

TUBE AND ANGLE BENDING MACHINES

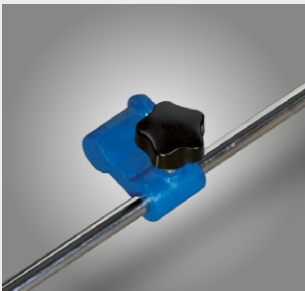
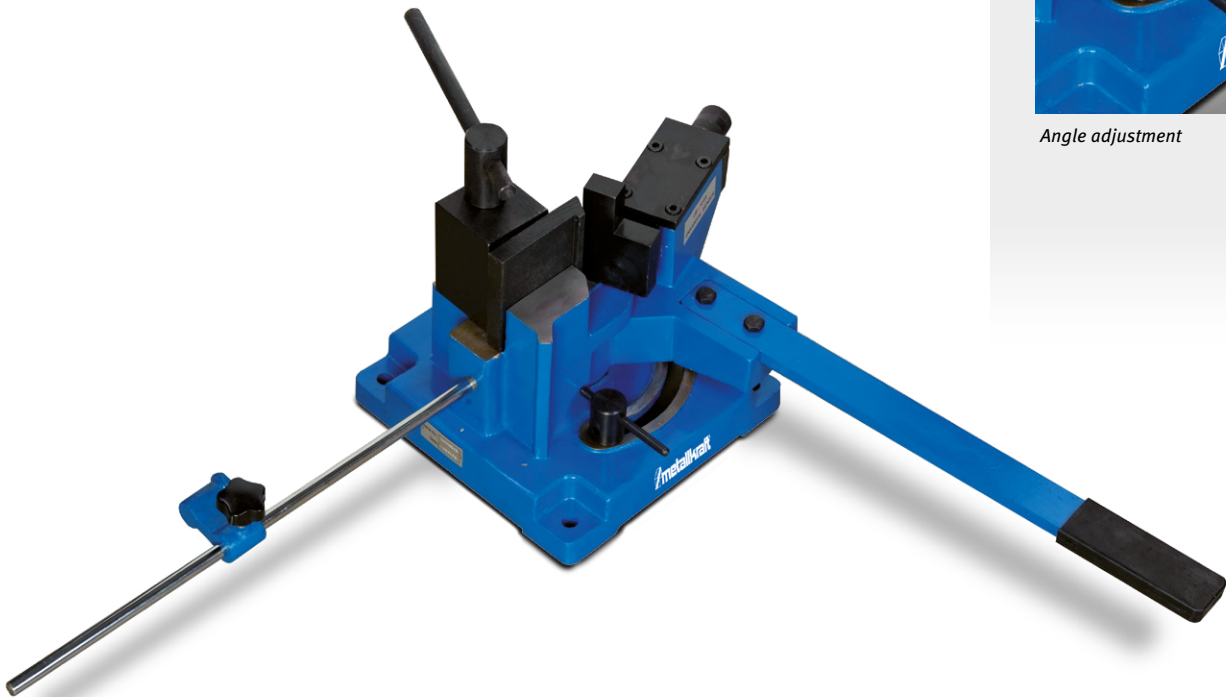


Manual angle bender

INHALTSVERZEICHNIS

WB 100 - Angle bender

- ▶ For precise cold and hot bending of flat, round and square steels
- ▶ Sturdy design for mounting on the workbench
- ▶ Holes drilled in the cast iron base for fixing to the workbench
- ▶ Infinitely adjustable material stop
- ▶ With eccentric quick clamping for efficient working
- ▶ Bending angle up to 120°
- ▶ High repeat accuracy due to bending angle stop
- ▶ Ideal for repair workshops and locksmiths



