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9.0559/05.09/5/PMK/WEH

Main Catalogue 2009/2010

ROTHENBERGER
pipetool technologies at work

ROTHENBERGER

pipetool technologies at work

Main Catalogue 2009/2010



ROTHENBERGER
1949 2009 60 YEARS OF PIPE TOOL INNOVATION

The Centre of the World of Pipe Tools: The TEC Centre Welcomes You!



ROTHENBERGER's 60 year history is a success story which is reflected in the TEC Centre. A "know-how" centre in which the powers of innovation, global orientation, expansion into new areas and a willingness to communicate - as well as a passionate commitment to quality - is mirrored in all the ROTHENBERGER production locations around the world.

As the idea for the TEC Centre first took shape, one of the top priorities was the desire to create a company centre where all of the many activities of the ROTHENBERGER group could be concentrated.



And furthermore: A place to meet across borders, to actively exchange technological information with customers as well as a place of innovation and transparency.

All of this is found within an architecture that impresses with its round forms,



light-filled function and aesthetic, thereby perfectly representing the self-image of the ROTHENBERGER Group: Here the market leader for modern piping tools, machines and environmental technology can be seen and experienced.

Disclaimer

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Learning with and from each other: ROTHENBERGER places great value in the exchange of ideas and know-how with experienced and specialised users, technicians and sales professionals. We express this with the many



seminars, workshops and practical demonstrations that are held throughout the year.

Research and development have found a new home at the TEC Centre. The well known ROTHENBERGER Power of Innovation is spurred on further in this inspirational environment.

Last, but not least: The ambience in the TEC Centre invites one to linger - and the restaurant ROPIANO will cosset your senses and taste buds.

So: Welcome to the new ROTHENBERGER world of experience - welcome to the TEC Centre!



Innovation. Passion. Performance.

60 Years of ROTHENBERGER

When a company can look back on 60 successful years, it has more than one reason to be proud. These years were not only filled with ground-breaking innovation for trade and industry, but also with healthy, sustainable growth in which the people at ROTHENBERGER and in our regional locations profit - today and in the future.

From the beginning, ROTHENBERGER has been supporting all those whose daily work not only helps to ensure that these lifelines reach more and more people, but also make sure they are maintained in excellent condition: with innovative, reliable piping tools and machinery of the highest quality that can be found in the hands of superior craftsmen and on construction sites around the world

A Global Player with strong roots.

With over 50 group companies and 1,500 employees in 25 countries plus a quality management system that is certified according to ISO 9001:2000 and ISO 14001 standards, ROTHENBERGER represents itself today as a global player that at the same time has never lost touch with its medium-sized business roots. The commitment to the environment and a sustainable economic approach, while taking responsibility for their home region and the people who live there, plus the intensive interaction with skilled craftsmen, ensure that pipe work professionals always find exactly what they need at ROTHENBERGER to keep the world's lifelines up and running.

Practice and Service Expertise x 10

With 10 professional product groups, the pipe tool system supplier ROTHENBERGER features a first-class line-up for handling powerful jobs on a daily basis. A real "One-Stop-Shop" that makes life easier. This impressive product portfolio is complimented with a service philosophy that offers the craftsman maximum support - from consulting and training to after-sales-service and repair. No less than 300 service representatives are continuously "on the road", cooperating with our specialized dealers to bring innovation, quality and service to the user. Because a real ROTHENBERGER employee is only satisfied when his customer is too!



For decades the symbol for innovation and consistency: the ROCAM Expander.

For 60 years, pipelines have been the veins of our work at ROTHENBERGER - pipelines conveying energy and water are the world's lifelines. Just like the veins in the human body, they guarantee that warmth, fuel and vital fluids reach their recipients - an important contribution to the overall quality of human life.

A Passion for Innovation.

Research and development play an extremely important role at ROTHENBERGER. Innovation always results from an intensive dialogue with the users of our equipment. The result: over 150 patents and registered trademarks for product ideas that have revolutionised the piping installation trade.



