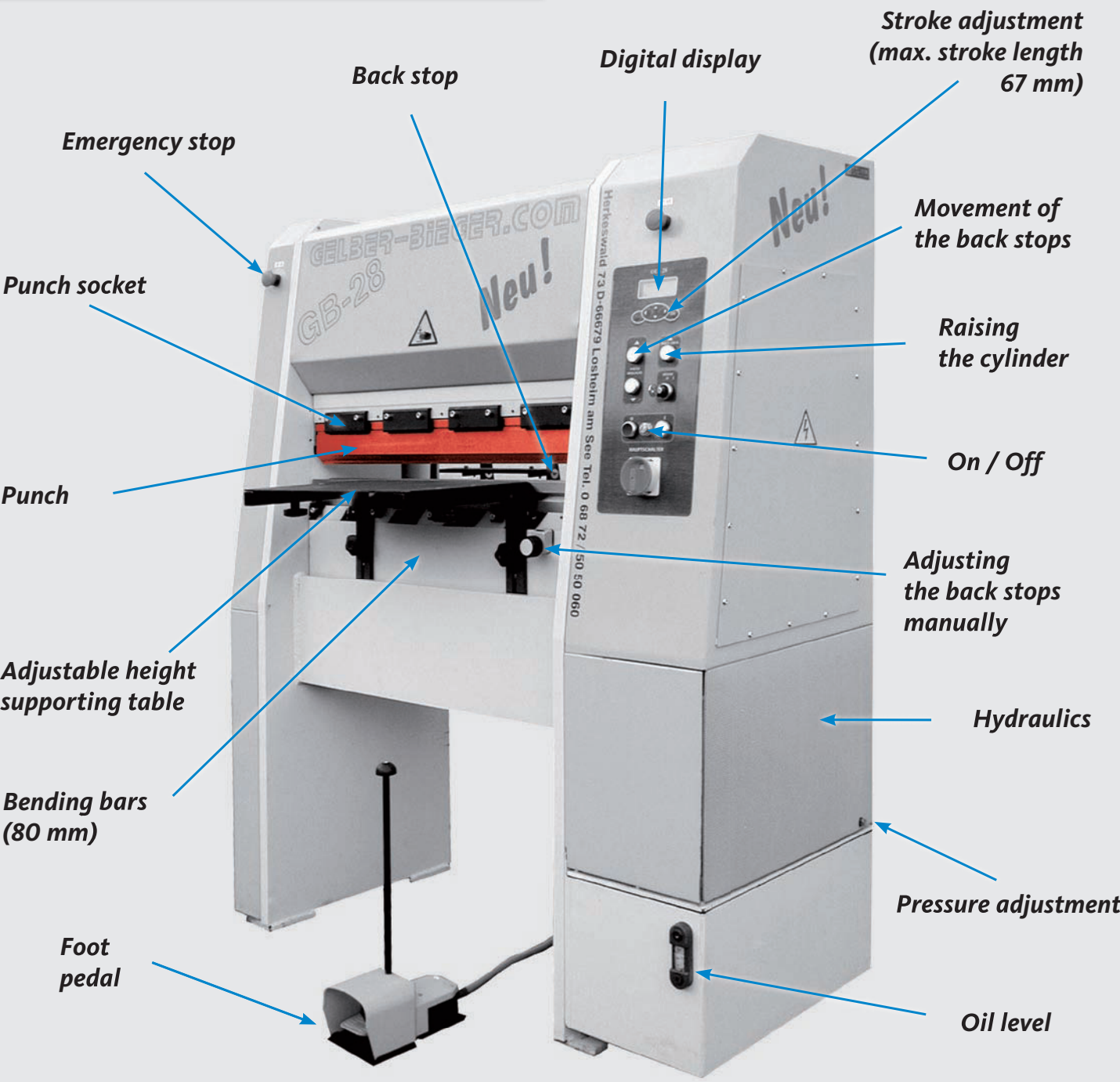
| | |
|-------------------------|---------|
| XL Standard | 58 – 59 |
| XL RB 40 | 60 – 61 |
| XL RB 40-Plus | 62 – 63 |
| XL Spiral bender | 64 – 65 |
| XL Auxiliary set | 66 |
| XL Press brake | 67 |
| XL Special tools | 68 – 69 |

| | |
|---------------------------|---------|
| X1 Board bender | 70 – 71 |
| X1 Combined bender | 72 – 73 |

| | |
|---|---------|
| Mandrel bender | 74 |
| Measuring table | 75 |
| Hand-operated tube bender HRB 12 | 76 |
| Angle bender 100 E | 77 |
| Hand-operated bender HB | 78 – 79 |



Press brake information



Press brake GB 28

The GB 28 Press brake has an operating speed of 10 mm/s. Thereby the machine can be operated with less safety effort.

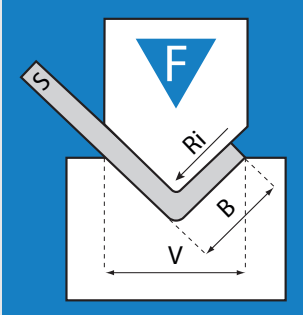
In order to be able to work at reasonable rates, we decided to optimise the stroke length. The height can be adjusted freely so that the tool is open after bending. This way, it is always operating in the working stroke and has no idle travel.

Tool structure

The AMADA/PROMECAM tool socket enables you to use a large number of standard devices, which are available at favourable prices and short notice.

The maximum opening between the punch socket and the bending bar is 250 mm. The bending bar can be adjusted by 80 mm. The maximum stroke length of the punch is 67 mm.

| | |
|----|------------------------------|
| S | Material thickness (mm) |
| V | V-Opening (mm) |
| F | Power (t/m) |
| B | Shortest edge (mm) |
| Ri | Inner radius (mm) |
| R | Aluminium 20-25 kg/mm² |
| R | Steel 40-45 kg/mm² |
| R | Stainless steel 65-70 kg/mm² |



$$F_{t/m} = \left(\frac{S^2 \times 2 \times R}{1,4 \times V} \right)$$

Example

In order to bend 2 mm sheet metal (S) into a die with an opening (V) of 16 mm, a force (F) of 17 tonnes would be required.

Bending capacity for 90° steel ST 45 in mm

| | | | | | | | | | | | | | | | | | |
|----|---|-----|-----|-----|-----|-----|------|----|-----|----|----|----|-----|-----|-----|-----|-----|
| V | 6 | 8 | 10 | 12 | 16 | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | 160 | 200 | 250 |
| B | 4 | 5,5 | 7 | 8,5 | 11 | 14 | 17,5 | 22 | 28 | 35 | 45 | 55 | 71 | 89 | 113 | 140 | 175 |
| Ri | 1 | 1,3 | 1,6 | 2 | 2,6 | 3,3 | 4 | 5 | 6,5 | 8 | 10 | 13 | 16 | 20 | 26 | 33 | 41 |

| | | | | | | | | | | | | | | | | | |
|---|-----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|----|----|
| S | 0,5 | 3 | | | | | | | | | | | | | | | |
| | 0,6 | 4 | 4 | | | | | | | | | | | | | | |
| | 0,8 | 7 | 5 | 4 | | | | | | | | | | | | | |
| | 1 | 11 | 8 | 7 | 6 | | | | | | | | | | | | |
| | 1,2 | 16 | 12 | 10 | 8 | 6 | | | | | | | | | | | |
| | 1,5 | | 17 | 15 | 13 | 9 | 8 | | | | | | | | | | |
| | 2 | | | 27 | 22 | 17 | 13 | 11 | | | | | | | | | |
| | 2,5 | | | | 35 | 26 | 21 | 17 | 13 | | | | | | | | |
| | 3 | | | | | 38 | 30 | 24 | 19 | 15 | | | | | | | |
| | 4 | | | | | | 54 | 42 | 34 | 27 | 21 | | | | | | |
| | 5 | | | | | | | 67 | 52 | 42 | 33 | 26 | | | | | |
| | 6 | | | | | | | | 75 | 60 | 48 | 38 | 30 | | | | |
| | 8 | | | | | | | | | 107 | 85 | 68 | 53 | 43 | | | |
| | 10 | | | | | | | | | | 134 | 105 | 85 | 67 | 53 | | |
| | 12 | | | | | | | | | | | 153 | 120 | 95 | 78 | 60 | |
| | 15 | | | | | | | | | | | | 188 | 150 | 120 | 95 | 75 |

Tool variants and sectioning

Grade 1

| | A | R | H | max. t/m |
|------|-----|-----|-------|----------|
| 1260 | 85° | 0,8 | 66,60 | 100 |
| 2067 | | | | 80 |

Grade 2

| | A | R | H | max. t/m |
|------|-----|-----|----|----------|
| 1026 | 60° | 0,8 | 67 | 80 |
| 2034 | | | | 60 |

Fitters

| | A | R | H | max. t/m |
|------|-----|---|-------|----------|
| 1015 | 88° | 3 | 88,50 | 60 |
| 2024 | | | | 100 |

Precision mechanics

| | V | A | R | H | S | Rf/P | max. t/m |
|------|----|-----|-----|----|----|-------|----------|
| 1162 | | 60° | 0,8 | 85 | | | 40 |
| 3021 | 10 | 60° | 0,6 | | 18 | R 0,5 | 60 |



Press brake GB 28



- User-friendly
- Small external dimensions
- Lightweight
- Adjustable bending angle
- Electrically-driven back stop which is adjustable from the front
- PROMECAM tool system from AMADA
- Low noise level
- Bending capacities are given in the table

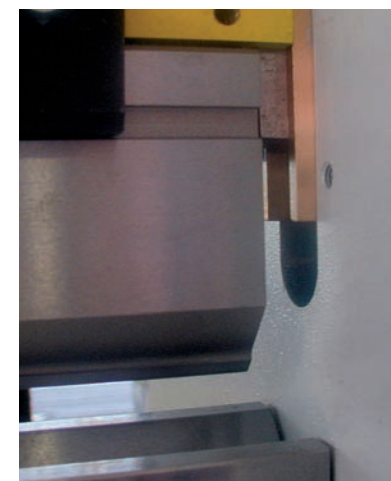
May differ from the illustration



Electrically-driven back stop



Hydraulic cylinder with torsion rod



Lateral guidance



Operation



Supporting table a. adjustment wheel for the back stop

Using the GB 28 Press brake, the desired bending angle to be produced can be programmed. The back stop position can be electrically adjusted from the front. The position of the back stop can be read off the adjustment wheel at the front. The adjustment wheel can also be used to make fine manual adjustments.

| | GB 28 835 | GB 28 1250 |
|---------------------------|-------------------|-------------------|
| L x W x H (mm) | 1300 x 600 x 1660 | 1750 x 600 x 1660 |
| Power (kW) | 4,5 | 4,5 |
| Weight | 28 | 28 |
| Tool width (mm) | 835 | 1250 |
| Stroke speed | 10 mm/s | 10 mm/s |
| Stroke length (mm) | 350 | 350 |
| Weight (kg) | 880 | 1160 |

Standard delivery includes:

1x Machine GB 28
1x Back stop
1x Supporting table
1x Foot pedal

Also available:

• Sectioned tools

1x Oil filling
1x CE-conformity
1x Guard grid



Press brake GB 30 NC



May differ from the illustration

- User-friendly
- Small external dimensions
- Lightweight
- 10 programmable bending sequences
- Programmable back stop
- PROMECAM tool system from AMADA
- Low noise level
- Bending capacities are given in the table



Controlled back stop



Control



Operation



Bending example



Back stop, standard tool 2

Through their easy-to-operate numerical control systems, the GB 30 NC series hydraulic press brakes offer perfect operating comfort. The control system supports single or repeated bending modes, which both can be run either manually or automatically. For repeated bending operations, 10 bending angles and 10 back stop positions can be programmed. The programs can be stored in 4 x 99 memory locations.

| | GB 30 NC 835 | GB 30 NC 1250 |
|--------------------|-------------------|-------------------|
| L x W x H (mm) | 1370 x 930 x 1660 | 1820 x 930 x 1660 |
| Power (kW) | 4,5 | 4,5 |
| Weight | 30 | 30 |
| Tool width (mm) | 835 | 1250 |
| Stroke speed | 10 | 10 |
| Stroke length (mm) | 430 | 430 |
| Weight (kg) | 880 | 1160 |

Standard delivery includes:

- 1x Machine GB 30 NC
1x Back stop
1x Support for sheet metal
1x Foot pedal
- 1x Oil filling
1x CE-conformity
1x Guard grid

Also available:

- Sectioned tools
- Hinged back stop

Tube grinder information

Various positions for aligning the sanding belt

Surface for flat grinding

Splash guard

Chuck jaws

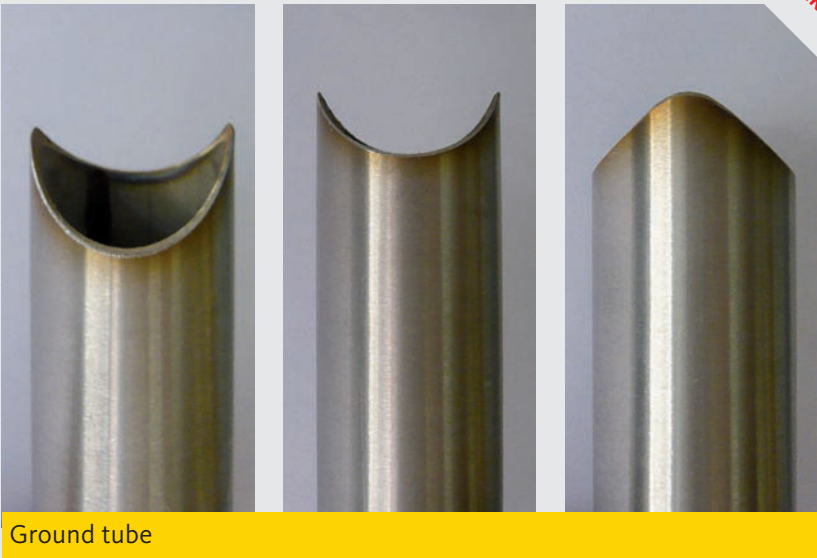
Operation (Start / Stop) Speeds 1 and 2

End stop

Spindle feed

Moving parts

| | RS-2 |
|--------------------------|--|
| L x W x H (mm) | 800 x 1500 x 1250 |
| Power (kW) | 3,0 |
| Weight (kg) | 211 |
| Number of turns (U/min) | 1400 u. 2800 |
| Grinding (mm) | ø 20 - 100 x 120 |
| Sanding belt grain size | Grain size 40 or Grain size 60 |
| Possible grinding angles | ø 50 mm à 30° ø 80 mm à 45° ø 100 mm à 60° |



Ground tube

High-speed sanding belt for tube grinding

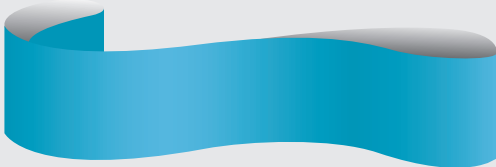
Standard

| | W x L (mm) | Grain | Shape | Note |
|-------------|------------|-------|-------|---|
| CS 811 YACT | 120 x 2000 | 40 | F4G | Excellent grain adhesion, stable, highly tear-resistant polyester backing for particularly high duty during rough grinding and deburring of steel and stainless steel. High-quality alumina zirconia for highest aggressiveness over the complete service life |



The alternative

| | W x L (mm) | Grain | Shape | Note |
|----------|------------|-------|-------|---|
| CS 409 Y | 120 x 2000 | 40 | F4G | Extremely tear-resistant high-performance belt with high stock removal efficiency and long service life due to additional multibond, for stainless steel and high-alloy steels, multibond for cool grinding |



Our best

| | W x L (mm) | Grain | Shape | Note |
|-------------|------------|-------|-------|---|
| CS 910 YACT | 120 x 2000 | 40 | F4G | Extremely tear-resistant high-performance belt with self-sharpening ceramic grain for high stock removal efficiency and long service life for processing high-alloy steels, multibond for cool grinding |





Tube grinder RS-2



End stop



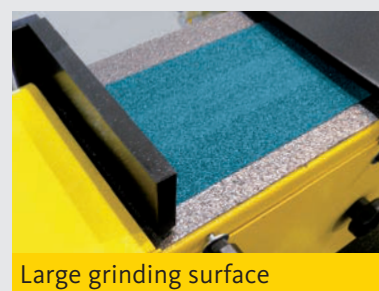
Sanding belts



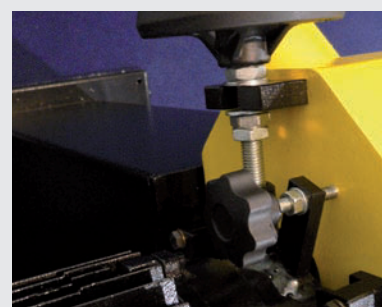
Contact roller



Operation of RS-2



Large grinding surface

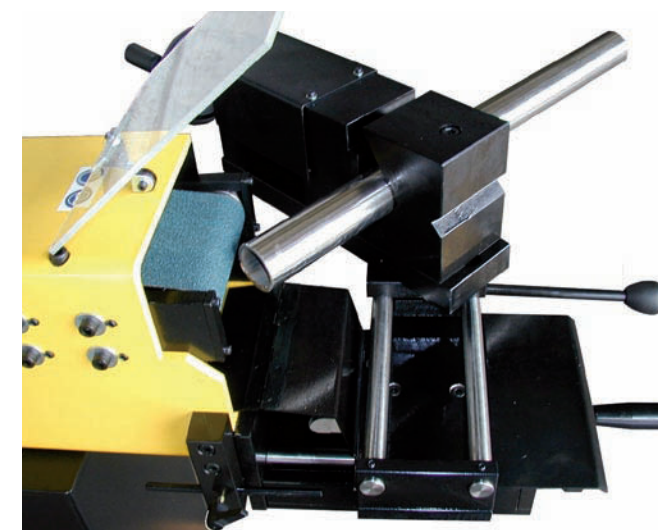


Tensioning/aligning the sanding belts



Easy belt changing

The illustration shows a tube grinder with one grinding speed



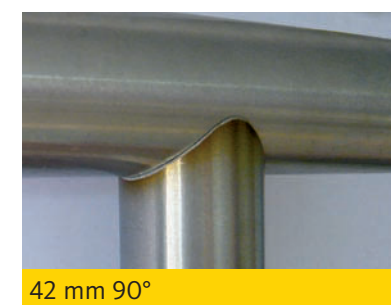
- The most robust construction on the market. The chuck jaws are massive. These can be exchanged when dealing with smaller tube diameters.
- The feed is provided by a spindle, which enables exact grinding under constant pressure without expenditure of energy.
- The RS-2 has two grinding speeds; a slow speed for grinding stainless steel and a faster speed of 2,800 rpm for grinding steel.
- Using a low speed when grinding stainless steel prevents it from tarnishing. Bluish discolouration cannot be completely prevented.

- Our tip: You can achieve the best results with minimal reworking by using our special high-speed sanding belt, which is made of alumina zirconia with multi-connection cooling.
- The illustration shows a double exhaust system. We recommend this to our customers because grinding causes a lot of metallic dust. As costs are often an important factor, we have decided to provide this exhaust as a special offer.
- Changing the belt by releasing 2 quick-clamping screws.



The diagram shows the optional exhaust

| | 30° | 45° | 60° | 90° |
|------------------|-----|-----|-----|-----|
| RS-2 max. Ø (mm) | 50 | 80 | 100 | 100 |



42 mm 90°



33 mm on bevel



Contact rollers

Standard delivery includes:

1x Machine RS 2
1x 42 mm contact roller
1x Sanding belt
1x User Manual

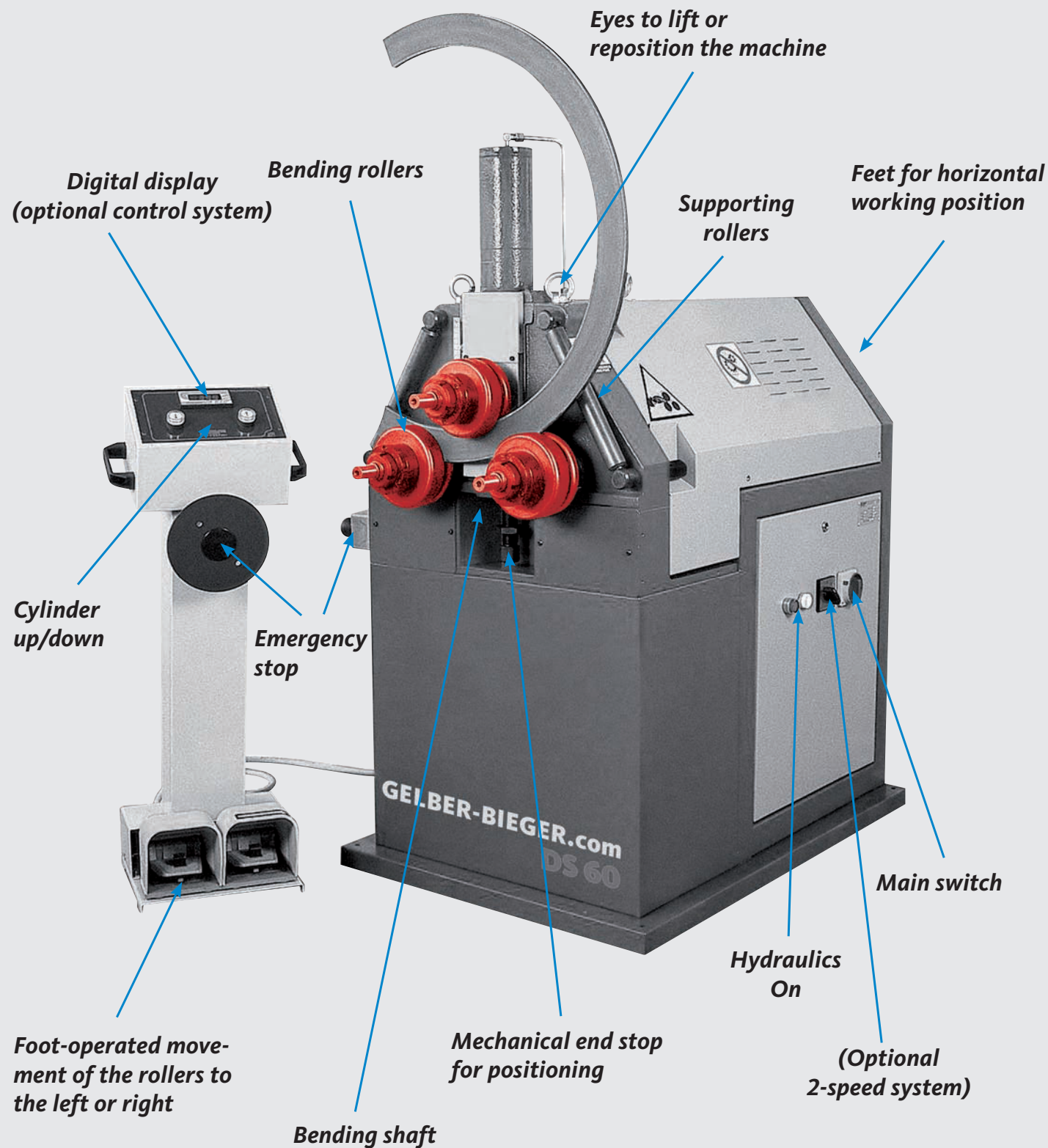
1x CE-Conformity

Also available:

- Contact rollers with Ø 18 - 100 mm
- Sanding belts
- Exhaust

Profile bender information

Moving parts



General

Pyramidal bending machines with 3 motorised rollers with hydraulic adjustment of the upper roller. The DS-Series is suitable for bending flat iron or angle iron, T-shaped and U-shaped cross-section iron and other profiles. Round tubes can also be bent.

The back of the roller is smooth to enable bending of brass and aluminium profiles, as well as stainless steel pieces, without damaging the surface. 3 motorised rollers enable very small radius profile bending, without slipping. This machine is ideal for craftwork or light metalwork, for manufacturers of serpentine tubing for heat exchangers, and for those seeking a versatile and inexpensive machine, with good performance. As well as the profiles listed above, universal

rollers (the standard accessory) can also bend square and rectangular pipes, without damaging their surfaces. Special accessories are available on request, such as, for example, rollers for round pipes and aluminium as well as special rollers for further applications. Special rollers for angle-iron with inner flange, reinforcing bars for special jobs which require a firmer shaft. The hydraulic adjustment allows the upper roller to be positioned with the material already inserted between the rollers. The mechanical end stop, which is built onto the hydraulic cylinder, allows accurate positioning of the upper roller.

The machine can be tipped over to work vertically. The digital display helps to achieve accurate bending.

Operations

Standard: Adjusting the stroke using the digital display. The end position is set using the mechanical end stop.

PQI: 20 bending positions can be stored. 10 programs with 10 bending positions can be stored. By repetitive operating of the hydraulic feed, the individual bending positions are successively positioned. The bending parameters for setting up the roller positions at a predetermined radius can be entered for 10 profiles.

CNC-C: With this controller it is possible to programme successive bends and straight sections to ensure that for repeat operations there will be zero or very few rejects. For example, for a right angle bend section with rounded corners the program would be as follows:

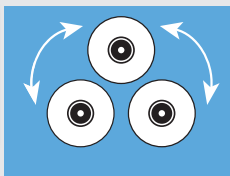
Program 1 with profil No. 5:

Program step 1 = Straight 250 mm
Program step 2 = Radius 200 mm x 90 °
Program step 3 = Straight 500 mm

Twenty programs can be stored with each program having a maximum of 30 different successive bends. Since each material and profile has different bending characteristics, these characteristics must be supplied to the controller. Therefore, a bending test is made for each profile and is entered into the controller. The great advantage of this technology is that once entered, programs can be adapted to different profiles.



Profile benders Alfa 40 / 50 / 70



May differ from the illustration



Alfa 70 H2

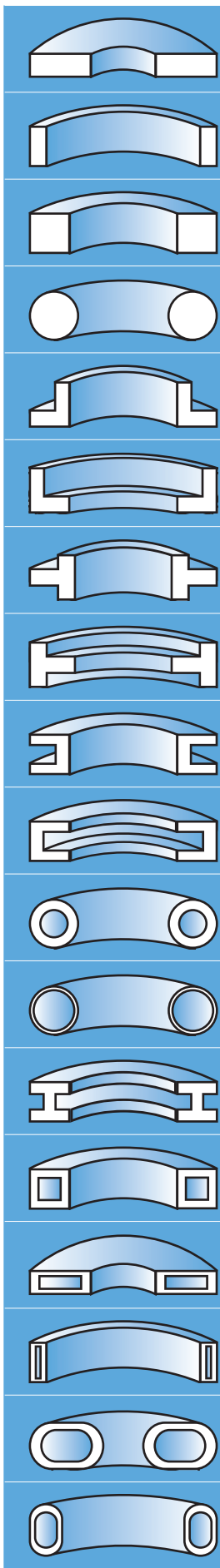


Alfa 40 CNC



Alfa 50 CNC - 8 Axles

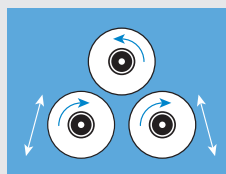
| | Alfa 40 | Alfa 50 | Alfa 70 |
|--|----------------|-----------------|-----------------|
| Roller shaft diameters (mm) | 40 | 50 | 70 |
| Standard shaft usable length (mm) | 95 | 115 | 160 |
| Upper universal roller diameter (mm) | 137 | 165 | 245 |
| Lower universal roller diameter n (mm) | 147 | 175 | 245 |
| Lower shaft centre distance in null stroke position (mm) | 201 | 229 | 368 |
| Lower shaft centre distance in max. stroke position (mm) | 180 | 207 | 319 |
| Lower shaft maximum stroke (mm) | 47 | 84 | 102 |
| Axle rotations per minute (min ⁻¹) (**) | 13 | 8 | 5,5 |
| Motor power for roller rotation (kW) (**) | 3 | 3 | 4 |
| Motor power for hydraulic control unit (kW) (**) | 0,75 | 0,75 | 1,1 |
| Total power (kW) (**) | 3,75 | 3,75 | 5,1 |
| Power for each hydraulic cylinder (kN) (**) | 85 | 95 | 158 |
| Noise level during bending (db) (**) | 80 | 75 | 75 |
| Approximate machine weight (kg) (**) | 400 | 650 | 1300 |
| Wooden box weight only (kg) (**) | 48 | 95 | 109 |
| Machine dimensions (cm) (**) | 105 x 75 x 120 | 138 x 101 x 132 | 164 x 122 x 158 |
| Wooden box dimensions for packing (cm) (**) | 110 x 85 x 145 | 150 x 124 x 150 | 182 x 152 x 192 |



| Alfa 40 | | Alfa 50 | | Alfa 70 | |
|--------------------|-------------|-------------------|-------------|--------------------|-------------|
| mm | min. radius | mm | min. radius | mm | min. radius |
| 20 x 10 | 100 | 20 x 10 | 100 | 40 x 10 | 150 |
| 50 x 8 | 300 | 50 x 12 | 200 | 70 x 10 | 250 |
| 50 x 10 | 300 | 50 x 15 | 500 | 100 x 15 | 450 |
| 40 x 5 | 80 | 50 x 5 | 100 | 50 x 10 | 130 |
| 60 x 15 | 130 | 80 x 16 | 200 | 80 x 20 | 200 |
| 60 x 20 | 300 | 80 x 20 | 600 | 130 x 30 | 400 |
| 15 | 130 | 15 | 150 | 30 | 150 |
| 25 | 250 | 30 | 300 | 40 | 250 |
| 28 | 600 | 35 | 700 | 50 | 500 |
| 20 | 80 | 20 | 150 | 35 | 150 |
| 28 | 150 | 35 | 300 | 50 | 250 |
| 30 | 300 | 40 | 400 | 60 | 400 |
| 30 x 30 x 3 | 130 | 30 x 30 x 3 | 125 | 35 x 35 x 3 | 250 |
| 50 x 50 x 5 | 300 | 50 x 50 x 5 | 250 | 70 x 70 x 8 | 500 |
| 50 x 50 x 7 | 500 | 60 x 60 x 6 | 500 | 80 x 80 x 8 | 600 |
| 30 x 30 x 3 | 200 | 30 x 30 x 3 | 200 | 40 x 40 x 4 | 300 |
| 40 x 40 x 4 | 300 | 40 x 40 x 5 | 300 | 70 x 70 x 9 | 500 |
| 45 x 45 x 5 | 600 | 50 x 50 x 6 | 500 | 80 x 80 x 8 | 600 |
| 30 x 30 x 3 | 100 | 30 x 30 x 3 | 150 | 70 x 30 x 4 | 200 |
| 60 x 30 x 5,5 | 250 | 60 x 60 x 7 | 300 | 70 x 70 x 8 | 500 |
| 50 x 50 x 5 | 500 | 80 x 40 x 7,5 | 500 | 80 x 80 x 8 | 700 |
| 30 x 30 x 3 | 150 | 30 x 30 x 3 | 150 | 30 x 30 x 4 | 200 |
| 60 x 30 x 5,5 | 300 | 50 x 50 x 6 | 300 | 70 x 70 x 8 | 500 |
| 45 x 45 x 6 | 600 | 70 x 35 x 6 | 500 | 80 x 60 x 8 | 700 |
| 30 x 15 x 4 | 130 | 30 x 15 x 4 | 150 | 60 x 30 x 6 | 200 |
| 50 x 25 x 5 | 250 | 60 x 30 x 6 | 200 | 120 x 55 x 6 | 400 |
| 60 x 30 x 5 | 400 | 80 x 45 x 6 | 400 | 140 x 60 x 7,5 | 600 |
| 30 x 15 x 4 | 130 | 30 x 15 x 4 | 150 | 60 x 30 x 6 | 200 |
| 50 x 25 x 5 | 250 | 50 x 25 x 5 | 200 | 120 x 55 x 6 | 400 |
| 60 x 30 x 5 | 350 | 80 x 45 x 6 | 500 | 140 x 60 x 7,5 | 600 |
| 21,3 x 2,35 (1/2") | 80 | 26,9 x 2,3 (3/4") | 100 | 40,3 x 3,2 (1,5") | 200 |
| 33,7 x 2,6 (1") | 250 | 48,3 x 2,9 (1,5") | 300 | 88,9 x 3,2 (3") | 400 |
| 48,3 x 2,9 (1,5") | 300 | 60,3 x 3,2 (2") | 500 | 101,6 x 3,6 (3,5") | 600 |
| 25 x 1,5 | 150 | 25 x 1,5 | 100 | 40 x 2 | 200 |
| 50 x 1,8 | 700 | 60 x 2 | 400 | 100 x 2 | 1000 |
| 60 x 2 | 800 | 70 x 2 | 800 | 100 x 3 | 1200 |
| - | - | - | - | - | - |
| - | - | - | - | INP 120 | 250 |
| - | - | - | - | - | - |
| 20 x 20 x 1,5 | 200 | 20 x 20 x 2 | 120 | 40 x 40 x 2,7 | 250 |
| 40 x 40 x 2 | 600 | 50 x 50 x 2,5 | 800 | 80 x 80 x 3,2 | 600 |
| 45 x 45 x 2,5 | 1000 | 60 x 60 x 3 | 2000 | 80 x 80 x 4 | 900 |
| 30 x 10 x 1,5 | 200 | 30 x 15 x 1,5 | 150 | 50 x 25 x 2 | 300 |
| 40 x 40 x 2 | 700 | 60 x 30 x 2,5 | 1000 | 80 x 40 x 5 | 1000 |
| 45 x 45 x 2,5 | 600 | 80 x 30 x 3 | 3000 | 120 x 30 x 3,2 | 1500 |
| 30 x 10 x 1,5 | 300 | 30 x 15 x 3 | 150 | 50 x 25 x 2 | 300 |
| 50 x 25 x 2,5 | 700 | 60 x 30 x 2,5 | 1000 | 100 x 30 x 3,2 | 1000 |
| 60 x 30 x 2,5 | 1000 | 80 x 30 x 3 | 2000 | 120 x 40 x 3 | 1500 |
| 30 x 10 x 1,5 | 200 | 30 x 15 x 1,5 | 150 | 50 x 25 x 2 | 300 |
| 40 x 20 x 2,5 | 600 | 60 x 30 x 2,5 | 800 | 100 x 30 x 3,2 | 1000 |
| 60 x 30 x 2,5 | 900 | 80 x 30 x 3 | 3000 | 120 x 40 x 3 | 1500 |
| 30 x 10 x 1,5 | 300 | 30 x 15 x 2 | 150 | 50 x 25 x 2 | 300 |
| 50 x 25 x 1,5 | 700 | 60 x 30 x 2,5 | 800 | 100 x 30 x 3,2 | 1000 |
| 60 x 30 x 2,5 | 1000 | 80 x 30 x 3 | 2500 | 120 x 40 x 3 | 1500 |



Profile benders Alpha 100 / 160



May differ from the illustration



Alpha 100

Alpha 160

A hydraulic bending machine with three motorised rollers and double, independent feed. The upper roller is fixed; the lower rollers are mounted on straight guides and are hydraulically adjusted. Each roller is equipped with a hydraulic reduction gear.

