

Bending

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Bending

Manual

TUBE BENDER

For accurate one handed bending up to 90°,
Ø 5 - 12 mm (1/4 - 1/2")



Product Profile

APPLICATION AREA

Suitable for pipe made of:

Copper (soft) and aluminium: Ø 5 - 12 mm, 1/4 - 1/2"

Precision steel (soft): Ø 5 - 12 mm, 1/4 - 1/2"

KEY FEATURES

- Accurate bending even in restricted spaces
- Production of U-bends, counter bends, swan-neck bends and connecting bends possible at all levels
- Quick and simple change of the bending formers
- Fast release and removal of the bending formers
- One handed operation through the ergonomic design
- Fast and accurate bending

3



Ratchet arm with bayonet coupling

Quick change of the bending formers

Release lever

Quick release and reset of the bending former

Ergonomic design

One handed operation

Compact design

Accurate bending even in restricted spaces

Mechanical ratchet feed

Quick and accurate bending

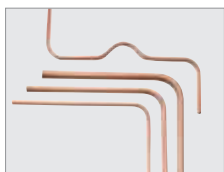
Open bending frame

Production of U-bends, counter bends, swan-neck bends and connecting bends possible at all levels



Fig TUBE BENDER Set

Various bends possible



TUBE BENDER (No. 24130)



Bending formers (No. 24048)



Back plates (No. 24049)



Bending segments



TUBE BENDER sets includes: basic tool complete with bending segments, back plates, in plastic carrying case (No. 24025)

Model	kg	📦	No.
Basic set (basic tool, back plates plastic case)	1.00	1	24010
TB Set 5 - 6 - 8 - 10 mm	2.84	1	24131
TB Set 6 - 8 - 10 - 12 mm	3.03	1	24132
TB Set 8 - 10 - 12 mm	2.82	1	24133
TB Set 1/4 - 5/16 - 3/8 - 1/2"	2.92	1	24134
Plastic carrying case	0.60	1	24025
Basic tool without bending segments	0.36	1	24130
Support segment	0.05	1	24048
Back plate without support segment	0.14	1	24049

TUBE BENDER Bending Segments

Model	🌀 Size	kg	No.
Bending segments	5 mm	190	24001
Bending segments	6 mm	210	24002
Bending segments	8 mm	250	24003
Bending segments	9 mm	360	24004
Bending segments	10 mm	390	24005
Bending segments	12 mm	390	24007
Bending segments	1/4"	210	24002
Bending segments	5/16"	250	24003
Bending segments	3/8"	270	24006
Bending segments	1/2"	380	24008

Previous bending segments and back plates from earlier models are compatible!

TUBE BENDER MAXI

For accurate one handed bending up to 90°,
Ø 12 - 26 mm (3/8 - 1.1/4")



Product Profile

APPLICATION AREA

For the bending of pipes made of soft copper and aluminium, coated copper and precision steel pipes, as well as multi-layered composite pipes (only in MLP-Sets) and stainless steel (soft)

Suitable for pipe made of:

Copper (soft) and aluminium:	Ø 12 - 22 mm, 3/8 - 7/8"
Copper (coated):	Ø 12 - 18 mm, 3/8 - 5/8"
Precision steel (soft):	Ø 12 - 22 mm, 3/8 - 7/8"
Stainless steel (thin-walled, soft):	Ø 12 - 18 mm, 3/8 - 5/8"
MSR (Multilayer):	Ø 14 - 26 mm, 5/8 - 1.1/4"

KEY FEATURES

- Eliminates the cost for bending formers, storage and purchase
- Quick release and reset of the bending segments
- Bending segments are easily exchanged
- Optimum bending results

Handle will not open during transport

Safe transport

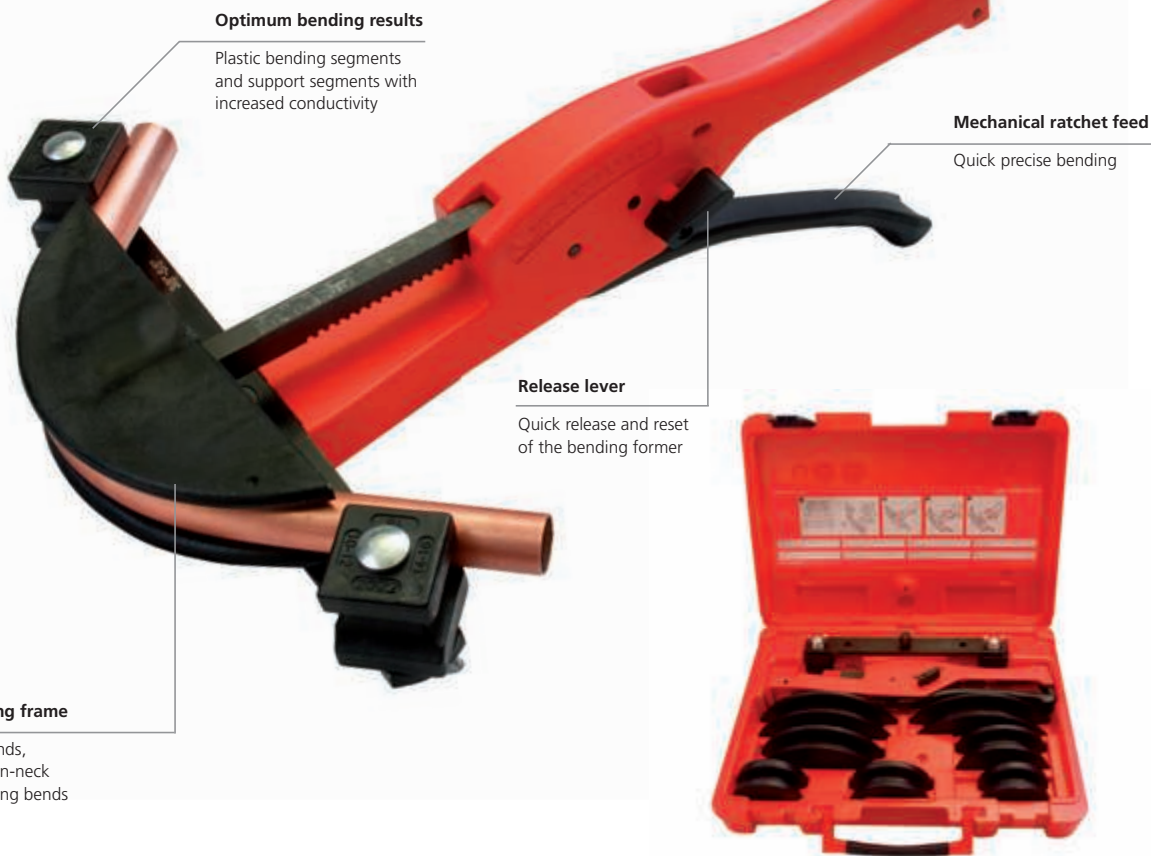


Fig TUBE BENDER MAXI Set

Adjustable bending frame

Production of U-bends, counter bends, swan-neck bends and connecting bends possible at all levels

TUBE BENDER MAXI Sets include: basic unit (No. 023000X), back plate support with segments (Cu Set No. 23001) (MSR Set No. 23080), (MSR-Set No. 24022), plastic carrying case (No. 23097)

Model	kg	kg	No.
TB MAXI set 12 - 15 - 18 - 22 mm	3.5	1	023020X
TB MAXI set 12 - 14 - 16 - 18 - 22 mm	3.5	1	023021X
TB MAXI set 3/8 - 1/2 - 5/8 - 3/4 - 7/8"	3.3	1	023022X
TB MAXI set MSR 14 - 16 - 18 - 20 - 25 mm	3.3	1	023090X
TB MAXI set MSR 14 - 16 - 18 - 20 - 26 mm	3.3	1	023091X
Basic tool without back plate support	1.0	1	023000X
Back plate support without support segments	0.5	1	23015
Support segment R/L 10 - 25 mm	0.5	2	23008
Support segments R/L 12 - 22 mm	0.1	2	23047
Plastic carrying case	1.1	1	23097

Previous bending segments and back plates from earlier models are compatible!