1

Fitting Tools



2

Press Fitting and Multilayer Piping Tools



3

Tools for Steel Pipe Installation



4

Pipe and Installation Tools



5

Testing, Measuring and Freezing Equipment



6

Soldering and Welding Equipment



7

ROWELD® Plastic Pipe Welding Equipment



8

Pipe / Drain Cleaning and Inspection Equipment



9

RODIA® Diamond Core Drilling Equipment



10

Refrigeration and Air Conditioning Equipment

Your Innovations-Navigator 2009/2010

For over 60 years the innovation at ROTHENBERGER has been the result of a comprehensive view of products and solutions - always based on the sound knowledge from users and industry

as well as the significant results from research and development. With targeted initiatives we are able to help the user open up new and profitable market segments, and to secure these markets long-term. That is real added value that our

customers and therefore their customers profit from day after day!

The innovations-navigator will help you to quickly find especially interesting highlights in this catalogue.



1
TUBE BENDER
Compact Single-hand
Bending Tool
Page 33



2
Pressing Clamps
Spare Pressing Clamps
and Pressing Flanges with
many advantages
Page 60 / 61



3
**SUPERTRONIC
1250**
Convenient power-
threading clip up to 1.1/4"
Page 82



4
**ROTRAC & INOX
TUBE CUTTER**
Compact
Pipe Cutter
Page 115/119



5
**Testing Pump
TP 25 TP 25**
Compact Precision
Testing Pump
Page 160



6
**POWER FIRE
Compact**

Professional
Brazing Equipment
Page 180



7
ROCUT® TC 63
Professional
Plastic Tube Cutter
Page 215



8
ROSCOPE
Compact Pipe and Drain
Inspection System
Page 246



9
**RODIACUT® PRO
170, 270, 400**
Diamond
Core Drilling
with System!
Page 301



10
**Digital
Manifolds**
Simple and
universal
Page 330



ROTHENBERGER

**New products
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Contents

			Page	
			Fitting Tools	1
			8	
			Press Fitting and Multilayer Piping Tools	2
			48	
			Tools for Steel Pipe Installation	3
			74	
			Pipe and Installation Tools	4
			104	
			Testing, Measuring and Freezing Equipment	5
			150	
			Soldering and Welding Equipment	6
			172	
			ROWELD® Plastic Pipe Welding Equipment	7
			212	
			Pipe / Drain Cleaning and Inspection Equipment	8
			242	
			RODIA® Diamond Core Drilling Equipment	9
			294	
			Refrigeration and Air Conditioning Equipment	10
			320	
			Table of Contents Alphabetical and Numeric List of Icons / Abbreviations	11
			340	



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Fitting Tools



Expander	10 – 14
Hydraulic-Expander	15 – 19
Tee-Extractors	20 – 27
Flaring Tools	28 – 32
Standard Benders	33 – 39
Power Benders	40 – 43
Bending Tables	44 – 47



Expander



ROCAM® EXPANDER Power Torque

For expanding, reducing and calibrating pipes
 Ø 8 - 42 mm (5/16 - 1.3/4")



Product Profile

APPLICATION AREA

For efficient, fitting-free installation of pipes in sanitary heating, gas, refrigeration and air-conditioning systems

KEY FEATURES

- Eliminates the cost of purchase and storage of fittings
- Increased safety by reducing the number of joints
- Converts deformed pipes into fittings; saves resources
- 1 50% reduction of labour, soldering materials, joints and energy
- 2 Protects against dirt with EPT®-Technology
- 3 Reliable pipe connection according to DVGW standards
- 4 Tough, light and wear-resistant
- 5 Automatic pin guide retraction enables faster operation
- 6 Fine adjustment of the capillary gap

TECHNICAL DATA

Suitable for pipes made of:

- Copper (soft and semi-hard):** Ø 8 - 42 mm, 5/16 - 1.3/4"
max. wall thickness 1.6 mm
- Aluminium (soft):** Ø 8 - 28 mm, 5/16 - 1.1/8"
max. wall thickness 1.6 mm
- Precision steel (soft):** Ø 8 - 28 mm, 5/16 - 1.1/8"
max. wall thickness 1.6 mm
- Stainless steel (soft):** Ø 8 - 22 mm, 5/16 - 7/8"
max. wall thickness 1.0 mm