Length stop



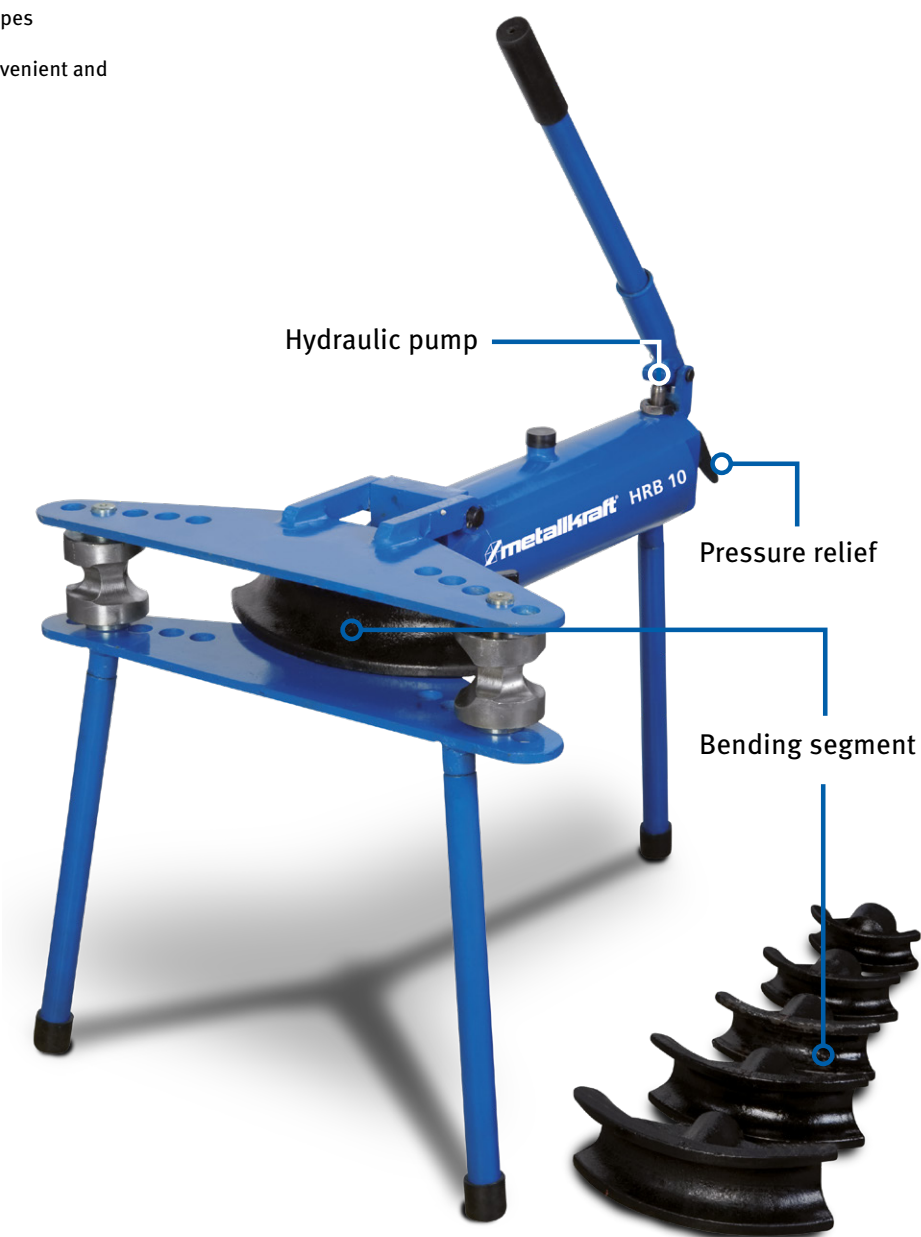
Angle adjustment

- Scope of delivery:**
- > Angle stop
 - > Bending plate
 - > Bending lever
 - > Material stop

Model	WB 100
Art. no.	3776101
Technical data	
Cold:	
Flat steel	100 x 5 mm
Round steel	18 mm
Square steel	16 x 16 mm
Angle steel	60 x 8 mm
Warm:	
Flat steel	100 x 15 mm
Round steel	27 mm
Square steel	25 x 25 mm
Angle steel	100 x 12 mm
Dimensions (L x W x H) approx.	550 x 320 x 240 mm
Weight approx.	30 kg

HRB 10 - Manual pipe bender for universal use
use with 6 bending segments from 1/2" - 2"

- ▶ Universally applicable for all pipes made of bendable materials
- ▶ Fold-out bending frame for convenient and efficient operation
- ▶ Tripod stand for stability



Bending options

Bending segment	Pipe Ø	Wall thickness	Bending radius	Bending angle
1/2"	20 mm	3.25 mm	62 mm	0-90°
3/4"	25 mm	3.50 mm	78 mm	0-90°
1"	32 mm	4.00 mm	98 mm	0-90°
1 1/4"	40 mm	4.00 mm	128 mm	0-120°
1 1/2"	47 mm	4.25 mm	148 mm	0-120°
2"	59 mm	4.50 mm	187 mm	0-120°

Scope of delivery:
› Six bending segments: 1/2", 3/4", 1", 1 1/4", 1 1/2", 2"
› Tripod stand

Model	HRB 10
Art. no.	3777010
Technical data	
Printing performance	10 t
Piston stroke	155 mm
Dimensions (L x W x H) approx.	710 x 590 x 220 mm
Weight approx.	45 kg

Accessories

Bending segment	Pipe diameter	Wall thickness	Bending radius	Bending angle	Art. no.
1/2"	20 mm	3.25 mm	62 mm	0-90°	3777011
3/4"	25 mm	3.50 mm	78 mm	0-90°	3777012
1"	32 mm	4.00 mm	98 mm	0-90°	3777013
1 1/4"	40 mm	4.00 mm	128 mm	0-120°	3777014
1 1/2"	47 mm	4.25 mm	148 mm	0-120°	3777015
2"	59 mm	4.50 mm	187 mm	0-120°	3777016

Manual universal bending machine



INHALTSVERZEICHNIS

UB 10 – Universal bending machine for angle, round and spiral bending of flat, square and round material

- ▶ Cold bending up to an angle of 180°
- ▶ Adjustable bending angle stop for high repeat accuracy
- ▶ With the UB 11 option also for bending spirals
- ▶ Screw-on stand for the workshop
- ▶ Easily transportable, making it ideal for workshops, on assembly sites and in service trolley
- ▶ Removable bending unit, with optional clamping plate can also be used on a vice