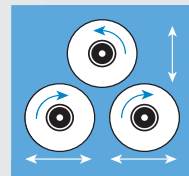
The standard fittings of the machine include straightening rollers on both sides, with dual hydraulic adjustment. Each straightening roller can be positioned to provide the optimum correction required for the profiles. The geometry of the machine makes it possible to bend large, heavy profiles, as well as small profiles with very small radii. Its characteristics make this the ideal machine for craftwork and industry. The outstanding feature is the ability to use independent reinforcement bars (patented), in order to increase the maximum output of the machine.

| | Alpha 100 | Alpha 160 |
|---|-----------------|-----------------|
| Roller shaft diameters (mm) | 80 | 140 |
| Effective shaft length (mm) | 220 | 320 |
| Roller diameter (mm) | 275 | 380 |
| Rotational speed per minute (min ⁻¹) | 11 | 4 |
| Motor power (kW) | 9,5 | 11,4 |
| Working height (cm) | 96 - 110 | 120 - 147 |
| Packing measurements (cm) | 114 x 145 x 155 | 195 x 190 x 190 |
| Machine weight (kg) | 2.000 | 3.850 |

| | Alpha 100 | | Alpha 160 | |
|--|------------------|-------------|----------------|-------------|
| | mm | min. radius | mm | min. radius |
| | 100 x 20 | 500 | 140 x 30 | 1.500 |
| | 120 x 35 | 1.000 | 170 x 35 | 1.500 |
| | 100 x 100 x 12 | 1.200 | 130 x 130 x 12 | 1.800 |
| | 110 x 110 x 12 | 1.000 | 150 x 150 x 15 | 1.500 |
| | 100 x 100 x 12 | 1.200 | 130 x 130 x 12 | 1.800 |
| | 110 x 110 x 12 | 1.000 | 150 x 150 x 15 | 1.500 |
| | UNP 160 | 350 | UNP 260 | 500 |
| | UNP 160 | 350 | UNP 260 | 500 |
| | UNP 120 | 1.500 | UNP 200 | 2.500 |
| | UNP 140 | 1.400 | UNP 220 | 3.000 |
| | HEA 140 | 1.500 | HEA 220 | 2.100 |
| | HEB 140 | 1.500 | HEB 220 | 2.300 |
| | IPE 160 | 1.000 | IPE 240 | 1.200 |
| | IPN 160 | 1.000 | IPN 240 | 1.000 |
| | HEA 100 | 1.800 | HEA 140 | 2.500 |
| | HEB 100 | 1.400 | HEA 160 | 2.700 |
| | IPE 120 | 3.000 | HEB 120 | 2.300 |
| | IPE 140 | 2.000 | HEB 160 | 3.000 |
| | IPN 120 | 2.500 | IPE 180 | 2.200 |
| | IPN 140 | 1.500 | IPE 220 | 2.500 |
| | IPN 120 | 2.500 | IPN 180 | 2.500 |
| | IPN 140 | 1.500 | IPN 220 | 2.500 |
| | 114,3 x 3,2 (4") | 1.000 | 168,3 x 4 | 1.800 |
| | 138,7 x 4 (5") | 1.000 | 193,7 x 6 | 2.500 |
| | 80 x 4 | 2.000 | 120 x 5 | 2.000 |
| | 100 x 5 | 1.000 | 160 x 6 | 3.600 |



Profil b. Delta 40/50/60/80/100



May differ from the illustration



Radius measuring devices



Delta 50 CNC-C







Delta 60















Independent support (for all models)

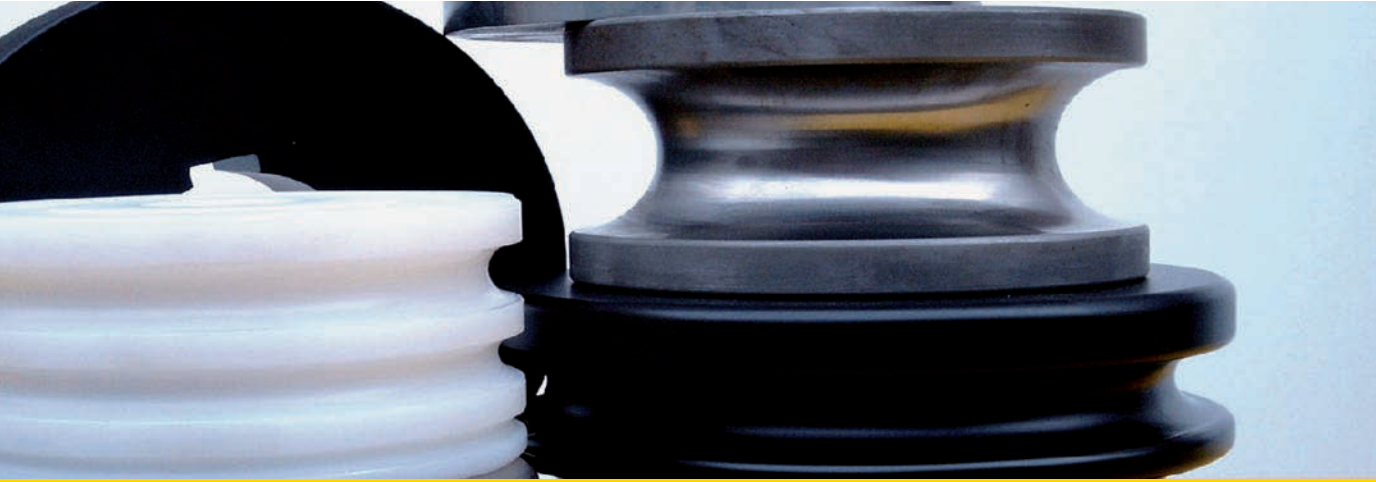
| | Delta 40 | Delta 50 | Delta 60 | Delta 80 | Delta 100 |
|---|----------------|-----------------|-----------------|-----------------|-----------------|
| Roller shaft diameters (mm) | 40 | 50 | 60 | 80 | 100 |
| Effective shaft length (mm) | 95 | 115 | 160 | 220 | 260 |
| Roller diameter (mm) | 147 | 175 | 224 | 275 | 315 |
| Rotational speed per minute (min⁻¹) | 12 | 8 | 7,7 | 6 | 5 |
| Motor power (kW) | 3 | 3,75 | 5,5 | 7,5 | 11 |
| Working height (cm) | 87 | 93 | 92 | 107 | 110 |
| Packing measurements (cm) | 132 x 94 x 142 | 103 x 135 x 155 | 105 x 150 x 170 | 170 x 136 x 185 | 180 x 185 x 215 |
| Machine weight (kg) | 440 | 580 | 1.020 | 2.100 | 2.670 |

| | Delta 40 | | Delta 50 | | Delta 60 | |
|--|----------------|-------------|----------------------|-------------|-----------------------|-------------|
| | mm | min. radius | mm | min. radius | mm | min. radius |
| | 60 x 25 | 200 | 110 x 20 | 250 | 140 x 40 | 400 |
| | 60 x 10 | 200 | 80 x 12 | 400 | 150 x 40 | 500 |
| | 35 | 200 | 40 | 350 | 100 x 15 | 700 |
| | 50 x 50 x 7 | 400 | 60 x 60 x 6 | 400 | 100 x 25 | 800 |
| | 50 x 50 x 7 | 600 | 60 x 60 x 6 | 500 | 50 | 250 |
| | 50 x 50 x 7 | 300 | 60 x 60 x 7 | 400 | 60 | 400 |
| | 50 x 50 x 7 | 300 | 60 x 60 x 7 | 400 | 80 x 80 x 8 | 250 |
| | 65 x 42 x 5,5 | 300 | 80 x 45 x 6 | 250 | 90 x 90 x 9 | 600 |
| | 65 x 42 x 5,5 | 300 | 80 x 45 x 6 | 250 | 80 x 80 x 8 | 350 |
| | 40 x 35 x 5 | 250 | 50 x 38 x 5 | 600 | 90 x 90 x 9 | 700 |
| | 60 x 2 | 250 | 70 x 2 | 600 | 80 x 80 x 8 | 350 |
| | 60,3 x 2 (2'') | 250 | 76,1 x 3,2 (2 1/2'') | 500 | 80 x 80 x 10 | 400 |
| | 38 | 200 | 45 | 700 | 80 x 80 x 8 | 300 |
| | 60 x 40 x 2 | 300 | 80 x 40 x 3 | 1.000 | 80 x 80 x 10 | 400 |
| | 60 x 40 x 2 | 700 | 70 x 50 x 3 | 1.500 | 120 x 55 x 7 | 300 |
| | 60 x 40 x 2 | 700 | 70 x 50 x 3 | 1.500 | 160 x 65 x 7,5 | 400 |
| | 60 x 40 x 2 | 700 | 70 x 50 x 3 | 1.500 | 120 x 55 x 7 | 1.000 |
| | 60 x 40 x 2 | 700 | 70 x 50 x 3 | 1.500 | 160 x 65 x 7,5 | 1.500 |
| | 60 x 40 x 2 | 700 | 70 x 50 x 3 | 1.500 | 80 x 45 x 6 | 400 |
| | 60 x 40 x 2 | 700 | 70 x 50 x 3 | 1.500 | 100 x 50 x 6 | 450 |
| | 60 x 40 x 2 | 700 | 70 x 50 x 3 | 1.500 | INP 100 | 2.500 |
| | 60 x 40 x 2 | 700 | 70 x 50 x 3 | 1.500 | INP 140 | 4.000 |
| | 60 x 40 x 2 | 700 | 70 x 50 x 3 | 1.500 | IPE 80 | 800 |
| | 60 x 40 x 2 | 700 | 70 x 50 x 3 | 1.500 | IPE 100 | 1.200 |
| | 60 x 40 x 2 | 700 | 70 x 50 x 3 | 1.500 | 100 x 4 | 600 |
| | 60 x 40 x 2 | 700 | 70 x 50 x 3 | 1.500 | 120 x 4 | 800 |
| | 60 x 40 x 2 | 700 | 70 x 50 x 3 | 1.500 | 101,6 x 3,6 (3 1/2'') | 250 |
| | 60 x 40 x 2 | 700 | 70 x 50 x 3 | 1.500 | 114,3 x 4,5 (4'') | 400 |
| | 60 x 40 x 2 | 700 | 70 x 50 x 3 | 1.500 | 60 | 800 |
| | 60 x 40 x 2 | 700 | 70 x 50 x 3 | 1.500 | 70 | 1.000 |
| | 60 x 40 x 2 | 700 | 70 x 50 x 3 | 1.500 | 120 x 50 x 4 | 800 |
| | 60 x 40 x 2 | 700 | 70 x 50 x 3 | 1.500 | 120 x 60 x 4 | 1.000 |
| | 60 x 40 x 2 | 700 | 70 x 50 x 3 | 1.500 | 100 x 40 x 3 | 600 |
| | 60 x 40 x 2 | 700 | 70 x 50 x 3 | 1.500 | 120 x 60 x 4 | 1.000 |

| | Delta 40 | | Delta 50 | | Delta 60 | |
|---|-----------------|-------------|-----------------|-------------|------------------|-------------|
| | mm | min. radius | mm | min. radius | mm | min. radius |
|  | 50 x 50 x 2 | 1.000 | 60 x 60 x 4 | 600 | 80 x 80 x 3,2 | 600 |
| | | | | | 90 x 90 x 4 | 1.000 |
|  | 60 x 30 x 2,5 | 700 | 80 x 30 x 3 | 1.200 | 80 x 45 x 3 | 800 |
| | | | | | 120 x 40 x 3 | 1.000 |
|  | 50 x 25 x 2,5 | 900 | 80 x 30 x 3 | 1.200 | 80 x 45 x 3 | 800 |
| | | | | | 120 x 50 x 3 | 1.000 |
|  | A50 x B50 x c20 | 400 | A50 x B90 x c30 | 500 | A60 x B90 x c50 | 450 |
| | | | | | A70 x B100 x c50 | 500 |
|  | A50 x B60 x c15 | 400 | A60 x B95 x c20 | 400 | A70 x B90 x c10 | 450 |
| | | | | | A80 x B100 x c45 | 450 |

| | Delta 80 | | Delta 100 | |
|---|----------------|-------------|----------------|-------------|
| | mm | min. radius | mm | min. radius |
|  | 180 x 40 | 600 | 200 x 40 | 600 |
| | | | 200 x 50 | 700 |
|  | 110 x 35 | 1.000 | 120 x 20 | 350 |
| | | | 120 x 35 | 600 |
|  | 70 | 700 | 70 | 400 |
| | | | 80 | 500 |
|  | 100 x 100 x 11 | 700 | 100 x 100 x 12 | 1000 |
| | | | 120 x 120 x 13 | 2000 |
|  | 100 x 100 x 11 | 800 | 100 x 100 x 12 | 1000 |
| | | | 120 x 120 x 13 | 2500 |
|  | 100 x 100 x 11 | 500 | 100 x 100 x 12 | 800 |
| | | | 120 x 120 x 13 | 1500 |
|  | 100 x 100 x 11 | 500 | 100 x 100 x 12 | 800 |
| | | | 120 x 120 x 13 | 1500 |
|  | 220 x 80 x 9 | 600 | 200 x 75 x 8,5 | 500 |
| | | | 260 x 90 x 10 | 700 |
|  | 220 x 80 x 9 | 600 | 200 x 75 x 8,5 | 500 |
| | | | 260 x 90 x 10 | 700 |
|  | 100 x 50 x 6 | 1.200 | 120 x 55 x 7 | 2500 |
| | | | 140 x 60 x 7 | 3000 |

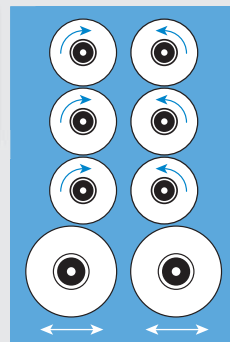
| | Delta 80 | | Delta 100 | |
|---|------------------|-------------|-------------------|-------------|
| | mm | min. Radius | mm | min. Radius |
|  | INP 180 | 900 | INP 180 | 1000 |
| | | | INP 220 | 1200 |
|  | IPE 140 | 1.800 | HEB 120 | 2000 |
| | | | HEB 140 | 2500 |
|  | 150 x 4 | 2.000 | 140 x 4 | 1200 |
| | | | 160 x 4,5 | 2500 |
|  | 139,7 x 5 (5") | 1.000 | 139,7 x 4 (5") | 1500 |
| | | | 168,3 x 4 (6") | 2500 |
|  | 80 | 400 | 80 | 700 |
| | | | 95 | 900 |
|  | 140 x 50 x 4 | 1.500 | 120 x 60 x 3,2 | 900 |
| | | | 150 x 60 x 5 | 1800 |
|  | 140 x 50 x 4 | 2.000 | 100 x 60 x 5 | 1000 |
| | | | 150 x 60 x 5 | 2500 |
|  | 100 x 100 x 4 | 1.500 | 100 x 100 x 4 | 1200 |
| | | | 120 x 120 x 5 | 2000 |
|  | 160 x 40 x 3 | 1.500 | 100 x 50 x 3 | 900 |
| | | | 180 x 60 x 4 | 1300 |
|  | 120 x 40 x 3 | 1.500 | 100 x 50 x 3 | 700 |
| | | | 160 x 40 x 3 | 1000 |
|  | A80 x B110 x C70 | 500 | A100 x B100 x C60 | 600 |
| | | | A120 x B120 x C70 | 800 |
|  | A90 x B110 x C45 | 450 | A100 x B100 x C60 | 600 |
| | | | A120 x B130 x C60 | 700 |



Various bending rollers



Profile bend. Slalom 20 / 50 / 60



May differ from the illustration



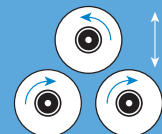
Slalom 20

| | Slalom 20 | Slalom 50 | Slalom 60 |
|--|----------------|-----------------|----------------|
| Effective shaft length (mm) | 21 | 45 | 55 |
| Roller diameter (mm) | 48 | 105/108 | 117 |
| Rotational speed per minute (min ⁻¹) | 6-42 | 5-33 | 4-25 |
| Motor power (kW) | 3 | 5 | 8 |
| Machine dimensions (cm) | 107 | 107 | 107 |
| Packing measurements (cm) | 150 x 85 x 112 | 170 x 130 x 125 | 185 x 95 x 125 |
| Machine weight (kg) | 640 | 760 | 1.250 |

| | Slalom 20 | | Slalom 50 | | Slalom 60 | |
|--|-------------------|-------------|-------------------|-------------|-------------|-------------|
| | mm | min. radius | mm | min. radius | mm | min. radius |
| | 20 x 6 | 100 | 50 x 12 | 70 | 60 x 5 | 120 |
| | 10 x 5 | 60 | 35 x 8 | 90 | 40 x 8 | 100 |
| | 10 | 50 | 18 | 80 | 20 | 90 |
| | - | - | 50 x 30 x 4 | 120 | 60 x 40 | 150 |
| | - | - | 40 x 20 x 4 | 100 | 50 x 25 | 130 |
| | 10 x 1 | 40 | 10 x 1 | 90 | 10 x 1 | 90 |
| | 16 x 1 | 60 | 10 x 2 | 80 | 20 x 1 | 100 |
| | 20 x 1 | 80 | 20 x 1 | 100 | 20 x 1,2 | 95 |
| | 13,5 x 22 (1/4") | 50 | 20 x 1,5 | 80 | 30 x 1,2 | 120 |
| | 17,2 x 2,3 (3/8") | 50 | 30 x 1,2 | 120 | 30 x 2 | 95 |
| | - | - | 30 x 2 | 90 | 40 x 1,5 | 170 |
| | - | - | 40 x 15 | 170 | 40 x 2 | 170 |
| | - | - | 40 x 2 | 150 | 50 x 1,5 | 220 |
| | - | - | 50 x 1,5 | 220 | 50 x 2 | 240 |
| | - | - | 50 x 2 | 200 | 60 x 1,5 | 350 |
| | - | - | 26,9 x 2,6 (3/4") | 100 | 60 x 2 | 300 |
| | 12 | 60 | 20 | 120 | 25 | 200 |
| | 18 x 9 x 1,2 | 70 | 50 x 20 x 2 | 100 | 60 x 20 x 2 | 160 |
| | 16 x 8 x 1,2 | 80 | 40 x 20 x 2 | 120 | 50 x 20 x 2 | 200 |
| | 14 x 1,2 | 50 | 30 x 30 x 1,5 | 100 | 40 x 40 x 2 | 160 |
| | 16 x 8 x 1,2 | 80 | 50 x 20 x 2 | 120 | 60 x 20 x 2 | 160 |
| | 18 x 9 x 1,2 | 100 | 40 x 20 x 2 | 100 | 50 x 20 x 2 | 200 |



Profile bend. DS 50 / 60 / 80 / 120



May differ from the illustration



DS 50

DS 60

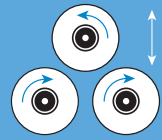
| | DS 50 | DS 60 | DS 80 | DS 120 |
|--|---------------|----------------|-----------------|-----------------|
| Roller shaft diameters (mm) | 40 | 50 | 60 | 100 |
| Effective shaft length (mm) | 95 | 115 | 160 | 260 |
| Roller diameter (mm) | 147 | 175 | 225 | 315 |
| Rotational speed per minute (min ⁻¹) | 9-18 | 8-16 | 7,7 | 5 |
| Motor power (kW) | 2 | 4 | 5,5 | 11 |
| Working height (cm) | 100 | 93 | 100 | 115 |
| Packing measurements (cm) | 75 x 18 x 135 | 76 x 122 x 138 | 105 x 150 x 170 | 195 x 180 x 210 |
| Machine weight (kg) | 400 | 440 | 1000 | 2600 |

| | DS 50 | | DS 60 | | DS 80 | | DS 120 | |
|--|---------|-------------|----------|-------------|----------|-------------|----------|-------------|
| | mm | min. Radius | mm | min. Radius | mm | min. Radius | mm | min. Radius |
| | 60 x 25 | 180 | 100 x 20 | 250 | 140 x 35 | 300 | 200 x 35 | 400 |
| | 60 x 30 | 220 | | | 150 x 35 | 400 | 200 x 45 | 500 |
| | 60 x 12 | 500 | 80 x 10 | 300 | 100 x 12 | 600 | 120 x 20 | 350 |
| | 60 x 20 | 600 | | | 100 x 20 | 700 | 120 x 30 | 500 |

| | DS 50 | | DS 60 | | DS 80 | | DS 120 | |
|--|---------------------|-------------|---------------------|------------|----------------------|-------------|-------------------|-------------|
| | mm | min. radius | mm | min.radius | mm | min. radius | mm | min. radius |
| | 30 | 180 | 40 | 350 | 50 | 250 | 65 | 200 |
| | 35 | 220 | | | 60 | 400 | 75 | 300 |
| | 50 x 50 x 5 | 300 | 60 x 60 x 6 | 400 | 80 x 80 x 8 | 250 | 100 x 100 x 12 | 1.000 |
| | 60 x 60 x 6 | 400 | | | 90 x 90 x 9 | 600 | 120 x 120 x 13 | 2.000 |
| | 50 x 50 x 5 | 350 | 60 x 60 x 6 | 500 | 80 x 80 x 8 | 350 | 100 x 100 x 12 | 1.000 |
| | 60 x 60 x 6 | 500 | | | 90 x 90 x 9 | 700 | 120 x 120 x 13 | 2.500 |
| | 50 x 50 x 5 | 350 | 60 x 60 x 7 | 400 | 80 x 80 x 8 | 350 | 100 x 100 x 10 | 800 |
| | 60 x 60 x 6 | 500 | | | 80 x 80 x 10 | 400 | 120 x 120 x 13 | 1.500 |
| | 50 x 50 x 5 | 300 | 60 x 60 x 7 | 400 | 80 x 80 x 8 | 350 | 100 x 100 x 10 | 800 |
| | 60 x 60 x 6 | 400 | | | 80 x 80 x 10 | 400 | 120 x 120 x 13 | 1.500 |
| | 60 x 35 x 4 | 200 | 80 x 45 x 6 | 250 | 120 x 55 x 7 | 300 | 200 x 75 x 8,5 | 500 |
| | 65 x 42 x 5,5 | 250 | | | 160 x 65 x 7,5 | 400 | 260 x 90 x 10 | 700 |
| | 60 x 35 x 4 | 200 | 80 x 45 x 6 | 250 | 120 x 55 x 7 | 300 | 200 x 75 x 8,5 | 500 |
| | 65 x 42 x 5,5 | 250 | | | 160 x 65 x 7,5 | 400 | 260 x 90 x 10 | 700 |
| | 40 x 35 x 5 | 600 | 40 x 35 x 5 | 600 | 65 x 42 x 5,5 | 600 | 120 x 55 x 7 | 2.500 |
| | 60 x 35 x 4 | 1.200 | | | 80 x 45 x 6 | 1.200 | 140 x 60 x 7 | 3.000 |
| | - | - | - | - | INP 100 | 400 | INP 180 | 1.000 |
| | - | - | | | INP 140 | 450 | INP 220 | 1.200 |
| | - | - | - | - | IPE 80 | 2.500 | HEB 120 | 2.000 |
| | - | - | | | IPE 100 | 4.000 | HEB 140 | 2.500 |
| | 60 x 2 | 600 | 70 x 2 | 600 | 100 x 3 | 600 | 140 x 3 | 1.200 |
| | 70 x 2 | 800 | | | 120 x 3 | 1.000 | 180 x 3 | 2.500 |
| | 60,3 x 4,2 (2") | 400 | 76,1 x 3,2 (2 1/2") | 600 | 101,6 x 3,6 (3 1/2") | 700 | 114,3 x 5,4 (4") | 1.400 |
| | 76,1 x 3,2 (2 1/2") | 600 | | | 114,3 x 4 (4") | 1000 | 139,7 x 5 (5") | 2.300 |
| | 40 | 300 | 40 | 300 | 60 | 250 | 80 | 300 |
| | 50 | 600 | | | 70 | 400 | 90 | 600 |
| | 60 x 30 x 3 | 800 | 80 x 40 x 3 | 1000 | 100 x 50 x 4 | 800 | 120 x 80 x 5 | 1.200 |
| | 80 x 40 x 4 | 1.200 | | | 120 x 60 x 4 | 1.000 | 160 x 80 x 6,3 | 1.800 |
| | 60 x 30 x 4 | 1.200 | 80 x 40 x 2,5 | 1500 | 100 x 50 x 4 | 800 | 120 x 60 x 5 | 1.200 |
| | 80 x 40 x 2,5 | 1.500 | | | 120 x 60 x 4 | 1000 | 140 x 80 x 5 | 1.900 |
| | 50 x 50 x 3 | 1.500 | 60 x 60 x 3 | 600 | 80 x 80 x 3,2 | 600 | 100 x 4 | 1.200 |
| | 60 x 60 x 3 | 2.000 | | | 90 x 90 x 4 | 1.000 | 120 x 4 | 2.000 |
| | 60 x 30 x 2,5 | 800 | 80 x 30 x 3 | 1200 | 80 x 45 x 3 | 800 | 100 x 50 x 3 | 900 |
| | 80 x 40 x 2,5 | 1.200 | | | 120 x 40 x 3 | 1.000 | 180 x 60 x 4 | 1.300 |
| | 60 x 30 x 3 | 1.200 | 80 x 30 x 3 | 1200 | 80 x 45 x 3 | 800 | 100 x 50 x 30 | 700 |
| | 60 x 40 x 3 | 1.500 | | | 120 x 50 x 3 | 1.000 | 160 x 40 x 3 | 1.000 |
| | A40 x B60 x C20 | 500 | A50 x B90 x C30 | 600 | A60 x B90 x C50 | 450 | A100 x B100 x C60 | 600 |
| | A50 x B75 x C25 | 450 | | | A70 x B100 x C50 | 500 | A120 x B120 x C70 | 800 |



Profile bender **Vario**



May differ from the illustration

The Vario profile bender is the world's first variable profile bender. You can decide on the equipment that you need or you can match the bender to your financial situation. The advantage is, that whatever you decide initially, you can upgrade the Vario profile bender at any time. At any time, you can convert from a simple manual operated bender with 2 motorised shafts, to a high-powered bender with hydraulic feed and 3 motorised shafts.

What does it cost? You will be surprised, the Vario profile bender is probably the most reasonable priced profile bender on the market.