The know-how from the pioneer of expanding technology and the leading manufacturer of expanding tools for over 40 years



ROCAM® EXPANDER Power Torque Sets

ROCAM® EXPANDER Power Torque sets include: ROCAM® EXPANDER Power Torque (No. 1.2000), with expander heads, internal and external deburrer (No. 1.1006), in a steel carrying case (No. 2.4022)



Fig. ROCAM® EXPANDER Power Torque Set

ROCAM® Power Torque Sets

Model			No.
12 - 15 - 18 - 22 mm	1	5	2.9 1.2300
10 - 12 - 15 - 18 - 22 mm	1	5	3.3 1.2302
12 - 15 - 18 - 22 - 28 mm	1	5	3.3 1.2303
10 - 12 - 16 - 18 - 22 mm	1	5	3.3 1.2304
12 - 14 - 16 - 18 - 22 mm	1	5	3.3 1.2309
12 - 14 - 16 - 18 - 22 - 28 mm	1	5	3.3 1.2310
12 - 16 - 18 - 22 - 28 mm	1	5	3.2 1.2322
10 - 12 - 14 - 16 - 18 - 22 mm	1	5	3.6 1.2311
12 - 15 - 18 - 22 - 28 - 35 - 42 mm	1	5	4.2 1.2326
3/8 - 1/2 - 5/8 - 3/4 - 1 - 1.1/8"	1	5	3.7 1.2342
3/8 - 1/2 - 5/8 - 3/4 - 7/8 - 1.1/8"	1	5	3.6 1.2318
10 - 12 - 16 - 22 - 28 mm	1	5	3.3 1.2305
15 - 22 - 28 mm	1	5	2.9 1.2327
15 - 22 mm	1	5	2.5 1.2328
15 - 18 - 22 - 28 - 35 - 42 mm	1	5	4.0 1.2339
1/2 - 5/8 - 3/4 - 7/8"	1	5	2.9 1.2321
1/2 - 5/8 - 7/8 - 1.1/8"	1	5	3.0 1.2324
1/2 - 3/4 - 1"	1	5	2.9 1.2335
3/8 - 1/2 - 5/8 - 3/4 - 1"	1	5	3.3 1.2317

ROCAM® Power Torque Sets

			No.
10 - 12 - 15 - 16 - 18 - 22 - 28 mm	1	5	3.4 1.2337
3/8 - 1/2 - 5/8 - 3/4 - 7/8 - 1 - 1.1/8"	1	5	3.7 1.2336
12 - 15 - 22 - 28 mm	1	5	3.0 1.2329
3/8 - 1/2 - 5/8 - 3/4" - 22 - 28 mm	1	5	3.6 1.2320
3/8 - 1/2 - 5/8 - 3/4 - 7/8 - 1.1/8 - 1.3/8"	1	5	4.5 1.2341
Expander tool (without expander heads) for expander heads up to 42 mm / 1.3/4"	1	5	1.0 1.2000

ACCESSORIES



Description		Description	
Expander heads standard	12	Expander adaptor type S	14
Type S / riveted expander heads	14	Brazing solder	209
Pipe cutter	114	High-Performance torch	184
Internal / external deburrer	121		

EPT®-Technologie – concealed bent lever



For efficient, fitting-free installation of pipes



Quality protection against wear with the **TiN sealed** pin drive
Lifelong expanding precision



EPT®-Technologie (Enclosed Power Transmission)

The expander head offers the following technical benefits:

Concealed bent lever:

Protection against dirt and external mechanical damage

Energy efficient through optimised force transmission:

Ergonomic, highly optimised force flow in relation to the hand force of the user, therefore reducing effort



The golden Titanium Nitride coating (TiN)

of the expander cone offers the following technical benefits:

High durability 2300 HV: Protection against abrasive wear

Lower friction value compared to steel: Less effort

Good chemical resistance:

Good protection against corrosion

Universal wear resistance: Long-lasting



Expander



Standard Expander Head

For producing standard precision flares \varnothing 8 - 42 mm (5/16 - 1.3/4") according to DVGW standards; as well as meet the specifications for the Gas de France

The know-how from the pioneer of expanding technology and the leading manufacturer of expanding tools for over 40 years