TUBE BENDER MAXI Bending Segments

Model	Size	max. mm	g	No.
Bending segments	12 mm	1.0	80	23002
Bending segments	14 mm	1.0	80	23003
Bending segments	15 mm	1.0	90	23004
Bending segments	16 mm	1.0	100	23005
Bending segments	18 mm	1.0	140	23006
Bending segments	22 mm	1.0	170	23007
Bending segments	3/8"	1.0	70	23010
Bending segments	1/2"	1.0	80	23011
Bending segments	5/8"	1.0	100	23012
Bending segments	3/4"	1.0	120	23013
Bending segments	7/8"	1.0	170	23014

Bending

Manual

TUBE BENDER MAXI MSR Set

One-handed bending tool for precision bending of multi-layered composite pipes (MSR), Ø 14 - 32 mm



Product Profile

APPLICATION AREA

Universal bending tool. Increases safety by reducing the number of joints. Eliminates the costs for bending formers, storage and purchase

KEY FEATURES

- Ideal in confined spaces
- Quick release and resetting of bending formers
- Bending formers easily changed
- Optimal bending results
- Reduction of pressure-loss in the unit due to the low cross-sectional constriction as compared to prefabricated form pieces

Adjustable bending frame

Production of U-bends, counter bends, swan-neck bends and connecting bends possible at all levels

Ratchet arm with bayonet coupling

Bending formers easily changed

Smooth running feed lever

Ideal for use in confined spaces and for one-handed operation

Plastic bending formers and support segments with increased conductivity

Optimum bending results

Release lever

Quick release and resetting of bending formers

Mechanical ratchet feed

Quick operation

Fig TUBE BENDER MAXI MSR

Body made of resistant die-cast steel

Sturdy and long-lasting

Universal field operation



TUBE BENDER MAXI MSR Set

Sets (No. 23065 / 23095) include: TUBE BENDER MAXI MSR (No. 23076), support brackets (No. 23080), bending formers in steel carrying case (No. 24022)

Model	Description	No.
TUBE BENDER MAXI MSR Set	14- 16- 18- 20- 25- 32 mm	23065
TUBE BENDER MAXI MSR Set	14- 16- 18- 20- 26- 32 mm	23095

Accessories



Description	g	No.	Description	g	No.
Bending segment 14 x 2.0 mm	80	23003	Bending segment 26 x 2.0 mm	200	23053
Bending segment 16 x 2.0 mm	100	23005	Bending segment 32 x 2.0 mm	380	23051
Bending segment 18 x 2.0 mm	140	23050	Basic tool 32 without support brackets	1280	23076
Bending segment 20 x 2.0 mm	150	23052	Support brackets with support segments R/L 23076	790	23080
Bending segment 25 x 2.0 mm	180	23009	Support segments	200	23083

Standard Two Handed Bender 90°

For accurate bending up to 90° for pipes made of soft and semi-hard copper according to DIN EN 1057 Ø 12 x 1.0 - 28 x 1.0 mm

Universal bender for sanitary and heating installations refrigeration and air-conditioning systems

KEY FEATURES

- Long handles allow for better leverage in the bending of semihard copper pipes
- Bending pliers with sliding carriage for millimetre-exact bending
- Accurate adjustments between the bending radius and handle length reduces effort required



Size	mm	R Radius mm	L mm	kg	No.
12 mm	1.0	43	460	1.4	462212
15 mm	1.0	60	600	2.3	462215
18 mm	1.0	74	860	3.2	462218
22 mm	1.0	87	900	4.3	462222

MULTIBEND Standard Bender 180°

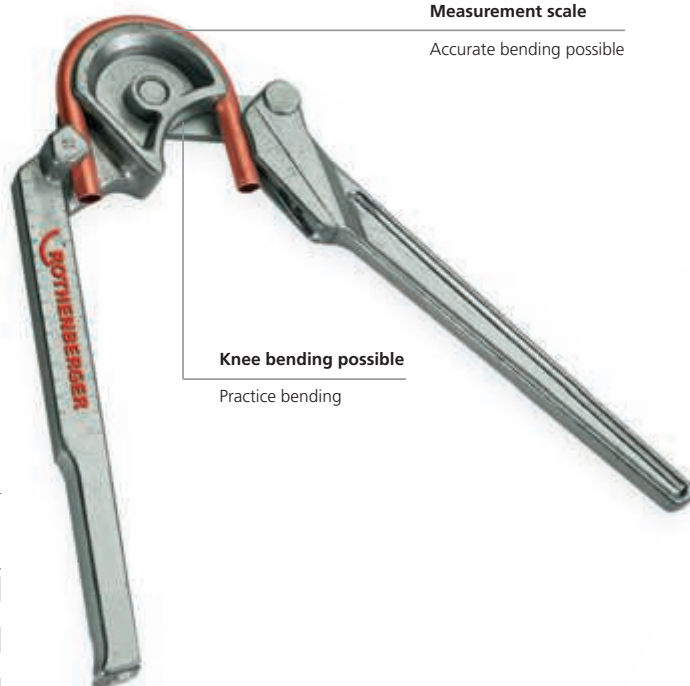
For accurate bending up to 180° of pipes made of soft copper, aluminium and precision steel Ø 6 - 18 mm (1/4 - 5/8")

KEY FEATURES

- Bending radius display of 0 - 180° for accurate bending
- Clamp mechanism for better pipe hold allows the bending of shorter pipe pieces
- Light construction allows for fatigue-free hand operation

Measurement scale

Accurate bending possible

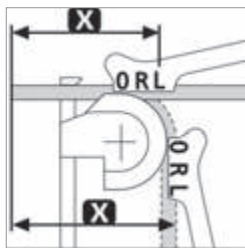


Size	max. mm	R Radius mm	kg	No.
10 mm	1.0	30	0.37	25401
12 mm	1.0	36	0.64	25402
14 mm	1.0	42	0.98	25403
15 mm	1.0	48	1.45	25404
16 mm	1.0	48	1.46	25405
18 mm	1.0	54	2.00	25406

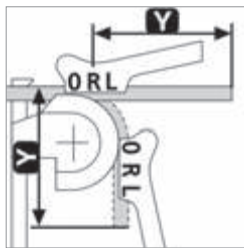
Bending

Manual

Method L



Method R



Accurate bending

Minimum size chart and bending radius display on measurement scale

MINIBEND

For accurate two handed bending up to 180° of pipes made of soft copper, brass, aluminium and precision steel Ø 6 - 10 mm, (1/4 - 3/8")

KEY FEATURES

- Suitable for use in refrigeration and air-conditioning, oil supply, automotive, hydraulic and pneumatic industries

Method L - Determination of the length of L - Left:

O: Reference to bending scale (0-0) and/or start/end of the bending radius
L: Used to determine/indicate the final dimension desired from the left (pipe beginning) up to top edge of the pipe (Mass X)

Method R: Determination of the length of R - Right:

O: Reference to bending scale (0-0) and/or start/end of the bending radius
R: Used to determine/indicate the final dimension desired from the right (pipe beginning) up to top edge of the pipe (Mass Y)

Model	Size	g	No.
MINIBEND	6 - 8 - 10 mm	420	25150
MINIBEND	1/4 - 5/16 - 3/8"	420	25151

Standard Bender 180°

For accurate bending up to 180° of pipes made of soft copper, aluminium and precision steel Ø 6 - 18 mm (1/4 - 5/8")

KEY FEATURES

- Bending radius display of 0 - 180° for accurate bending
- Clamp mechanism for better pipe hold allows the bending of shorter pipe pieces
- Light construction allows for fatigue-free hand operation

Accurate bending

Minimum size chart and bending radius display on measurement scale



Size	R Radius mm	mm	g	No.
6 mm	18	305	550	25130
10 mm	30	390	970	25132
12 mm	36	390	980	25133
14 mm	47	450	1,580	25134
15 mm	54	450	1,830	25135
16 mm	58	450	1,830	25136
5/16"	24	305	640	25131
5/8"	58	450	1,830	25136

ACCESSORIES



Description	No.
Internal / External deburrer	31
Bending spray, 150 ml	67 25120

Copper Tube Bending Springs

For free-handed bending of soft copper pipes
Ø 6 - 16 mm (1/4 - 5/8")

KEY FEATURES

- Coiled cone for ideal handling even with longer pipes
- Tough and long lasting with the cadmium-plated spring steel
- Optimal spring form prevents buckling in bending radius area