Also available:

- Profile bender rollers
- Digital display for the feed
- Bender rollers for round steel tubes
- Bender rollers for round polyamide tubes



Vario profile bender

Vario profile bender

| Vario profile bender | | |
|-----------------------------|------------------|----------------|
| Roller shaft diameters (mm) | 40 | |
| Motor power (kW) | 1,2 | |
| Voltage (V) | 400 | |
| Hydraulic pressure (Bar) | 210 | |
| Tool height (mm) | 100 | |
| Dimensions LxWxH (mm) | 1200 x 800 x 800 | |
| Machine weight (kg) | 100 | |
| | | 60 x 20 mm |
| | | 40 x 12 mm |
| | | 48 x 2 mm |
| | | 40 x 40 x 3 mm |

The bending capacity depends on the equipment type (Vario I or Vario II)!
* Double supported resp. shaft support available



Profile bender **Vario I**

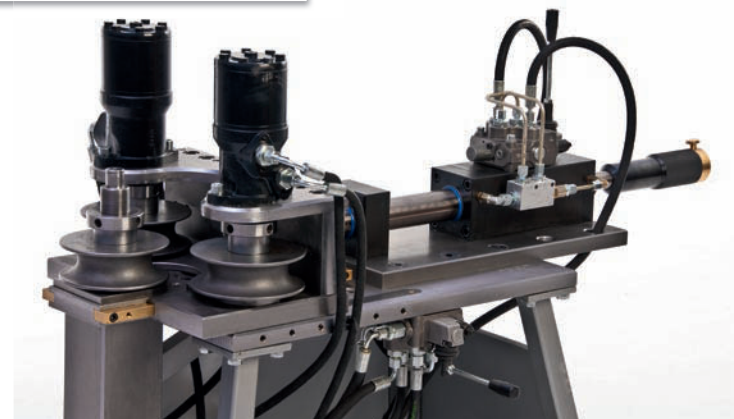


Vario I

A profile bender with 3 motorised shafts and manual feed.
The most economic profile bender.



Profile bender **Vario II**



Vario II

A profile bender with 2 motorised rollers and hydraulic feed.



Profile bender **Vario III**

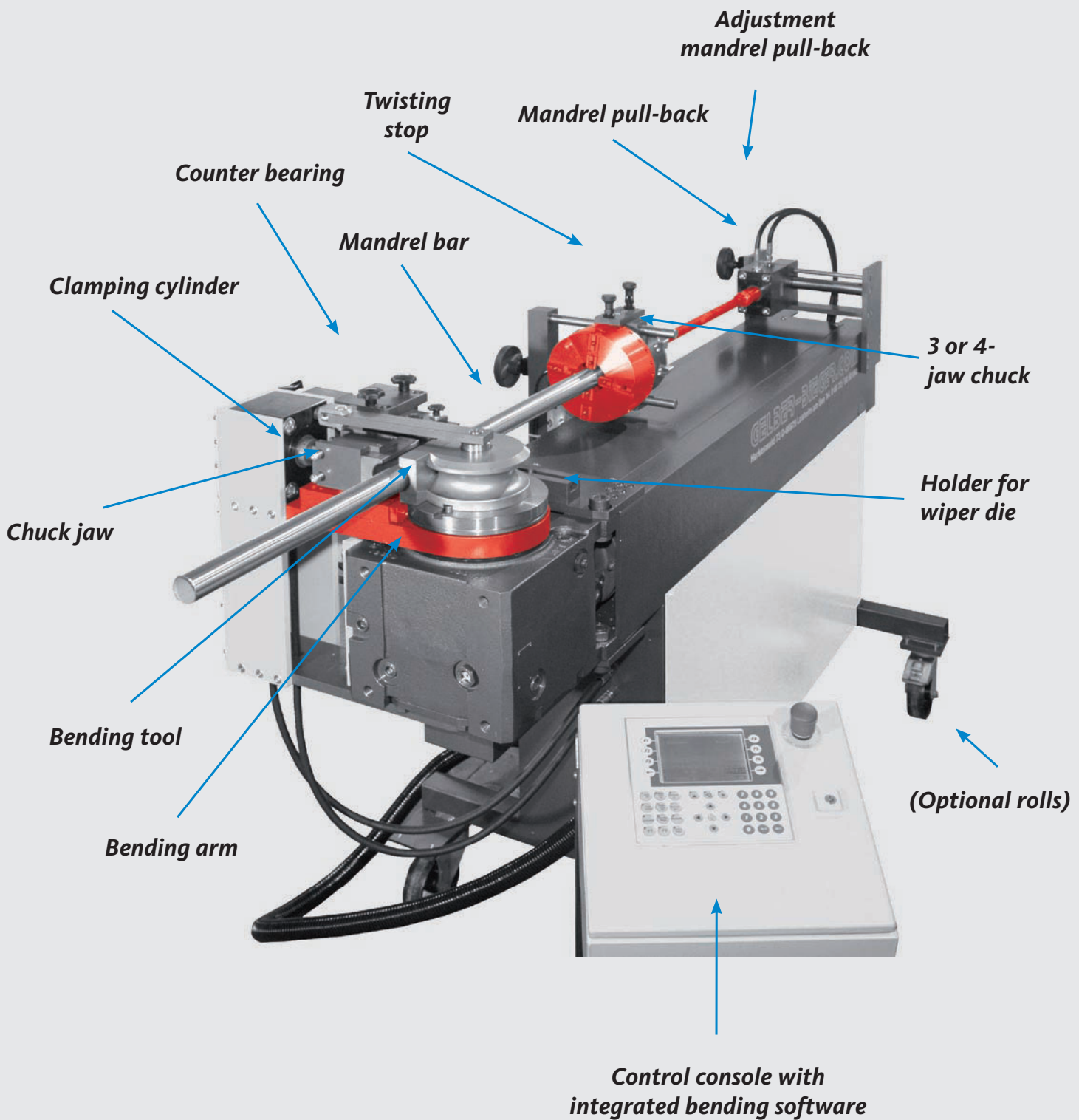


Vario III

The complete accessories of Mobi-bender are also available for Vario III

Mandrel bender information

Moving parts



Standard equipment for the S-03 mandrel bender machine series

- Modern electronic drive
- PLC controller
- Electronic measurement of length and twisting
- Manual stop system
- Hydraulic tube clamping
- Adjustable clamping pressure
- Three-jaw chuck
- Control console

Integrated software

As the first manufacturer, we offer you the following innovative solution as standard. Using the standard control console, a wide range of bending programs can be performed without using an external laptop or PC for programming. Our system calculates the following parameters:

- Stretched tube lengths
- Feed rate
- Bending angle

Stop system

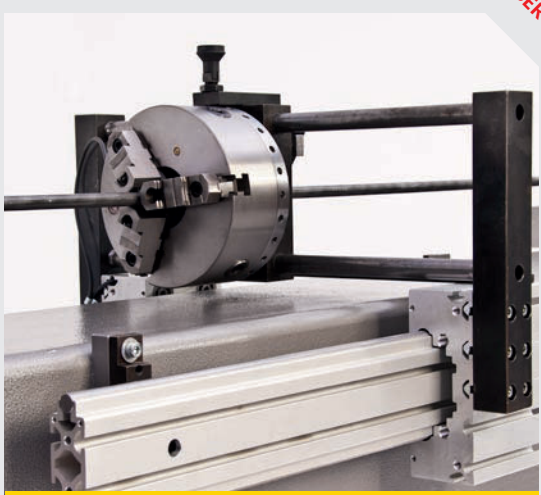
The software calculates for you the position at which the bending should theoretically take place. On the control console display, you will see the target/actual comparison, so that you can manually adjust the desired position.

Throttle stop for length setting
The throttle stops are used to bend series of varying sizes. Thus you can bend in the simplest way your series rapidly, accurately and efficiently.

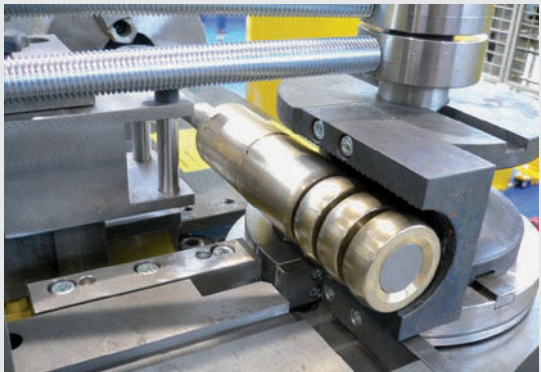
Twist mechanism with stops (optional)
The same criteria as for the length settings apply for the twist mechanism. Also there is a target/actual comparison shown on the display, and there is the possibility to adjust the stops manually.

Options

- Automatic tool pull-back
- Manual/automatic quick-action chuck
- Pneumatic stop system
- Foot-operated switch
- Computation software
- Bending tools



Four-jaw chuck



Ball mandrel



Length stop

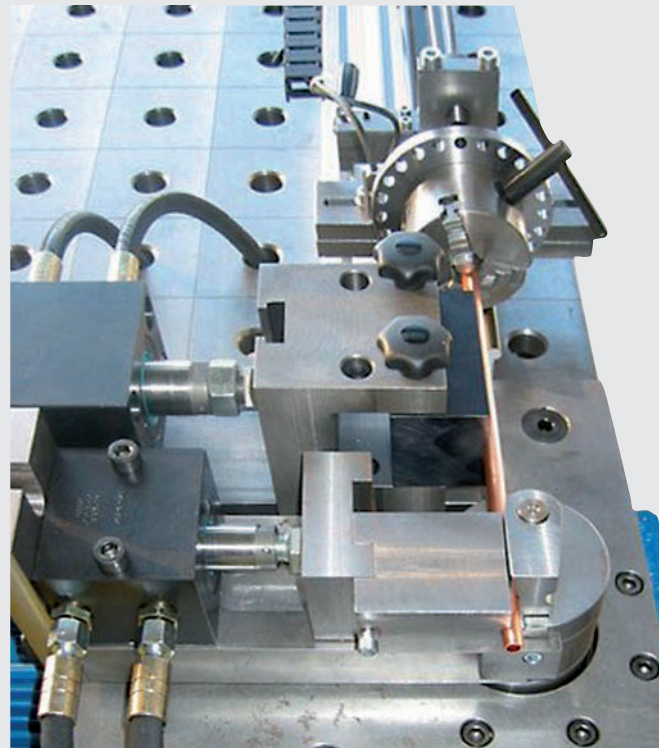


Control console with integrated software



Mandrel bender S-03 28

| | S-03 28 |
|--|------------------------|
| Drive power bending axle (kW) | 0,75 |
| Revolution speed bending shaft (rpm) | 4,76 |
| Max. bending radius, Rm (mm) | 90 |
| Min. bending radius stand. shaft (mm) | 20 |
| Bending shaft diameter (mm) | 25 |
| Smallest bending shaft (mm) | 12 |
| Bending direction | left |
| Hydraulic drive power (kW) | 1,5 |
| Max. bending capacity Max. yield strength 210 N/mm ² | 28 x 3 |
| Max. bending capacity VA 1.4301 | 28 x 2 |
| Square tube steel | 20 x 20 x 2 |
| Smallest tube diameter (mm) | 4 |
| Feed Rate 3 m: dimens. (m)/weig. (kg) | 3,7 x 0,9 x 1,4 / 800 |
| Feed Rate 4,5 m: dimens. (m)/weig. (kg) | 5,2 x 0,9 x 1,4 / 950 |
| Feed Rate 6 m: dimens. (m)/weig. (kg) | 6,7 x 0,9 x 1,4 / 1100 |



S-03 28 with twist/length measuring system



Mandrel bender S-03 42

| | S-03 42 |
|--|------------------------|
| Drive power bending axle (kW) | 1,5 |
| Revolution speed bending shaft (rpm) | 4,76 |
| Max. bending radius, Rm (mm) | 120 |
| Min. bending radius stand. shaft (mm) | 40 |
| Bending shaft diameter (mm) | 50 |
| Smallest bending shaft (mm) | 12 |
| Bending direction | left |
| Hydraulic drive power (kW) | 3 |
| Max. bending capacity Max. yield strength 210 N/mm ² | 42,4 x 3,25 |
| Max. bending capacity VA 1.4301 | 42,4 x 2,6 |
| Square tube steel | 25 x 25 x 2 |
| Smallest tube diameter (mm) | 4 |
| Feed Rate 3 m: dimens. (m)/weig. (kg) | 3,7 x 0,9 x 1,4 / 800 |
| Feed Rate 4,5 m: dimens. (m)/weig. (kg) | 5,2 x 0,9 x 1,4 / 950 |
| Feed Rate 6 m: dimens. (m)/weig. (kg) | 6,7 x 0,9 x 1,4 / 1100 |



S-03 42, e.g. 2.5 m long



Mandrel bender S-03 42 RL

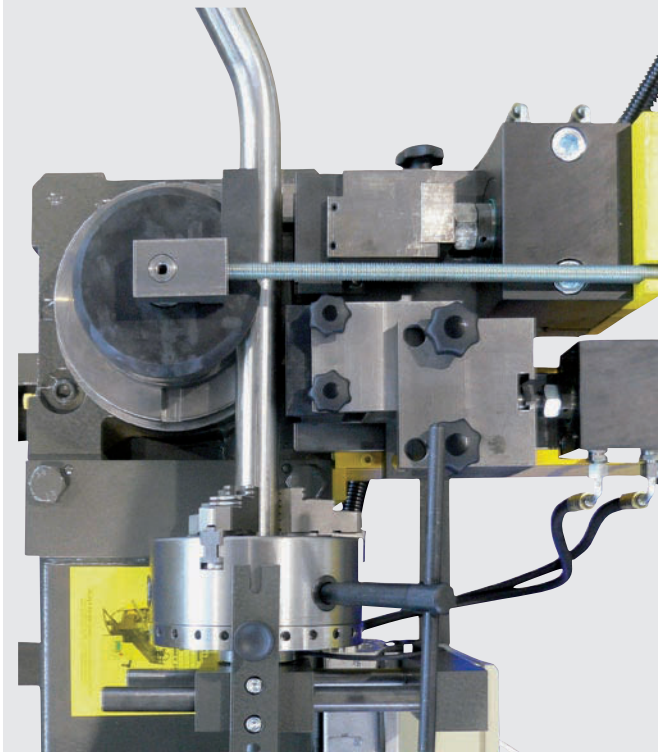


S-03 42 RL

| | S-03 42 RL |
|--|------------------------|
| Drive power bending axle (kW) | 1,5 |
| Revolution speed bending shaft (rpm) | 4,76 |
| Max. bending radius, Rm (mm) | 120 |
| Min. bending radius stand. shaft (mm) | 40 |
| Bending shaft diameter (mm) | 50 |
| Smallest bending shaft (mm) | 12 |
| Bending direction | Right/Left |
| Hydraulic drive power (kW) | 3 |
| Max. bending capacity Max. yield strength 210 N/mm ² | 42,4 x 3,25 |
| Max. bending capacity VA 1.4301 | 42,4 x 2,6 |
| Square tube steel | 25 x 25 x 2 |
| Smallest tube diameter (mm) | 4 |
| Feed Rate 3 m: dimens. (m)/weig. (kg) | 3,7 x 0,9 x 1,4 / 800 |
| Feed Rate 4,5 m: dimens. (m)/weig. (kg) | 5,2 x 0,9 x 1,4 / 950 |
| Feed Rate 6 m: dimens. (m)/weig. (kg) | 6,7 x 0,9 x 1,4 / 1100 |



Mandrel bender S-03 50



S-03 50

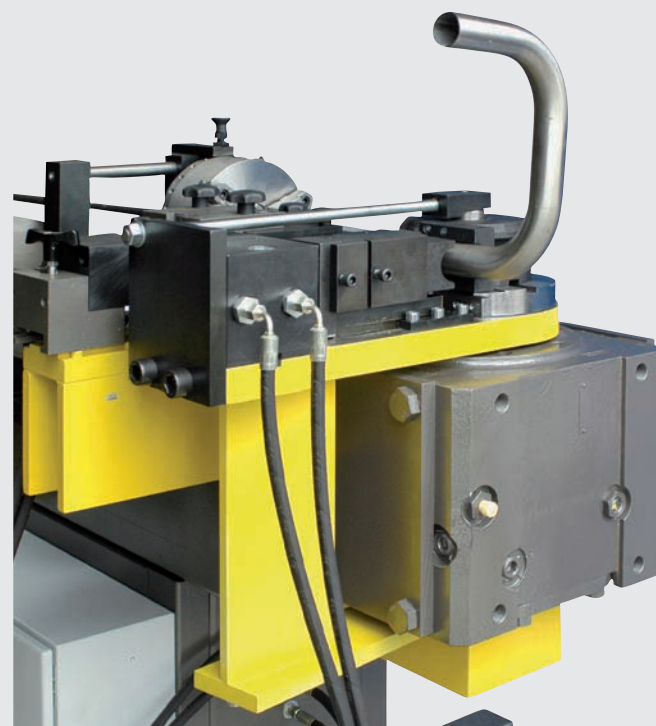
| | S-03 50 |
|--|------------------------|
| Drive power bending axle (kW) | 2,2 |
| Revolution speed bending shaft (rpm) | 4,76 |
| Max. bending radius, Rm (mm) | 150 |
| Min. bending radius stand. shaft (mm) | 40 |
| Bending shaft diameter (mm) | 50 |
| Smallest bending shaft (mm) | 12 |
| Bending direction | left |
| Hydraulic drive power (kW) | 3 |
| Max. bending capacity Max. yield strength 210 N/mm ² | 54 x 3 |
| Max. bending capacity VA 1.4301 | 54 x 2 |
| Square tube steel | 30 x 30 x 3 |
| Smallest tube diameter (mm) | 6 |
| Feed Rate 3 m: dimens. (m)/weig. (kg) | 3,8 x 0,9 x 1,4 / 900 |
| Feed Rate 4,5 m: dimens. (m)/weig. (kg) | 5,3 x 0,9 x 1,4 / 1050 |
| Feed Rate 6 m: dimens. (m)/weig. (kg) | 6,8 x 0,9 x 1,4 / 1200 |

Abbildungen können abweichen



Mandrel bender S-03 60 Light

| | S-03 60 Light |
|--|------------------------|
| Drive power bending axle (kW) | 2,2 |
| Revolution speed bending shaft (rpm) | 3,98 |
| Max. bending radius, Rm (mm) | 150 |
| Min. bending radius stand. shaft (mm) | 40 |
| Bending shaft diameter (mm) | 50 |
| Smallest bending shaft (mm) | 12 |
| Bending direction | left |
| Hydraulic drive power (kW) | 3 |
| Max. bending capacity Max. yield strength 210 N/mm ² | 60 x 2,9 |
| Max. bending capacity VA 1.4301 | 60 x 2 |
| Square tube steel | 40 x 40 x 3 |
| Smallest tube diameter (mm) | 6 |
| Feed Rate 3 m: dimens. (m)/weig. (kg) | 3,8 x 0,9 x 1,4 / 900 |
| Feed Rate 4,5 m: dimens. (m)/weig. (kg) | 5,3 x 0,9 x 1,4 / 1050 |
| Feed Rate 6 m: dimens. (m)/weig. (kg) | 6,8 x 0,9 x 1,4 / 1200 |

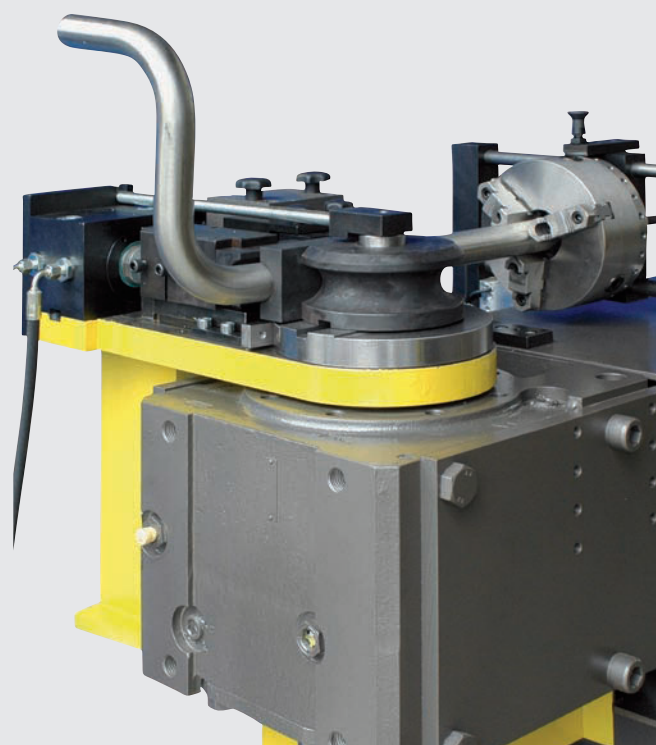


S-03 60 Light-Version



Mandrel bender S-03 60 RL

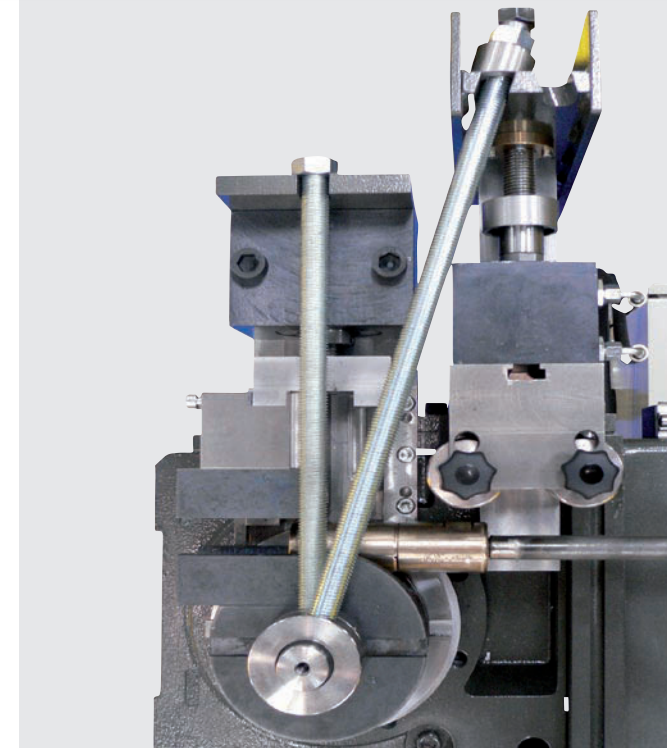
| | S-03 60 RL |
|--|----------------------|
| Drive power bending axle (kW) | 2,2 |
| Revolution speed bending shaft (rpm) | 2,9 |
| Max. bending radius, Rm (mm) | 150 |
| Min. bending radius stand. shaft (mm) | 40 |
| Bending shaft diameter (mm) | 50 |
| Smallest bending shaft (mm) | 25 |
| Bending direction | right/left |
| Hydraulic drive power (kW) | 3 |
| Max. bending capacity Max. yield strength 210 N/mm ² | 60 x 4 |
| Max. bending capacity VA 1.4301 | 60 x 3 |
| Square tube steel | 50 x 50 x 2,5 |
| Smallest tube diameter (mm) | 6 |
| Feed Rate 3 m: dimens. (m)/weig. (kg) | 4 x 1 x 1,4 / 1200 |
| Feed Rate 4,5 m: dimens. (m)/weig. (kg) | 5,5 x 1 x 1,4 / 1400 |
| Feed Rate 6 m: dimens. (m)/weig. (kg) | 7 x 1 x 1,4 / 1600 |



S-03 60 RL



Mandrel bender S-03 70

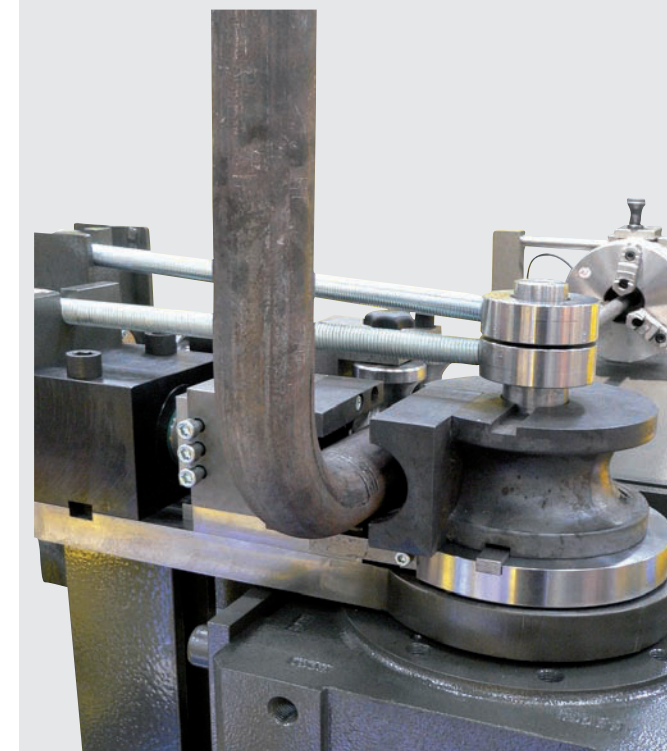


S-03 70

| | S-03 70 |
|--|----------------------|
| Drive power bending axle (kW) | 3 |
| Revolution speed bending shaft (rpm) | 2,9 |
| Max. bending radius, Rm (mm) | 150 |
| Min. bending radius stand. shaft (mm) | 40 |
| Bending shaft diameter (mm) | 50 |
| Smallest bending shaft (mm) | 25 |
| Bending direction | left |
| Hydraulic drive power (kW) | 3 |
| Max. bending capacity Max. yield strength 210 N/mm ² | 70 x 3 |
| Max. bending capacity VA 1.4301 | 70 x 2 |
| Square tube steel | 50 x 50 x 3 |
| Smallest tube diameter (mm) | 20 |
| Feed Rate 3 m: dimens. (m)/weig. (kg) | 4 x 1 x 1,4 / 1200 |
| Feed Rate 4,5 m: dimens. (m)/weig. (kg) | 5,5 x 1 x 1,4 / 1400 |
| Feed Rate 6 m: dimens. (m)/weig. (kg) | 7 x 1 x 1,4 / 1600 |



Mandrel bender S-03 70 RL



S-03 70 RL

| | S-03 70 RL |
|--|----------------------|
| Drive power bending axle (kW) | 3 |
| Revolution speed bending shaft (rpm) | 2,9 |
| Max. bending radius, Rm (mm) | 150 |
| Min. bending radius stand. shaft (mm) | 40 |
| Bending shaft diameter (mm) | 50 |
| Smallest bending shaft (mm) | 25 |
| Bending direction | right/left |
| Hydraulic drive power (kW) | 3 |
| Max. bending capacity Max. yield strength 210 N/mm ² | 70 x 3 |
| Max. bending capacity VA 1.4301 | 70 x 2 |
| Square tube steel | 50 x 50 x 3 |
| Smallest tube diameter (mm) | 20 |
| Feed Rate 3 m: dimens. (m)/weig. (kg) | 4 x 1 x 1,4 / 1200 |
| Feed Rate 4,5 m: dimens. (m)/weig. (kg) | 5,5 x 1 x 1,4 / 1400 |
| Feed Rate 6 m: dimens. (m)/weig. (kg) | 7 x 1 x 1,4 / 1600 |



Mandrel bender S-03 80

| | S-03 80 |
|--|----------------------|
| Drive power bending axle (kW) | 4 |
| Revolution speed bending shaft (rpm) | 2,51 |
| Max. bending radius, Rm (mm) | 200 |
| Min. bending radius stand. shaft (mm) | 40 |
| Bending shaft diameter (mm) | 50 |
| Smallest bending shaft (mm) | 50 |
| Bending direction | left |
| Hydraulic drive power (kW) | 3 |
| Max. bending capacity Max. yield strength 210 N/mm ² | 76 x 3,6 |
| Max. bending capacity VA 1.4301 | 76 x 2,6 |
| Square tube steel | 50 x 50 x 4 |
| Smallest tube diameter (mm) | 20 |
| Feed Rate 3 m: dims. (m)/weig. (kg) | 4 x 1 x 1,4 / 1500 |
| Feed Rate 4,5 m: dims. (m)/weig. (kg) | 5,5 x 1 x 1,4 / 1750 |
| Feed Rate 6 m: dims. (m)/weig. (kg) | 7 x 1 x 1,4 / 2000 |



S-03 80 L

Abbildungen können abweichen

Mandrel bending

At mandrel bending, the tube is inserted over the bending mandrel into the bending machine and tensioned between the bending tool and the pressure die. The bending head turns around the bending axis and bends the tube in the bending tool. During the bending procedure the tube is supported in the counter bearing.

Using the mandrel bending system, it is possible to achieve the smallest possible bending radii at the best quality of bows. Mandrel bending machines can – depending on the material used – bend radii from 1.5 times the tube's outer diameter on.

The more thin-walled the tube and the smaller the bending radius, the more complex is the bending tool required. Different bending mandrels can be used for the bending procedure.

Bending tools

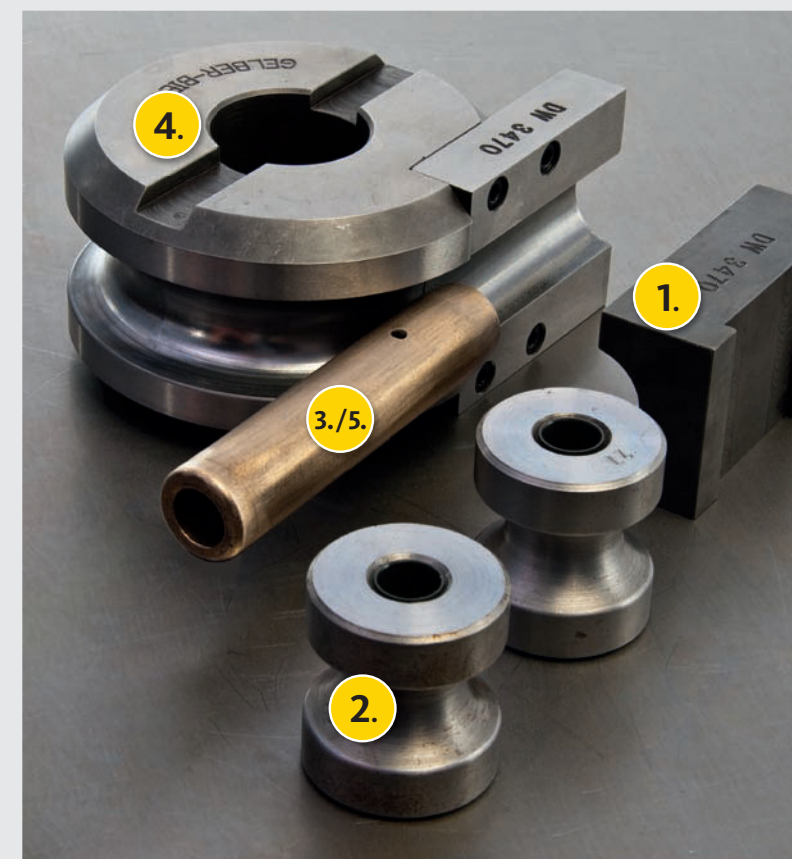
The bending tools are made from case-hardened steel. The hardening prevents premature wear and deformation of the bending tools. Unhardened tools do wear faster and if wrinkle formation should occur, these wrinkles will be pressed into the tool and make it unusable.