Bending examples



Flat steel 20 x 10 mm



Round steel Ø 8 mm



Pipe Ø 16 x 2 mm



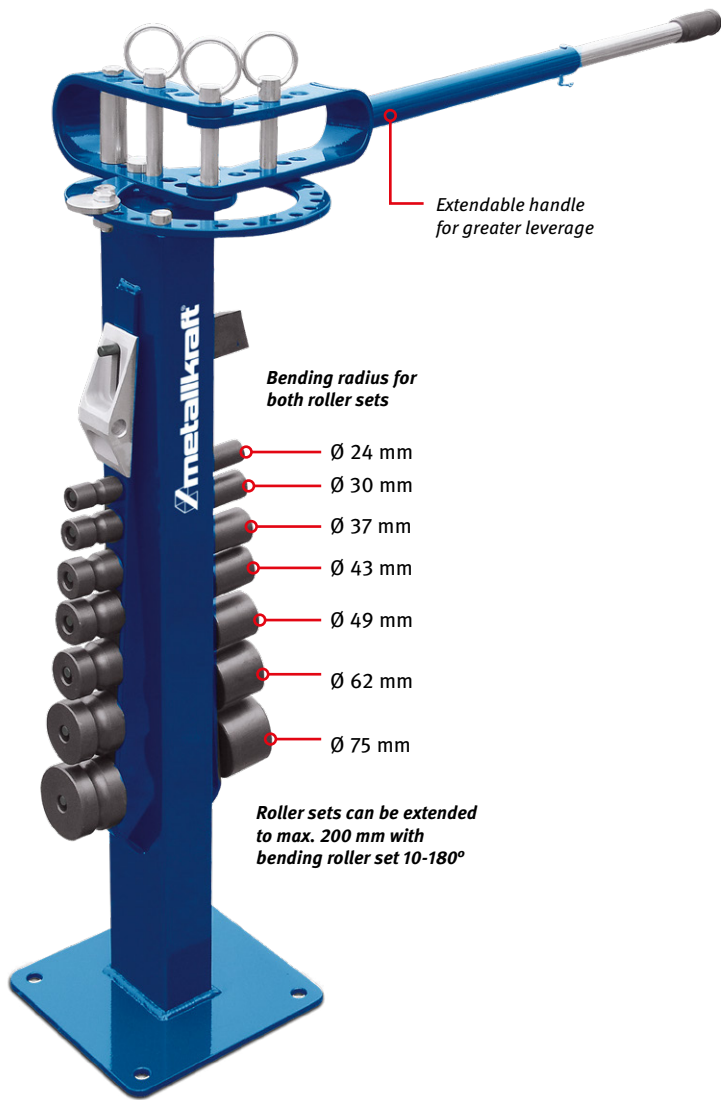
Pipe Ø 1 1/2"



Flat steel 30 x 4 mm



Flat steel 50 x 8 mm



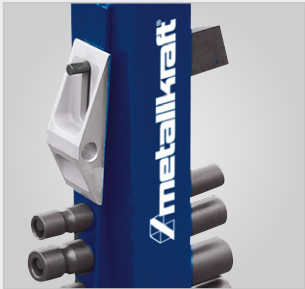
Model	UB 10	
Art. no.	3776010	
Technical data		
Max. bending dimension		
Flat steel: Plate rolling	10 x 50 mm	
Flat steel: Sharp bending	6 x 50 mm	
Weight approx.	32 kg	
Material	Steel / aluminium / copper	Stainless steel
Round materials	Ø 16 mm	Ø 14 mm
Square material	16 x 16 mm ⁽¹⁾	14 x 14 mm ⁽¹⁾
Pipes	G 3/4"	

(1) Bending elements optionally available

Scope of delivery:
› Bending rolls:
2 x Ø 24/30/37/43/49/62/75 mm



Hardened bolts
Bending angle stop



Angle for bending sharp edges on flat material
4 positioning bolts hold the workpiece



Application Flat material: Sharp bending



Two sets of hardened bending rollers included in delivery



Bending of curves in flat material

Accessories UB 10

Art. no.

Heating pipe bending roller set

3790001

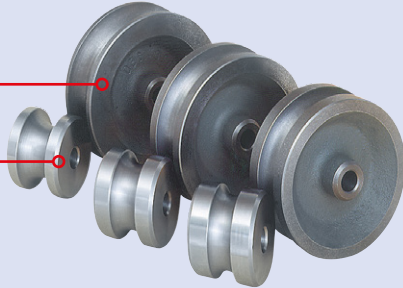
- For cold bending of heating pipes of sizes G3/8", G1/2" and G3/4".
- Set consisting of 2 pieces per size.
- Weight approx. 15 kg.

Bending inside diameter

- G 3/8" 102 mm
- G 1/2" 108 mm
- G 3/4" 112 mm

► Grey cast iron

► Galvanised steel



Bending rollers especially for pipe

Bending roller set 10-180

3790002

- For bending strip steel up to 50 mm wide and 7 mm thick and square material up to 16 x 16 mm
- Ideal for wrought iron work
- Set consists of 8 bending rollers
- Extends the bending capacity to Ø 110, 150, 175, 200 mm
- Weight approx. 33 kg



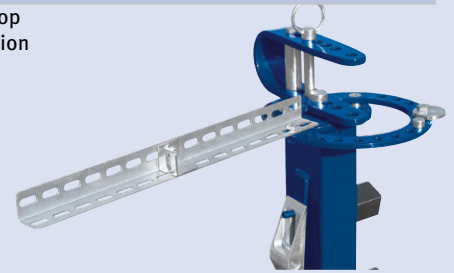
Accessories UB 10

Art. no.