Size	g	No.
10 mm	80	25182
12 mm	160	25183
15 mm	220	25185
16 mm	220	25186

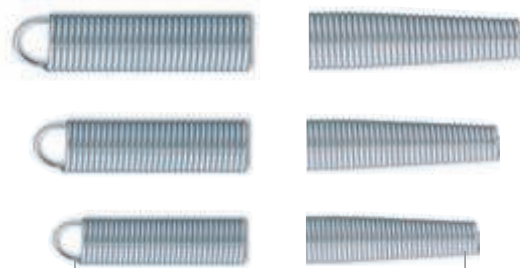
Size	g	No.
1/4"	80	25187
5/16"	70	25181
3/8"	90	25188
1/2"	130	25190
5/8"	220	25186

MSR Internal Bending Springs

For hand bending of aluminium multi-layer pipes (MSR)
Ø 6 - 20 mm

KEY FEATURES

- Ideal operation even with longer pipes:
Grip ring for retraction out of the pipe
- Entry taper for clean insertion in the pipe
- Sturdy and long lasting: NIROSTA spring steel
- Pipe will not buckle due to optimal spring form



Grip ring

for insertion into and retraction out of the pipe

Entry taper

for clean insertion in the pipe

Model	Bending spring	Pipe	g	No.
MSR-internal-bending spring	6.0 mm	12.0 mm	90	25441
MSR-internal-bending spring	8.0 mm	14.0 mm	120	25442
MSR-internal-bending spring	10.0 mm	16.0 mm	150	25443
MSR-internal-bending spring	12.0 mm	18.0 mm	180	25444
MSR-internal-bending spring	13.5 mm	20.0 mm	220	25445
MSR-internal-bending spring	19.0 mm	25/26 mm	380	25446
MSR-internal-bending spring	16.0 mm	17.5 mm	280	25448
MSR-internal-bending spring	20.0 mm	21.5 mm	420	25449



Bending Spray

For bending copper and steel pipes

KEY FEATURES

- Combination of slide and bending oil
- Because of the special viscosity even copper and steel pipes are able to be bent easily



Fig. Similar

Model	Contents	No.
Bending spray, 150 ml	150 ml	25120

ACCESSORIES



Description	No.
Internal / External deburrer	31

Bending

Manual

ROBEND® H+W PLUS

For accurate cold bending up to 180°,
 Ø 8 - 22 mm (5/16 - 7/8")

Made in Germany!



Product Profile

APPLICATION AREA

For accurate bending up to 180° on pipes made of:

Copper (soft, semi-hard, hard thin-walled):	Ø 8 - 22 mm,	5/16 - 7/8"
Copper (coated, also thin-walled):	Ø 10 - 18 mm,	3/8 - 5/8"
Aluminium and brass:	Ø 8 - 22 mm,	5/16 - 7/8"
Precision steel (also coated):	Ø 10 - 22 mm,	3/8 - 5/8"
Seamless stainless steel:	Ø 8 - 22 mm,	5/16 - 7/8"

KEY FEATURES

- Exact bending to the mm on continuous pipe
- Retains shape and remains stable
- Free-hand bending possible with the additional handle up to Ø 18 mm / 5/8"
- Eliminates the costs of purchase and storage of bending formers
- Easy bending through clamping on a vice
- Exact bending with the minimum size chart and bending radius display

3



ROLUB-Anti-block-System

Less effort due to lower friction and optimum distribution of the bending spray

ROLUB-Anti-Block-System!

Optimum combination of ROLUB guide shoe and the bending former

Perfect bending results without friction marks

Minimum size chart and bending radius display

Accurate bending

Bending formers with base plate

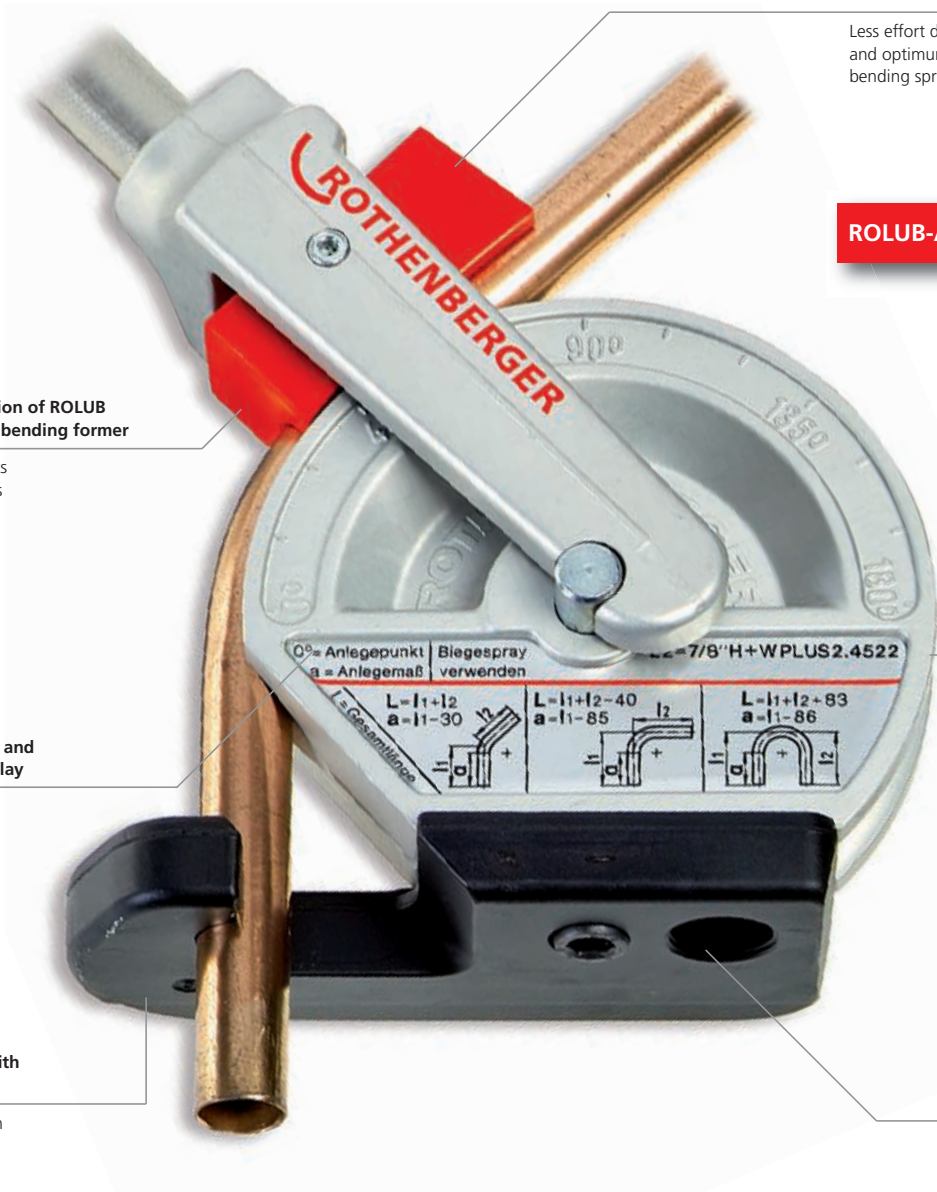
Easy bending through clamping on a vice

Made from high quality forged aluminium

Retains shape and remains stable

Thread for the attachment of the additional lever (accessories)

Free-hand bending possible



0° = Anlegepunkt	Biegespray	Ø 8 - 22 mm / 5/16 - 7/8" H+W PLUS 2.4522
a = Anlegemaß	verwenden	
L-Gesamtlänge		
L = l ₁ + l ₂ a = l ₁ - 30	L = l ₁ + l ₂ - 40 a = l ₁ - 85	L = l ₁ + l ₂ + 83 a = l ₁ - 86

ROBEND® H+W PLUS Bender

Universal hand bender complete with bending former, fork with ROLUB guide shoe and handle. Universal application in sanitary and heating installations, refrigeration and air-conditioning systems and industrial systems



