






Bending



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Push bending			
	TUBE BENDER	TUBE BENDER MAXI	TUBE BENDER MAXI MLP
			
Method	Manual 90°	Manual 90°	Manual 90°
Working range: Copper	Ø 5–12 mm (1/4–1/2") +Ø 1 mm, soft	Ø 12–22 mm (3/8–7/8") +Ø 1 mm, soft	○
Working range: Aluminium	Ø 5–12 mm (1/4–1/2") +Ø 1 mm, soft	Ø 12–22 mm (3/8–7/8") +Ø 1 mm, soft	○
Working range: Precision steel	Ø 5–12 mm (1/4–1/2") +Ø 1 mm, soft	Ø 12–22 mm (3/8–7/8") +Ø 1 mm, soft	○
Working range: Stainless steel	○	○	○
Working range: MLP	○	Ø 14–26 mm (5/8–7/8") +Ø 3 mm	Ø 14–32 mm (1/4–1/2") +Ø 3 mm
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Pull bending				
	Standard bending plier	MULTIBEND	MINIBEND	Standard bender 180°
				
Method	Manual 90°	Manual 180°	Manual 180°	Manual 180°
Working range: Copper	Ø 12–22 mm +Ø 1 mm, semi-hard	Ø 10–18 mm (1/4–5/8") +Ø 1 mm, soft	Ø 6–10 mm (1/4–3/8") +Ø 1 mm, soft	Ø 6–18 mm (1/4–5/8") +Ø 1 mm, soft
Working range: Aluminium	○	Ø 10–18 mm (1/4–5/8") +Ø 1 mm, soft	Ø 6–10 mm (1/4–3/8") +Ø 1 mm, soft	Ø 6–18 mm (1/4–5/8") +Ø 1 mm, soft
Working range: Precision steel	○	Ø 10–18 mm (1/4–5/8") +Ø 1 mm, soft	Ø 6–10 mm (1/4–3/8") +Ø 1 mm, soft	Ø 6–18 mm (1/4–5/8") +Ø 1 mm, soft
Working range: Stainless steel	○	○	○	○
Working range: MLP	○	○	○	○
Page	77	77	78	78

Push bending

ROBULL Typ E



ROBULL Typ ME



Method	Manual hydraulic 90°	Elektro hydraulic 90°
Working range: Copper	<input type="radio"/>	<input type="radio"/>
Working range: Aluminium	<input type="radio"/>	<input type="radio"/>
Working range: Precision steel	Ø 3/8-2"	Ø 3/8-2"
Working range: Stainless steel	<input type="radio"/>	<input type="radio"/>
Working range: MLP	<input type="radio"/>	<input type="radio"/>
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Pull bending

PRO BENDER

ROBEND H+W Plus

ROBEND 4000 E

ROBEND 4000



Method	Manual 180°	Manual 180°	Elektric 180°	Elektric 180°
Working range: Copper	Ø 10-16 mm (3/8-3/4") +Ø 1 mm, soft, semi-hard, hard	Ø 8-22 mm (5/16-7/8") +Ø 1 mm, soft, semi-hard, hard	Ø 12-35 mm (1/2-1.3/8") +Ø 1.6 mm, soft, semi-hard, hard	Ø 12-35 mm (1/2-1.3/8") +Ø 1.6 mm, soft, semi-hard, hard
Working range: Aluminium	<input type="radio"/>	Ø 8-22 mm (5/16-7/8") +Ø 1 mm, soft	Ø 12-28 mm (1/2-1.1/8") +Ø 2 mm, soft, semi-hard, hard	Ø 12-28 mm (1/2-1.1/8") +Ø 2 mm, soft, semi-hard, hard
Working range: Precision steel	<input type="radio"/>	Ø 10-22 mm (3/8-5/8") +Ø 1 mm, soft	Ø 12-28 mm (1/2-1.1/8") +Ø 2 mm, soft	Ø 12-28 mm (1/2-1.1/8") +Ø 2 mm, soft
Working range: Stainless steel	Ø 10-16 mm (3/8-3/4") +Ø 1 mm, soft, semi-hard, hard	Ø 8-22 mm (5/16-7/8") +Ø 1 mm	Ø 12-28 mm (1/2-1.1/8") +Ø 1.5 mm, soft	Ø 12-28 mm (1/2-1.1/8") +Ø 1.5 mm, soft
Working range: MLP	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Page	77	80	86	88

TUBE BENDER

Manual bending device for bending tubes in dimensions 5-12 mm (1/4-1/2")



Suitable for pipes made of:

Copper (soft) and aluminium: Ø5-12 mm, 1/4-1/2"

Precision steel (soft): Ø5-12 mm, 1/4-1/2"

Application Benefits

- Dimensionally accurate bending even in constrained positions
- Production of overbends, counterbends, floor bends and connecting bends possible in all planes
- Simple and fast change of the bending segment
- Quick release and reset of the bending segment
- One-handed operation due to ergonomic design
- Fast and precise bending



Model	Weight	PU	No.
TUBE BENDER set 5-6-8-10 mm	2.840 kg	1	24131
TUBE BENDER set 6-8-10-12 mm	3.030 kg	1	24132
TUBE BENDER set 8-10-12 mm	2.820 kg	1	24133
TUBE BENDER set 1/4-5/16-3/8-1/2"	2.920 kg	1	24134
TUBE BENDER bare tool without bending segments	0.360 kg	1	766004016
Side shape for TUBE BENDER MAXI 1 piece	0.050 kg	1	24048
Counter-holding plate without side shapes	0.140 kg	1	24049

TUBE BENDER bending segment



Model	Weight	PU	No.
Bending segment for TUBE BENDER 5 mm (3/16")	0.190 kg	1	24001
Bending segment for TUBE BENDER 6 mm (1/4")	0.210 kg	1	R2403200
Bending segment for TUBE BENDER 8 mm (5/16")	0.250 kg	1	R2403300
Bending segment for TUBE BENDER 9 mm	0.360 kg	1	R2403400
Bending segment for TUBE BENDER 10 mm	0.390 kg	1	R2403500
Bending segment for TUBE BENDER 12 mm	0.390 kg	1	24007
Bending segment for TUBE BENDER 3/8"	0.270 kg	1	24006
Bending segment for TUBE BENDER 1/2"	0.390 kg	1	24008