Adjustable stop 10-200

3790003

- Universal, adjustable stop
- For small series production



Clamping plate

3790004

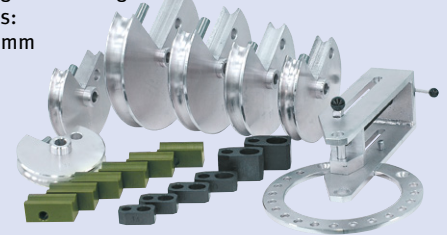
- For mounting the dismantled bending unit of the UB 10 in commercially available clamping vices
- As a simple solution during assembly, so that the base of the UB 10 does not have to be dismantled and taken away
- Can also be used for RB 30
- Weight approx. 1.5 kg
- Scope of delivery without vice



Conversion kit for UB 10 to RB 30

3790006

- For bending thin-walled pipes
- With bending elements, angle element and guides
- Installation by replacing the bending elements
- Bending elements 6 pcs: Ø 14, 16, 18, 20, 22, 25 mm
- Weight approx: 31 kg



Accessories/bending segments from page 113 can be used

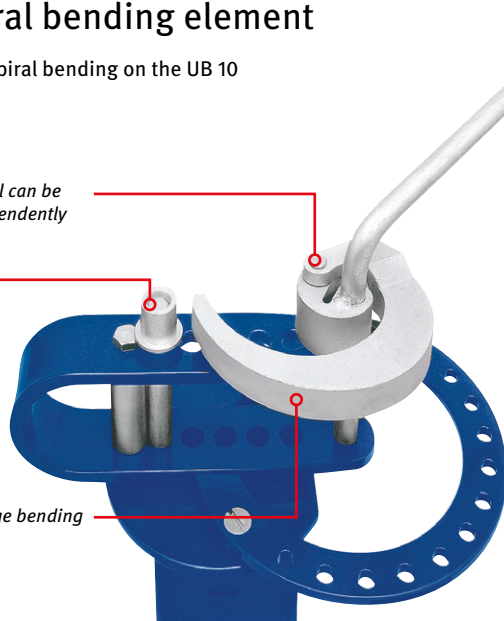
UB 11 - Spiral bending element

- Attachment for spiral bending on the UB 10

Small spiral can be used independently

support roller

Easy to attach large bending segment



Bending examples



Large spirals



small spirals

Model	Spiral bending element UB 11
Art. no.	3790011

Technical data	
Max. Material thickness	
Square	5 x 5 mm
Flat material	5 x 25 mm
Round materials	Ø 5 mm
Weight approx.	3 kg