Ball mandrel



Wiper die



1. Pressure die:

The pressure dies are supplied with a smooth or grooved surface, depending on requirement.

2. Counter bearing:

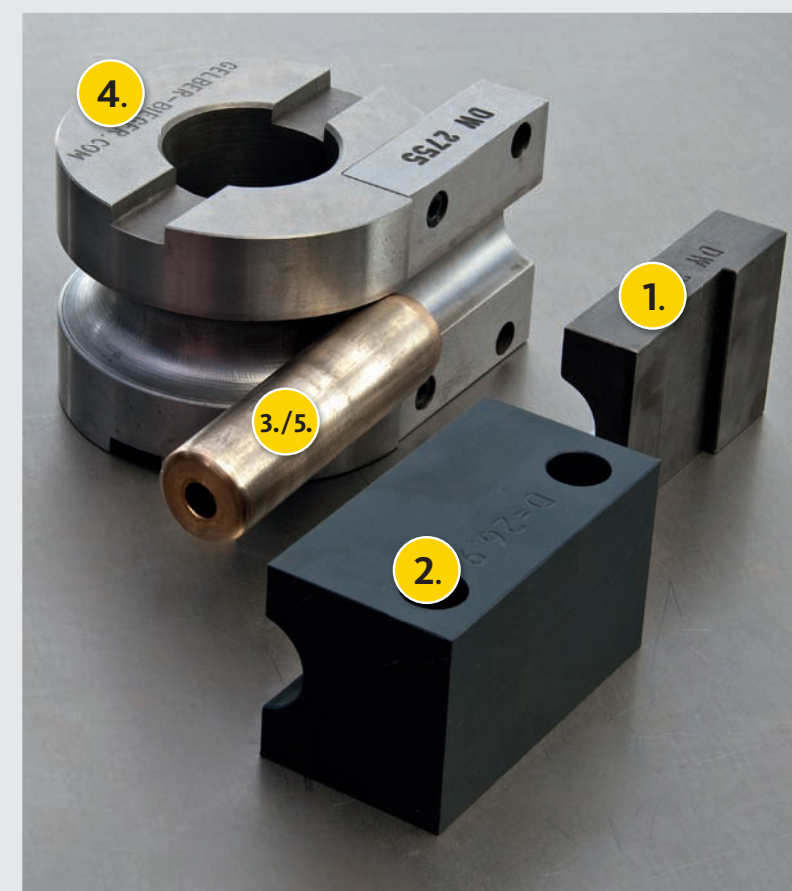
A counter bearing is required to support the bending procedure. For thick-walled tubes, counter rollers are used. Thin-walled tubes are bent with slide rails.

3. Bending mandrels:

The bending mandrel supports the exterior of the tube while bending. The bending mandrels determine the ovality of the bend and do only partially prevent formation of wrinkles.

4. Bending tool:

The bending tool defines the radius at which the tube is bent. For example, for a 42 mm tube $R=42 \times 2 = 84$ mm.



5. Plug mandrel:

Plug mandrels are used to bend thick-walled tubes and large bending radii.

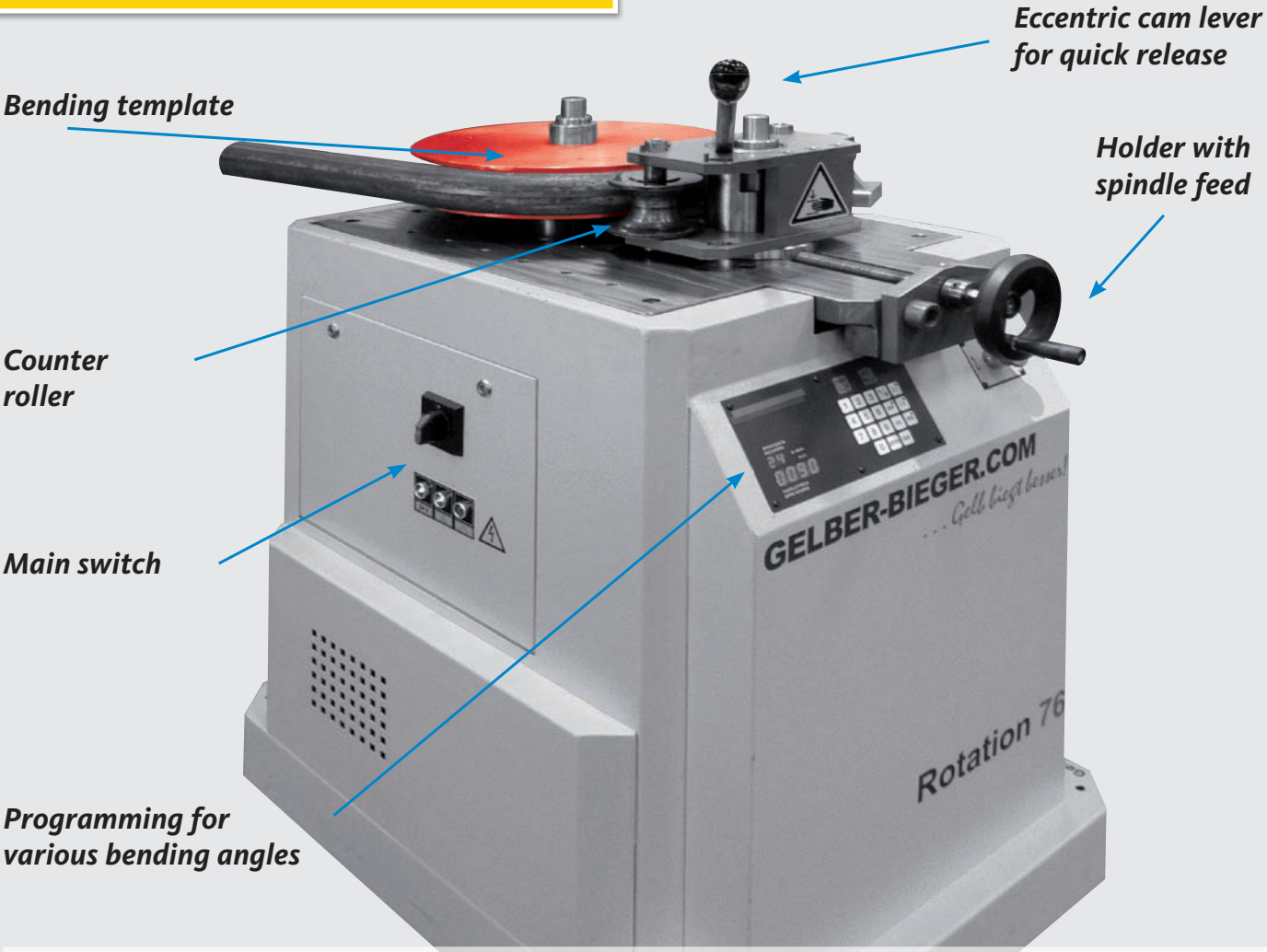
6. Ball mandrel:

Ball mandrels have one or more articulated balls at the end of the plug mandrel. Thereby the mandrel supports the tube even more deep in the bend. With a ball mandrel, thin-walled tubes can be bent with small bending radii. The smaller the bending radius and the more thin-walled the tube, the more balls need to be used. When using a ball mandrel, seamless tubes or tubes with smoothed welding seam are required.

7. Wiper die:

If wrinkles should occur during mandrel bending, it is necessary to use a wiper die. A wiper die does not “smooth wrinkles” but prevent formation of wrinkles. Often the wiper die is not necessary if annealed tubes are used for bending.

Rotary bender information



Unlike the mandrel bender, the "rotary" type of machine bends without using a mandrel and with a larger bending radius which is dependent on the wall-thickness of the tubes. The bending radii are given in the table. For each tube diameter, a suitable bending plate is required. It is possible to programme several bending angles successively and also to process them successively. These programs can also be stored. Optionally, bending on the "rotary" model can be operated via a foot pedal. The best results are attained with annealed tubes.

| | Rotary bender 40 | Rotary bender 60 | Rotary bender 76 |
|--|--|---|--|
| Motor power (kW) | 2,2 | 4 | 4 |
| Voltage (V) | 400 | 400 | 400 |
| Rotation speed per minute (min ⁻¹) | 4,76 | 3 | 7 |
| Dimensions LxWxH (mm) | 1400 x 600 x 980 | 600 x 500 x 950 | 850 x 620 x 980 |
| Machine weight (kg) | 500 | 190 | 260 |
| Rotary plate bending capacity | Round material ● Ø 25 mm ST 33 Flat iron ┃ 50 x 15 mm Rectangular ┃ 15 mm Tube ○ not possible | Round material ● Ø 30 mm ST 33 Flat iron ┃ 50 x 20 mm Rectangular ┃ 15 mm Tube ○ Ø 60 mm x 3,2 | Round material ● Ø 35 mm ST 33 Flat iron ┃ 100 x 15 mm Rectangular ┃ 20 mm Tube ○ Ø 76 mm x 4 |

Round tube bending table ○

| Tube diameter in mm | Tube thickness in mm | | | | | | | |
|---------------------|----------------------|-------|-------|-------|-------|-------|-------|-------|
| | 1 | 1,5 | 2 | 2,5 | 3 | 4 | 5 | 6 |
| 16 | R 40 | R 40 | R 40 | R 40 | R 40 | R 40 | R 40 | R 40 |
| 18 | R 42 | R 42 | R 42 | R 42 | R 40 | R 40 | R 40 | R 40 |
| 19 | R 45 | R 45 | R 45 | R 45 | R 45 | R 40 | R 40 | R 40 |
| 20 | R 50 | R 50 | R 45 | R 45 | R 45 | R 45 | R 45 | R 45 |
| 22 | R 60 | R 60 | R 55 | R 55 | R 45 | R 45 | R 45 | R 45 |
| 24 | R 75 | R 65 | R 60 | R 60 | R 50 | R 50 | R 50 | R 50 |
| 25 | R 80 | R 75 | R 75 | R 70 | R 55 | R 55 | R 55 | R 50 |
| 28 | R 90 | R 85 | R 80 | R 80 | R 55 | R 55 | R 55 | R 55 |
| 30 | R 100 | R 100 | R 95 | R 85 | R 70 | R 70 | R 70 | R 65 |
| 32 | R 100 | R 100 | R 95 | R 85 | R 75 | R 70 | R 70 | R 70 |
| 35 | | R 100 | R 100 | R 95 | R 80 | R 70 | R 70 | R 70 |
| 38 | | | R 100 | R 95 | R 85 | R 85 | R 85 | R 85 |
| 40 | | | R 100 | R 100 | R 95 | R 85 | R 85 | R 85 |
| 42 | | | R 105 | R 100 | R 95 | R 95 | R 90 | R 90 |
| 45 | | | R 140 | R 130 | R 105 | R 100 | R 100 | R 100 |
| 48 | | | R 140 | R 140 | R 110 | R 110 | R 110 | R 105 |
| 50 | | | R 140 | R 150 | R 120 | R 120 | R 120 | R 120 |
| 55 | | | R 140 | R 160 | R 135 | R 130 | R 125 | R 125 |
| 60 | | | R 140 | R 160 | R 150 | R 150 | R 150 | R 145 |
| 64 | | | | R 170 | R 160 | R 150 | R 150 | R 150 |
| 70 | | | | | R 200 | R 200 | R 190 | R 185 |
| 76 | | | | | R 220 | R 220 | R 210 | R 400 |

Rectangular tubing bending table □

| Tube diameter in mm | Tube thickness in mm | | | | | | | |
|---------------------|----------------------|-------|-------|-------|-------|-------|-------|-------|
| | 1 | 1,5 | 2 | 2,5 | 3 | 4 | 5 | 6 |
| 30 | R 100 | R 100 | R 95 | R 85 | R 70 | R 70 | R 70 | R 65 |
| 32 | R 110 | R 100 | R 95 | R 85 | R 75 | R 70 | R 70 | R 70 |
| 35 | | R 100 | R 100 | R 95 | R 80 | R 70 | R 70 | R 70 |
| 38 | | | R 100 | R 95 | R 85 | R 85 | R 85 | R 85 |
| 40 | | | R 100 | R 100 | R 95 | R 85 | R 85 | R 85 |
| 42 | | | R 105 | R 100 | R 95 | R 95 | R 90 | R 90 |
| 45 | | | R 140 | R 130 | R 105 | R 100 | R 100 | R 100 |
| 48 | | | R 140 | R 140 | R 110 | R 110 | R 110 | R 105 |
| 50 | | | R 140 | R 150 | R 120 | R 120 | R 120 | R 120 |
| 55 | | | R 140 | R 160 | R 135 | R 130 | R 125 | R 125 |



Rotary bender



Control console



Back support



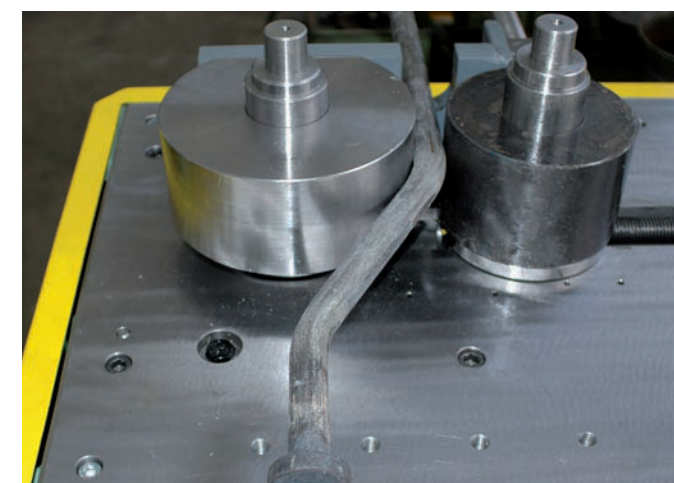
Carrier



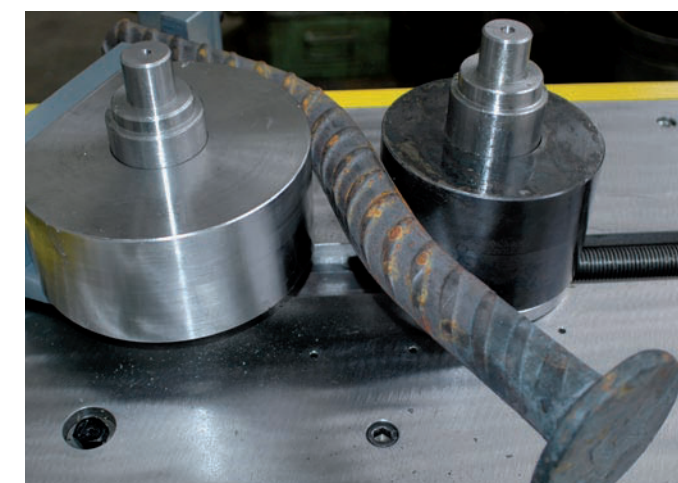
Round material • Ø 50 mm (Special machine)



Round material • Ø 32 mm



Round material • Ø 14 mm



Round material • Ø 32 mm



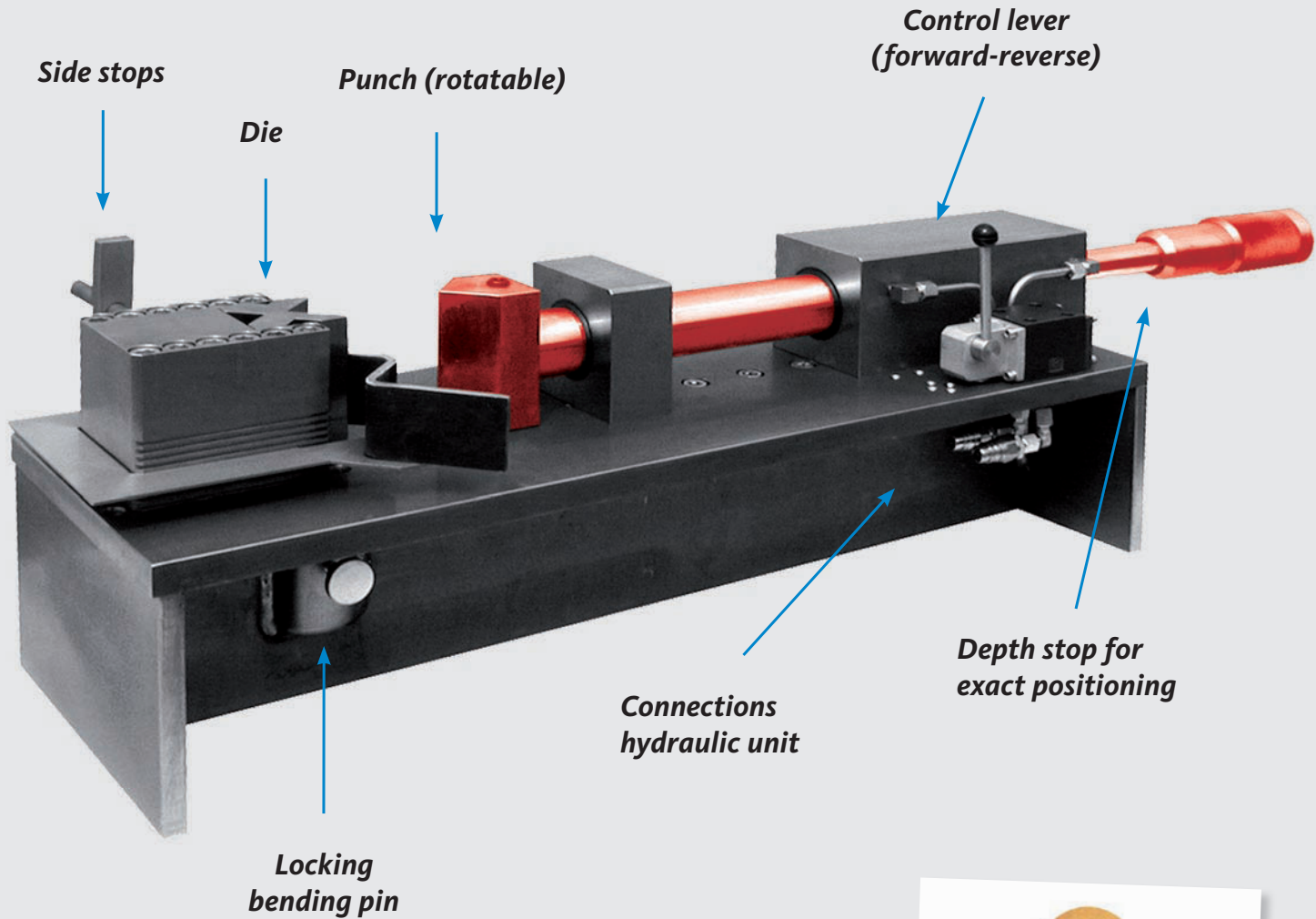
Rotation 60



Rotation 40

Mobi-bender information

Moving parts



! „This is probably the smallest and lightest horizontal bending press in the world“, says Daniel Holletschek, managing director of Gelber-Bieger GmbH, and had the Mobi-Bieger completely patented.

Manageable at high performance

This new hydraulic bender is particularly small and light - and as a result, mobile.

At the Gelber-Bieger headquarters in Losheim, a horizontal bending press weighing only 80 kg has been developed, which shall replace the angle bender. The Mobi-bender is easy to transport, for example on a building site, because it is only 80 cm long and 25 cm high and wide.

Despite its handy dimensions, the horizontal press can press 10 tonnes. This corresponds to a bending capacity of 100 x 15 millimetres for structural steel. A stop, which can be easily positioned, makes it possible to achieve a bending accuracy in the 0.1 mm range. The hydraulic equipment is always set up separately and connected to the press via 2 quick-release mechanisms.

The greatest advantage of the Mobi-bender is that it presses into the die with the punch. This is not usual for small machines. To bend a closed part, it is possible to interchange the positions of punch and die.

If required, it is also possible to bend around a mandrel. With a mandrel a rectangle of 50 mm side length can be bent.

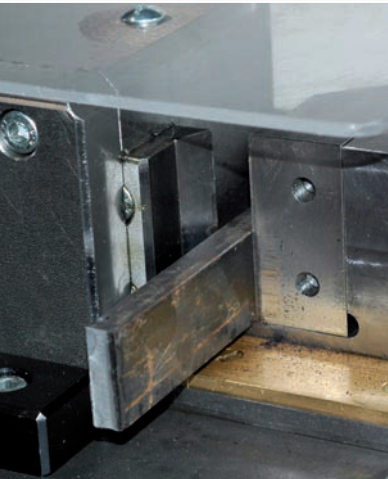
The accessories we recommend are:

- Basic
- Basic NC
- 130
- Rotation
- Punching
- Cutting
- Tubing finishing

These positions are all available together. A large number of special tools are already available.



Rotating plate



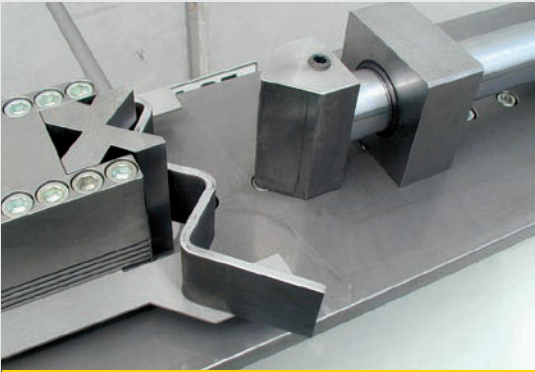
Cutting



Hydraulic unit



Mobi-bender



Standard tool



Bending around the mandrel



Mobi-bender Basic



May differ from the illustration

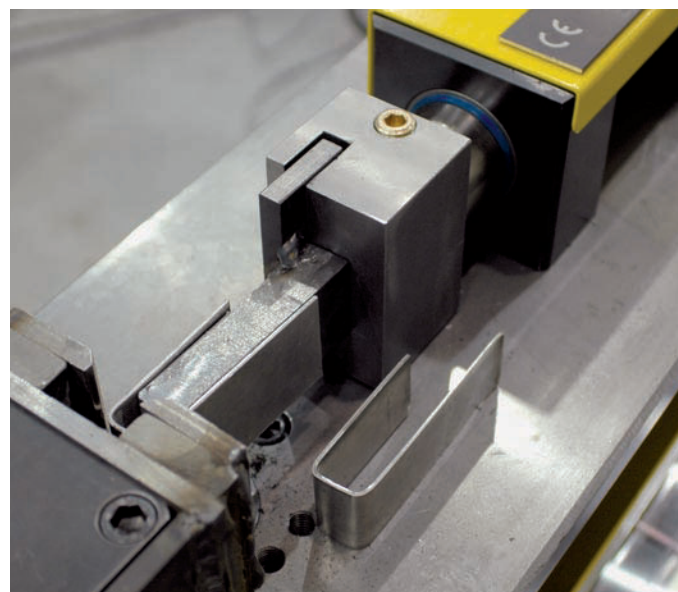
Mobi-bender Basic

The functionality of the Mobi-bender is very simple. The piece to be bent is placed between the punch and the die and then the hand lever is simply moved forwards. When the part is bent to the desired angle, simply release the control lever.

In order to repeat this bending, a stop can be installed which is screwed in until it sits tightly on the cylinder surface. From then on, the Mobi-bender always bends to the same angle. The bending angle can be adjusted by slightly turning the nut on the stop.

The O-ring in front of the stop nut, acts as a safety device and decreases the risk of injury through crushing.

| Mobi-bender Basic | |
|---------------------------|---------------------------|
| Motor power (kW) | 1,5 |
| Voltage (V) | 240 / 380 |
| Hydraulic pressure (Bar) | 240 |
| Working pressure (t) | 10 |
| Tool height (mm) | 100 |
| Dimensions L x W x H (mm) | 1200 x 250 x 280 |
| Machine weight (kg) | 80 |
| Bending capacity | Flat 100 x 15 (V = 125) |



Self-made tools



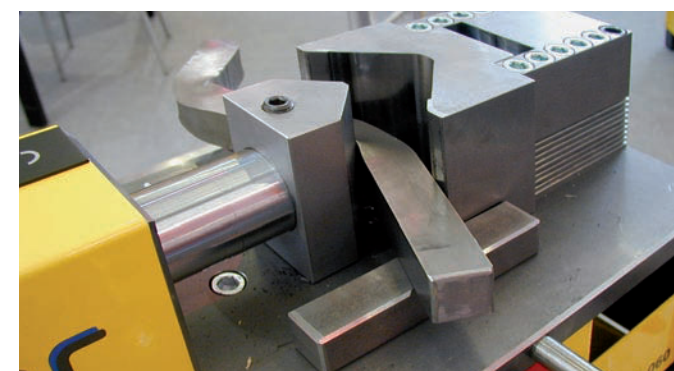
Control lever



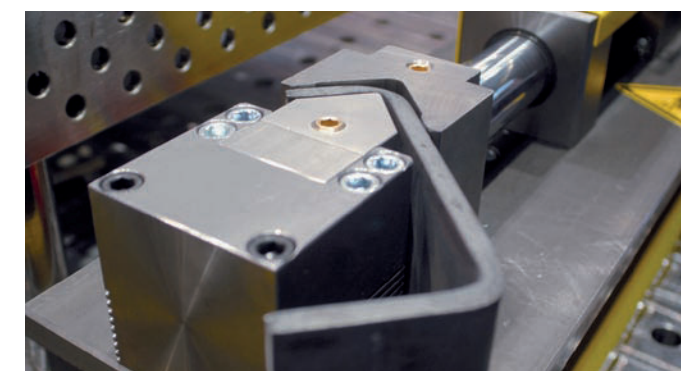
Safety at work



100 x 8 mm flat iron



20 x 20 mm flat iron



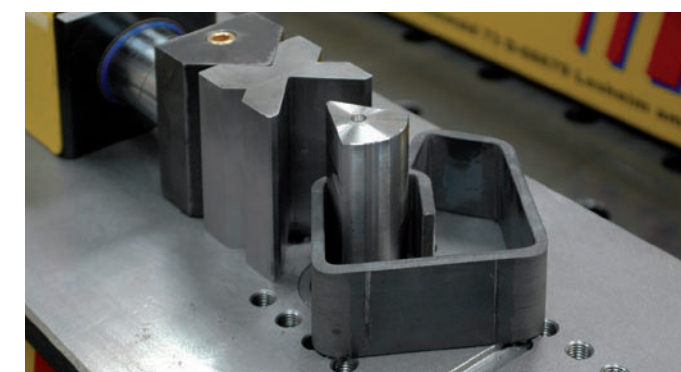
Press in the punch with the die

The Mobi-bender does not require any special safety devices.

Its working speed is 10 mm per second. You should mind to bend in the middle of the punch, e.g. for a 20 x 20 mm bend, the material should be positioned that it is bent centrally on the punch. You can also use the supplied height plate, which simply fits into the die holder at the desired height (see illustration on next page).



Accessory package



Bending around the bending pin

Standard delivery includes:

1 x Machine Mobi-bender Basic
1 x Length stop
1 x Height plate
1 x Hydraulic unit

1 x Multi-V die
1 x R5 punch
1 x Oil filling
1 x CE-conformity

Also available:

- Tool accessory package
- Punch adapter
- Cabinet base unit



Mobi-bender Basic NC



May differ from the illustration

Mobi-bender Basic NC

The Mobi-bender Basic NC has the same characteristics (stroke, pressing force and speed) as the Mobi-bender Basic. In addition, the Mobi-bender Basic NC is controlled, i.e. it has the possibility to programme up to 8 bending positions, which can be successively carried out. The programming is the same as for the Model XL.

Nevertheless, it is possible to adjust the stroke using the stop nut, so that working manually is also possible.

| Mobi-bender Basic NC | |
|---------------------------|---------------------------|
| Motor power (kW) | 1,5 |
| Voltage (V) | 240 / 380 |
| Hydraulic pressure (Bar) | 240 |
| Working pressure (t) | 10 |
| Tool height (mm) | 100 |
| Dimensions L x W x H (mm) | 1200 x 250 x 280 |
| Machine weight (kg) | 80 |
| Bending capacity | Flat 100 x 15 (V = 125) |



Special tools



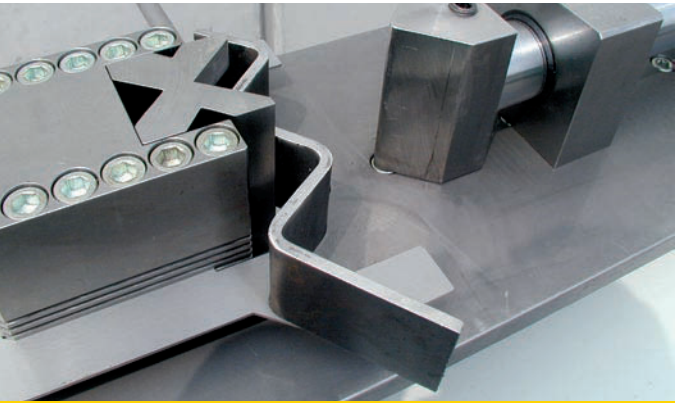
Cabinet base unit



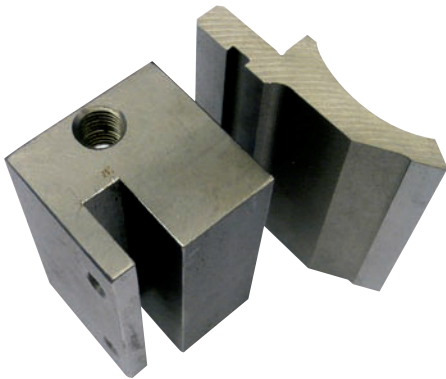
Controlled length stop

Optionally, a controlled length stop can be ordered. With this device programs can be stored, or you can simply drive to a desired bending position manually.

The Mobi-bender and the length-measuring system are coupled, which means that the length stop moves automatically when the Mobi-bender has finished bending.