TUBE BENDER MAXI

For accurate one-handed bending up to 90°, Ø 12–26 mm (3/8–7/8")

For the bending of pipes made of soft copper and aluminium, coated copper and precision steel pipes as well as multilayered composite pipes. Suitable for pipe made of:

- Copper (soft) and aluminium:** Ø 10–22 mm, 3/8–7/8"
- Copper (coated):** Ø 10–18 mm, 3/8–5/8"
- Precision steel (soft):** Ø 10–22 mm, 3/8–7/8"
- MLP (Multilayer):** Ø 14–26 mm, 5/8–7/8"

Application Benefits

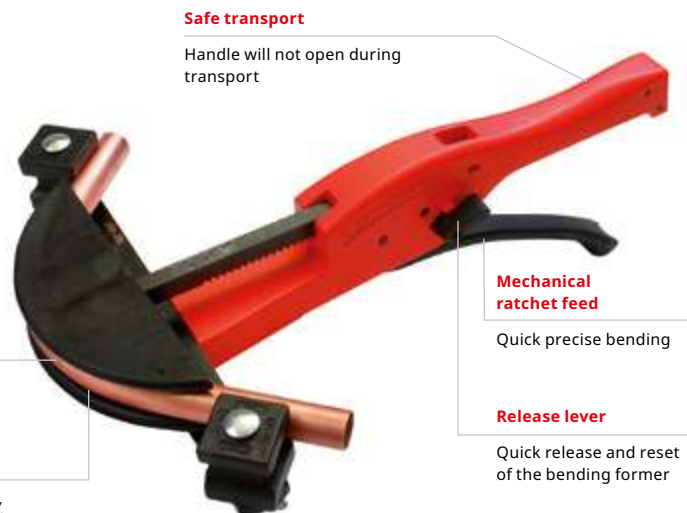
- Eliminates the cost for bending formers, storage and purchase
- Quick release and reset of the bending segments
- Bending segments are easily exchanged
- Optimum bending results

Optimum bending results

Plastic bending segments and support segments with increased conductivity

Adjustable bending frame

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



Model	Weight	PU	No.
TUBE BENDER MAXI set 12–15–18–22 mm	3.500 kg	1	023020X
TUBE BENDER MAXI set 12–14–16–18–22 mm	3.500 kg	1	023021X
TUBE BENDER MAXI set 3/8–1/2–5/8–3/4–7/8"	3.300 kg	1	023022X
TUBE BENDER MAXI set MLP 14–16–18–20–25 mm	3.300 kg	1	023090X
TUBE BENDER MAXI set MLP 14–16–18–20–26 mm	3.300 kg	1	023091X
TUBE BENDER MAXI bare tool without bracket	1.000 kg	1	766100016
Side shape set for TUBE BENDER MAXI MLP R/L, 14–25 mm	0.500 kg	1	23008
Side shape set for TUBE BENDER MAXI R/L, 12–22 mm (1/2–7/8")	0.100 kg	1	23047



TUBE BENDER Maxi bending segment

Model	Weight	PU	No.	Model	Weight	PU	No.
Bending segment 10 mm	0.080 kg	1	23001	Bending segment 20 mm	0.150 kg	1	23052
Bending segment 12 mm	0.080 kg	1	23002	Bending segment 22 mm	0.170 kg	1	23007
Bending segment 14 mm	0.080 kg	1	23003	Bending segment 3/8"	0.070 kg	1	23010
Bending segment 15 mm	0.090 kg	1	23004	Bending segment 1/2"	0.080 kg	1	23011
Bending segment 16 mm	0.100 kg	1	23005	Bending segment 5/8"	0.100 kg	1	23012
Bending segment 18 mm	0.140 kg	1	23006	Bending segment 3/4"	0.120 kg	1	23013

TUBE BENDER MAXI MLP

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

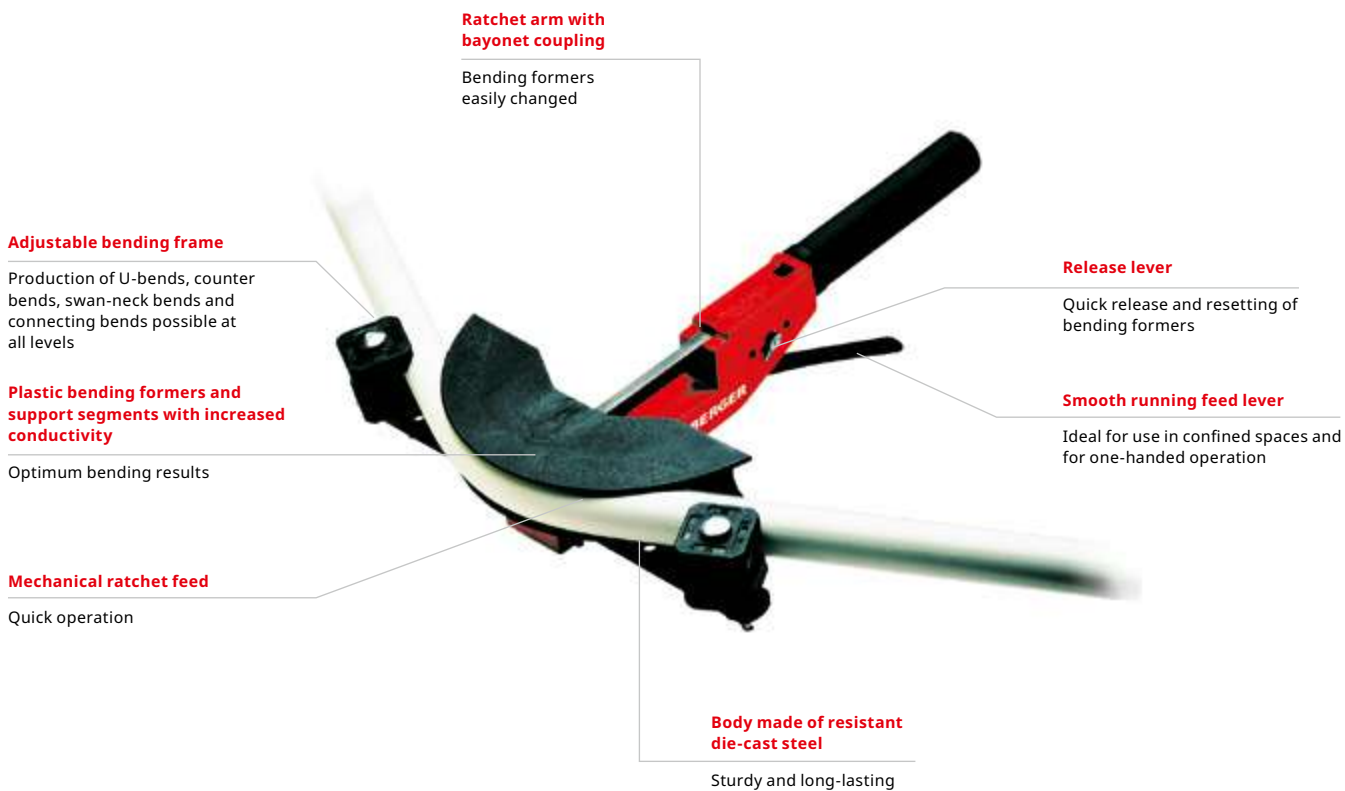
Universal bending tool. Increases safety by reducing the number of joints. Eliminates the costs for bending formers, storage and purchase.