Fig. shows scope of delivery UB10-280



Accessories: UB 10-280

3790280

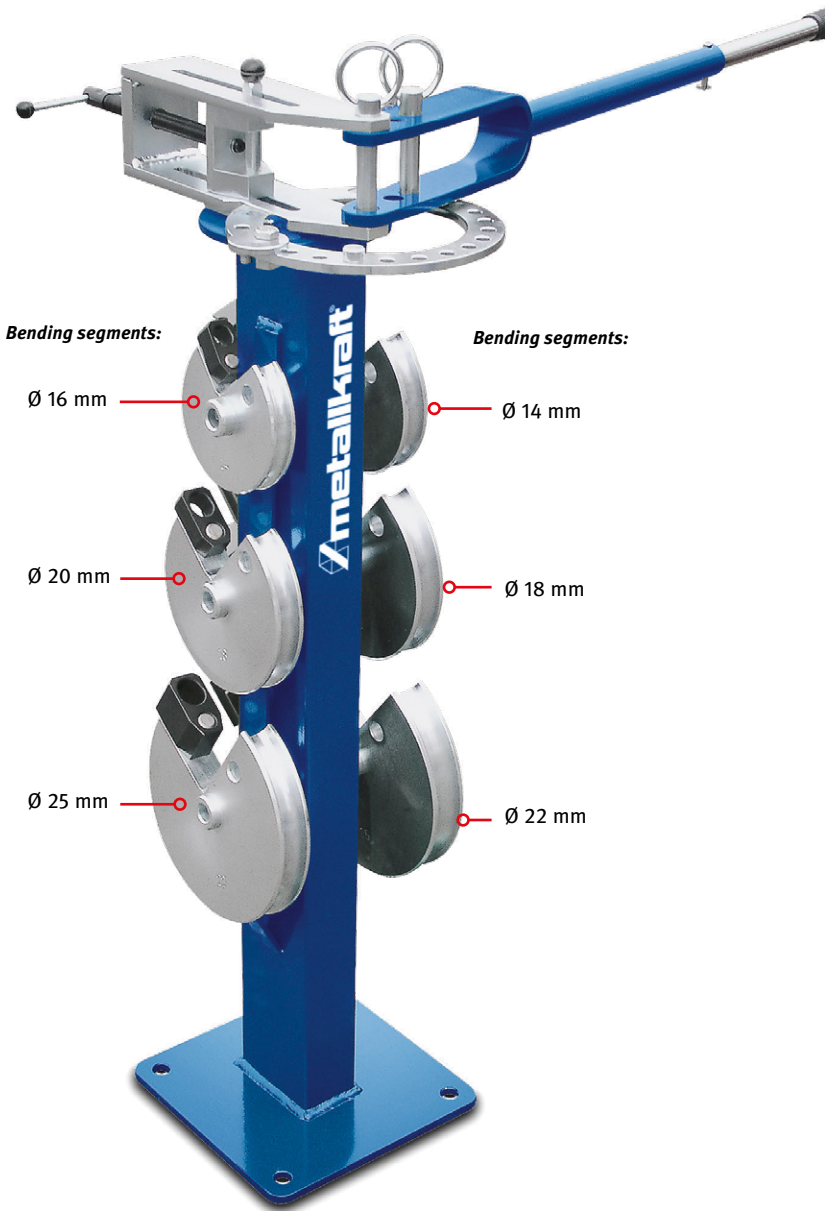
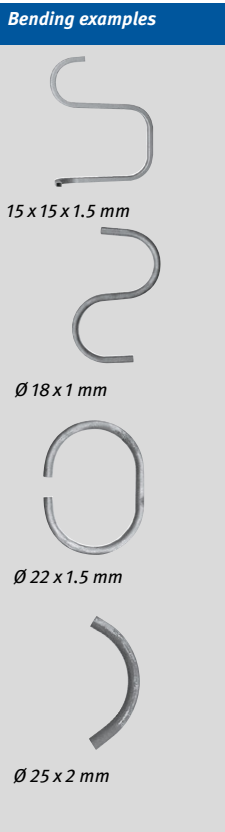
Separate retaining bracket for spiral bending element UB 11 enables the UB 11 to be used without the UB 10 on commercially available vices

Manual tube bending machine



RB 30 – Pipe bender for cold bending thin-walled pipes made of brass, copper, steel and other materials

- ▶ Easy cold bending of thin-walled pipes even without support elements
- ▶ For bending simple and complex shapes
- ▶ Extendable handle for high leverage
- ▶ Easy to transport, ideal for workshops, on assembly sites and in service vehicles
- ▶ Removable bending unit can also be used on vice with optional clamping plate
- ▶ With screw-on stand for the workshop
- ▶ Further bending segments



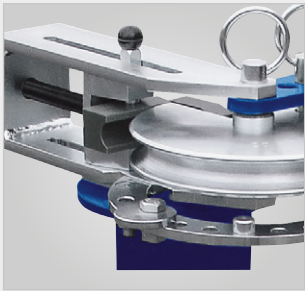
Bending radius Standard segments

Size	Radius
Ø 14	56 mm
Ø 16	64 mm
Ø 18	72 mm
Ø 20	80 mm
Ø 22	88 mm
Ø 25	100 mm

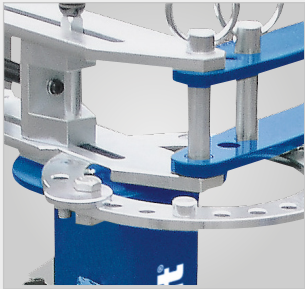
Model	RB 30	
Art. no.	3776030	
Technical data		
Standard bending radius	4 x pipe diameter, 56 - 100 mm	
Max. wall thickness (Ø 25 mm)	2 mm	
Material	Steel / aluminium / copper	Stainless steel
Round materials	Ø 25 x 2 mm	Ø 22 x 2 mm
Square material	20 x 20 x 2 mm ⁽¹⁾	

(1) Bending elements optionally available

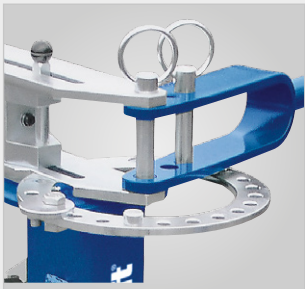
Scope of delivery:
› Biegeelemente 6 Stück:
Ø 14, 16, 18, 20, 22, 25 mm



Plastic glide shoe prevents damage to the pipes
Fixing screw



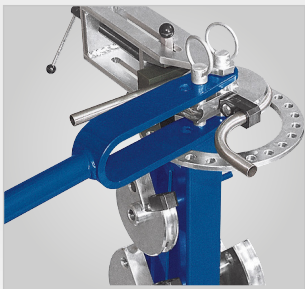
Bending angle stop for high repeat accuracy