Height plate



AMADA/PROMECAM punch adapter

Standard delivery includes:

- 1 x Machine Mobi-bender Basic NC
- 1 x Length stop
- 1 x Height plate
- 1 x Hydraulic unit
- 1 x Multi-V die
- 1 x R5 punch
- 1 x Oil filling
- 1 x CE-conformity
- 1 x Cabinet base unit
- 1 x Control unit

Also available:

- Tool accessory package
- Punch adapter
- Controlled length stop



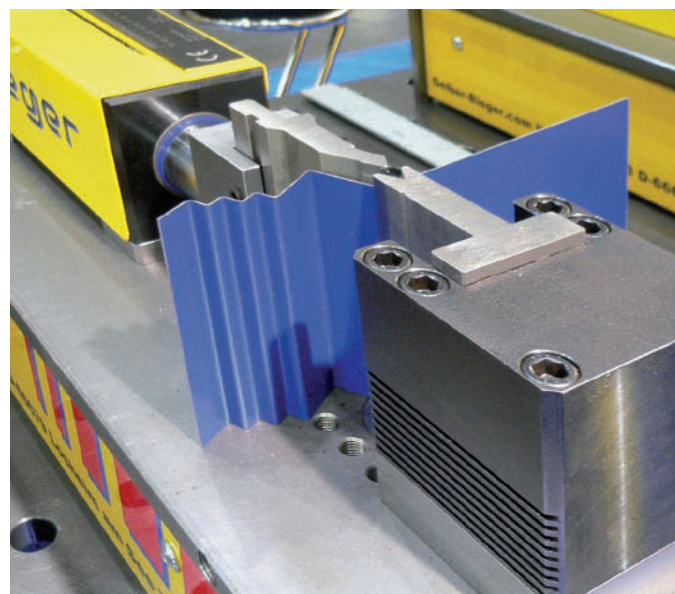
Mobi-Bender 130



Mobi-bender 130

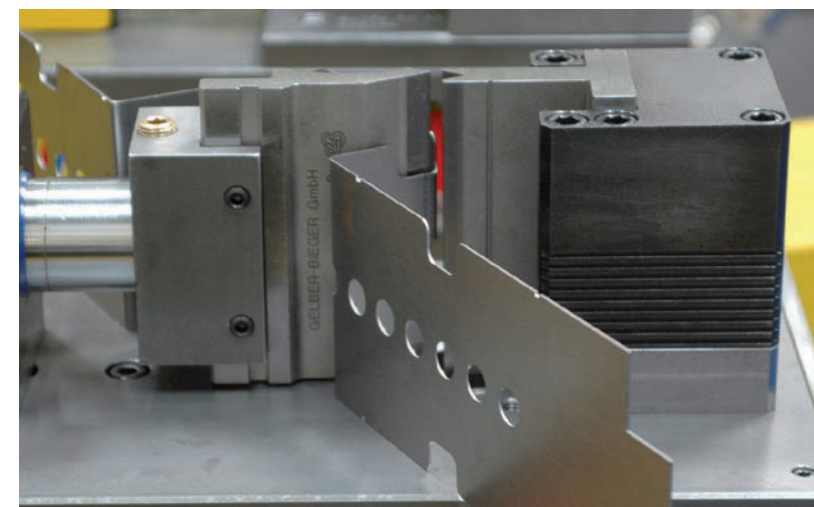
In most cases a working height of 100 mm is sufficient. Some customers, such as, for example, manufacturers of switch cabinets or sheet metal workers who process copper or aluminium, require a tool height of 130 mm. For these customers we have developed the Mobi-bender 130 model. For this model the technical data are the same, only the tool height is 130 mm.

| Mobi-bender 130 | |
|--------------------------|---------------------------|
| Motor power (kW) | 1,5 |
| Voltage (V) | 240 / 380 |
| Hydraulic pressure (Bar) | 240 |
| Working pressure (t) | 10 |
| Tool height (mm) | 130 |
| Dimensions LxWxH (mm) | 1200 x 250 x 280 |
| Machine weight (kg) | 80 |
| Bending capacity | Flat 100 x 15 (V = 125) |

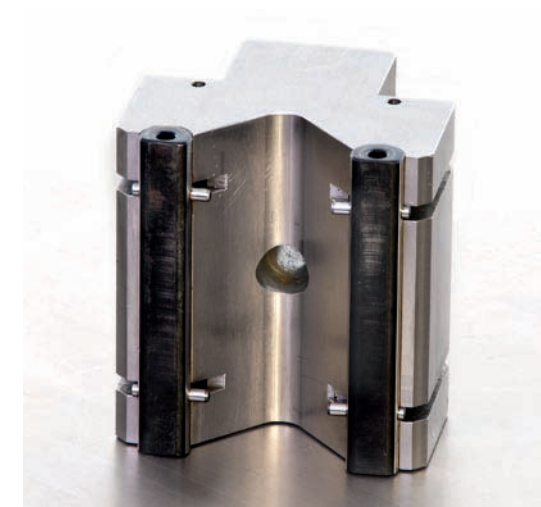


Z-Bending

May differ from the illustration



Bending with punch adapter

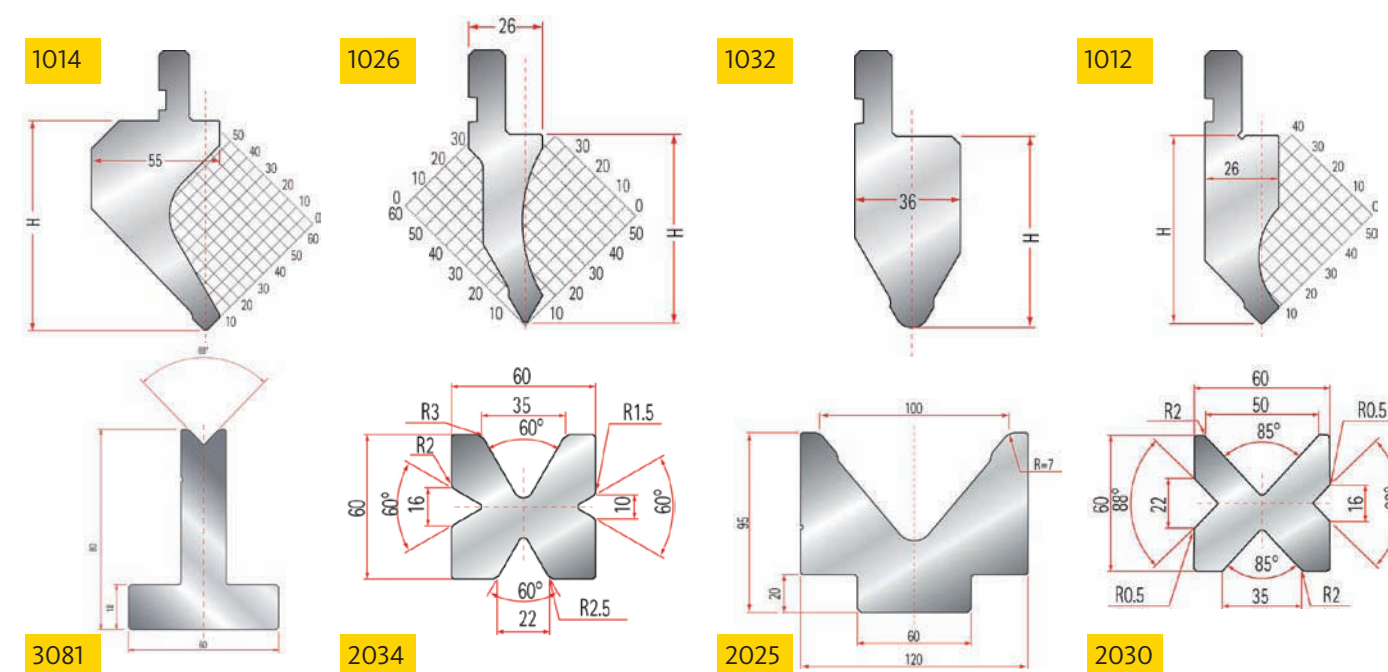


Mould for Cu

The standard punch supplied has a radius of approximately 3 mm. This is optimal for applications in a locksmithery or metal workshop, since it is very hard and robust. The punch is suitable for most bending works.

The punch adapter shown in the picture above is able to hold all the punches of AMADA or PROMECAM type. The tool fitting is 60 mm wide and compatible with these systems without further adapter.

Also shown in the picture: a T-shaped die, which can be used to perform Z-shape bending. Underneath: various tool combinations with the tool numbers.



Standard delivery includes:

1x Mobi-bender Basic machine
Set for increasing height
to 130 mm
1x Length stop
1x Height plate

1x Hydraulic unit
1x Multi-V die,
1x R5 punch
1x Oil filling
1x CE-conformity

Also available:

- Tool accessory package
- Punch adapter
- Cabinet base unit



Mobi-bender Rotary

May differ from the illustration

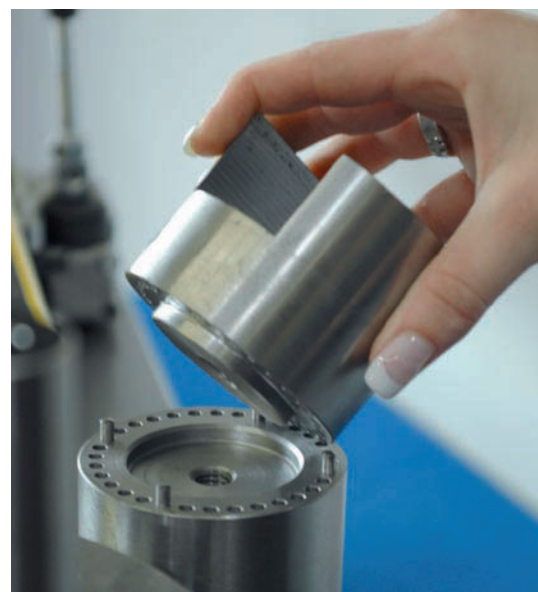


Mobi-bender Rotary

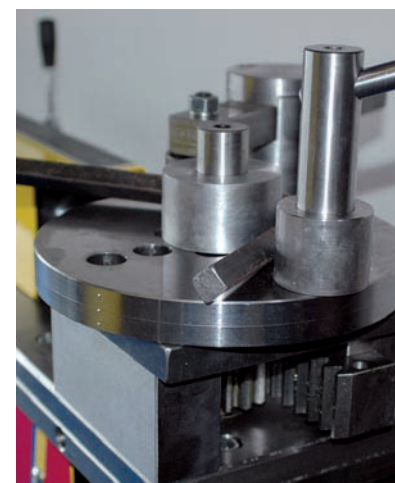
One of the most successful innovations of the Gelber-Bieger company is a rotating plate driven by a rack. This rotating plate drive was used for the first time in the Gelber-Bieger XL machine; now the Mobi-bender also benefits from this development.

The rotating plate is a tool which can be installed on the Mobi-bender using 4 screws. The rotary motion achieved is 270°. The angle of rotation is set using a stop screw adjustment.

| | Mobi-bender Rotary |
|-------------------------------|--|
| Motor power (kW) | 1,5 |
| Voltage (V) | 240 / 380 |
| Hydraulic pressure (Bar) | 240 |
| Working pressure (t) | 10 |
| Tool height (mm) | 100 |
| Dimensions LxWxH (mm) | 1200 x 250 x 280 |
| Machine weight (kg) | 80 |
| Bending capacity | Flat 100 x 15 (V = 125) |
| Rotary plate bending capacity | Round material ● Ø 16 mm stainless steel Flat iron ▮ 40x8 mm Rectangular ▮ 14 mm Tube ○ Ø 21 mm |



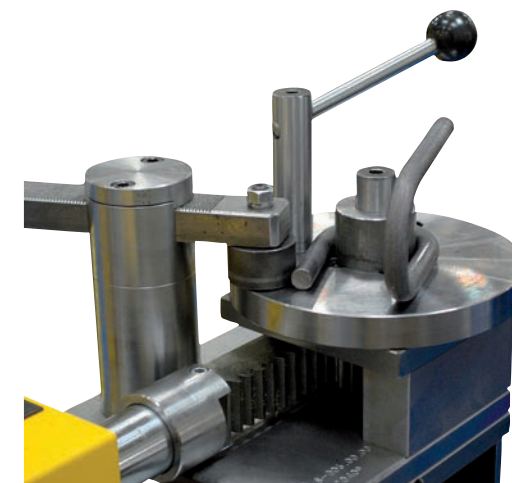
Adjustable counter roller



Rectangular



Flat iron



16 mm Round material



Wire bending



Horizontal flat iron

There are numerous bending possibilities for the rotating plate. It can bend upright or horizontal flat iron, round or rectangular material, as well as small tubes. The bending radius is given by the rings, which come in standard sizes from 40 to 120 mm. These are simply attached to the bending pins with D = 30 mm. The eccentric cam tensions the material and the counter-holder leads it. The rotating plate is the most efficient solution for manufacturers making clips or parts that must be bent 180°. The construction makes it possible to bend beyond the desired final position so that, after a 180° bend, the legs will spring back to a position parallel with each other.



Shaped roller for tube bending



Bending examples



Accessory package, ring set (10 pieces)

Standard delivery includes:

1 x Mobi-bender Basic machine
Rotation set
1 x Length stop
1 x Height plate
1 x Hydraulic unit

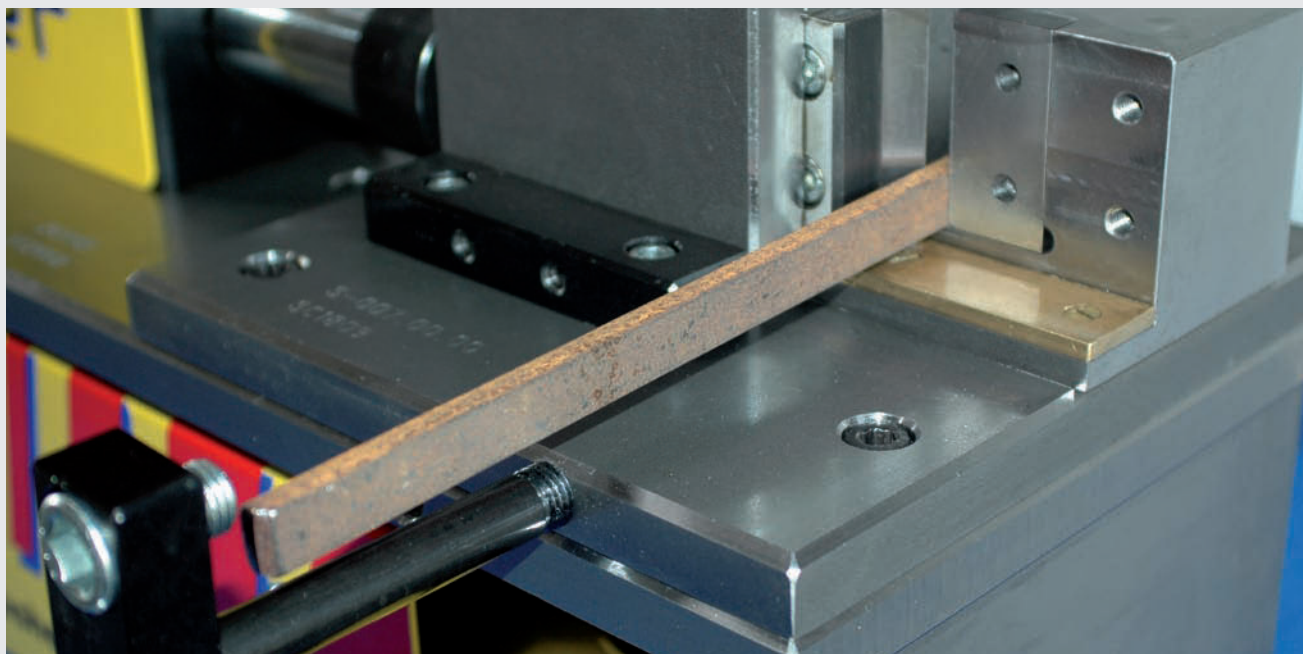
1 x Multi-V die
1 x R5 punch
1 x Oil filling
1 x CE-conformity

Also available:

- Tool accessory package
- Ring set (10 pieces)
- Accessory package, tubing
- Cabinet base unit

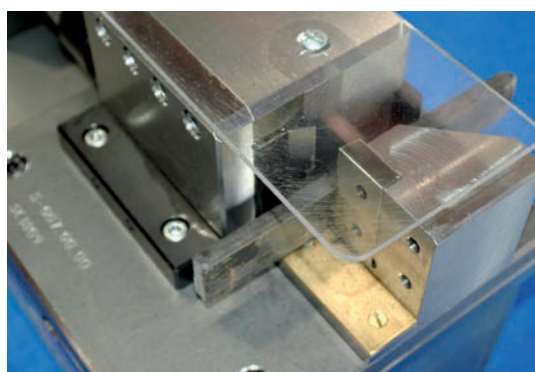


Mobi-bender Cutting

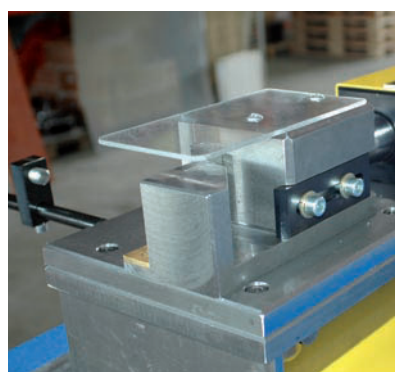


Mobi-bender cutting tool

Cutting steel and copper is no longer a problem with the Mobi-bender cutting tool. The cutting tool is simply screwed into place in the die holder.



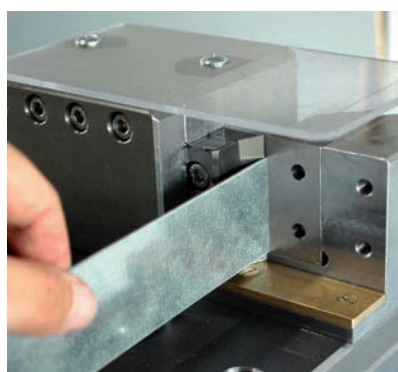
Flat iron 40 x 8 mm



Rear side with stop



Cutting quality



Plate



Round material • Ø 16 mm



Various plate examples

May differ from the illustration

Flaring of tubes



Flaring of tubes 27 x 2 mm

The pictured tool allows to flare tubes from 27 mm to 60 mm. The maximum wall thickness should be 2 mm. The advantages of this system based on the principle of spreading, are the simple setting options. Not only the length of flaring, but also the flaring diameter can be adjusted. With intermediate plates this tool can be built up very easily on several machines: Mobi-bender, board-bender, XL-bender.

Notching of tubes



Notching of tubes 48 x 2 mm

The pictured tool allows notching of tubes in following dimensions: 48 mm and 60 mm. An additional tool for the dimensions 27, 33 and 42 mm is also available. The maximum wall thickness should be 3,6 mm. With the notching tool at first one side of the tube is notched and then, after a turn of 180°, the tube is notched on the other side. With intermediate plates this tool can be built up very easily on several machines: Mobi-bender, board-bender, XL-bender.

XL information

2. Rotating plate workstation

1. Rotating plate workstation

3. Profile bending workstation

Moving parts



Control



Hand lever for manuel control



The Universal bender

In the year 2000, Gelber-Bieger developed a unique horizontal press called the Gelber-Bieger XL. This machine is full of special features. The 30-tonne cylinder is integrated into the table and therefore offers surpassing freedom in bending. Furthermore this is a synchronous cylinder, which can press with the same power to the right or to the left. Hence, this machine offers the possibility of working with 2 workstations. One tool can be installed on the right and another on the left, or the first procedure of a task can be performed on one side and the second procedure on the other. Another unusual function is the inbuilt rotating plate. This makes it possible to bend 25 mm round steel through 270°, for example. Additional lateral hydraulic connections complete the universal use of this machine; here you can attach hydraulic units or accessories supplied by us.

The Gelber-Bieger XL is also unique in its operation. The first possibility is to control the machine with a sensitive hand lever. This means you can achieve the desired bending very slowly and finely, and you can straighten, rebend or correct previously bent parts.

The second possibility is programming. Up to 8 programme steps can be processed successively. This programme can either be entered directly or input and stored using the "touch-in" procedure (which involves moving manually to a position and then storing it).

The dimensions of this machine are just 1200 x 600 mm, making the Gelber-Bieger XL the most compact machine on the market. Above all, the 350 mm oversized stroke of the cylinder clearly differentiates it from the competitors.

The following accessory sets are available:

- XL-standard
- XL-profile bender
- XL-spiral bender
- XL-accessory set
- XL-press brake
- XL-special tools



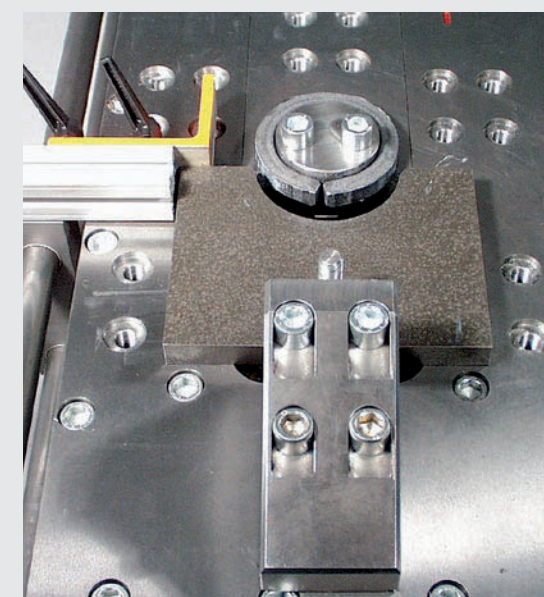
Profile bender



Spiral bender



Auxiliary set



Special tools

XL-Plus information



Control



Hand lever for manual operation



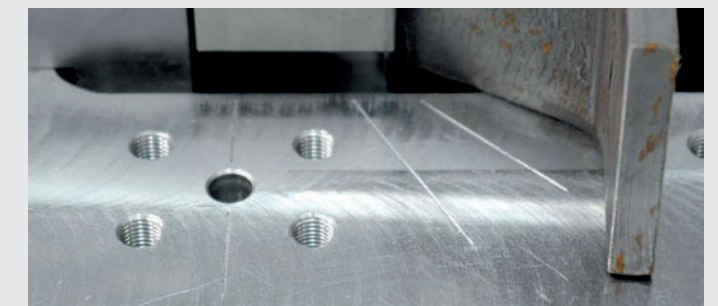
Operation

The advantages of the Gelber-Bieger XL-Plus

The XL-Plus is a further development which gives a facelift to the Gelber-Bieger XL, so to speak. The functionality and compatibility of the tools are 100% ensured. All the tools from the XL model fit the XL-Plus model.

- High-quality frame with height-adjustable feet
- Angles and markings milled into the table
- low-noise high-quality hydraulics
- Easier maintenance
- Installation of the operating pressure without tools
- Drawers under the tool so that the shavings can be removed more easily
- Additional lateral holes for increased universality
- The table is a welded structure
- Accurate positioning
- Oil filter monitoring with front mounted indicator
- Plug connector between machine and control unit
- Auxiliary functions on the controls

For this model, it is also possible to plasma nitride the entire table (surface and guides) at an extra charge. This protects the machine from rust, scratching and wear, improves its appearance.



Drawer



Connector plug

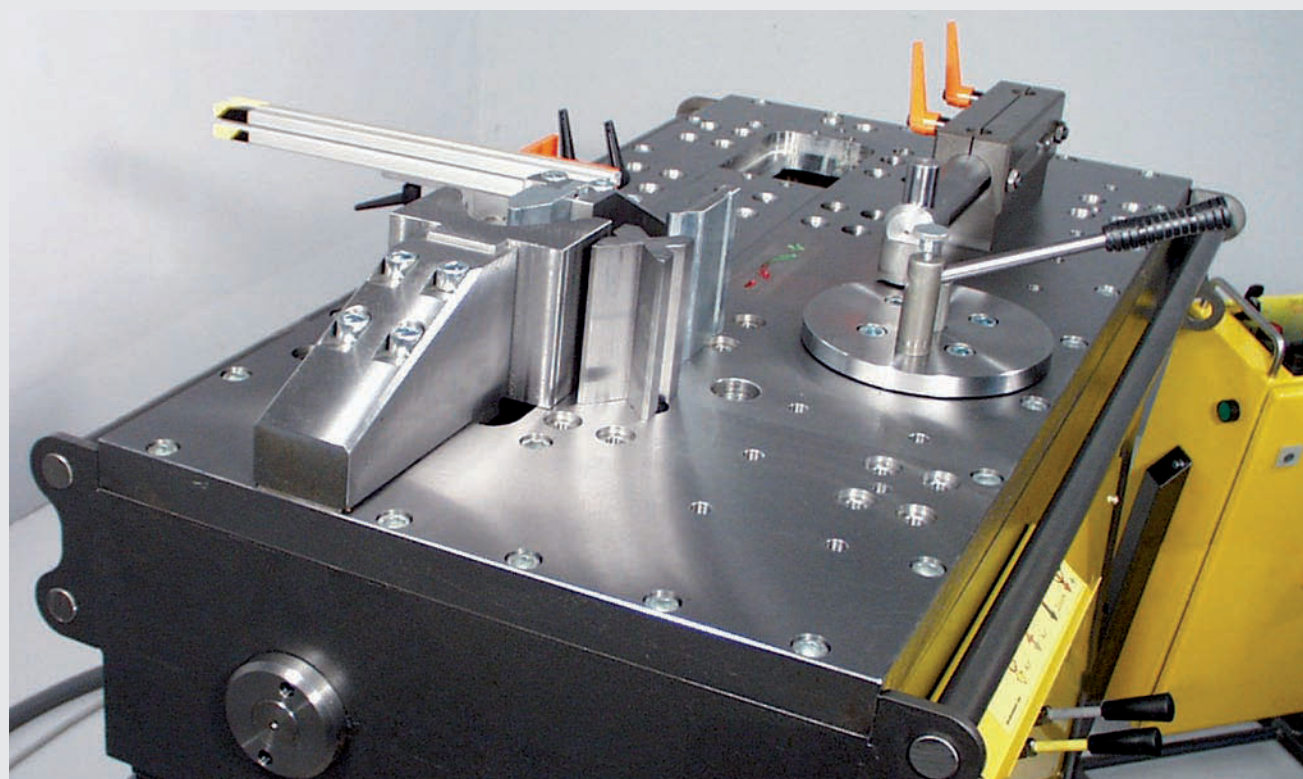


XL-Plus with RB 40



XL Standard

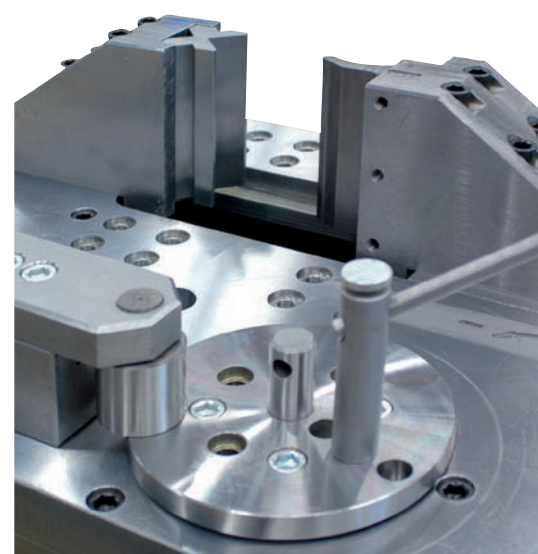
May differ from the illustration



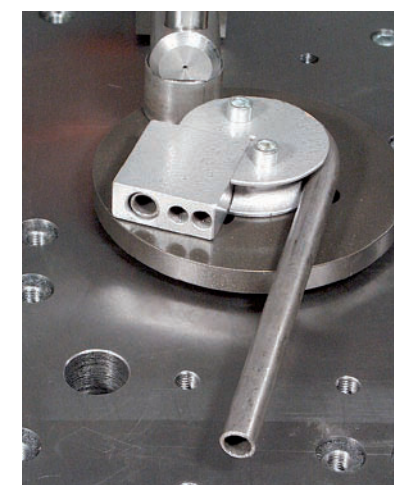
XL Standard

The upper photograph shows our recommended minimum requirements, the so-called set 1. This toolkit contains tool holders and tools for bending plate from 2 to 15 mm, as well as the basic components for bending with the rotating plate. A simple side stop is also contained in the package.

| | XL Standard |
|--------------------------------------|--|
| Motor power (kW) | 7,5 |
| Voltage (V) | 400 |
| Hydraulic pressure (Bar) | 250 |
| Working pressure (t) | 30 |
| Tool height (mm) | 165 |
| Dimensions LxWxH (mm) | 1200 x 800 x 900 |
| Machine weight (kg) | 1200 |
| Bending capacity | Flat 100 x 15 (V = 125) |
| Rotary plate bending capacity | Round material ● Ø 25 mm stainless steel Flat iron ▮ 140 x 15 mm Rectangular ▮ 16 mm Tube ○ Ø 33 mm |



Standard tool 1



21 mm Round material



Flat iron



16 mm Rectangular



40 x 8 mm Flat iron



14 mm Rectangular



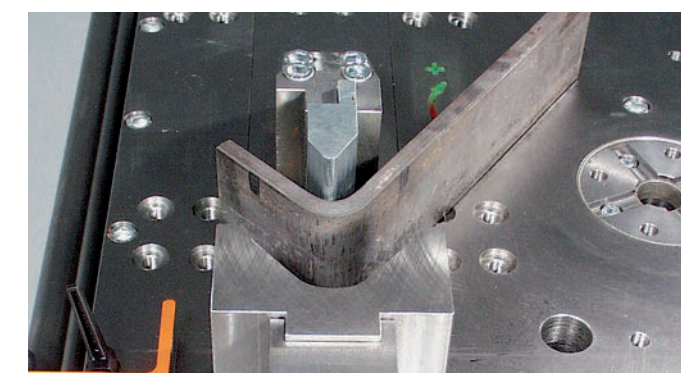
20 mm Round material

The bending possibilities on the Gelber-Bieger XL are almost limitless.

Many parts can be bent using the standard devices; for others, you have the possibility to create special tools yourself in an easy way.