Application Benefits

- 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



3



Model	Weight	PU	No.
TUBE BENDER MAXI MLP 14–16–18–20–25–32 mm	4.690 kg	1	23065
TUBE BENDER MAXI MLP 14–16–18–20–26–32 mm	8.300 kg	1	23095



Accessories	Weight	No.	Accessories	Weight	No.
Bending segment 14 × 2.0 mm	0.080 kg	23003	Bending segment 26 × 2.0 mm	0.200 kg	23053
Bending segment 16 × 2.0 mm	0.100 kg	23005	Bending segment 32 × 2.0 mm	0.380 kg	23051
Bending segment 18 × 2.0 mm	0.140 kg	23050	Basic tool 32 w/o support brackets	1.280 kg	23076
Bending segment 20 × 2.0 mm	0.150 kg	23052	Support brackets (No. 23076)	0.790 kg	23080
Bending segment 25 × 2.0 mm	0.180 kg	23009	Support segment MLP (No. 23076)	0.200 kg	23083

PRO BENDER

For bending of pipes out of copper, stainless steel and carbon steel in the sizes Ø 10 and 16 mm (3/8-3/4")

Suitable for bending copper, stainless steel and carbon steel pipes with Ø 10 and 16 mm (3/8-3/4")

Application Benefits

- Bending of pipes out of copper, stainless steel and carbon steel possible
- Long lasting due to forged cast iron body
- Comfortable working due to long levers and rubber handles
- Clamping surface for working with a vice



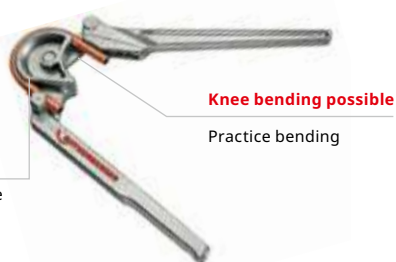
Model	Weight	PU	No.
PRO BENDER 10 mm (3/8")	2.200 kg	1	1000001431
PRO BENDER 1/2"	2.100 kg	1	767050016
PRO BENDER 16 mm (5/8")	4.000 kg	1	1000000445
PRO BENDER 3/4"	3.900 kg	1	767750016

MULTIBEND

For accurate bending up to 180° of pipes made of soft copper, aluminium and precision steel Ø 10-18 mm (1/4-5/8")

Application Benefits

- 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

Model	Weight	PU	No.
MULTIBEND 180°, 10 mm	0.370 kg	1	25401
MULTIBEND 180°, 12 mm	0.640 kg	1	25402
MULTIBEND 180°, 14 mm	0.980 kg	1	25403
MULTIBEND 180°, 15 mm	1.450 kg	1	25404
MULTIBEND 180°, 16 mm (5/8")	1.460 kg	1	25405
MULTIBEND 180°, 18 mm	2.000 kg	1	25406

Standard bending plier 90°

For accurate bending up to 90° for pipes made of semi-hard copper according to DIN EN 1057, Ø 12 x 1.0-22 x 1.0 mm

Application Benefits

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



Model	Weight	PU	No.
12 mm, R 44 mm	1.400 kg	1	462212
15 mm, R 60 mm	2.300 kg	1	462215
18 mm, R 74 mm	3.200 kg	1	462218
22 mm, R 60 mm	4.300 kg	1	462222

Bending

Manual bending devices

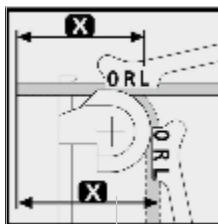
MINIBEND

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")

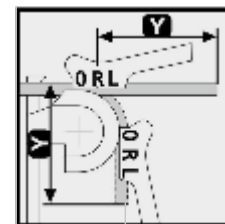
Application Benefits

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

Method L



Method R



Accurate bending

Minimum size chord and bending radius display on measurement scale

Model	Weight	PU	No.
MINIBEND 1/4-5/16-3/8"	0.420 kg	1	25151
MINIBEND 6-8-10 mm	0.420 kg	1	25150

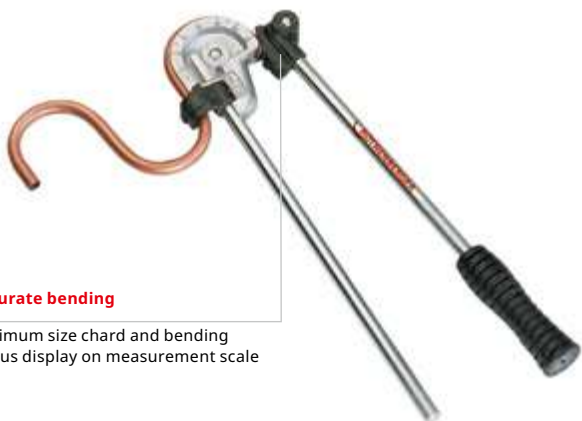
Standard bender 180°

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

Manual bending device for bending pipes with Ø 6-18 mm (1/4-5/8")