Hardened bolts



Space-saving and tidy storage of the bending segments on the stand



Example of combined bending

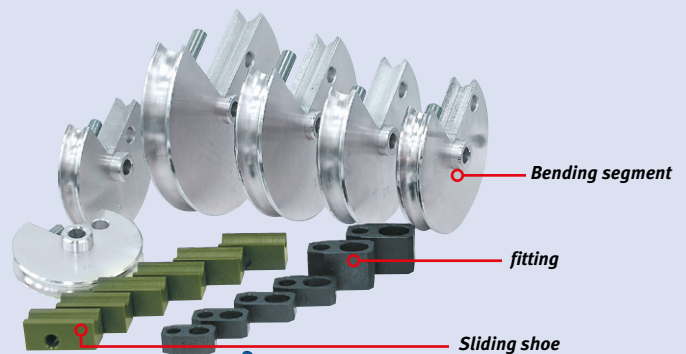
Additional bending segments

Accessories - Bending segment sets (with slide and holder)

Designation	Diameter	Radius	Art. no.
Set Ø8 R42	8 mm	42 mm	3790020
Set Ø10 R42	10 mm	42 mm	3790021
Set Ø12 R45	12 mm	45 mm	3790022
Set Ø14 R42	14 mm	42 mm	3790023
Set Ø14 R56	14 mm	56 mm	3790024
Set Ø15 R45	15 mm	45 mm	3790025
Set Ø16 R40	16 mm	40 mm	3790026
Set Ø16 R48	16 mm	48 mm	3790027
Set Ø16 R64	16 mm	64 mm	3790028
Set Ø18 R45	18 mm	45 mm	3790029
Set Ø18 R54	18 mm	54 mm	3790030
Set Ø18 R72	18 mm	72 mm	3790031
Set Ø20 R50	20 mm	50 mm	3790032
Set Ø20 R60	20 mm	60 mm	3790033
Set Ø20 R80	20 mm	80 mm	3790034
Set Ø22 R55	22 mm	55 mm	3790035
Set Ø22 R66	22 mm	66 mm	3790036
Set Ø22 R88	22 mm	88 mm	3790037
Set Ø25 R62.5	25 mm	62.5 mm	3790038
Set Ø25 R75	25 mm	75 mm	3790039
Set Ø25 R100	25 mm	100 mm	3790040
Maße			
Set Square 15x15 R45	15 x 15 mm	45 mm	3790041
Set Square 20x20 R60	20 x 20 mm	60 mm	3790042

Accessories - Bending segment
for RB 30 and UB 10 (bending segment only)

Designation	Diameter	Radius	Art. no.
Segment Ø14 R42	14 mm	42 mm	3790043
Segment Ø16 R40	16 mm	40 mm	3790044
Segment Ø16 R48	16 mm	48 mm	3790045
Segment Ø18 R45	18 mm	45 mm	3790046
Segment Ø18 R54	18 mm	54 mm	3790047
Segment Ø20 R50	20 mm	50 mm	3790048
Segment Ø20 R60	20 mm	60 mm	3790049
Segment Ø22 R55	22 mm	55 mm	3790050
Segment Ø22 R66	22 mm	66 mm	3790051
Segment Ø25 R62.5	25 mm	62.5 mm	3790052
Segment Ø25 R75	25 mm	75 mm	3790053



RB 30 - Extension plate

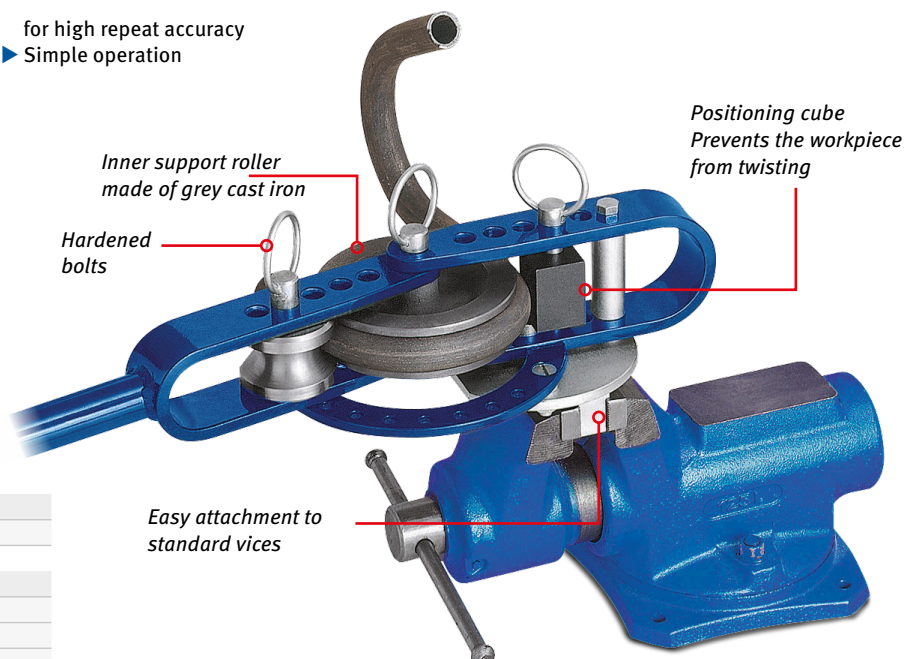
- Moves the bending axis outside the base
- Enables the bending of long workpieces

Model	Extension plate RB 30
Art. no.	3790005



RB 12 - Bending unit for heating pipes and water pipes up to G3/4"