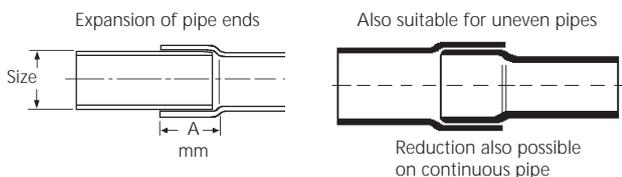
Product Profile

KEY FEATURES

- 50% reduction in labour, soldering materials and soldered joints
- ① Enables re-calibration of irregular pipes and fittings
- ② Uniform capillary gap by adjusting the KSO screw on the ROCAM® EXPANDER
- ③ Depth of the flare is consistent with DVGW standards

KEY FEATURES

- ④ Guide guarantees a perfect centred position and uniform capillary gap
- ⑤ Tough and long lasting with the hardened segments
- ⑥ Smooth-running screw thread enables quick changing of heads
- Fits similar expanders from other brands as well



Fits similar expanders from other brands as well

mm	Wall thickness mm				A mm	g	No.
	Cu	Al	Fe	Inox			
8	1.0	1.0	1.0	1.0	6.0	120	1.1008
10	1.0	1.0	1.0	1.0	10.0	120	1.1010
12	1.2	1.2	1.2	1.0	12.6	120	1.1012
14	1.2	1.2	1.2	1.0	12.6	120	1.1014
15	1.2	1.2	1.2	1.0	15.5	120	1.1015
16	1.2	1.2	1.2	1.0	15.5	120	1.1016
18	1.2	1.2	1.2	1.0	17.5	120	1.1018
20	1.2	1.2	1.2	1.0	17.5	140	1.1020
22	1.2	1.5	1.5	1.0	20.5	140	1.1022
28	1.5	1.5	1.5	-	18.5	390	1.1028
32	1.5	-	-	-	19.5	410	1.1032
35	1.6	-	-	-	19.5	430	1.1035
38	1.6	-	-	-	19.5	450	1.1038
40	1.5	-	-	-	19.5	470	1.1040
42	1.5	-	-	-	19.5	470	1.1042

Inch	Wall thickness max. mm				A mm	g	No.
	Cu	Al	Fe	Inox			
5/16"	1.0	1.0	1.0	1.0	6.0	120	1.1008
3/8"	1.0	1.0	1.0	1.0	7.4	120	1.1052
1/2"	1.2	1.2	1.2	1.0	11.0	120	1.1053
5/8"	1.2	1.2	1.2	1.0	14.0	120	1.1054
3/4"	1.2	1.2	1.2	1.0	18.1	120	1.1055
7/8"	1.2	1.2	1.2	1.0	18.0	140	1.1056
1"	1.5	1.5	1.5	-	15.8	150	1.1057
1.1/8"	1.6	1.6	1.6	-	17.0	390	1.1058
1.1/4"	1.6	-	-	-	17.0	410	1.1059
1.3/8"	1.6	-	-	-	17.0	430	1.1035
1.1/2"	1.6	-	-	-	17.0	450	1.1038
1.5/8"	1.6	-	-	-	17.5	470	1.1062
1.3/4"	1.6	-	-	-	17.5	500	1.1063

Suitable for ROTHENBERGER Expander



Description		Description	
ROCAM® EXPANDER Power Torque	10	Electro-Hydraulic Expander Pistol H 1	19
ROMAX® EXPANDER AC ECO	15	Electro-Hydraulic Expander Pistol H 2	19
ROMAX® EXPANDER Compact	16	COMBI KIT Expander / Tee-extractor	24



EXPANDER A0

For expanding, reducing and calibrating thick walled pipes \varnothing 22 - 64 mm (1.3/8 - 2.1/8")

For efficient, fitting-free installation of pipes in sanitary heating, gas, refrigeration and air-conditioning systems

- Application and savings advantages similar to ROCAM® EXPANDER power torque
- Increased safety by reducing the number of joints
- ① Precise and exact flaring
- ② Full bearing of the expander head segments allows heavy loads
- ③ Reduces effort required with special fine screw thread

Functional Elements:

Expander A0 with a tightly guided and reinforced, long expander head, matches to the expander head Type S

- ④ Continuous adjustment of the socket size and capillary gap
- ⑤ Optimized action principle with long handles

TECHNICAL DATA

Suitable for pipes made of:

Copper and Aluminium:
(soft, semi-hard)

\varnothing 22 - 64 mm, 7/8 - 2.1/2"
max. wall thickness 2.5 mm

**Precision steel (soft):
and Stainless steel per
DVGW-GW541**

\varnothing 22 - 54 mm, 7/8 - 2.1/8"
max. wall thickness 1.5 mm

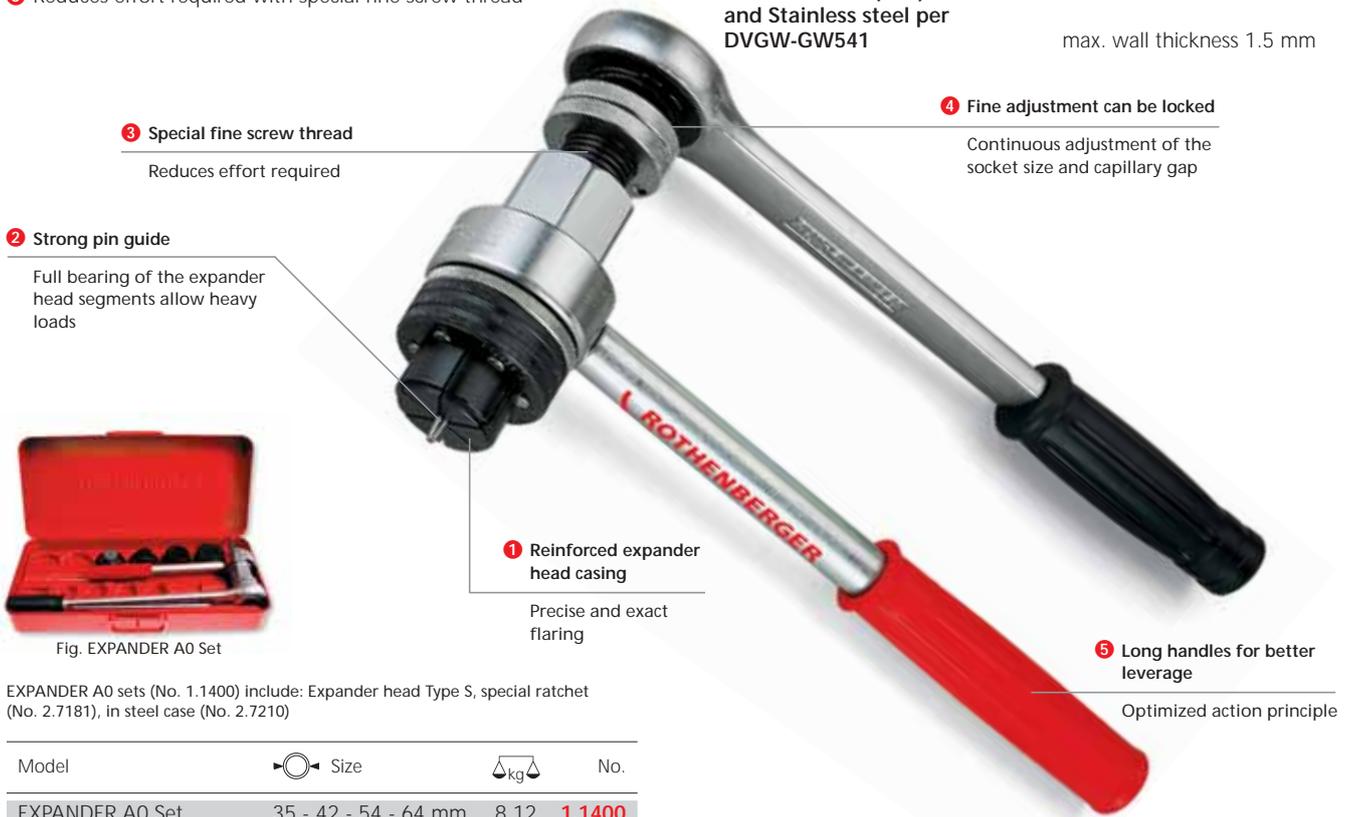


Fig. EXPANDER A0 Set

EXPANDER A0 sets (No. 1.1400) include: Expander head Type S, special ratchet (No. 2.7181), in steel case (No. 2.7210)