Application Benefits

- Bending angle measurement 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 chord and bending radius display on measurement scale

Model	Weight	PU	No.
6 mm	0.550 kg	1	25130
8 mm (5/16")	0.640 kg	1	25131
10 mm	0.970 kg	1	25132
12 mm	0.980 kg	1	25133
14 mm	1.580 kg	1	25134
15 mm	1.830 kg	1	25135
16 mm (5/8")	1.830 kg	1	25136
18 mm	2.110 kg	1	25137
1/4"	0.560 kg	1	25140
1/2"	1.680 kg	1	25142

Accessories



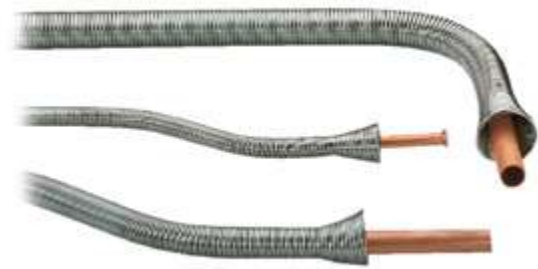
Description	Page	No.
Internal / external deburrer	37	1500000236
Bending spray, 150 ml	79	25120

Copper external bending springs

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

Application Benefits

- 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



Model	Weight	PU	No.
8 mm	0.070 kg	1	25181
10 mm	0.080 kg	1	25182
12 mm	0.160 kg	1	25183
15 mm	0.220 kg	1	25185
16 mm	0.230 kg	1	25186

Model	Weight	PU	No.
5/16"	0.070 kg	1	25181
1/2"	0.130 kg	1	25190
5/8"	0.220 kg	1	25186

MLP internal bending springs

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

For hand bending soft copper pipe

Application Benefits

- 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

Outer Pipe Diameter	Weight	PU	No.
12 mm	0.090 kg	1	25441
14 mm	0.120 kg	1	25442
16 mm	0.150 kg	1	25443

Outer Pipe Diameter	Weight	PU	No.
20 mm	0.220 kg	1	25445
25/26 mm	0.380 kg	1	25446

Bending spray

For bending copper and steel pipes

Bending spray for easier bending of pipes made of copper, carbon steel and stainless steel

Application Benefits

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



Model	Weight	PU	No.
Bending spray 150 ml	0.150 kg	1	25120

Bending

Manual bending devices

ROBEND H+W PLUS bender

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



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")

Application Benefits

- Exact bending to the mm on continuous pipe
- Retains shape and remains stable
- Two-handed 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

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

ROLUB-Anti-Block-System

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

ROLUB-Anti-Block-System!

Made from high-quality forged aluminium

Retains shape and remains stable

Thread for the attachment of the additional lever (accessories)

Free-hand bending possible



Model	Weight	PU	No.
ROBEND H+W PLUS with handle bar, 8 mm 5/16", R 22 mm	0.660 kg	1	24508
ROBEND H+W PLUS with handle bar, 10 mm, R 32 mm	1.180 kg	1	24510
ROBEND H+W PLUS with handle bar, 12 mm, R 38 mm	1.110 kg	1	24512
ROBEND H+W PLUS with handle bar, 14 mm, R 45 mm	1.370 kg	1	24514
ROBEND H+W PLUS with handle bar, 15 mm, R 45 mm	1.375 kg	1	24515
ROBEND H+W PLUS with handle bar, 16 mm 5/8", R 64 mm	2.620 kg	1	24516
ROBEND H+W PLUS with handle bar, 18 mm, R 64 mm	2.620 kg	1	24518
ROBEND H+W PLUS with handle bar, 22 mm 7/8", R 81 mm	3.800 kg	1	24522
ROBEND H+W PLUS with handle bar, 3/4", R 81 mm	3.850 kg	1	24519
ROBEND H+W PLUS with handle bar, 1/2"	1.110 kg	1	24552

ROBEND H+W PLUS bending sets

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

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")



Application Benefits

- Accurate bending on continuous pipe
- Form and pressure stable
- Free-hand bending with additional lever up to Ø 18 mm (5/8")
Eliminates costs of bending fittings, procurement and warehousing
- Simple bending by clamping in the vice
- Precision bending with minimum size chart and bending angle display directly on the tool

Model	Weight	PU	No.
ROBEND H+W Plus set, 1/2–5/8–7/8"	13.700 kg	1	24504
ROBEND H+W Plus set, 10–12–14–16 mm	16.300 kg	1	24501
ROBEND H+W Plus set, 12–14–16–18 mm	13.600 kg	1	24502
ROBEND H+W Plus set, 12–15–18–22 mm	16.500 kg	1	24500
ROBEND H+W Plus set, 15–18–22 mm	14.900 kg	1	24505

ROLUB Anti-Block special gliding shoe

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

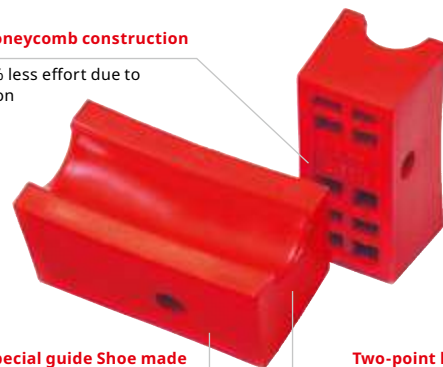
For copper pipe DIN EN 1057/12735-1/13348, aluminum / precision steel pipe DIN 2391/93/94, stainless steel pipe and others

Application Benefits

- Original spare part from ROTHENBERGER
- ROLUB technology for a wrinkle-free bending results

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

Model	Weight	PU	No.
8 mm (5/16")	0.020 kg	1	25308
10 mm (3/8")	0.020 kg	1	25310
12 mm	0.030 kg	1	25312
14 mm	0.030 kg	1	25314
15 mm	0.030 kg	1	25315

Model	Weight	PU	No.
16 mm (5/8")	0.050 kg	1	25316
18 mm	0.050 kg	1	25318
22 mm (7/8")	0.090 kg	1	25322
1/2"	0.030 kg	1	25313
3/4"	0.090 kg	1	25319