Flat iron 160 x 6 mm



Flat iron 120 x 15 mm

Standard delivery includes:

1 x XL Standard machine
1 x Length stop
1 x Control console

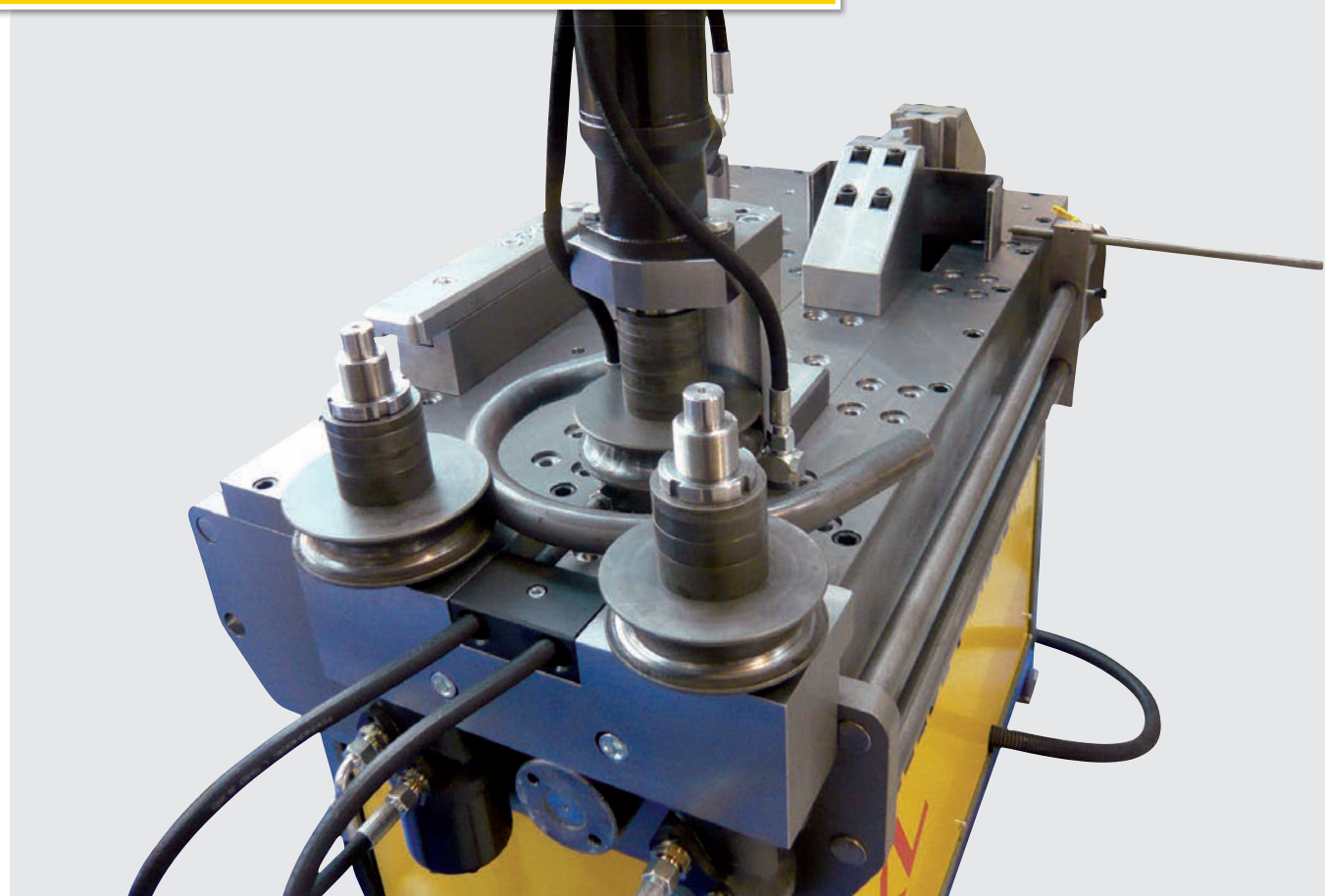
Also available:

1 x Hydraulic connectors
1 x Oil filling
1 x CE-conformity

• Tool accessory package set 1







XL Profile bender RB 40



May differ from the illustration

XL Profile bender

The profile bender is a special construction, which is attached with 4 bolts onto the right-hand side of the machine and connected to the additional hydraulic connection. On this profile bender, each of the 3 shafts is driven by its own hydraulic motor. The speed of the shafts can be proportionally regulated using the second hand lever. This construction is entirely maintenance free.

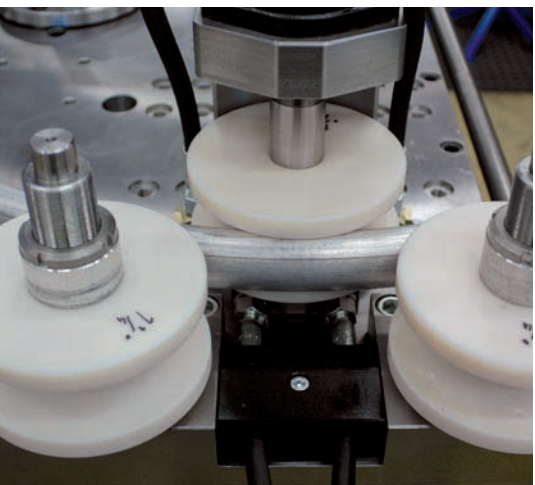
| | XL Profile bender RB 40 | | |
|-------------------------------|--|--|--|
| Motor power (kW) | 7,5 |  60 x 25 mm | |
| Voltage (V) | 400 | | |
| Hydraulic pressure (Bar) | 250 |  60 x 12 mm | |
| Working pressure (t) | 30 | | |
| Tool height (mm) | 165 |  60 x 2 mm | |
| Dimensions L x W x H (mm) | 1200 x 800 x 900 | | |
| Machine weight (kg) | 1380 |  50 x 50 x 3 mm | |
| Bending capacity | Flat 100 x 15 (V = 125) | | |
| Rotary plate bending capacity | Round material ● Ø 25 mm stainless steel | | |
| | Flat iron ▮ 140 x 15 mm | | |
| | Rectangular ■ 16 mm | | |
| | Tube ○ Ø 33 mm | | |



3 hydraulic motors



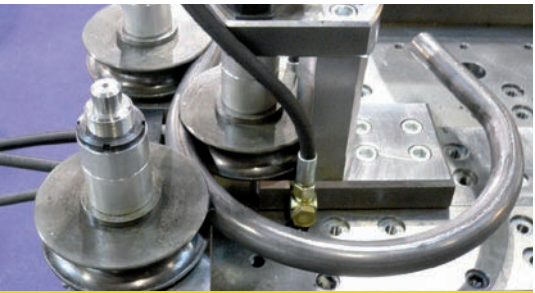
Double rollers



42 x 5 mm Aluminium tube

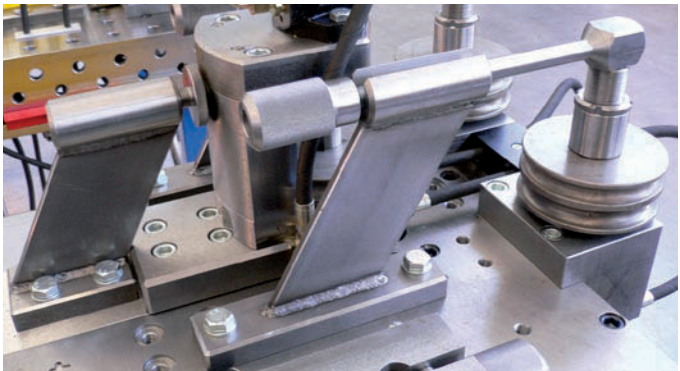


33 mm steel tube, bending diameter 340 mm

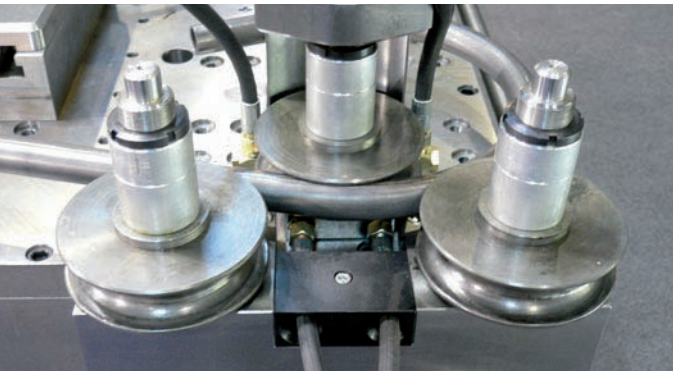


33 mm steel tube, bending diameter 340 mm

The smallest possible bending radius is 110 mm. The photos below show the possibility to support the bending shafts. The unique feature here is that each shaft is separately supported allowing you to freely alter the bending radius.



Axle/bending shaft support for profile bender



Profile bender

Standard delivery includes:

- 1x XL Standard machine
- Profile bender set RB 40
- 1x Length stop
- 1x Control console

- 1x Hydraulic connectors
- 1x Oil filling
- 1x CE-conformity
- 1x Roller Set 33,7 mm

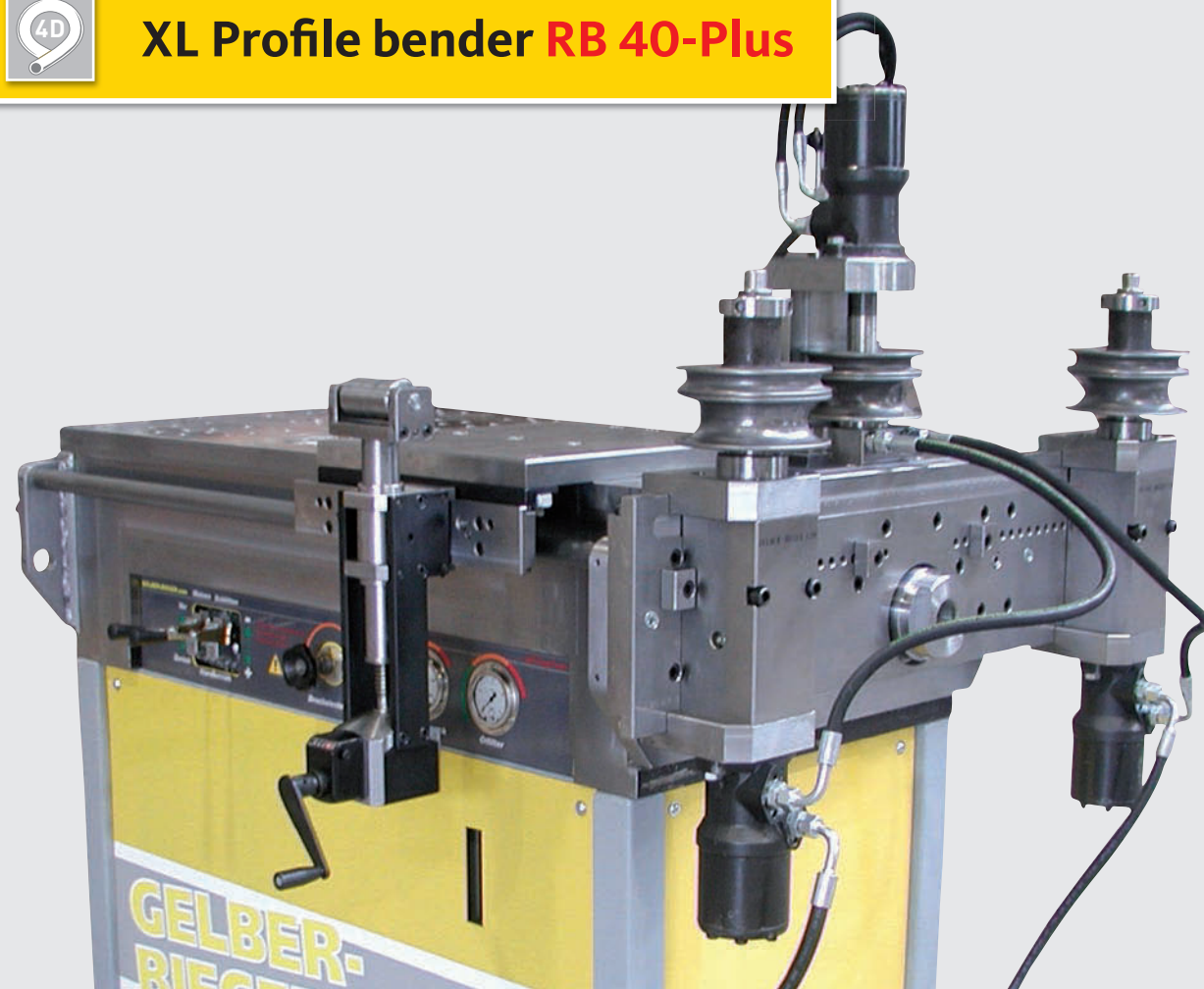
Also available:

- Spiral bending set
- Steel bending rollers
- Polyamide bending rollers
- Profile bender roller set







XL Profile bender RB 40-Plus

May differ from the illustration



XL Profile bender RB 40 Plus

The Profile bender RB 40-Plus is a further development of the well-proven RB 40. It is a profile bender with adjustable bending shafts. The advantages are: higher bending capacity, less deformation during profile bending and lower tooling costs through use of smaller, more economic bending rollers. The shaft diameter is 40 mm as with the RB 40.

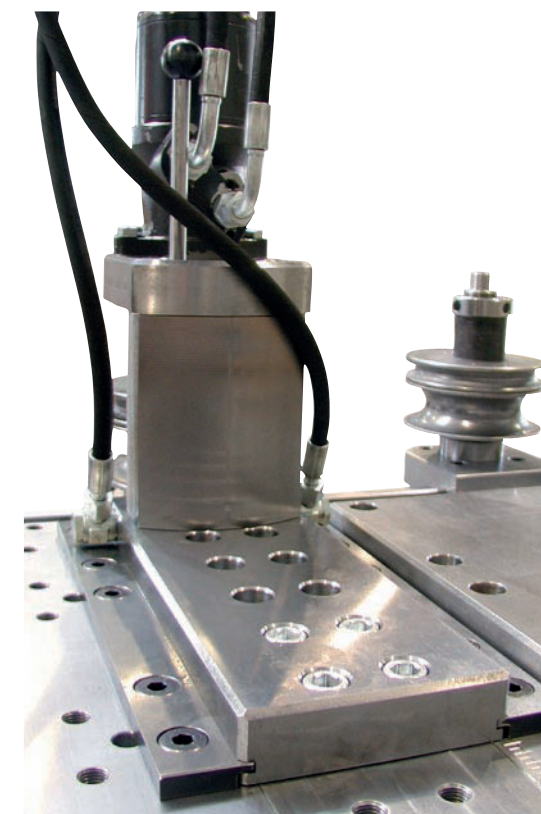
| XL Profile bender RB 40-Plus | | |
|-------------------------------|--|--|
| Motor power (kW) | 7,5 |  150 x 15 mm  80 x 12 mm  75 x 2 mm  50 x 50 x 3 mm |
| Voltage (V) | 400 | |
| Hydraulic pressure (Bar) | 250 | |
| Working pressure (t) | 30 | |
| Tool height (mm) | 165 | |
| Dimensions LxWxH (mm) | 1200 x 800 x 900 | |
| Machine weight (kg) | 1500 | |
| Bending capacity | Flat 100 x 15 (V = 125) | |
| Rotary plate bending capacity | Round material ● Ø 25 mm stainless steel | |
| | Flat iron ▮ 140 x 15 mm | |
| | Rectangular ▮ 16 mm | |
| | Tube ○ Ø 33 mm | |



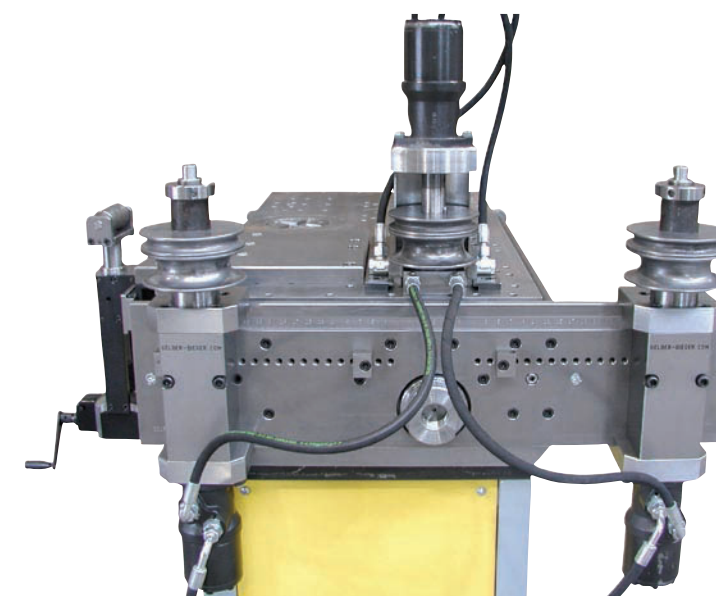
Axle position



Spiral bender



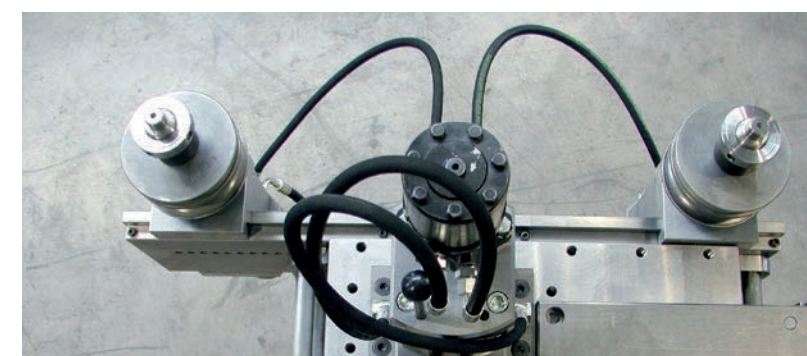
Guiding the 3rd roller



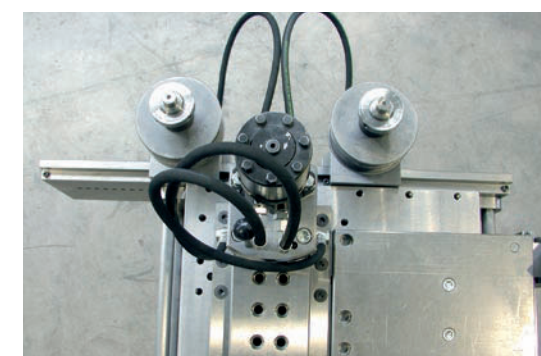
RB 40-Plus with 3 hydraulic motors



Clamping the bending roller



RB 40-Plus centre distance 800 mm



RB 40-Plus centre distance 300 mm

Standard delivery includes:

1x XL Standard machine
Profile bender set RB 40 Plus
1x Length stop
1x Control console

1x Hydraulic connectors
1x Oil filling
1x CE-conformity
1x Roller Set 33,7 mm

Also available:

• Spiral bending set
• Steel bending rollers
• Polyamide bending rollers
• Profile bender roller set



XL Spiral bender



May differ from the illustration

XL spiral bending mechanism

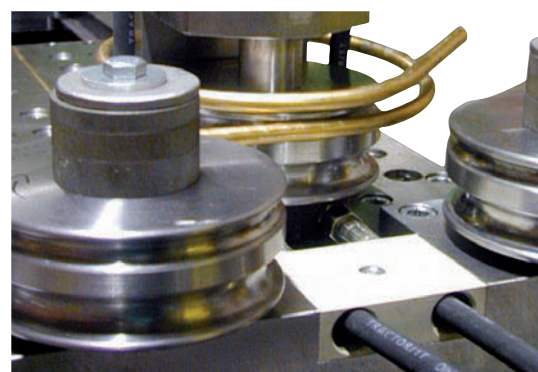
The spiral bending package consists of several parts:

- Elevating roller (can also be used on other bending machines)
- Adapter plate (for the XL model).
- Software for calculating the bending data
- Measuring devices to check the setup.

The spiral bending device can be mounted on the right or left side.

It is important that the machine is working in the horizontal position, so that the weight of the tubes is resting on the stroke roller. The Gelber-Bieger XL is optimal for spiral bending work. To bend spirals without slope (see picture below) no spiral bending mechanism is required.

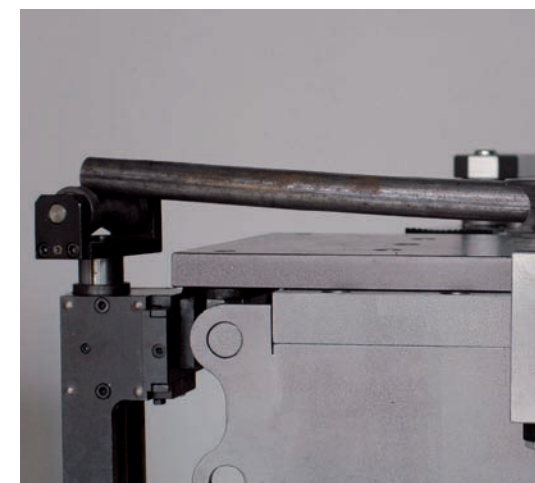
| | XL Spiral bender |
|--|------------------|
| Smallest spiral diameter achievable with the spiral bending mechanism (mm) | 800 |
| Smallest spiral diameter achievable without spiral bending mechanism (mm) | 225 |
| Spiral direction | right / left |
| Max. tube diameter (mm) | 60 |



Spiral made from 17 mm tube



Stroke roller



Right/left adapter plate



Spiral stairs



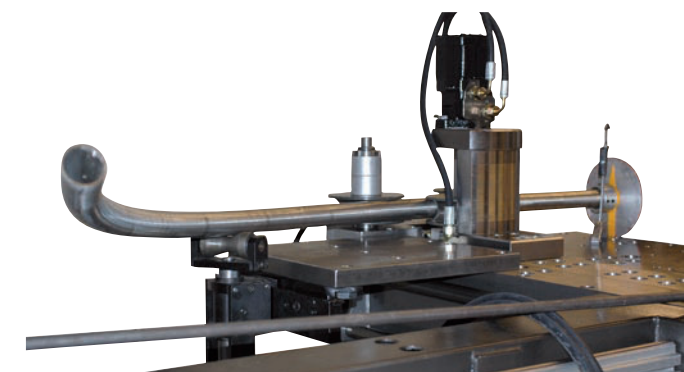
Right-mounted spiral bending mechanism

In principle, a spiral stairway is comparable to a screw; it has a left or right-hand thread, a diameter and a gradient. You need all of this information to bend a suitable spiral.

The software helps you to determine the gradient and the bending radius. If the calculated values are correctly set up and regularly controlled, the spiral will fit perfectly to the stairway.



Spiral bending measuring instruments



Profile bending with the spiral bending mechanism

Standard delivery includes:

- 1 x XL-Standard machine
- Profile bending + spiral bending set
- 1 x Length stop
- 1 x Control console

Also available:

- 2 x Hydraulic connectors
- 1 x Oil filling
- 1 x CE-conformity
- 1 x Roller Set 33,7 mm
- Polyamid bending rollers
- Steel bending rollers

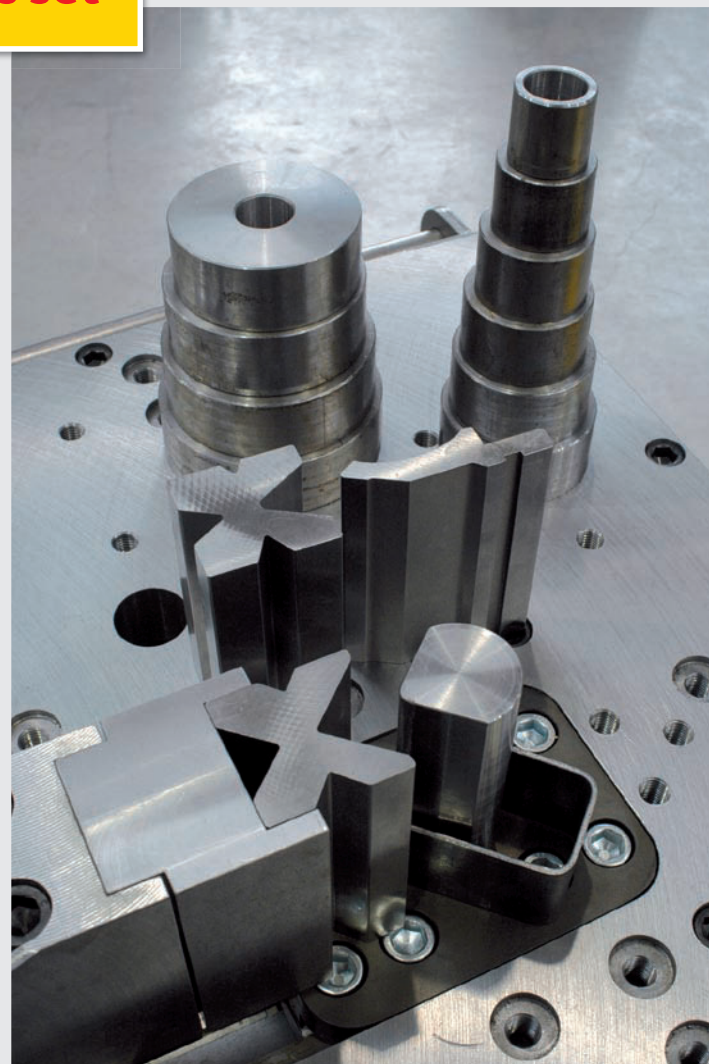


XL Accessories set

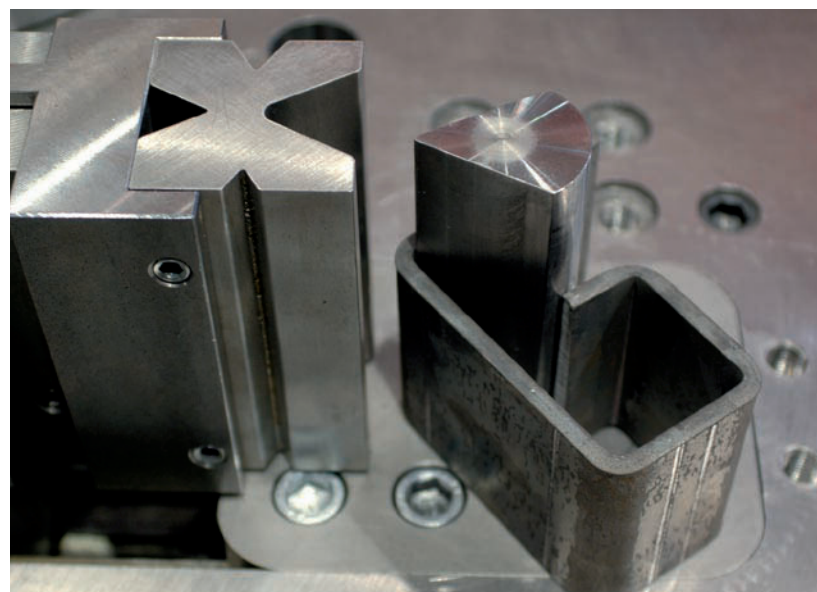
The accessories set extends the bending possibilities in three ways: The ten rings for the rotating plate with diameters from 40 to 120 mm in 10 mm steps, make it possible for you to rapidly bend different radii on the rotation plate.

These rings can also be put on the eccentric cam, in order to clamp the material to be bent. The standard tool has 85° and/or 88°, with additional punch and multi V-die, 60° bending is possible. The bending mandrel offers you the possibility to bend small closed parts.

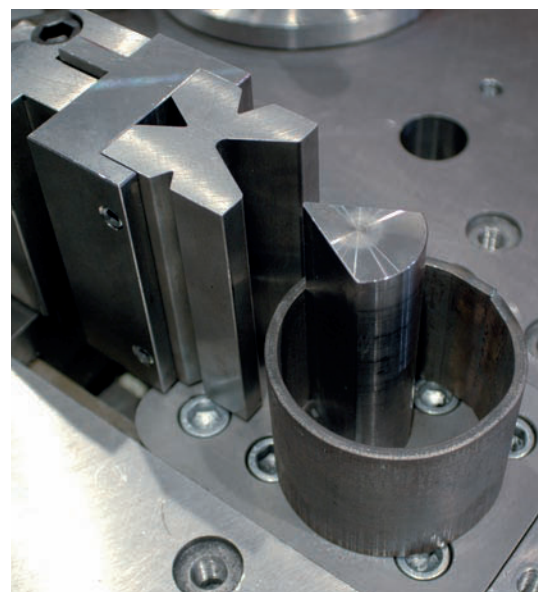
For example, you can bend flat-iron into a 55 x 55 mm rectangular tube.



Complete accessories set



Minimum cross-section 50 x 50 mm



Round bending and bending mandrel

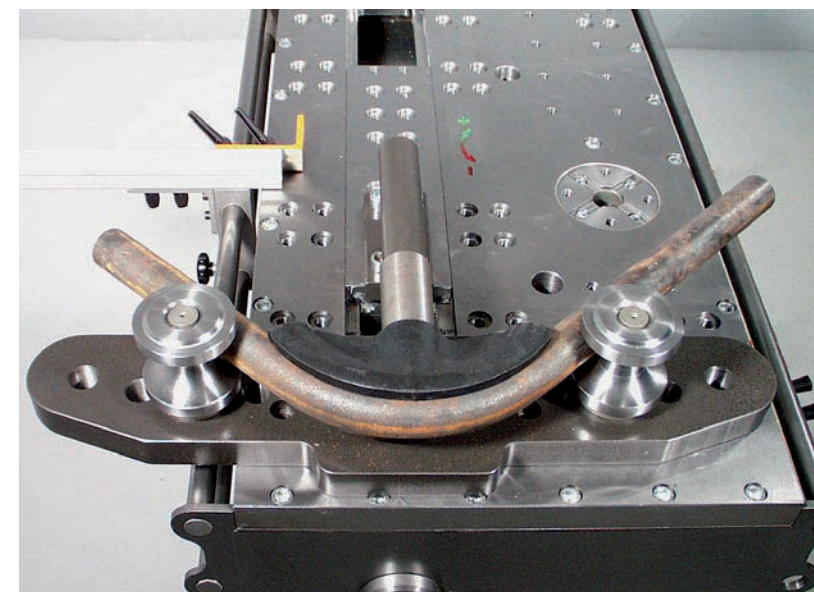


XL Press bending



Strengthened version of the press bending mechanism 76 mm

The press brake principally enables the bending of the thick-walled tubes with an average bending radius ($4 \times D$) through a defined angle (e.g. 90°). A bending template is required for bending each tube size. The bending angle can be programmed with the Gelber-Bieger XL controller.