- Ideal for travelling
- Simple mounting on standard clamping vices
- Cold bending up to an angle of 180°
- Partial bends possible
- Adjustable bending angle stop
- for high repeat accuracy
- Simple operation



Model	RB 12
Art. no.	3776012

Technical data	
Bending inside diameter G 3/8"	102 mm
Bending inside diameter G 1/2"	108 mm
Bending inside diameter G 3/4"	112 mm
Weight approx.	22 kg

NC-controlled tube bending machines

RB 54 - NC-controlled tube bending machine with programme memory

- ▶ NC control for setting the bending angle and separate correction
- ▶ High-quality, robust construction
- ▶ Up to 50 programmes with 10 bending sequences each can be stored
- ▶ Fast tool change
- ▶ Purely motorised drive
- ▶ Automatically returns to the starting position



RB 54
Illustration with optional base unit (Art. no. 4310000)

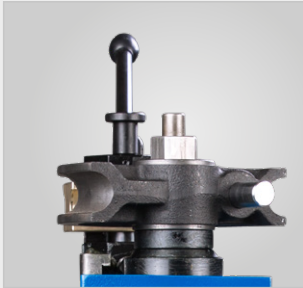
Important information for mandrel-free pipe bending:

- ▶ The ratio of wall thickness to pipe diameter must not be too small – wall thickness divided by pipe diameter must be greater than 0.066.
- ▶ The smallest possible bending radius is 3D – i.e. 3 x pipe diameter.

Model	RB 54
Art. no.	430005
Technical data	
Bending capacity (420 N/mm ²)	Ø 54 x 4 mm
Bending capacity (350 N/mm ²)	Ø 54 x 4 mm
Bending capacity (650 N/mm ²)	Ø 42 x 3 mm
Bending radius max.	162 mm
Bending angle max.	210°
Bending speeds	2 rpm
Motor power ~50 Hz	1.1 kW / 400 V
Dimensions (L x W x H) approx.	600 x 220 x 470 mm
Weight approx.	107 kg



Efficient bending of metal profiles into precise rings and bends



Quick and easy tool change

Attention! The optional pull rod (Art. no. 4311999) is required for bending pipe diameters of 27 mm and above.

Accessories	Art. no.
Machine base	4310000
Universal glide shoe holder for Ø 6 - 50 mm	4312000
Pull rod ⁽²⁾	4311999

(2) Required for bending pipes with a diameter of 27 mm or more

Accessories

Bending segments consist of 1 bending segment, 2 rollers and 1 holder		
Pipe Ø	Bending radius	Art. no.
6 mm	30 mm	4310080
8 mm	30 mm	4310081
10 mm	30 mm	4310082
12 mm	36 mm	4310083
14 mm	42 mm	4310084
14 mm	56 mm	4310085
15 mm	45 mm	4310086
15 mm	60 mm	4310087
16 mm	48 mm	4311000
16 mm	64 mm	4311001
17.2 mm (3/8")	51.6 mm	4311002
17.2 mm (3/8")	68.8 mm	4311003
18 mm	54 mm	4310090
18 mm	72 mm	4310091
20 mm	60 mm	4311004
20 mm	80 mm	4311005
21.3 mm (1/2")	63.9 mm	4311006
21.3 mm (1/2")	85.2 mm	4311007
22 mm	66 mm	4311008
22 mm	88 mm	4311009
25 mm	75 mm	4311010
25 mm	100 mm	4311011
26.9 mm (3/4")	80.7 mm	4311012
26.9 mm (3/4")	107.6 mm	4311013
28 mm	84 mm	4311014
28 mm	112 mm	4311015
30 mm	90 mm	4311016
30 mm	120 mm	4311017
32 mm	96 mm	4311018
32 mm	128 mm	4311019
33.7 mm (1")	101.1	4311020
33.7 mm (1")	134.8 mm	4311021
35 mm	105 mm	4311022
35 mm	140 mm	4311023
38 mm	114 mm	4311024
38 mm	152 mm	4311025
40 mm	120 mm	4311026
40 mm	160 mm	4311027
42 mm	126 mm	4311028
42 mm	168 mm	4311029

Bending segments: consist of 1 bending segment, 2 rollers and 1 holder		
Pipe Ø	Bending radius	Art. no.
42.4 mm (5/4")	127.2 mm	4311030
42.4 mm (5/4")	169.6 mm	4311031
44.5 mm	133.5 mm	4311032
44.5 mm	178 mm	4311033
45 mm	135 mm	4311034
45 mm	180 mm	4311035
48 mm	144 mm	4311036
48 mm	192 mm	4311037
48.3 mm (1 1/2")	144.9 mm	4311038
48.3 mm (1 1/2")	193.2 mm	4311039
50 mm	150 mm	4311040
50 mm	200 mm	4311041

Bending tool sets for other diameters available on request!