Accessories

	No.
Handle bar for ROBEND H+W Plus, 8mm (3/8")	25075
Handle bar ROBEND H+W Plus, 10–15 mm	25076
Robend H+W Handle (18–22 mm)	25078
Bending spray 150 ml	25120
ROCASE 6414 red without clip for user manual	1300003542

ROBULL type E

For precise, manual hydraulic cold bending up to 90°

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:
 Ø 3/8–2"



Application Benefits

- Precise bending with the angle scale on the support brackets
- 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

3



Optional: tripod stand (No. 58182)
 Comfortable working position

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)

Model	Weight	PU	No.
ROBULL type E without accessories	16.800 kg	1	057950X
ROBULL type E with adjustable bending frame and accessories, 3/8–2"	59.800 kg	1	057966X
ROBULL type E with foldable bending frame and accessories, 3/8–2"	72.600 kg	1	057961X

ROBULL type E



ROBULL type E with foldable bending frame



Fig. similar

Bending segment for ROBULL type E

Small bending radius (red)

For bending steel pipes according to DIN EN 10255



Model	Weight	PU	No.
3/8", wall thickness 2.35 mm, R 45 mm	0.700 kg	1	57985
1/2", wall thickness 2.65 mm, R 49 mm	0.700 kg	1	57986
3/4", wall thickness 2.65 mm, R 65 mm	0.800 kg	1	57987
1", wall thickness 3.25 mm, R 89 mm	1.300 kg	1	57988
1.1/4", wall thickness 3.25 mm, R 115 mm	1.600 kg	1	57989
1.1/2", wall thickness 3.25 mm, R 137 mm	2.400 kg	1	57990
2", wall thickness 3.65 mm, R 200 mm	3.200 kg	1	57991

Bending segment for ROBULL type E

Large bending radius (black)

For bending steel pipes according to DIN EN 10255



Model	Weight	PU	No.
3/8", wall thickness 2.35 mm, R 56 mm	0.800 kg	1	58010
1/2", wall thickness 2.35 mm, R 85 mm	0.900 kg	1	58011
3/4", wall thickness 2.65 mm, R 115 mm	1.200 kg	1	58012
1", wall thickness 2.65 mm, R 145 mm	2.100 kg	1	58013
1.1/4", wall thickness 3.25 mm, R 214 mm	3.500 kg	1	58014
1.1/2", wall thickness 3.25 mm, R 214 mm	4.300 kg	1	58015
2", wall thickness 3.65 mm, R 245 mm	5.600 kg	1	58016



Accessories	No.
Bending frame for all ROBULL, open, 2"	57981
Side shape, w. grade division, open, ROBULL E/ME	775004000
Side shape, w/o grade classific., open, ROBULL E/ME	57983
Side shape, w. degree div., foldable ROBULL E/ME	775504100

Accessories	No.
Locking pin	57979
Hydraulic oil, 1 l	58185
Tripartine for ROBULL type E/ME, collapsible	58182
Steel case	996277400

ROBULL type ME

For precise, power hydraulic cold bending up to 90°

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"



Application Benefits

- Precise bending with the angle scale on the support segments
- 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

3



Optional: Tripod 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)

Model	Weight	PU	No.
ROBULL type ME with foldable bending frame and accessories, 3/8-2"	72.600 kg	1	057972X
ROBULL type ME with adjustable bending frame and accessories, 3/8-2"	59.800 kg	1	057973X
ROBULL type ME without accessories	17.800 kg	1	057969X

ROBULL type ME



ROBULL type ME with foldable bending frame



Fig. similar

3

Bending segment for ROBULL type E

Small bending radius (red)

For bending steel pipes according to DIN EN 10255



Model	Weight	PU	No.
3/8", wall thickness 2.35 mm, R 45 mm	0.700 kg	1	57985
1/2", wall thickness 2.65 mm, R 49 mm	0.700 kg	1	57986
3/4", wall thickness 2.65 mm, R 65 mm	0.800 kg	1	57987
1", wall thickness 3.25 mm, R 89 mm	1.300 kg	1	57988
1.1/4", wall thickness 3.25 mm, R 115 mm	1.600 kg	1	57989
1.1/2", wall thickness 3.25 mm, R 137 mm	2.400 kg	1	57990
2", wall thickness 3.65 mm, R 200 mm	3.200 kg	1	57991

Bending segment for ROBULL type E

Large bending radius (black)

For bending steel pipes according to DIN EN 10255



Model	Weight	PU	No.
3/8", wall thickness 2.35 mm, R 56 mm	0.800 kg	1	58010
1/2", wall thickness 2.35 mm, R 85 mm	0.900 kg	1	58011
3/4", wall thickness 2.65 mm, R 115 mm	1.200 kg	1	58012
1", wall thickness 2.65 mm, R 145 mm	2.100 kg	1	58013
1.1/4", wall thickness 3.25 mm, R 214 mm	3.500 kg	1	58014
1.1/2", wall thickness 3.25 mm, R 214 mm	4.300 kg	1	58015
2", wall thickness 3.65 mm, R 245 mm	5.600 kg	1	58016



Accessories	No.
Bending frame for all ROBULL, open, 2"	57981
Side shape, w. grade division, open, ROBULL E/ME	775004000
Side shape, w/o grade classific., open, ROBULL E/ME	57983
Side shape, w. degree div., foldable ROBULL E/ME	775504100

Accessories	No.
Locking pin	57979
Hydraulic oil, 1 l	58185
Tripartine for ROBULL type E / ME, collapsible	58182
Steel case	996277400

Bending

Bending machines

ROBEND 4000 E

Electrical bending machine for bending pipes with Ø 12–35 mm (1/2–1.3/8")

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, 12735-1, 13348):
Ø 12–35 mm, (1/2–1.3/8")

Copper and precision steel (coated):
Ø 12–28 mm, (1/2–1.1/8")

Precision steel (soft DIN 2391 / 2393 / 2394):
Ø 12–28 mm, (1/2–1.1/8")

Threaded steel (DIN 2440 / 2441):
Ø 1/2", 3/4"