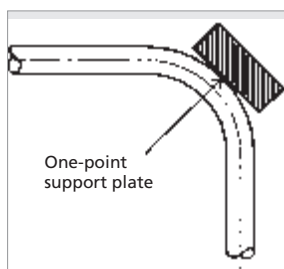
ROBEND® H+W PLUS Bender

Size	max mm	R Radius mm	g	No.
8 mm	1.0	22	660	24508
10 mm	1.0	32	1,180	24510
12 mm	1.0	38	1,110	24512
14 mm	1.0	45	1,370	24514
15 mm	1.0	45	1,370	24515
16 mm	1.0	64	2,620	24516
18 mm	1.0	64	2,620	24518
22 mm	1.0	81	3,800	24522
5/16"	1.0	22	660	24508
3/8"	1.0	32	1,185	24551
1/2"	1.0	38	1,110	24552
5/8"	1.0	64	2,620	24516
3/4"	1.0	81	3,850	24519
7/8"	1.0	81	3,800	24522

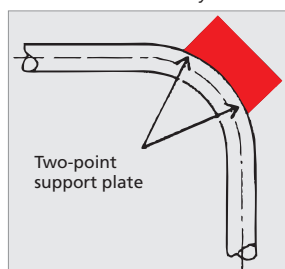
ACCESSORIES (additional lever for free-hand bending)

Lever for bending formers up to Ø 15 mm	25076
Lever for bending formers bigger than Ø 15 mm	25078
Bending spray 150 ml	25120

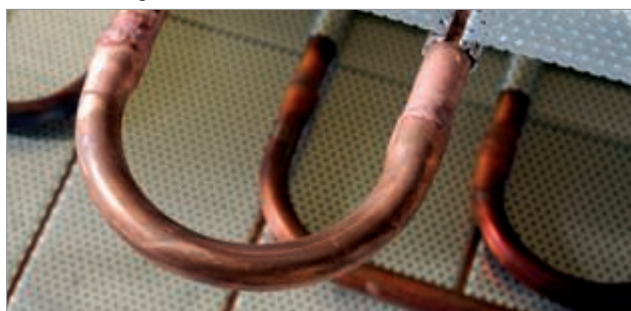
Conventional bender



ROBEND® with ROLUB system



Accurate bending



ROBEND® H+W PLUS Bending Sets

Sets include: Steel carrying case for a maximum of 4 bending formers, 2 levers for vice bending and bending spray (No. 25120). Bender corresponds to the respective pipe dimensions.



Fig. similar

ROBEND® H+W PLUS Bending Sets

Model	Description	mm	kg	No.
ROBEND® H+W PLUS 12 - 15 - 18 - 22 mm		1.0	16.5	24500
ROBEND® H+W PLUS 10 - 12 - 14 - 16 mm		1.0	16.3	24501
ROBEND® H+W PLUS 12 - 14 - 16 - 18 mm		1.0	13.6	24502
ROBEND® H+W PLUS 15 - 18 - 22 mm		1.0	14.9	24505
ROBEND® H+W PLUS 1/2 - 5/8 - 3/4"		1.0	13.6	24503
ROBEND® H+W PLUS 1/2 - 5/8 - 7/8"		1.0	13.7	24504

ROLUB Anti-Block Special Guide Shoe

Size	g	No.	Size	g	No.
8 mm	20	25308	5/16"	20	25308
10 mm	20	25310	3/8"	25	25310
12 mm	30	25312	1/2"	30	25313
14 mm	30	25314	5/8"	50	25316
15 mm	30	25315	3/4"	90	25319
16 mm	50	25316	7/8"	90	25322
18 mm	50	25318			
20 mm	90	25320			
22 mm	90	25322			

ROLUB Anti-Block Special Guide Shoe

Especially adapted to the ROBEND® H+W bender the ROLUB guide shoe with two-point lubricating chamber system

Elastic honeycomb construction

Up to 42% less effort due to less friction



ROLUB Special Guide Shoe made of high-quality polyamide

Perfect bending results without friction marks

Two-point lubricating chamber system

Ensures optimum distribution of lubrication



Bending

Manual Hydraulic

ROBULL Type E / ROBULL MSR Type E

For precise, manual hydraulic cold bending up to 90°



Product Profile

APPLICATION AREA

Broadly applicable, universal portable hydraulic bending system for plumbing, sanitary and heating installation on construction sites, for apparatus and boiler construction and for industrial use. Also suitable for aligning tubes.

ROBULL Type E:

For accurate bending up to 90° on pipes made of:

Carbon steel suitable for welding and thread-cutting \varnothing 3/8 - 2"

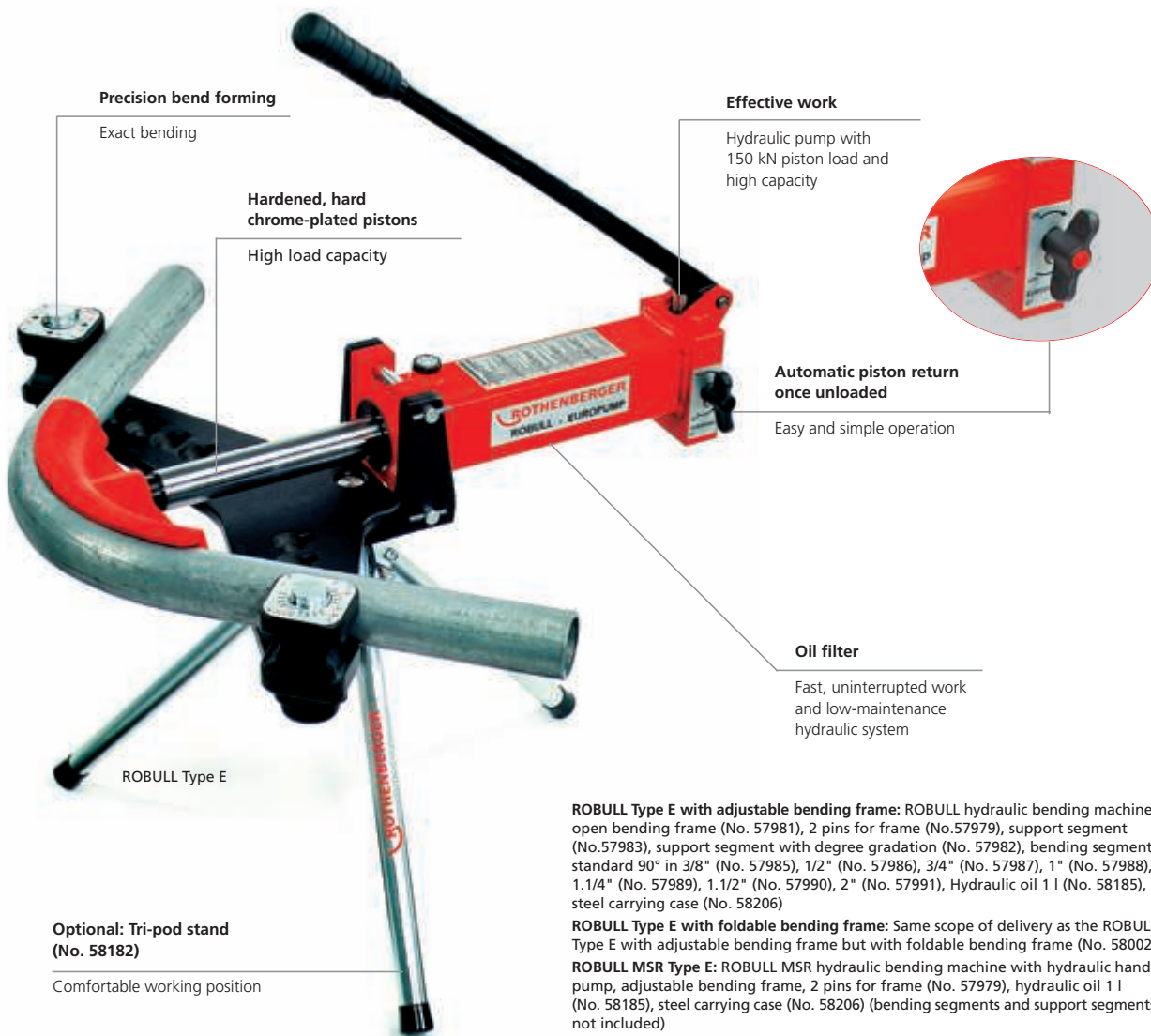
ROBULL MSR Type E:

For accurate bending up to 90° on pipes made of:

multi-layered composite pipe (MSR) \varnothing 40 - 50 - 63 mm

KEY FEATURES

- Precise bending with the angle scale on the support brackets (not with ROBULL MSR type E)
- Reduces welded joints
- No pre-warming of pipe is required
- No bending forms needed
- Works quicker with the 150 kN piston strength
- Easy and simple operation
- Closed, low-maintenance hydraulic system with a mono-block design and with quick, automatic piston retraction
- Comfortable working position with the tripod stand (opt.)
- With foldable and adjustable bending frame



ROBULL Type E with adjustable bending frame: ROBULL hydraulic bending machine, open bending frame (No. 57981), 2 pins for frame (No.57979), support segment (No.57983), support segment with degree gradation (No. 57982), bending segment standard 90° in 3/8" (No. 57985), 1/2" (No. 57986), 3/4" (No. 57987), 1" (No. 57988), 1.1/4" (No. 57989), 1.1/2" (No. 57990), 2" (No. 57991), Hydraulic oil 1 l (No. 58185), steel carrying case (No. 58206)

ROBULL Type E with foldable bending frame: Same scope of delivery as the ROBULL Type E with adjustable bending frame but with foldable bending frame (No. 58002)

ROBULL MSR Type E: ROBULL MSR hydraulic bending machine with hydraulic hand-pump, adjustable bending frame, 2 pins for frame (No. 57979), hydraulic oil 1 l (No. 58185), steel carrying case (No. 58206) (bending segments and support segments not included)

Optional: Tri-pod stand (No. 58182)

Comfortable working position

Model	Description			No.
ROBULL Type E	without accessories	16.8	1	057950X
ROBULL Type E	with adjustable bending frame and accessories (see above)	59.8	1	057966X
ROBULL Type E	with foldable bending frame and accessories (see above)	72.6	1	057961X
ROBULL MSR Typ E	without bending segments and support segments (see above)	54.0	1	57900



ROBULL Type E



ROBULL Type E with foldable bending frame

ROBULL Type E Bending Segments

small bending radius

inch	mm	Wall thickness max. mm	r mm	kg	No.
3/8"	17.20	2.35	45	0.7	57985
1/2"	21.30	2.65	49	0.7	57986
3/4"	26.90	2.65	65	0.8	57987
1"	33.70	3.25	89	1.3	57988
1.1/4"	42.40	3.25	115	1.6	57989
1.1/2"	48.30	3.25	137	2.4	57990
2"	60.30	3.65	200	3.2	57991

ROBULL Type E Bending Segments

large bending radius

inch	mm	Wall thickness max. mm	r mm	kg	No.
3/8"	17.20	2.35	56	0.8	58010
1/2"	21.30	2.35	85	0.9	58011
3/4"	26.90	2.65	115	1.2	58012
1"	33.70	2.65	145	2.1	58013
1.1/4"	42.40	3.25	180	3.5	58014
1.1/2"	48.30	3.25	214	4.3	58015
2"	60.30	3.65	245	5.6	58016

ROBULL MSR Type E



ROBULL MSR Type E Bending Segments

mm	Wall thickness max. mm	r mm	kg	No.
40	2.35	138	1.2	58021
50	2.65	173	1.7	58022
63	2.65	218	2.3	58023
40 - 50 - 63	see above	see above	9.0	58020



ACCESSORIES



Model	kg	No.
ROBULL Type E		
Bending frame, adjustable	15.2	57981
Support segments for adjustable bending frame, with degree gradation	2.6	57982
Support segments for adjustable bending frame, without degree gradation	2.6	57983
Bending frame, foldable	12.5	58002
Support segments for foldable bending frame	2.2	58004
Locking pin	0.3	57979

Model	kg	No.
ROBULL MSR Type E		
Support segments, 40 mm (2 piece)	1.9	57921
Support segments, 50 mm (2 piece)	3.2	57922
Support segments, 63 mm (2 piece)	3.9	57023
ROBULL Type E / ROBULL MSR Type E		
Hydraulic oil, 1 litre	1.0	58185
Steel carrying case	10	58206
Tripod stand	3.0	58182



Bending

Electric Hydraulic

ROBULL Type ME / ROBULL MSR Type ME

For precise, power hydraulic cold bending up to 90°



Product Profile

APPLICATION AREA

Various uses, mobile hydraulic bending machine for use on the building site in gas, sanitary and heating installations

ROBULL Type ME:

For accurate bending up to 90° on pipes made of:

Carbon steel suitable for welding and thread-cutting Ø 3/8 - 2"

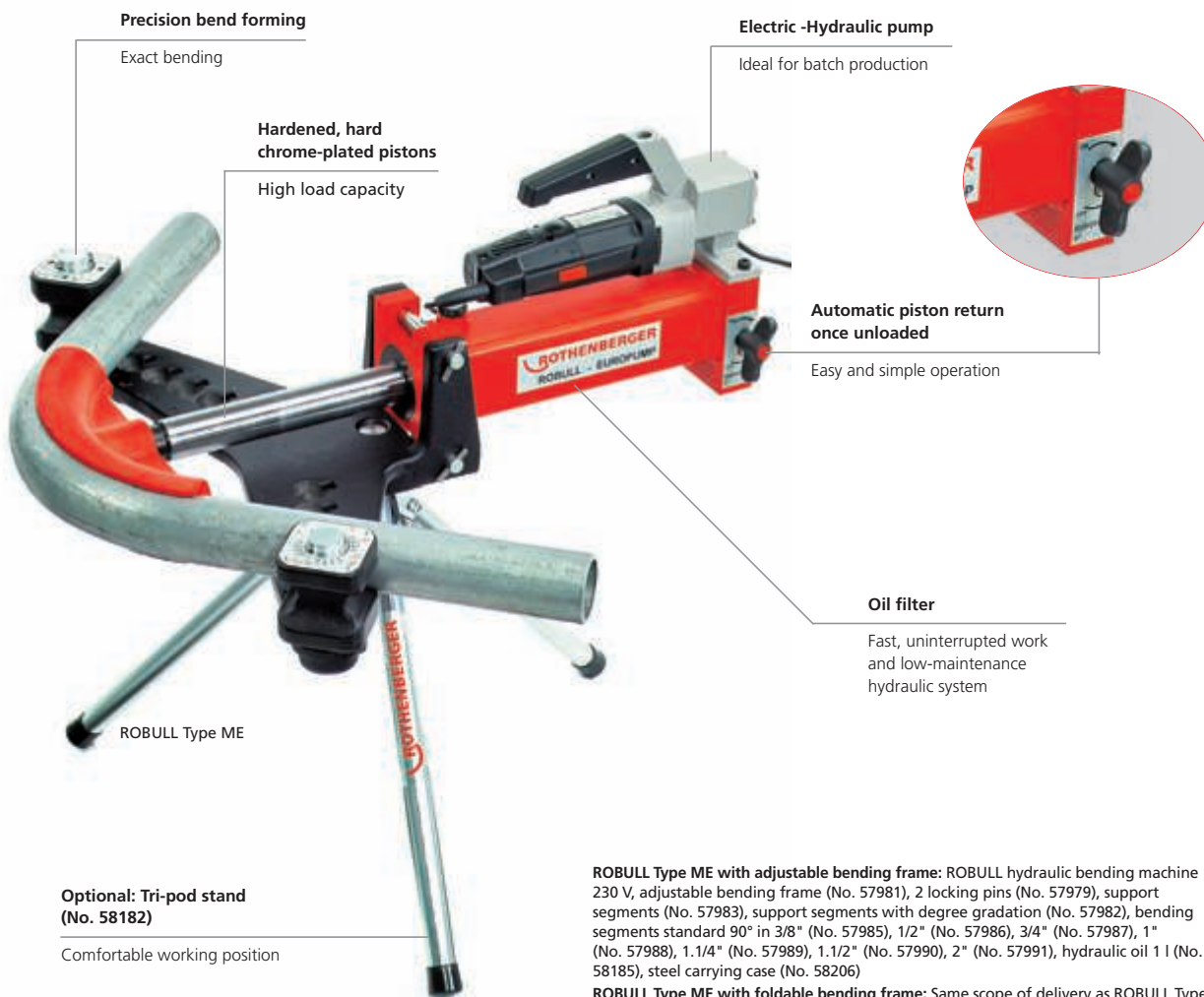
ROBULL MSR Type ME:

For accurate bending up to 90° on pipes made of:

multi-layered composite pipe (MSR) Ø 40 - 50 - 63 mm

KEY FEATURES

- Precise bending with the angle scale on the support segments (not with ROBULL MSR type ME)
- Reduces welding joints
- Pre-warming of the pipe no longer necessary
- No bending forms are necessary
- Effective use with the 150 kN piston strength
- Easy and simple operation
- Closed, low-maintenance hydraulic system with a mono-block design and with quick, automatic piston retraction
- Comfortable working position with the tripod stand (optional)
- With foldable and adjustable bending frame



Optional: Tri-pod stand (No. 58182)
Comfortable working position

ROBULL Type ME with adjustable bending frame: ROBULL hydraulic bending machine 230 V, adjustable bending frame (No. 57981), 2 locking pins (No. 57979), support segments (No. 57983), support segments with degree gradation (No. 57982), bending segments standard 90° in 3/8" (No. 57985), 1/2" (No. 57986), 3/4" (No. 57987), 1" (No. 57988), 1.1/4" (No. 57989), 1.1/2" (No. 57990), 2" (No. 57991), hydraulic oil 1 l (No. 58185), steel carrying case (No. 58206)

ROBULL Type ME with foldable bending frame: Same scope of delivery as ROBULL Type ME with adjustable bending frame but with foldable bending frame (No. 58002)

ROBULL MSR Type ME: ROBULL MSR hydraulic bending machine 230 V, adjustable bending frame, 2 locking pins (No. 57979), hydraulic oil 1 l (No. 58185), steel carrying case (No. 58206) (bending segments, support segments not included)

Model	Description	kg		No.
ROBULL Type ME	without accessories	17.8	1	057969X
ROBULL Type ME	with adjustable bending frame and accessories (see above)	59.8	1	057973X
ROBULL Type ME	with foldable bending frame and accessories (see above)	72.6	1	057972X
ROBULL MSR Type ME	without bending segments and support segments (see above)	54.0	1	57915

ROBULL Type ME



ROBULL MSR Type ME



ROBULL Type ME Bending Segments

small bending radius

inch	mm	Wall thickness max. mm	r mm	kg	No.
3/8"	17.20	2.35	45	0.7	57985
1/2"	21.30	2.65	49	0.7	57986
3/4"	26.90	2.65	65	0.8	57987
1"	33.70	3.25	89	1.3	57988
1.1/4"	42.40	3.25	115	1.6	57989
1.1/2"	48.30	3.25	137	2.4	57990
2"	60.30	3.65	200	3.2	57991

ROBULL MSR Type ME Bending Segments

mm	Wall thickness max. mm	r mm	kg	No.
40	2.35	138	1.2	58021
50	2.65	173	1.7	58022
63	2.65	218	2.3	58023
40 - 50 - 63	see above	see above	9.0	58020

ROBULL Type ME Bending Segments

large bending radius

inch	mm	Wall thickness max. mm	r mm	kg	No.
3/8"	17.20	2.35	56	0.8	58010
1/2"	21.30	2.35	85	0.9	58011
3/4"	26.90	2.65	115	1.2	58012
1"	33.70	2.65	145	2.1	58013
1.1/4"	42.40	3.25	180	3.5	58014
1.1/2"	48.30	3.25	214	4.3	58015
2"	60.30	3.65	245	5.6	58016



ACCESSORIES



Model	kg	No.
ROBULL Type ME		
Bending Frame, adjustable	15.2	57981
support forms for adjustable bending frame, with degree gradation	2.6	57982
Support forms for adjustable bending frame without degree gradation	2.6	57983
Bending frame, foldable	12.5	58002
Support segments for foldable bending frame	2.2	58004
Locking pins	0.3	57979

Model	kg	No.
ROBULL MSR Type ME		
Support segments, 40 mm (2 piece)	1.9	57921
Support segments, 50 mm (2 piece)	3.2	57922
Support segments, 63 mm (2 piece)	3.9	57023
ROBULL Type ME / ROBULL MSR Type ME		
Hydraulic oil, 1 litre	1.0	58185
Steel carrying case	10.0	58206
Tripod stand	3.0	58182

Bending

Electric

ROBEND® 3000

Portable, sturdy power bender for cold bending up to 180°, Ø 12 - 28 mm (1/2" - 7/8")

Product Profile

APPLICATION AREA

Universal application in sanitary and heating installations, in pipeline construction, refrigeration and air-conditioning systems as well as industrial systems and batch production. Fewer joints means less potential for leaks. Safety implies less likelihood of injury

Suitable for pipes made of:

Copper (hard, semi-hard and soft DIN EN 1057): Ø 12 - 28 mm

Copper and precision steel (coated): Ø 12 - 28 mm

Precision steel (soft DIN 2391 / 2393 / 2394): Ø 12 - 28 mm

Threaded steel (DIN 2440 / 2441): Ø 3/8" - 3/4"

Seamless stainless steel (GW 541): Ø 12 - 28 mm

Multi-layered composite pipe (MSR): wall thickness 1.0 - 1.2 mm

KEY FEATURES

- Quick return on investment through the savings from joints, soldering material and energy
- Universal application: U-bends, counter-bends, swan-neck bends and connecting bends possible at all levels
- Retains shape and remains stable: bending formers made of high-quality forged aluminium
- Top-quality, precise and simple to use
- Bending without deformation or ripples due to less friction
- Motor rating: 1010 Watt

3



Pre-adjustment of the bending angle without tools

Fast and precise bending

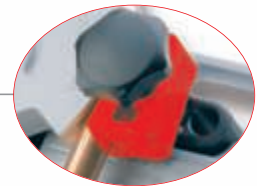


Forged aluminium former with bending radius scale

Easy to use

Special ROLUB Guide Shoe

Bending without deformation or ripples due to less friction



High-performance 1010 W motor

Ideal for continuous operation

Bending technology

Simplified work preparation, eliminates costs of purchase and storage of fittings

Automatic switch-off when preset bending angle is obtained

Fast batch production possible

Bending of pipes made of various materials possible



Seven-fold drive



Comfortable carry handle



ROBEND® 3000 with stand

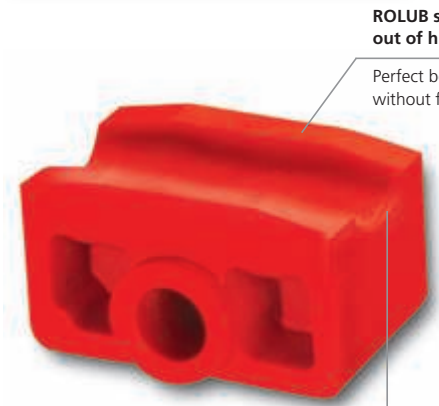


ROBEND® 3000 Sets

Sets include: Basic 230 V Unit (No. 025740X), bending formers and guide shoes for respective pipe diameters, guide shoe axle (No. 25743), adaptor for tripod (No. 25748) in basic unit (tripod optional), in a plastic carrying case (No. 25745)



ROLUB-Anti-block-System!