Sliding shoes ⁽¹⁾	Art. no.
Ø 6 mm	4312006
Ø 8 mm	4312008
Ø 10 mm	4312010
Ø 12 mm	4312012
Ø 14 mm	4312014
Ø 15 mm	4312015
Ø 16 mm	4312016
Ø 17.2 mm	4312017
Ø 18 mm	4312018
Ø 20 mm	4312020
Ø 21.3 mm	4312021
Ø 22 mm	4312022
Ø 25 mm	4312025
Ø 26.9 mm	4312026
Ø 28 mm	4312028
Ø 30 mm	4312030
Ø 32 mm	4312032
Ø 33.7 mm	4312033
Ø 35 mm	4312035
Ø 38 mm	4312038
Ø 40 mm	4312040
Ø 42 mm	4312042

Sliding shoes ⁽¹⁾	Art. no.
Ø 42.4 mm	4312043
Ø 45 mm	4312045
Ø 48 mm	4312048
Ø 48.3 mm	4312049
Ø 50 mm	4312050

⁽¹⁾ When using sliding shoes, the sliding shoe holder (Art. no. 4312000) is required. It can be used universally for slide shoes of all diameters from 6 to 50 mm. We recommend the use of sliding shoes when bending thin-walled pipes and to minimise marks in the bending area.

Accessories	Art. no.
Universal glide shoe holder for Ø 6 - 50 mm	4312000



Figure shows
Sliding shoe

Tube bending machines

BM 60-T— NC-controlled tube bending machine with powerful Motor for high torque

- ▶ Powerful motor with inverter and reduction gear ensures high torque
- ▶ NC control for setting the bending angle and correction
- ▶ Clamping device with counter
- ▶ Mobile control panel with control unit and pedals
- ▶ Fast tool change
- ▶ All shafts hardened and ground
- ▶ Material clamping is performed manually
- ▶ Very good value for money



Bending angles up to 180° possible



Simple operation, with digital display for current bending values and for setting the parameters

Important information for mandrel-free pipe bending:

- ▶ The ratio of wall thickness to pipe diameter must not be too small – wall thickness divided by pipe diameter must be greater than 0.066.
- ▶ The smallest possible bending radius is 3D – i.e. 3 x pipe diameter.

Model		BM 60-T
Art. no.		4320060
Technical data		
Bending performance pipe material (420 N/mm ²)	mm	Ø 60 x 4
Bending performance solid material (420 N/mm ²)	mm	30
Bending performance pipe material (350 N/mm ²)	mm	Ø 60 x 3
Bending performance pipe material (650 N/mm ²)	mm	Ø 50 x 4
Bending radius max.	mm	450
Bending angle max.	°	180
Bending speed	rpm	3
Torque	Nm	9500
Motor power ~50 Hz	kW	1.5 / 400 V
Dimensions (L x W x H) approx.	mm	950 x 480 x 1050
Weight approx.	kg	500

(1) Explanation of packaging surcharges see overleaf



Bending tool set for BM 60-T			
Tool material	Pipe Ø	Bending radius	Art. no.
Steel	21.3	67	4336211567
Steel	26.9	90	4336272090
Steel	33.7	100	43363420100
Steel	42.4	130	43364330130
Steel	48.3	150	43364930150
Steel	60.3	190	43366040190

Bending tool set for BM 60-T			
Plastic	21.3	67	4338211567
Plastic	26.9	90	4338272090
Plastic	33.7	100	43383420100
Plastic	42.4	130	43384330130
Plastic	48.3	150	43384930150
Plastic	60.3	190	43386040190

Note: Bending tool sets for other radii available on request.

BM 76-T— NC-controlled tube bending machine with powerfull Motor for high torque

- ▶ Powerful motor with inverter and reduction gear ensures high torque
- ▶ NC control for setting the bending angle and correction
- ▶ Clamping device with counter
- ▶ Mobile control panel with control unit and pedals
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Bending angles up to 180° possible



Simple operation, with digital display for current bending values and for setting the parameters

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- ▶ The smallest possible bending radius is 3D – i.e. 3 x pipe diameter.

Model		BM 76-T
Art. no.		4320076
Technical data		
Bending performance pipe material (420 N/mm ²)	mm	Ø 76 x 4
Bending performance solid material (420 N/mm ²)	mm	40
Bending performance pipe material (350 N/mm ²)	mm	Ø 76 x 3.5
Bending performance pipe material (650 N/mm ²)	mm	Ø 60 x 4
Bending radius max.	mm	470
Bending angle max.	°	180
Bending speed	rpm	3
Torque	Nm	11500
Motor power ~50 Hz	kW	4 / 400 V
Dimensions (L x W x H) approx.	mm	1050 x 580 x 1060
Weight approx.	kg	650

(1) Explanation of packaging surcharges see overleaf

Bending tool set for BM 76-T			
Tool material	Pipe Ø	Bending radius	Art. no.
Steel	21.3	67	4337211567
Steel	26.9	90	4337272090
Steel	33.7	100	43373420100
Steel	42.4	130	43374330130
Steel	48.3	150	43374930150
Steel	60.3	190	43376040190
Steel	76.1	230	43377665230

Bending tool set for BM 76-T			
Plastic	21.3	67	4339211567
Plastic	26.9	90	4339272090
Plastic	33.7	100	43393420100
Plastic	42.4	130	43394330130
Plastic	48.3	150	43394930150
Plastic	60.3	190	43396040190
Plastic	76.1	230	43397665230

Note: Bending tool sets for other radii available on request.