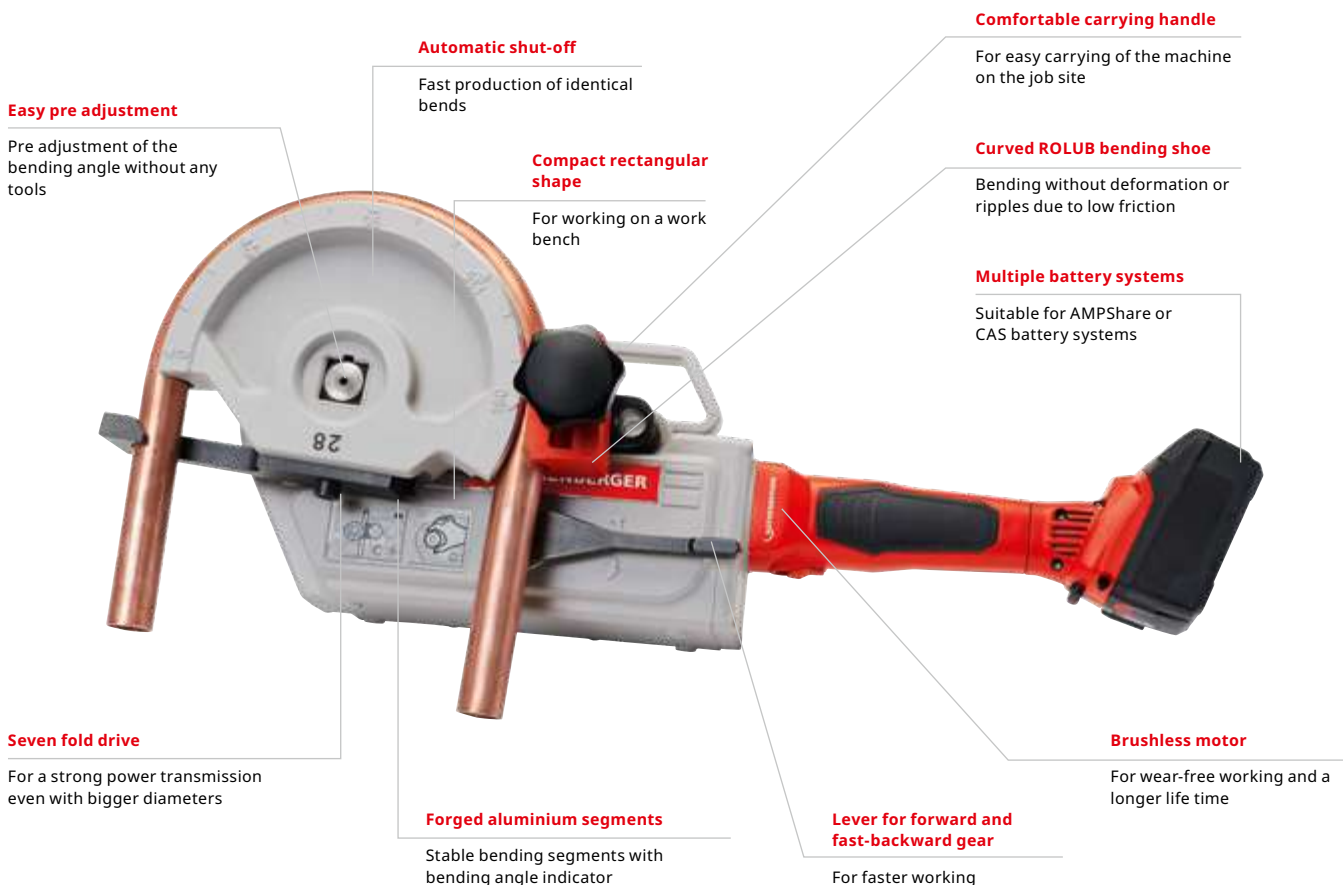
Seamless stainless steel (GW 541):
Ø 12–28 mm, (1/2–1.1/8")



Application Benefits

- 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

Available in the manufacturer-independent battery systems AMPShare – Powered by Bosch or CAS – CORDLESS ALLIANCE SYSTEM



ROBEND 4000 E

Model	Weight	PU	AMPShare-No.	CAS-No.
ROBEND 4000 E set 1 × 4 Ah battery, 1/2-5/8-3/4-7/8-1.1/8"	29.450 kg	1	1000004193	1000003394
ROBEND 4000 E set 1 × 4 Ah battery, 12-14-16-18-22-28 mm	30.150 kg	1	1000004192	1000003393
ROBEND 4000 E bare tool without battery and charger	17.450 kg	1	1000004190	1000003391
ROBEND 4000 E set 1 × 4 Ah battery, 15-18-22-28 mm	29.150 kg	1	1000004191	1000003392

3



Forged aluminium segments with bending angle scale



Comfortable carry handle



Working with a Tripod



Compact, rectangular shape

Bending

Bending machines

ROBEND 4000

Portable, sturdy and powerful. The successor of the proven ROBEND 3000, now with a higher bending capacity. Cold bending up to 180°, Ø 12-35 mm (1/2-1.3/8")

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, 12735-1, 13348):
Ø 12-35 mm, 1/2-1.3/8"

Copper and precision steel (coated):
Ø 12-28 mm, (1/2-1.1/8")

Precision steel (soft DIN 2391 / 2393 / 2394):
Ø 12-28 mm, (1/2-1.1/8")

Threaded steel (DIN 2440 / 2441):
Ø 1/2", 3/4"

Seamless stainless steel (GW 541):
Ø 12-28 mm, (1/2-1.1/8")

Application Benefits

- 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: 1,010W



Technical Data

Voltage	230 V
Working area diameter	1/2-1.3/8"
Working area diameter	12-35 mm
Output power	1,010 W
Power cable length	300 cm