ROLUB special guide shoe made out of high-quality polyamide

Perfect bending results without friction marks

Optional: Tri-pod stand

"not included in delivery"



Fig. ROBEND® 3000 Set

2 point lubricating chamber system

Ensures optimum distribution of lubrication

ROBEND® bending sets



Forged aluminium former with bending radius display



Pre-adjustment of the bending angle without tools



Model	Description	Pipe type	kg	No.
ROBEND® 3000 Set	15 - 18 - 22 - 28 mm	Cu, Fe, u.a.	24,12	025705X
ROBEND® 3000 Set	12 - 14 - 16 - 18 - 22 mm	Cu, Fe, u.a.	21,90	025709X
ROBEND® 3000 Set	15 - 22 - 28 mm	Cu, Fe, u.a.	21,10	25760
ROBEND® 3000 Set	12 - 14 - 16 - 18 - 22 - 28 mm	Cu, Fe, u.a.	24,10	025710X
ROBEND® 3000 Set	12 - 15 - 18 - 22 mm	Cu, Fe, u.a.	20,60	025700X
ROBEND® 3000 Set	12 - 15 - 18 - 22 - 28 mm	Cu, Fe, u.a.	23,50	025703X
ROBEND® 3000 Set	1/2 - 5/8 - 3/4" - 7/8"	Cu, Fe, u.a.	19,60	025711X
ROBEND® 3000 Basic Unit	without bending segments	Cu, Fe, u.a.	13,00	025740X

ACCESSORIES



Description	No.	Description	No.
Bending spray 150 ml	25120	Pipe cutter	12 - 30
Guide shoe axle	25743	Internal / External deburrer	31 11006
ROBEND® carrying case, for 5 segments up to Ø 30 mm	25745	Hard soldering torch (SUPER FIRE 3 with MAPP®-GAS)	140
Tri-pod stand, foldable	25748	Brazing solder	169 - 171

ROBEND® 3000 bending sets can be found on 76

Bending

Accessories & Bending Tables

ROBEND® 3000 Bending Formers

For bending pipes Ø 9 - 28 mm (1/2 - 1.1/8")



ROBEND® 3000 bending set with ROLUB guide shoe

For copper pipe DIN EN 1057, aluminium pipe, precision steel pipe DIN 2391/93/94, stainless steel pipe and others

Size	Wall thickness mm	Bending radius mm	kg	No.
12 mm	1.0	42	0.48	25612
14 mm	1.0	49	0.48	25614
15 mm	1.0	52	0.53	25615
16 mm	1.0	56	0.60	25616
18 mm	1.0	72	1.17	25618
20 mm	1.0	80	1.42	25620
28 mm	2.0	112	2.90	25628

For copper pipe

Size	Wall thickness mm	Bending radius mm	kg	No.
1/2"	1.2	45	0.53	25652
3/4"	1.2	80	1.42	25619
1"	1.5	112	2.90	25625
1.1/8"	1.6	112	2.90	25626

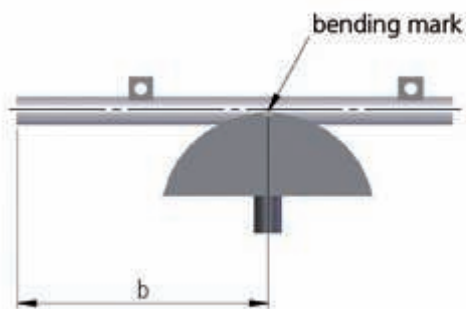
For steel pipe DIN 2440 and DIN 2441 (except 3/4")

Size	Wall thickness mm	Bending radius mm	kg	No.
1/2"	3.25	88	1.42	25684
3/4"	3.25	112	2.90	25685

PG - Size (protective / steel-reinforced pipe)

Size	Wall thickness mm	Bending radius mm	kg	No.
16 mm	1.5	88	1.4	25664
20 mm	1.2	80	1.4	25620
32 mm	1.2	80	1.4	25620

Draw-bending



Symbols

- L1, L2 = Leg length
- b = Lay out length
- L = Total length of the pipe piece
- L_w = Distance / pipe end - wall
- A_w = Distance wall - pipe middle
- L_M = Minimum Length*
- L_R = Reserve Length*

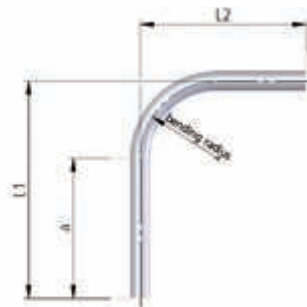
45°-Arc



$$L = L_1 + L_2$$

$$b = L_1 - L_R$$

90°-Arc



$$L = L_1 + L_2 - L_M$$

$$b = L_1 - L_R$$

Calculation Examples TUBE BENDER MAXI

Specifications:

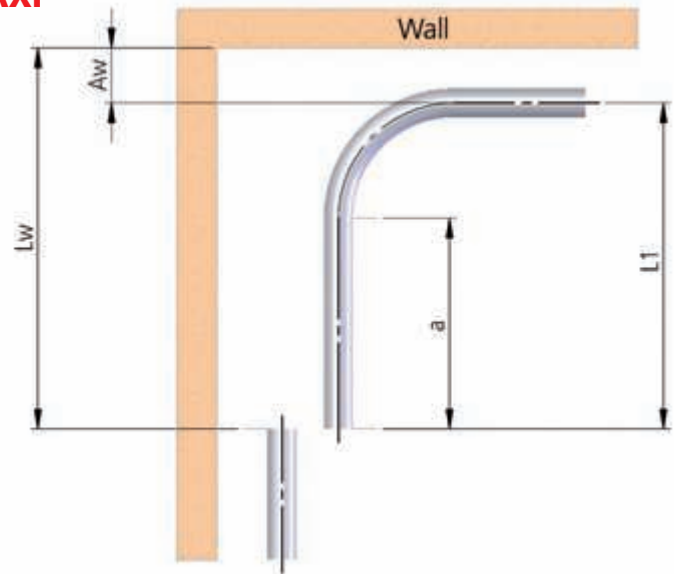
Installation in corner areas
 $L_W = 1200$ mm
 $A_W = 30$ mm
 Pipe- \varnothing 12 mm, 90°-Arch

Sought after:

Leg length L_1
 Applied size b

Solution:

Summary from the TUBE BENDER MAXI bending table



Leg length $L_1 = L_W - A_W = 1200 - 30 = 1.170$ mm
Applied size $b = L_1 - L_R = 1170 - 7,5 = 1.162,5$ mm; L_R .. Tabular value

TUBE BENDER		at 45°		at 90°		at 180°	
for \varnothing mm / inch	Bending radius R (mm)	Reserve length L_R mm	Minimum length L_M mm	Reserve length L_R mm	Minimum length L_M mm	Reserve length L_R mm	Minimum length L_M mm
4,75/5	20,0	4,5	1,0	4,5	10,0	-	-
6	23,5	5,0	1,2	5,0	11,5	-	-
8	28,0	7,0	1,4	7,0	14,0	-	-
9	30,0	7,0	1,5	7,0	15,0	-	-
10	34,0	7,5	1,8	7,5	17,5	-	-
12	37,5	8,5	1,9	8,5	19,0	-	-
3/16"	20,0	4,5	1,0	4,5	10,0	-	-
1/4"	23,5	5,0	1,2	5,0	11,5	-	-
5/16"	28,0	7,0	1,4	7,0	14,0	-	-
3/8"	34,0	7,5	1,8	7,5	17,5	-	-
1/2"	37,5	8,5	1,9	8,5	19,0	-	-

TUBE BENDER MAXI		at 45°		at 90°		at 180°
for \varnothing mm / inch	Bending radius R (mm)	Reserve length L_R mm	Minimum length L_M mm	Reserve length L_R mm	Minimum length L_M mm	Reserve length L_R mm
12	35,0	0,8	10,0	7,5	35,0	-
14	42,5	0,9	12,5	9,0	42,5	-
15	48,5	1,1	14,0	10,5	48,5	-
16	49,0	1,1	14,5	10,5	49,0	-
18	74,0	1,7	22,0	16,0	74,0	-
22	87,0	1,9	25,5	18,5	87,0	-
3/8"	35,0	0,8	10,0	7,5	35,0	-
1/2"	35,0	0,8	10,0	7,5	35,0	-
5/8"	49,0	1,1	14,5	10,5	49,0	-
3/4"	74,0	1,7	22,0	16,0	74,0	-
7/8"	87,0	1,9	25,5	18,5	87,0	-

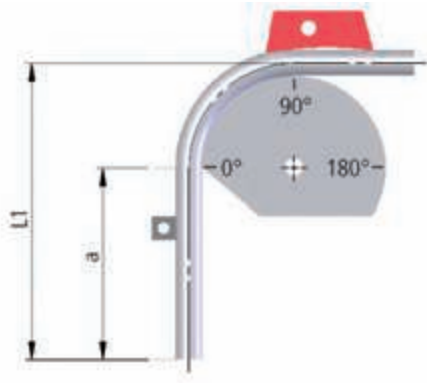
TUBE BENDER MAXI CT		at 45°		at 90°		at 180°
\varnothing / W_s mm	Bending radius R (mm)	Reserve length L_R mm	Minimum length L_M mm	Reserve length L_R mm	Minimum length L_M mm	Reserve length L_R mm
10 x 0,6	42,5	0,8	12,5	9,0	42,5	-
12 x 0,6	49,0	1,1	14,5	10,5	49,0	-
15 x 0,7	74,0	1,7	22,0	16,0	74,0	-
18 x 0,7	87,0	1,9	25,5	18,5	87,0	-