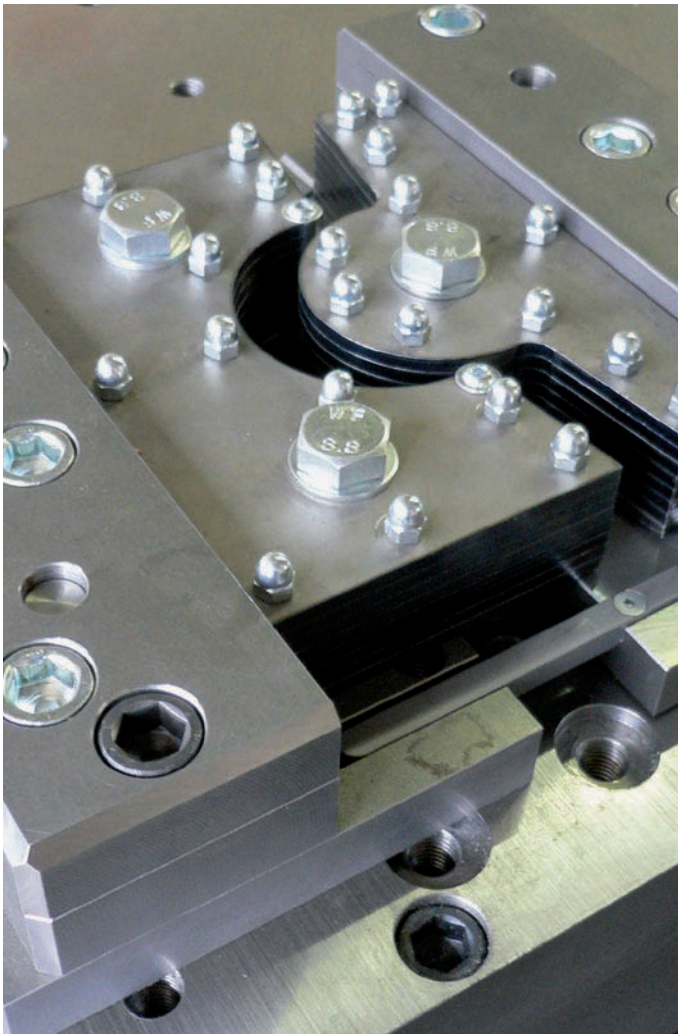


Standard press brake mechanism up to 60 mm

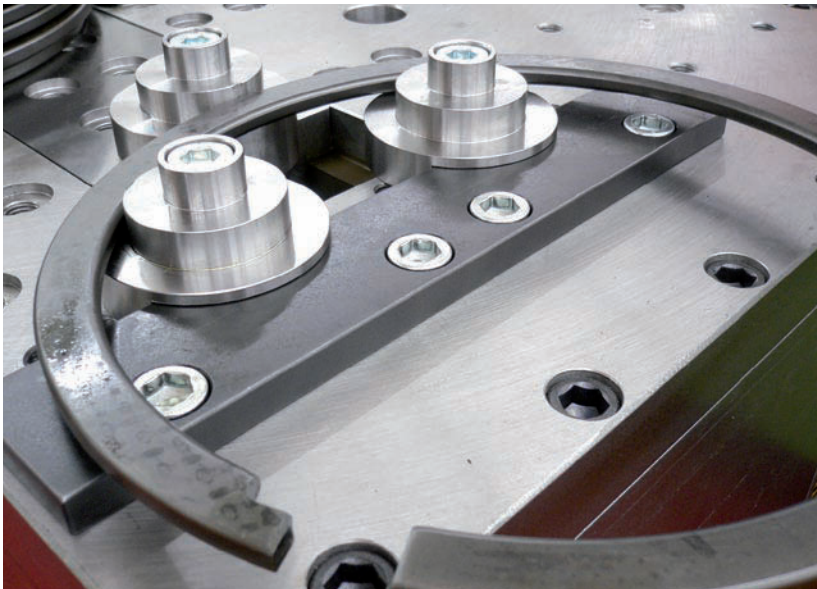
| Tube Ø | Tube in mm | Bending radius in mm |
|--------|------------|----------------------|
| 1/2 | 21,3 | 55,5 |
| 3/4 | 26,9 | 71 |
| 1 | 33,7 | 94 |
| 1 1/4 | 42,7 | 150 |
| 1 1/2 | 48,3 | 163 |
| 2 | 60,3 | 220 |



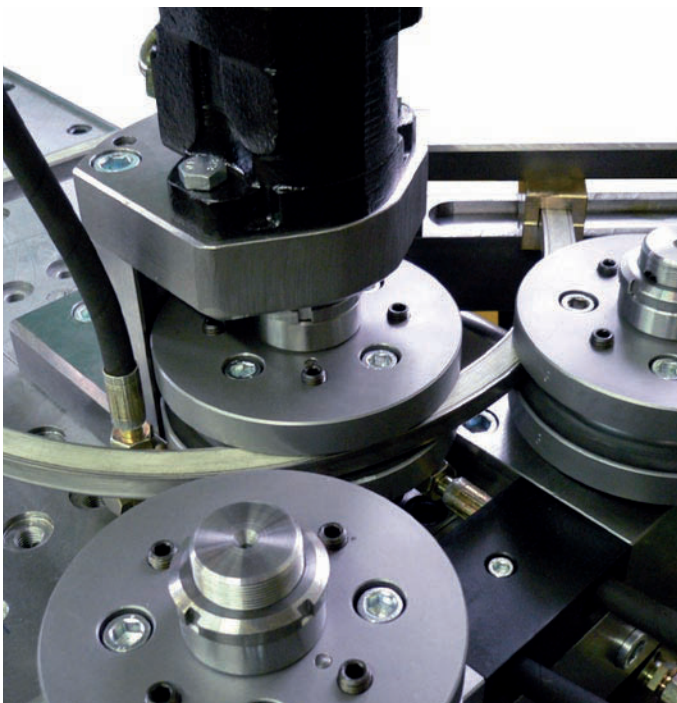
XL Special tools



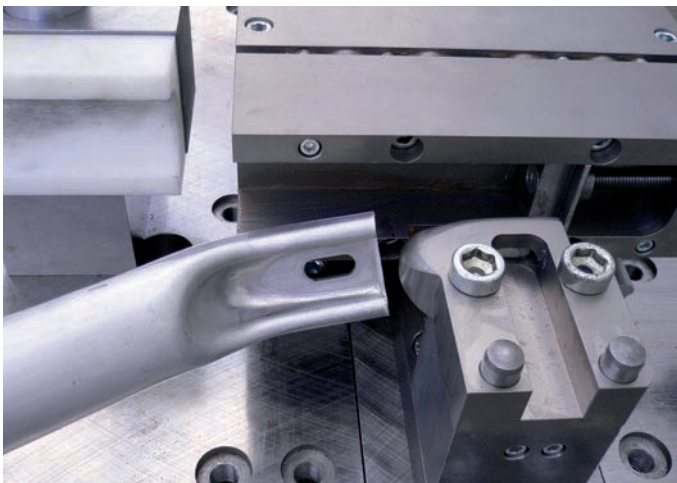
Special tool example 2



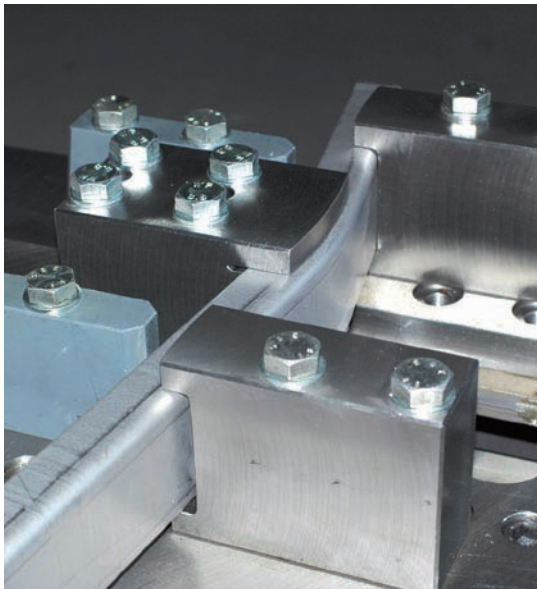
Special tool example 4



Special tool example 1

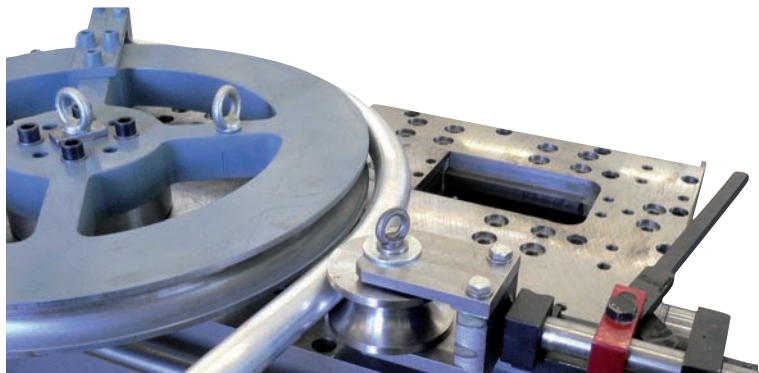


Special tool example 3

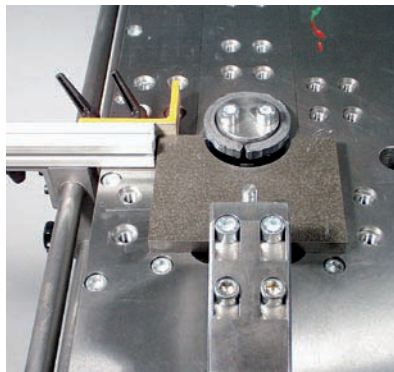


Special tool example 5

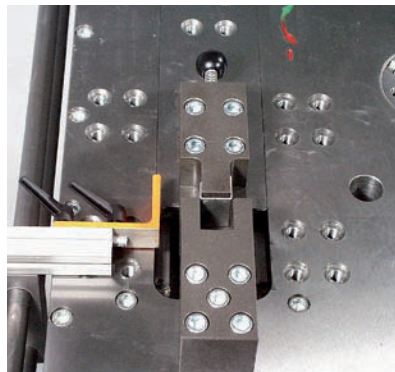
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Special tool example 6



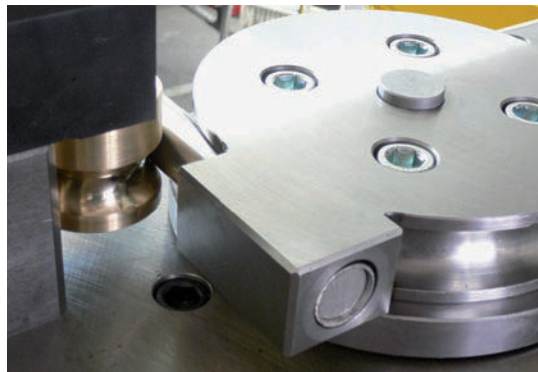
Special tool example 8



Special tool example 9



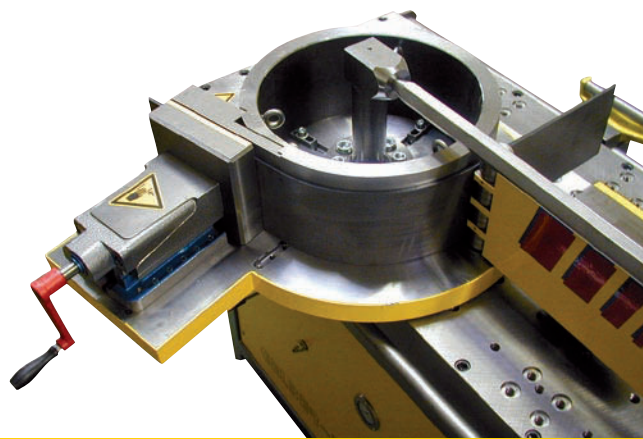
Special tool example 7



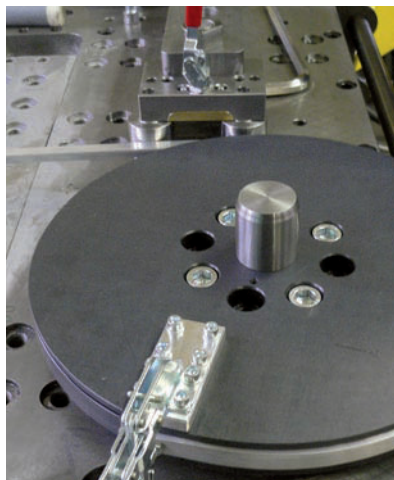
Special tool example 10



Special tool example 11



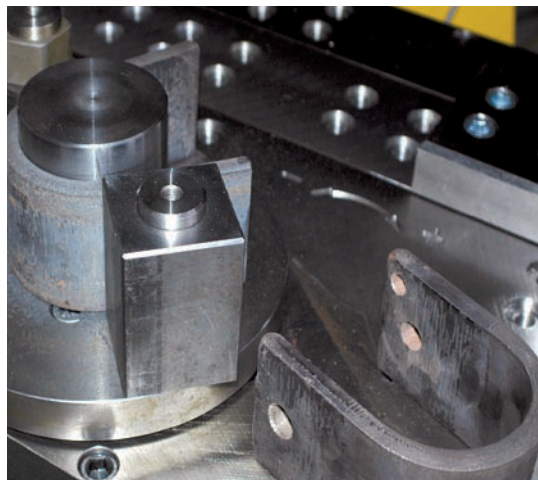
Special tool example 12



Special tool example 13



Special tool example 14

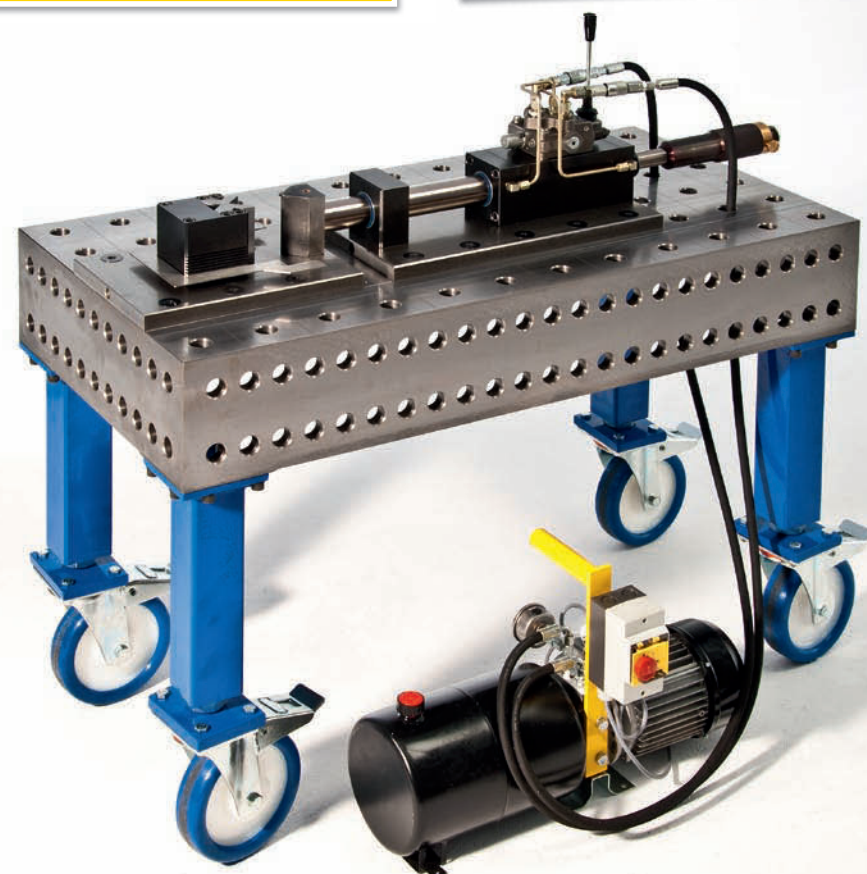


Special tool example 15



X1 Board bender

Please ask for our special catalogue on bending machines for welding tables!



Complete board bender (with optional rollers)

Gelber-Bieger presents an innovation in bending possibilities. This is a modular system based on welding tables which are very popular at present. The welding tables offered by various suppliers are primarily used as welding template.

The Gelber-Bieger design department came up with the idea of using robust welding tables, from 1 x 1 m up to 4 x 2 m with a 28 mm hole system and a 100 mm grid as the basis for different bending machines.

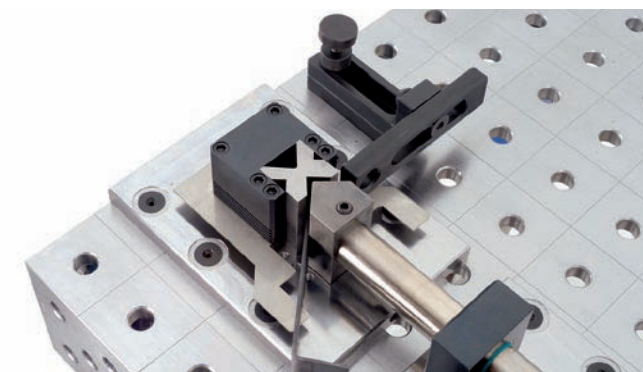
The board bender makes it possible to bend a height of 100 mm of flat iron, up to 15 mm thickness. The capacity is 10 t and the stroke is 150 mm. The bender is driven by a separate small hydraulic unit, which can also be used for other applications. The bending possibilities and operation are similar to those of the Mobi-benders.

| | X1 Board bender |
|---------------------------|---------------------------|
| Motor power (kW) | 1,5 |
| Voltage (V) | 240 / 380 |
| Hydraulic pressure (Bar) | 240 |
| Working pressure (t) | 10 |
| Tool height (mm) | 100 |
| Dimensions L x W x H (mm) | 1200 x 250 x 280 |
| Machine weight (kg) | 80 |
| Bending capacity | Flat 100 x 15 (V = 125) |

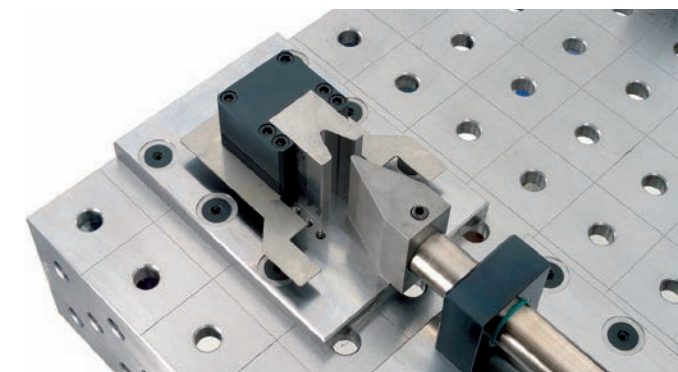


Standard tool (scope of supply)

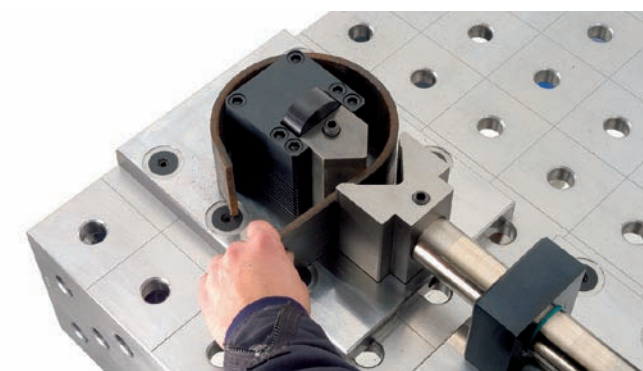
May differ from the illustration



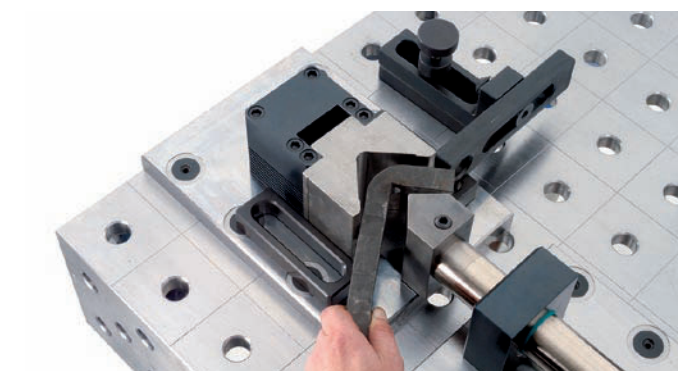
Height plate and self-made stop



Special tool 30°



Bending with die in punch (for closed pieces)



Bending of rectangles 20x20 mm



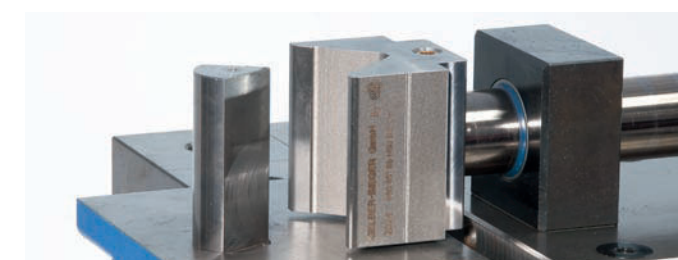
Rotary disc for capacity max. ● Ø 16 mm



Press bending capacity max. 42 x 3,6 mm



Notching 27/33/42 and 48/60 mm



Bending mandrel for narrow bends

Standard delivery includes:

1 x X1-board bender
1 x Height plate
1 x Hydraulic unit
1 x Multi-V die, 1 x R5 punch

1 x Oil filling
1 x CE-conformity

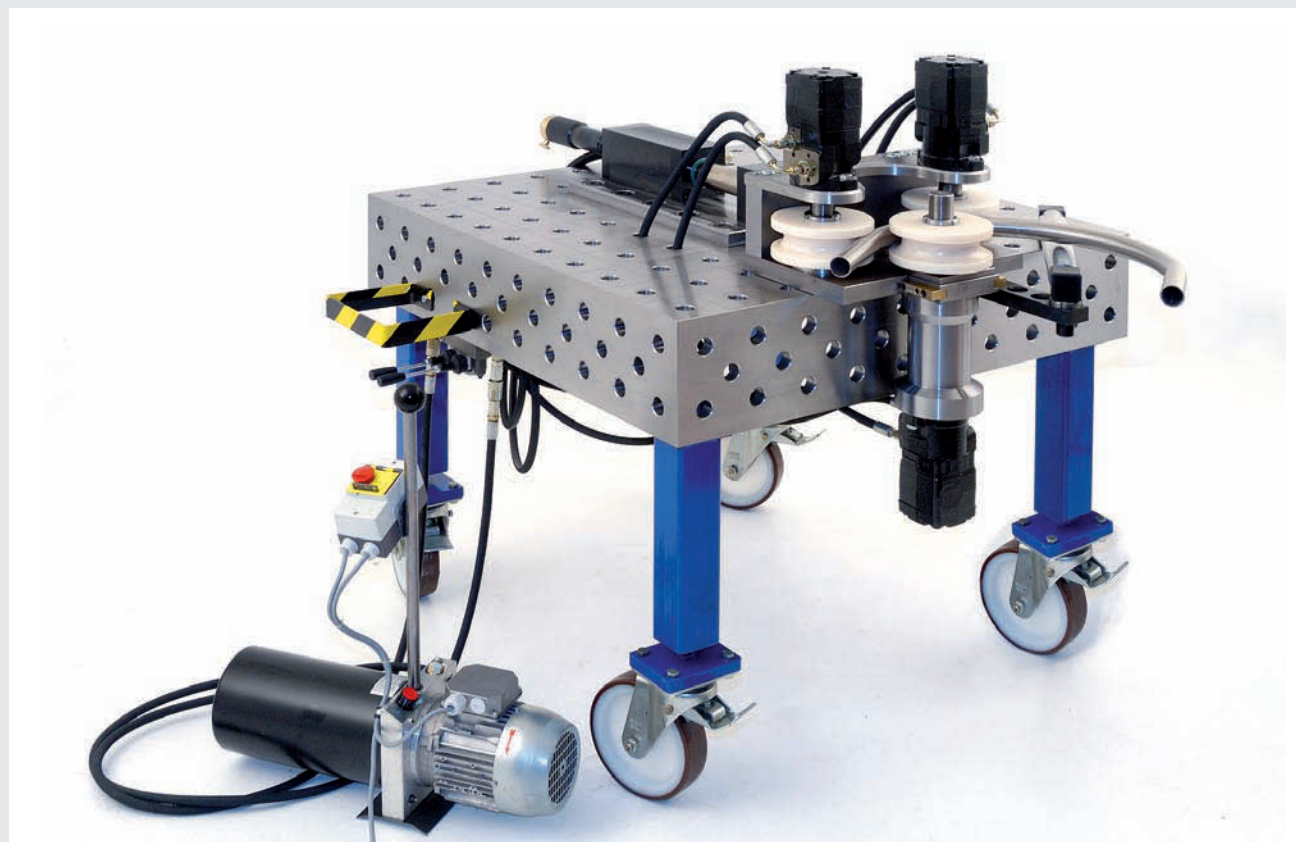
Also available:

- Tool accessory package
- Punch adapter
- Welding table 28 mm
- Profile bending attachment



X1 Combined bender

May differ from the illustration



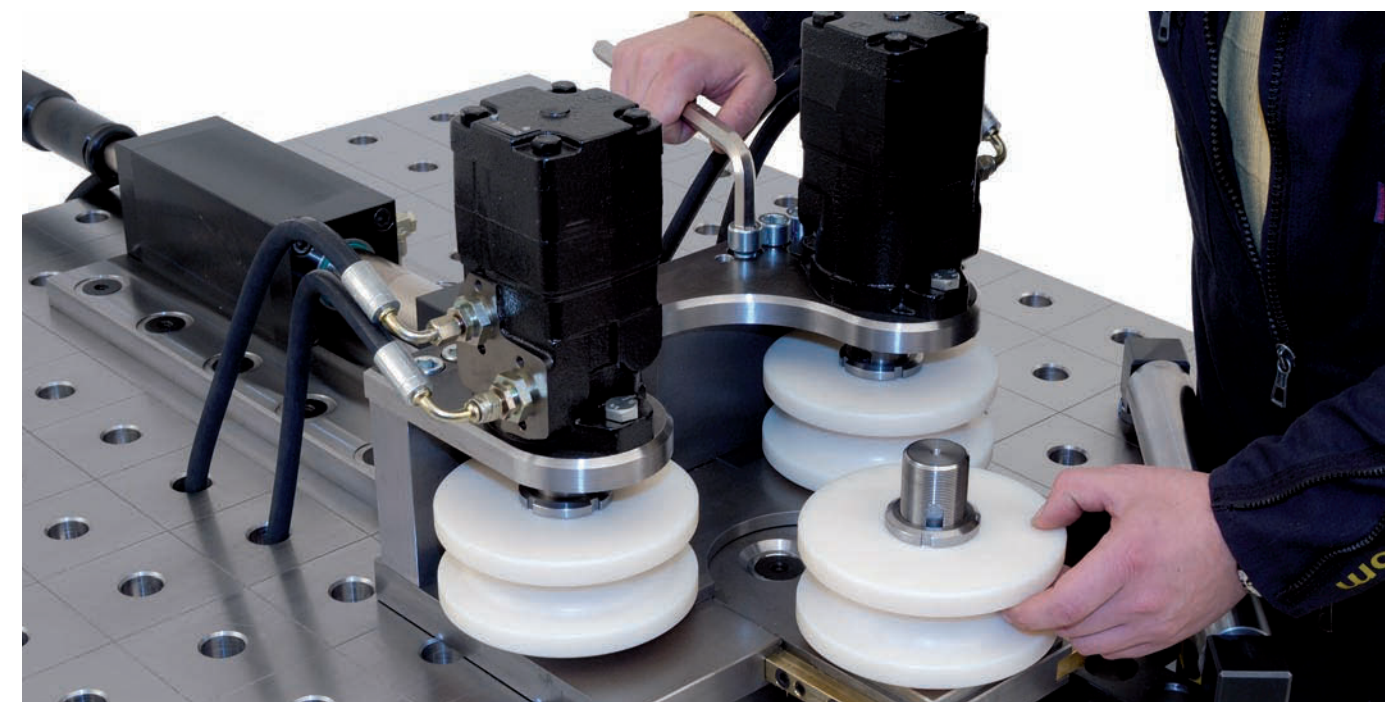
Combined bender with optional accessories

As a possibility of extension, the Gelber-Bieger team has built a profile bending attachment on the welding table which is available with 2 or 3 hydraulic motors. The profile bender is combined with the board bender and hence has a hydraulic feed and a bending capacity up to 48 mm for round tube. The drive motors are powered by the same hydraulic unit. In this way the components have dual use, which has a positive effect on costs.