3



Forged aluminium former with bending radius scale

Easy to use

Pre adjustment of the bending angle without any tools

Fast and precise bending

ROLUB special guide shoe

Bending without deformation or ripples due to less friction

High-performance 1,010 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

ROBEND 4000

Model	Weight	PU	No.
ROBEND 4000 bare tool in carrying case without bending segments	14.500 kg	1	1000001559
ROBEND 4000 set 12-14-16-18-22 mm	21.900 kg	1	1000001551
ROBEND 4000 set 12-14-16-18-22-28 mm	24.100 kg	1	1000001552
ROBEND 4000 set 12-15-18-22-28 mm	23.500 kg	1	1000001549
ROBEND 4000 set 15-18-22 mm	24.120 kg	1	1000001554
ROBEND 4000 set 15-18-22-28mm	24.120 kg	1	1000001550
ROBEND 4000 set 15-18-22-28-35 mm	29.000 kg	1	1000001738
ROBEND 4000 set 15-18-22-28-32-35 mm	32.000 kg	1	1000001567
ROBEND 4000 set 15-22-28 mm	21.100 kg	1	1000001545
ROBEND 4000 set 1/2-5/8-3/4-7/8"	19.600 kg	1	1000001553
ROBEND 4000 set 1/2-5/8-3/4-7/8-1.1/8-1.3/8"	29.000 kg	1	1000001565
ROBEND 4000 set 7/8-1.1/8-1.3/8"	22.000 kg	1	1000001566

3



Bending of pipes made of various materials possible



Seven-fold drive



Comfortable carry handle



ROBEND 4000 with tripod stand

ROBEND 4000 / 4000 E bending sets

For bending pipes Ø 12-35 mm (1/2-1.3/8")

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



Fig. ROBEND 4000/4000 E bending set with ROLUB special guide shoe

Model	Weight	PU	No.
Bending set for ROBEND 4000/4000 E Fe 1/2"	1.420 kg	1	25684
Bending set for ROBEND 4000/4000 E Fe 3/4"	2.900 kg	1	25685

For copper pipe DIN EN 1057, 12735-1, precision steel pipe DIN 2391/93/94, stainless steel pipe and others

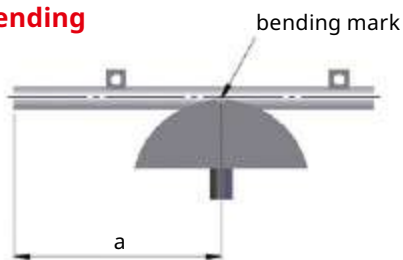
Model	Weight	PU	No.
Bending set for ROBEND 4000/4000 E 12 mm	0.480 kg	1	25612
Bending set for ROBEND 4000/4000 E 14 mm	0.480 kg	1	25614
Bending set for ROBEND 4000/4000 E 15 mm	0.530 kg	1	25615
Bending set for ROBEND 4000/4000 E 16 mm	0.600 kg	1	25616
Bending set for ROBEND 4000/4000 E 18 mm	1.170 kg	1	25618
Bending set for ROBEND 4000/4000 E 20 mm	1.420 kg	1	25620
Bending set for ROBEND 4000/4000 E 22 mm	1.420 kg	1	25622
Bending set for ROBEND 4000/4000 E 28 mm	2.900 kg	1	25628
Bending set for ROBEND 4000/4000 E 32 mm	3.400 kg	1	1000001561
Bending set for ROBEND 4000/4000 E 35 mm	3.600 kg	1	1000001563

For imperial copper pipe DIN EN 1057, 12735-1, precision steel pipe DIN 2391/93/94, stainless steel pipe and others

Model	Weight	PU	No.
Bending set for ROBEND 4000/4000 E 1/2"	0.530 kg	1	25652
Bending set for ROBEND 4000/4000 E 3/4"	1.420 kg	1	25619
Bending set for ROBEND 4000/4000 E 5/8"	0.600 kg	1	762955300
Bending set for ROBEND 4000/4000 E 7/8"	1.420 kg	1	762955700
Bending set for ROBEND 4000/4000 E 1"	2.900 kg	1	25625
Bending set for ROBEND 4000/4000 E 1.1/8"	2.900 kg	1	25626
Bending set for ROBEND 4000/4000 E 1.1/4" ¹	3.400 kg	1	1000001561
Bending set for ROBEND 4000/4000 E 1.3/8" ¹	3.600 kg	1	1000001563

1) Bending former sets (No. 1000001561 / No. 1000001563) are only compatible with ROBEND 4000 / ROBEND 4000 E. Only matching with optional plastic carrying case (No. 1000001564).

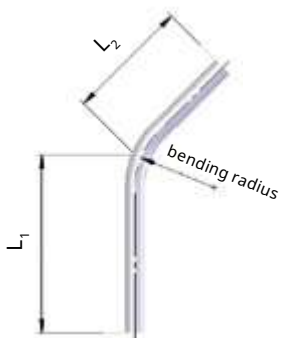
Push bending



Symbols

- L_1, L_2 = Leg length
- a = Lay out length
- L = Total length of the pipe piece
- L_w = Distance / pipe end—wall
- A_w = Distance / pipe middle—wall
- L_M = Minimum length²
- L_R = Reserve length²

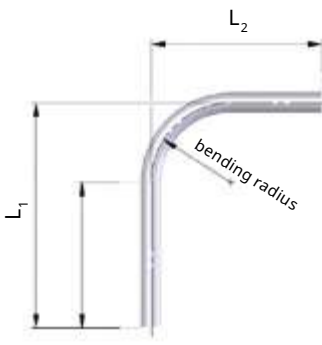
45°-arc



$$L = L_1 + L_2$$

$$a = L_1 + L_R$$

90°-arc



$$L = L_1 + L_2 - L_M$$

$$a = L_1 - L_R$$

2) 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.