*All sizes listed are standards and are dependant on the material and the wall thickness. Bending specific sizes based on the bending radius - tabular value

Bending

Bending Tables

Pull-bending



Symbols

- L1, L2 = Leg length
- a = Lay out length
- L = Total length of the pipe piece
- L_w = Distance / pipe end - wall
- A_w = Distance wall - pipe middle
- L_M = Minimum Length*
- L_R = Reserve Length*

45°-Arc



$$L = L_1 + L_2$$

$$a = L_1 - L_R$$

90°-Arc



$$L = L_1 + L_2 - L_M$$

$$a = L_1 - L_R$$

180°-Arc



$$L = L_1 + L_2 + L_M$$

$$a = L_1 - L_R$$

Calculation Examples ROBEND® 3000

Specifications:

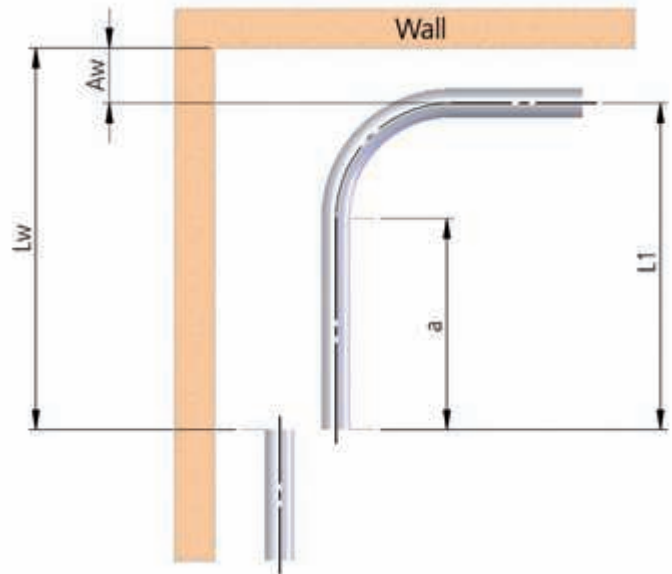
- Installation in corner areas
- L_w = 1200 mm
- A_w = 30 mm
- Pipe-Ø 12 mm, 90°-Arch

Sought after:

- Leg length L₁
- Applied size a

Solution:

Summary from the ROBEND® 3000 bending table



Leg length $L_1 = L_w - A_w = 1200 - 30 = 1.170 \text{ mm}$
 Applied size $a = L_1 - L_R = 1170 - 42 = 1.128 \text{ mm}; L_R \dots \text{Tabular value}$

Bending

Bending Tables



H&W Plus		at 45°		at 90°		at 180°	
Ø / Ws mm / inch	Bending radius R (mm)	Reserve length L _R mm	Minimum length L _M mm	Reserve length L _R mm	Minimum length L _M mm	Reserve length L _R mm	Minimum length L _M mm
8	22	9	-	22	9,5	22	47
10	32	12	-	32	15,0	32	34
12	38	15	-	40	20,0	38	39
14	45	17	-	44	22,0	44	51
15	45	17	-	44	22,0	44	51
16	64	25	-	67	30,0	68	65
18	64	25	-	67	30,0	68	65
20	81	30	-	85	40,0	86	83
22	81	30	-	85	40,0	86	83
5/16"	22	9	-	22	9,5	22	47
3/8"	32	12	-	32	20,0	32	34
1/2"	38	15	-	40	22,0	38	39
5/8"	64	25	-	67	30,0	68	65
3/4"	81	30	-	85	40,0	86	83
7/8"	81	30	-	85	40,0	86	83

MINIBEND		at 45°		at 90°		at 180°	
Ø / Ws mm / inch	Bending radius R (mm)	Reserve length L _R mm	Minimum length L _M mm	Reserve length L _R mm	Minimum length L _M mm	Reserve length L _R mm	Minimum length L _M mm
6	25.0	10.4	1.0	22.0	10.0	22.0	26.0
8	24.0	9.9	1.0	32.0	15.0	32.0	34.0
10	23.0	9.5	1.0	32.0	15.0	32.0	34.0
1/4"	25.0	10.4	1.0	22.0	10.0	22.0	26.0
5/16"	24.0	9.9	1.0	32.0	15.0	32.0	34.0
3/8"	23.0	9.5	1.0	32.0	15.0	32.0	34.0

Standard Bender		at 45°		at 90°		at 180°	
for Ø mm / inch	Bending radius R (mm)	Reserve length L _R mm	Minimum length L _M mm	Reserve length L _R mm	Minimum length L _M mm	Reserve length L _R mm	Minimum length L _M mm
6	18.0	7.0	0.8	18.5	8.0	18.5	20.0
8	24.0	9.5	1.0	24.0	12.0	24.0	27.0
10	30.0	11.5	1.3	30.5	14.5	30.5	34.0
12	36.0	14.0	1.5	36.5	15.0	36.5	37.5
14	47.5	18.5	2.0	48.5	20.5	48.5	52.5
15	54.0	21.0	2.3	56.0	24.5	56.0	58.0
16	58.0	22.5	2.5	64.0	28.5	64.0	67.0
18	66.0	25.5	2.8	68.0	31.0	68.0	72.0
1/4"	18.0	7.0	0.8	18.5	8.0	18.5	20.0
5/16"	24.0	9.5	1.0	24.0	12.0	24.0	27.0
3/8"	30.0	11.5	1.3	30.5	14.5	30.5	34.0
1/2"	42.0	16.5	1.8	49.5	22.5	49.5	53.0
5/8"	58.0	22.5	2.5	64.0	28.5	64.0	67.0

MULTIBEND		at 45°		at 90°		at 180°	
for Ø mm	Bending radius R (mm)	Reserve length L _R mm	Minimum length L _M mm	Reserve length L _R mm	Minimum length L _M mm	Reserve length L _R mm	Minimum length L _M mm
8	24.0	9.5	1.0	24.0	10.0	24.0	26.0
10	30.0	12.0	1.3	30.5	14.5	30.5	32.5
12	36.0	14.0	1.5	36.5	15.5	36.5	37.5
14	42.0	16.5	1.8	42.0	19.5	42.5	44.0
15	48.0	19.0	2.0	48.0	22.0	48.0	53.0
16	48.0	19.0	2.0	48.0	22.0	48.0	53.0
18	54.0	21.0	2.3	54.0	26.0	54.5	58.0

ROBEND® 3000			at 45°		at 90°		at 180°	
for Ø mm / inch	Pipe	Bending radius R (mm)	Reserve length L _R mm	Minimum length L _M mm	Reserve length L _R mm	Minimum length L _M mm	Reserve length L _R mm	Minimum length L _M mm
12		42.0	16	-	42	24	42	68
14	wated	52.5	21	-	53	30	53	87
15		52.5	21	-	53	30	53	87
17	wated	72.0	28	-	72	41	72	107
18		72.0	28	-	72	41	72	107
20	wated	88.5	35	-	89	51	89	121
22		88.0	35	-	88	50	88	119
24	wated	112.0	43	-	110	62	110	144
28		112.0	44	-	112	64	112	148
30	wated	112.0	45	-	114	66	114	152
3/8"	steel	80.0	31	-	80	46	80	103
1/2"	copper	45.0	18	-	45	26	45	74
1/2"	steel	88.0	35	-	88	50	88	119
5/8"	copper	56.0	23	-	56	32	56	93
3/4"	steel	112.0	43	-	112	64	112	148
3/4"	copper	80.0	31	-	80	46	80	103
7/8"	copper	88.0	35	-	88	50	88	119
1"	copper	112.0	44	-	112	64	112	148
1.1/8"	copper	112.0	45	-	114	66	114	152

*All sizes listed are standards and are dependant on the material and the wall thickness. Bending specific sizes based on the bending radius - tabular value