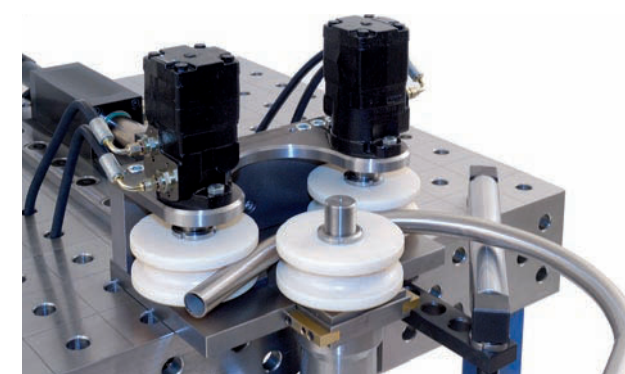
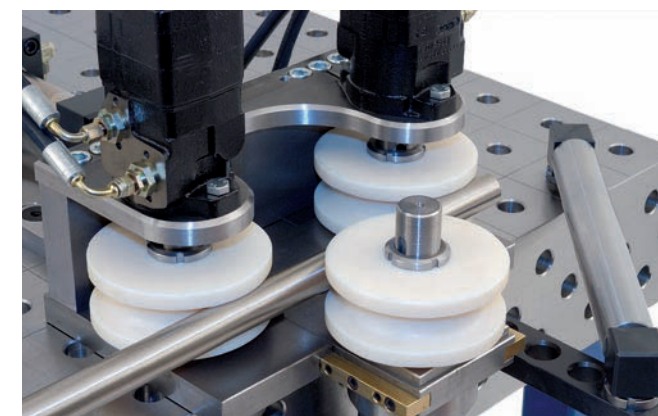
| X1 Combined bender | |
|--------------------------|------------------|
| Motor power (kW) | 1,5 |
| Voltage (V) | 240 / 380 |
| Hydraulic pressure (Bar) | 240 |
| Working pressure (t) | 10 |
| Tool height (mm) | 100 |
| Dimensions LxWxH (mm) | 1400 x 600 x 500 |
| Machine weight (kg) | 140 |
| Bending capacity | Tube 48 mm |



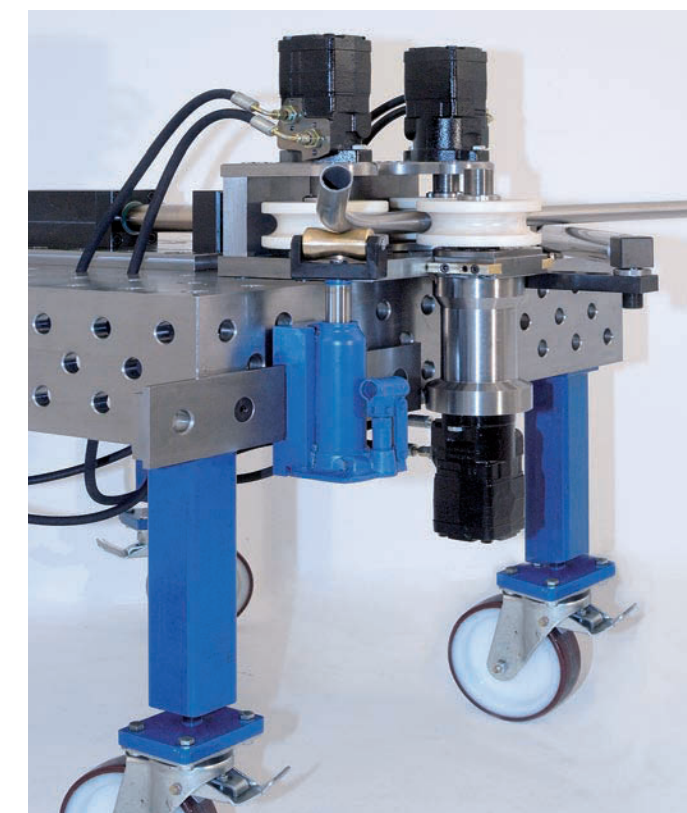
Polyamide rollers for stainless steel



Simple roller change with a tool



Tubing support (optional)



Spiral bending mechanism (optional)

Standard delivery includes:

1x X1-board bender
1x Height plate
1x Hydraulic unit
1x Multi-V die

1x R5 punch
1x Oil filling
1x CE-conformity
1x Profile bending attachment

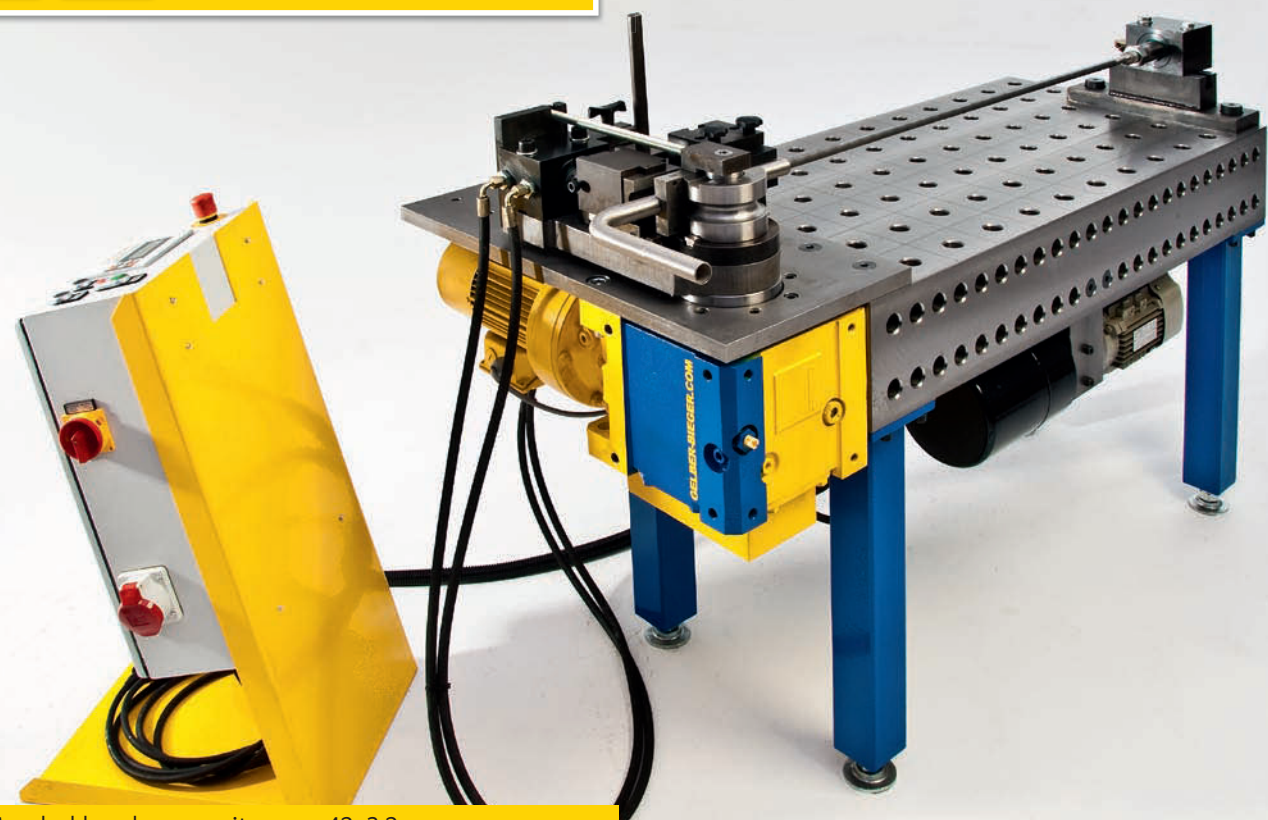
Also available:

- Tool accessory package
- Welding table 28 mm
- Tubing support
- Spiral bending set



Mandrel bender

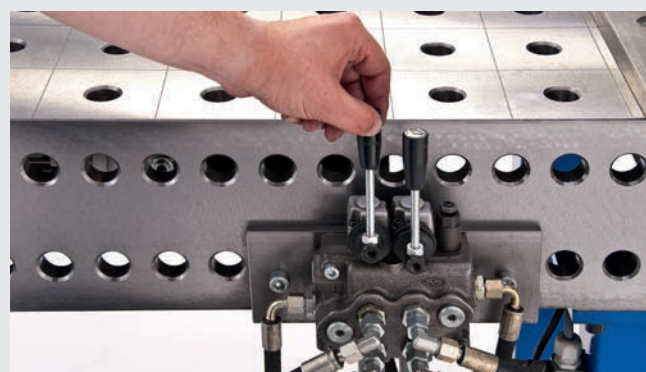
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Mandrel bender capacity max. 42x3,2 mm



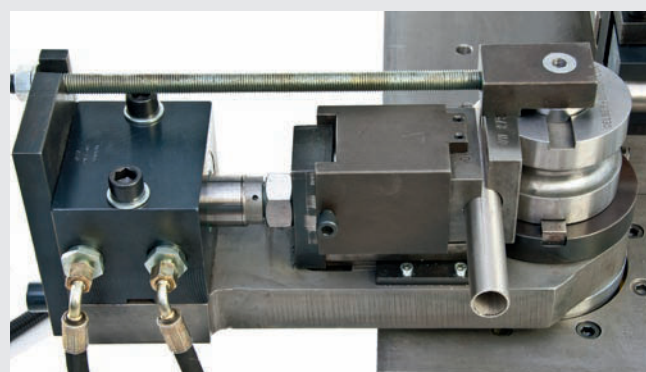
Counter bearing with hand clamping



Hydraulic clamping cylinder and mandrel pull-back



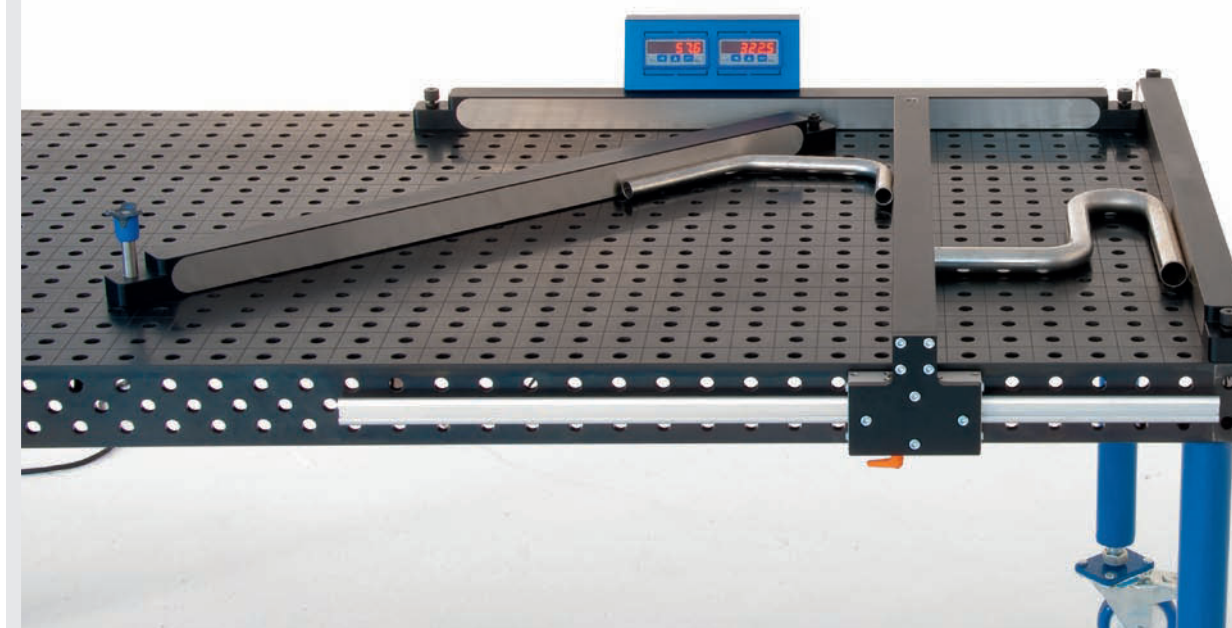
Control



Robust bending mandrel / bending arm



Measuring table



Measuring table 16 mm - 2000 x 1000 mm



Digital display – selectable resolution

This measurement table is composed of a digital measurement system and a 16 mm welding table system. The table is the basis of the system. The size of the table defines the measurement range. Tables can be supplied in various sizes and can also be combined with one another.

After the size of the measurement table has been determined, it is possible to install 2 measurement systems on it.

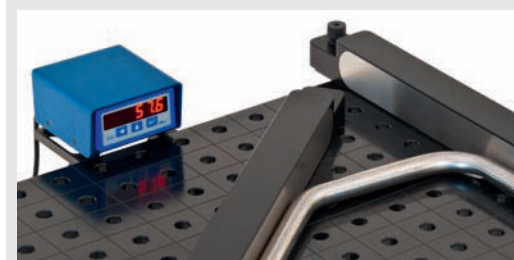
- Length measurement
- Angle measurement

The measurement systems can be supplied in various classes (accuracies). There is also the possibility to measure in the third dimension.

Contact us: we will construct according to your requirements.

In the field of bending technology, we use a measurement table to:

- check the angle of curved flat iron (bent with the Mobi-bender or XL)
- determine the "springing back" of material in tubes (mandrel bending machine). To determine this, angles of 45°, 90°, and 135° are bent with a mandrel bending machine.



Angle measurement



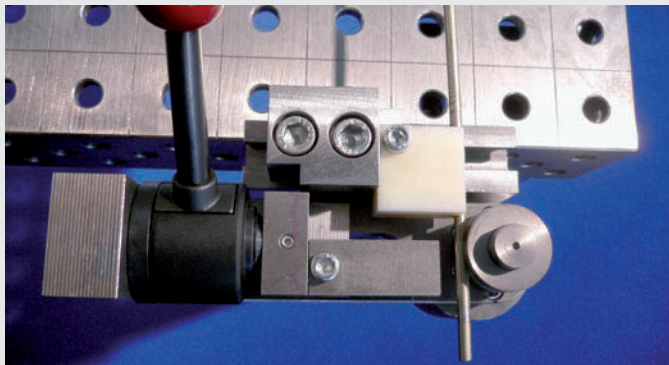
Length measurement



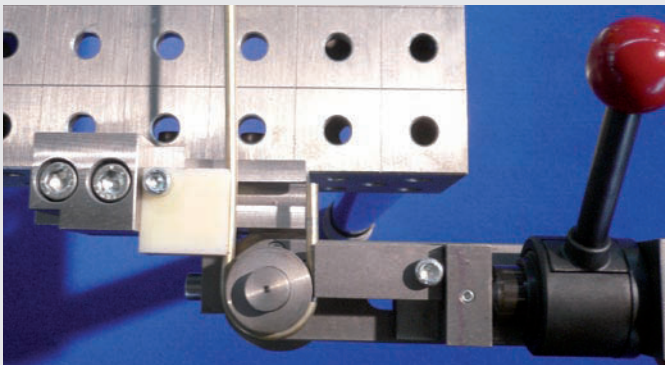
Hand-operated tube bender **HRB 12**

A hand-operated bender for bending tubes and solid material up to 12 mm. The hand-operated bender can also be used as a tube bender, with or without mandrel.

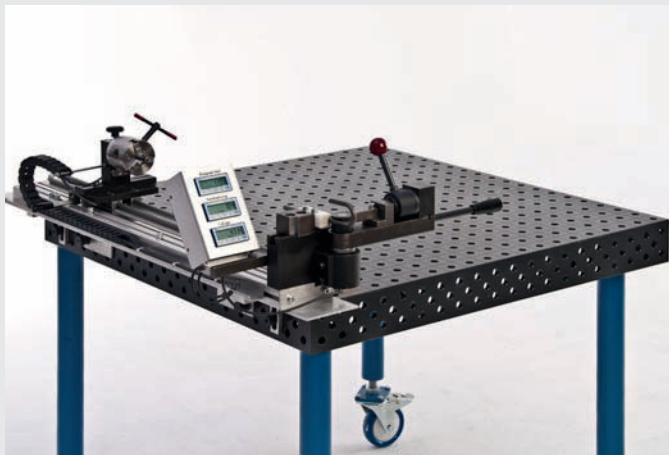
For the HRB 12-Plus model, the bending axis, length adjustment and twisting mechanism are fitted with digital displays.



HRB 12 with 6 mm tube. Optional welding table.



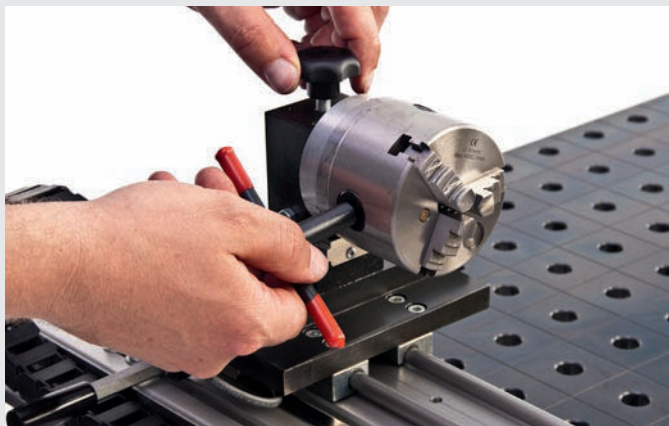
Basic version without measurement system and twisting.



HRB 12-Plus with 5 mm wire. Version with measuring system and twisting. Optional welding table.



Bending head with angle measuring system

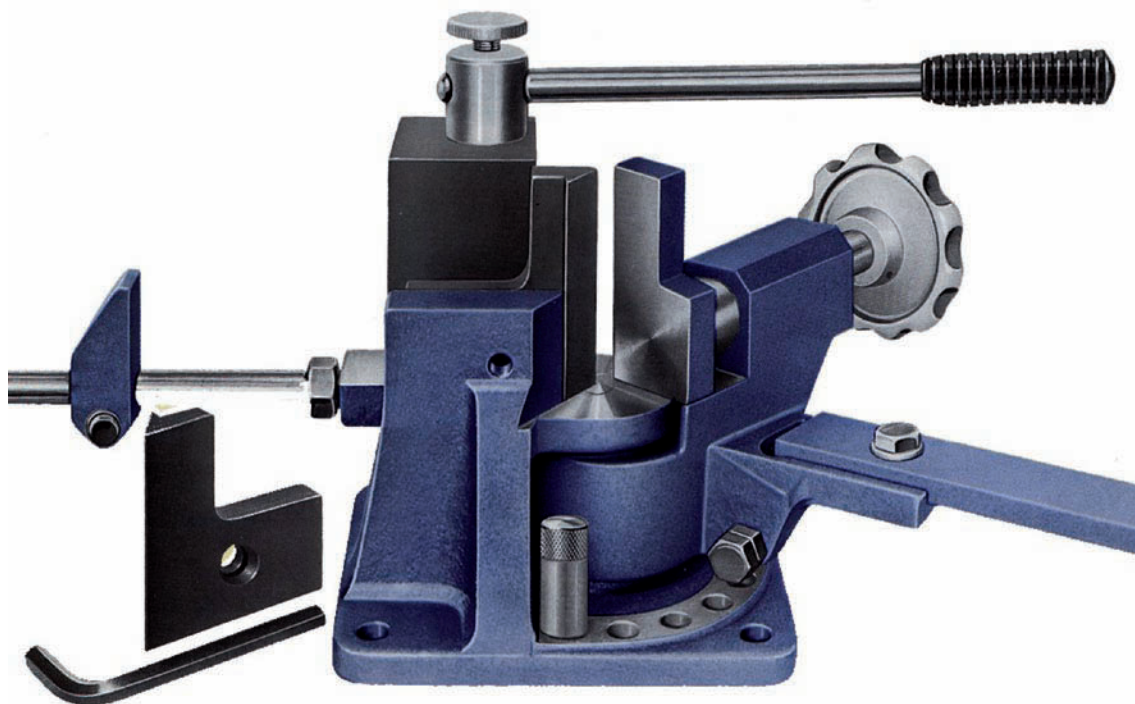


Digital display for length measurement and torsion
Optional: mandrel rod with pull-back for thin-walled tubes

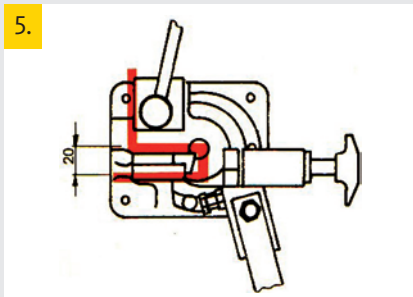
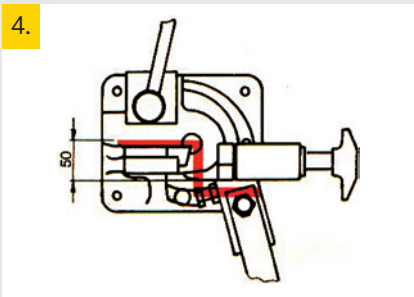
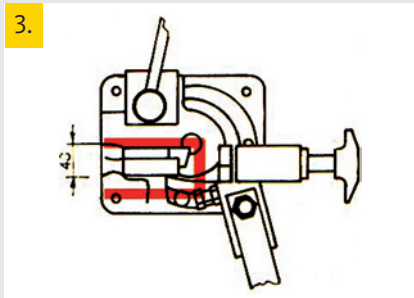
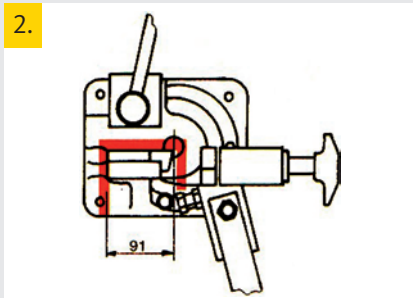
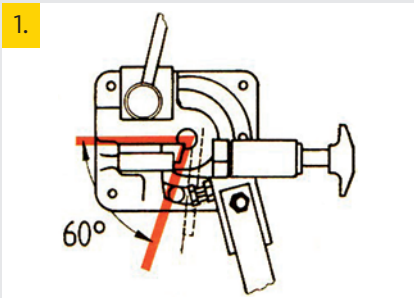
| | HRB 12 |
|--------------------------|--|
| Roller diameter (mm) | 20 |
| Max. bending radius (mm) | 60 |
| Max. tube diameter | St 35: 12 x 1,5 mm VA: 12 x 1 mm Cu soft/hard: 15 x 1 mm |
| Standard bending tool | 6 mm: R 20 mm 8 mm: R 25 mm 10 mm: R 30 mm 12 mm: R 35 mm |



Angle bender **100 E**



Scope of supply Angle bender 100 E



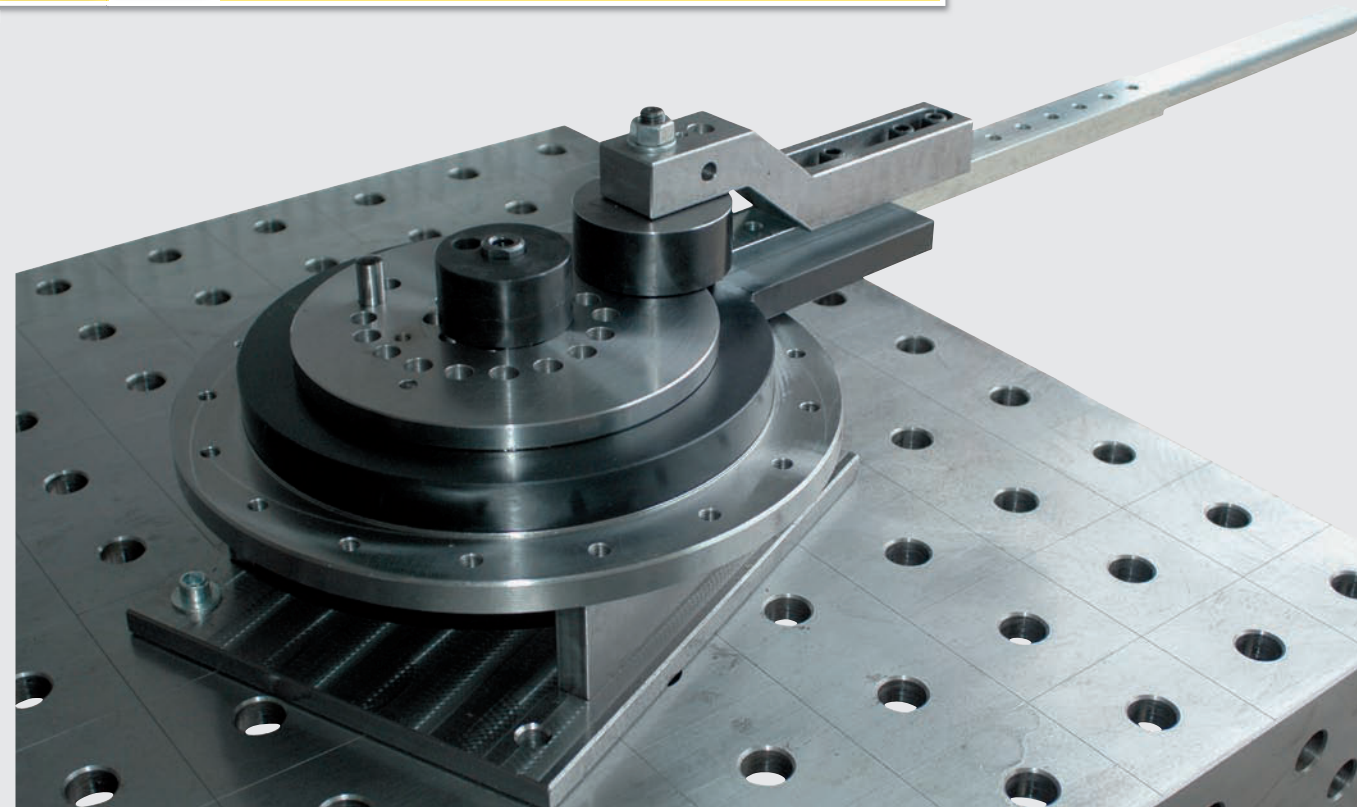
Various bending jaws with different radii are also available.
Quoted bending capacities refer to material cross-sections with strength 40 N/mm.

| | Cold bending | Warm bending |
|-------------------------------|--------------------|---------------------|
| Steel sheet max. (mm) | 100 x 6 or 50 x 12 | 100 x 12 or 60 x 20 |
| Round steel max. (mm) | 18 | 30 |
| Rectangular steel max. (mm) | 18 | 30 |
| Copper sheet max. (mm) | 100 x 12 | - |
| Angle steel notched max. (mm) | 60 x 8 | 100 x 12 |

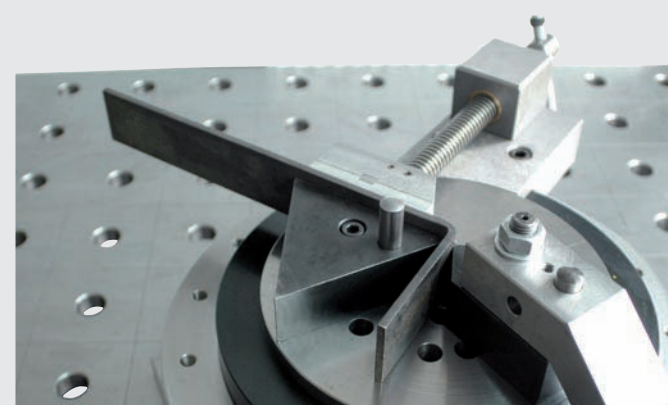
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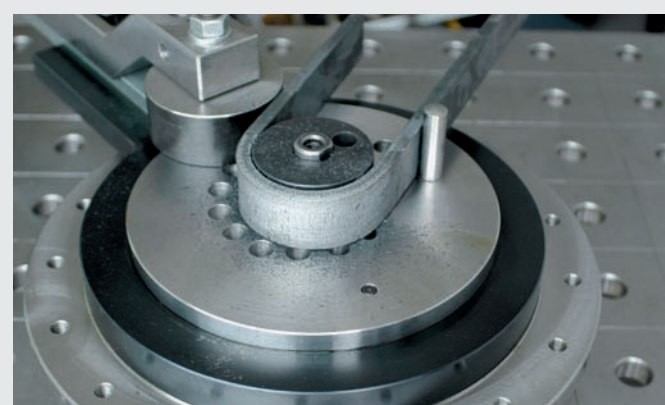
Hand-operated bender HB



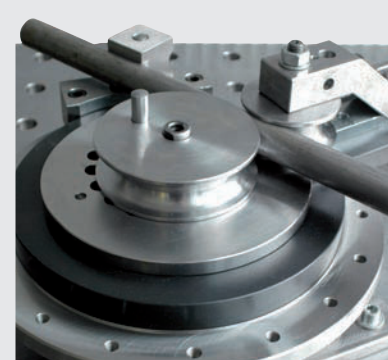
Package 1, welding table and bending roller optional



Flat iron 40 x 4 mm folded



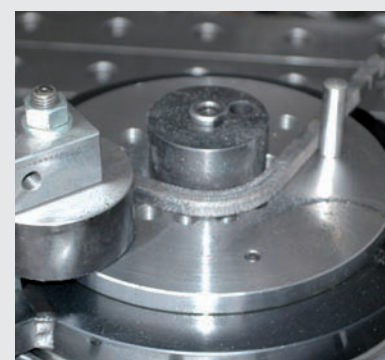
Flat iron 40 x 6 mm bent to 180°



Tube 17,2 mm



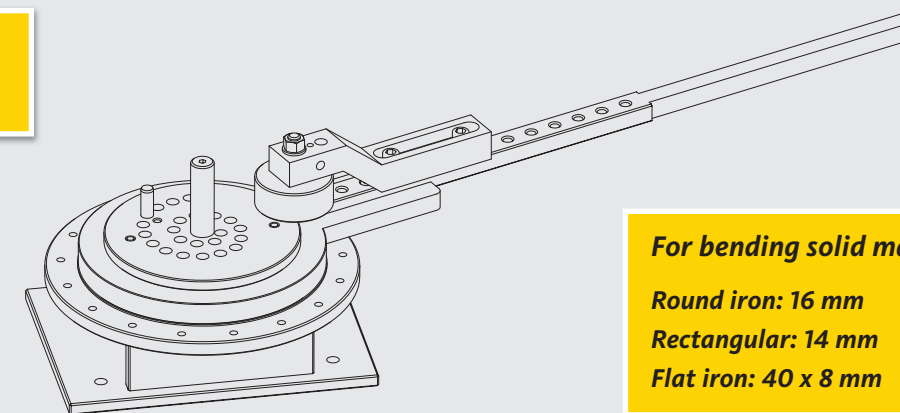
Round material 5 mm



Rectangular 12 mm

May differ from the illustration

HB package I



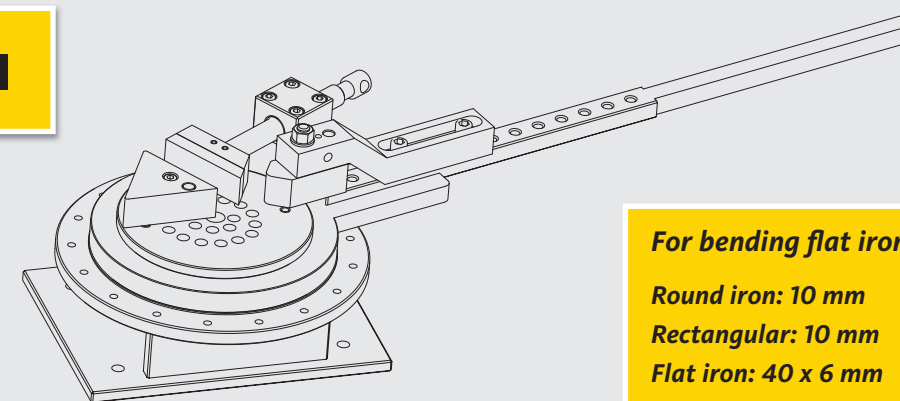
For bending solid material

Round iron: 16 mm

Rectangular: 14 mm

Flat iron: 40 x 8 mm

HB package II



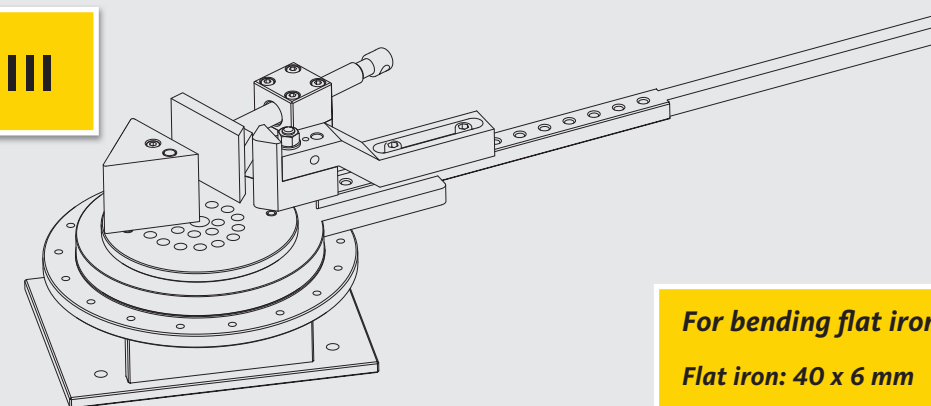
For bending flat iron

Round iron: 10 mm

Rectangular: 10 mm

Flat iron: 40 x 6 mm

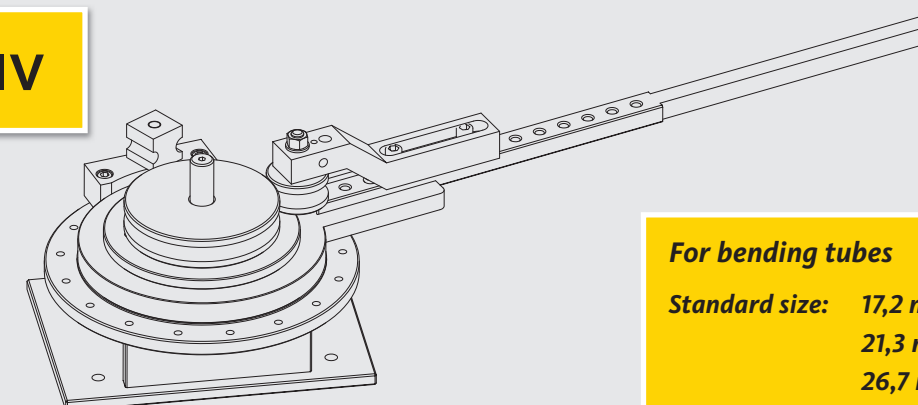
HB package III



For bending flat iron

Flat iron: 40 x 6 mm

HB package IV



For bending tubes

Standard size: 17,2 mm

21,3 mm

26,7 mm

Gelber-Bieger GmbH —
ready for action wherever you need us!

Gelber Bieger is your expert for all about bending.

From our head office in Losheim am See / Germany we supply customers worldwide with bending machines in several designs. We are proud of ranking among the leading manufacturers of bending machines in Europe.

Flexibility as well as our enthusiasm for innovations characterise our company.

It is always our endeavour to offer cost-efficient solutions for every new requirement.

Customer satisfaction, competence and an outstanding service are qualities we do appreciate in our daily work.

Please do not hesitate to contact us, so we can demonstrate our capability.



... Gelb biegt besser!

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