Calculation examples TUBE BENDER MAXI

Specifications:

Installation in corner areas

$L_w = 1,200$ mm

$A_w = 30$ mm

Pipe-Ø 12 mm, 90°-arc

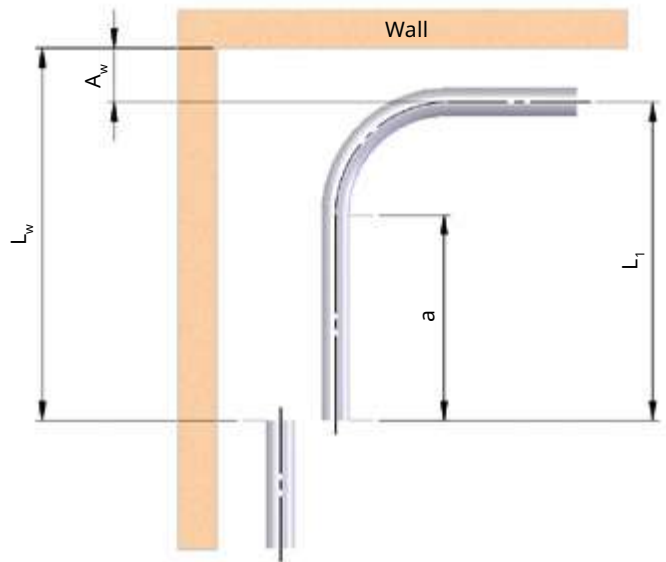
Sought after:

Leg length L_1

Applied size a

Solution:

Summary from the TUBE BENDER MAXI bending table



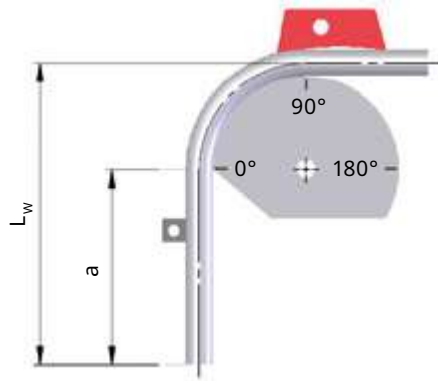
Leg length $L_1 = L_w - A_w = 1,200 - 30 = 1,170$ mm
Applied size $a = L_1 - L_R = 1,170 - 7.5 = 1,162.5$ mm; L_R ... Tabular value

TUBE 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
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 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
12	35.0	0.8	10.0	7.5	35.5	—	—
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	22.5	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°	
Tube Ø 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	Minimum length L_M mm
10 × 0.6	42.5	0.8	12.5	9.0	42.5	—	—
12 × 0.6	49.0	1.1	14.5	10.5	49.0	—	—
15 × 0.7	74.0	1.7	22.0	16.0	74.0	—	—
18 × 0.7	87.0	1.9	25.5	18.5	87.0	—	—

Pull bending



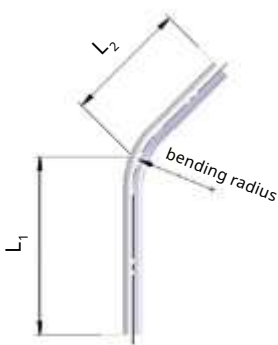
Symbols

- L_1 L_2 = Leg length
- a = Lay out length
- L = Total length of the pipe piece
- L_w = Distance / pipe end—wall
- A_w = Distance / pipe middle—wall
- L_M = Minimum length¹
- L_R = Reserve length¹

45°-arc

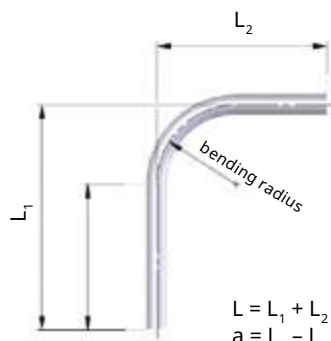
90°-arc

180°-arc



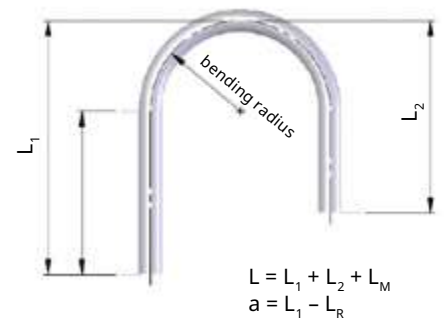
$$L = L_1 + L_2$$

$$a = L_1 + L_R$$



$$L = L_1 + L_2 - L_M$$

$$a = L_1 - L_R$$



$$L = L_1 + L_2 + L_M$$

$$a = L_1 - L_R$$

**Calculation examples
ROBEND 4000 / ROBEND 4000 E**

Specifications:

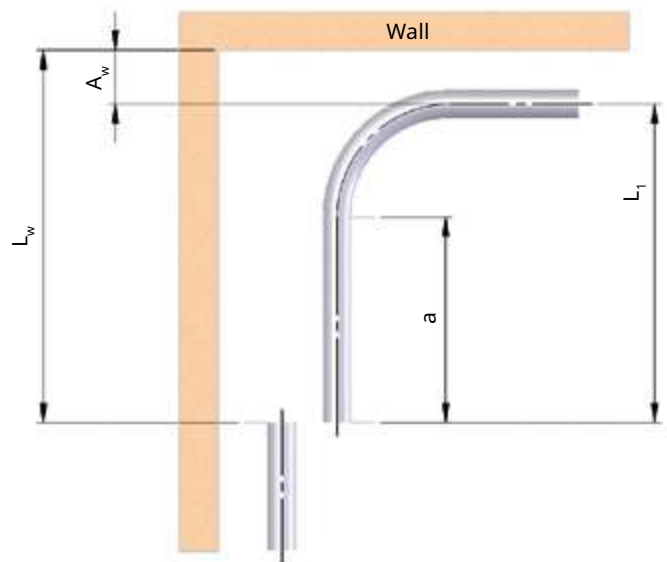
Installation in corner areas
 $L_w = 1,200$ mm
 $A_w = 30$ mm
 Pipe-Ø 12 mm, 90°-arc

Sought after:

Leg length L_1
 Applied size a

Solution:

Summary from the ROBEND 4000 / ROBEND 4000 E



Leg length $L_1 = L_w - A_w = 1,200 - 30 = 1,170$ mm

Applied size $a = L_1 - L_R = 1,170 - 42 = 1,128$ mm; L_R ... Tabular value

ROBEND H+W PLUS		at 45°		at 90°		at 180°	
for 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°	
for 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 180°		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
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
5/6"	24.0	9.5	1.0	24.0	12.0	24.0	27.0
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 / 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	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 4000 / 4000 E			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
32 / 1.1/4"		128.0	52	—	140	70	135	140
35 / 1.3/8"		140.0	55	—	150	80	145	150
3/8"	steel	12.0	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