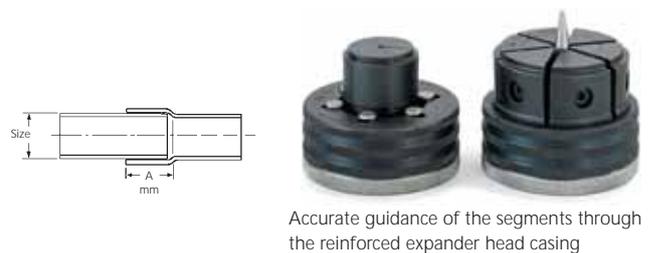
Model	Size	kg	No.
EXPANDER A0 Set	35 - 42 - 54 - 64 mm	8.12	1.1400
EXPANDER A0 Set	1.3/8 - 1.5/8 - 2.1/8"	7.48	1.1401
EXPANDER A0 basic unit		1.97	1.1004

EXPANDER A0 Basic Unit (No. 1.1004) scope of delivery: Square drive mechanism 3/4" with handle, without expander head and ratchet

Expander Head Type S

For the precise expansion of normal and thick walled pipes \varnothing 22 - 67 mm (1 - 2.1/2") and 2.5 mm wall thickness

\varnothing mm	max. wall thickness mm				A - size mm	kg	No.
	Cu	Al	Fe	Inox			
22	2	2	1.5	1.5	18.5	350	1.1323
25	2	2	1.5	1.5	18.5	350	1.1325
28	2	2	1.5	1.5	19.5	360	1.1328
30	2	2	1.5	1.5	19.5	370	1.1330
32	2	2	1.5	1.5	19.5	380	1.1332
35	2	2	1.5	1.5	19.5	400	1.1335
36	2	2	1.5	1.5	19.5	400	1.1336
38	2	2	1.5	1.5	19.5	430	1.1338
40	2	2	1.5	1.5	19.5	430	1.1340
42	2	2	1.5	1.5	19.5	450	1.1342
52	2.5	2.5	1.5	1.5	19.5	540	1.1345
54	2.5	2.5	1.5	1.5	19.5	570	1.1346
64	2.5	2.5	-	-	19.5	690	1.1348
67	2.5	2.5	-	-	19.5	730	1.1380



Accurate guidance of the segments through the reinforced expander head casing

\varnothing inch	max. Wall thickness mm				A - size mm	kg	No.
	Cu	Al	Fe	Inox			
1"	2	2	1.5	1.5	18.5	350	1.1376
1.1/8"	2	2	1.5	1.5	19.5	360	1.1358
1.1/4"	2	2	1.5	1.5	19.5	380	1.1332
1.3/8"	2	2	1.5	1.5	19.5	400	1.1335
1.1/2"	2	2	1.5	1.5	19.5	430	1.1338
1.5/8"	2	2	1.5	1.5	19.5	450	1.1362
2"	2	2	1.5	1.5	17.0	540	1.1364
2.1/8"	2.5	2.5	1.5	1.5	17.0	570	1.1346
2.1/2"	2.5	2.5	-	-	17.0	690	1.1348

Availability, delivery time and price of custom products for other pipe diameters available on request

Expander



Expander Adaptor Type S

To increase the application area of the ROCAM® EXPANDER Power Torque and Expander Pistol H1



Allows the use of the expander heads Type S with copper pipe (soft) up to 67 mm and/or 2.1/2"

Model	max.	max. mm	g	No.
Adaptor Type S, without expander head	67 mm - 2.1/2"	2.0	630	1.1007

Flanged Riveted Expander Heads

For use with the ROCAM® EXPANDER, A0 and Hydraulic expander



For producing exact hose connections, for example vibrating power units in

- Air-conditioning technology
- Auto manufacturing
- Industrial applications

mm	mm	outer dia. Flange mm	Flange Distance / pipe end mm	g	No.
15	1.5	18	4	110	1.1955
18	1.5	21	4	110	1.1958
22	1.5	25	6	120	1.1962
28	1.5	31	6	370	1.1968
35	1.5	38	6	400	1.1975
38	1.5	41	6	430	1.1978

Availability, delivery time and price of custom products for other pipe diameters available on request

STEP Expander A1

For expanding, reducing and calibrating thick walled pipes, Ø 35 – 108 mm (1.3/8" - 4.1/8")



Special ratchet (No. 2.2081)

Product Profile

APPLICATION AREA

For efficient, fitting-free installation of pipes in sanitary heating, gas, refrigeration and air-conditioning systems

KEY FEATURES

- Affordable alternative when laying larger pipe dimensions with a considerable saving of soldering materials
- Expand without changing tools with the 6 size step Expander
- Full bearing of the expander head segments allows heavy loads
- Optimum adjustment of the socket size and capillary gap with the positive fine adjustment
- Optimised force transmission with the trapezoidal screw thread with self-lubricating bronze socket
- Guide guarantees a perfect centred position and uniform capillary gap with 6 rivets and guiding ridge

TECHNICAL DATA

Suitable for pipes made of:

Copper and aluminium: Ø 35 - 108 mm, 1.3/8" - 4.1/8"
(soft) max. wall thickness 2.5 mm

Scope of delivery: Step Expander with handle, without special ratchet

Size	kg	No.
35 - 42 - 54 - 64 - 76 - 108 mm	3.9	1.1087
35 - 42 - 54 - 67 - 80 - 104 mm	3.9	1.1089
35 - 42 - 54 - 70 - 88 - 108 mm	4.1	1.1088
42 - 54 - 64 - 76.1 - 88.9 - 108 mm	4.2	1.1086
1.3/8" - 1.5/8" - 2.1/8" - 2.5/8" - 3.1/8" - 4.1/8"	4.2	1.1078
1.1/4" - 4"	4.2	1.1093

Availability, delivery time and price of custom products for other pipe diameters available on request



ROMAX® EXPANDER AC ECO

Electro-hydraulic expander with a constant axial thrust of 32 kN, 230 Volt connection. For expanding, reducing and calibrating of pipes up to Ø 67 mm (2.1/2")



Product Profile

KEY FEATURES

- Ideal for batch production and suitable on large construction sites
- ① Constant axial thrust with CFT®-Technology
- ② Matching pin for each type of Expander head
- ③ Increased operating life of the Expander head
- ④ Long life and high functional safety
- ⑤ User safety with the emergency stop switch
- Precise adjustment of the capillary gap
- After pressing and holding the hold-to-run controller, expanding and calibration takes place
- Compatible with other ROTHENBERGER Expander heads
- Optimal operating range with the long 5 m cable length

TECHNICAL DATA

Suitable for pipes made of:

Copper (soft and semi-hard):	max. Ø 67 mm, 2.1/2"
Aluminium,	
Precision steel (soft):	max. wall thickness 2 mm
Stainless steel:	max. Ø 15 mm
	max. wall thickness 1 mm
Weight:	approx. 4.5 kg
Motor:	230 V / 50 Hz

① CFT®-Technology for a constant axial thrust of 32 kN

Expansion with high power reserves up to Ø 67 mm (Copper) and/or Ø 15 mm (Stainless steel)



⑤ Emergency stop switch

High user safety with the immediate halt of the feeder

② Matching pin for each type of expander head

Specially matched for the Expander heads Type Standard, Type S or PE-X for excellent expansion results

③ Internal piston block

Increases the operating life of the flaring head. Only the actual power needed is conveyed to the expander head

2 switches within easy reach

Various handling positions possible, also for use in confined spaces and over head

Balanced weight distribution

Safe handling in every position, ideal for one-handed operation and reduces the expander head load

④ Powerful and robust motor

Long life and high operational reliability

Aluminium and precision steel (soft) up to a max. 2 mm wall thickness

5 m cable length



Basic sets include:
ROMAX® EXPANDER AC ECO,
Plastic case (No. F81664),
(without Expander heads)

Model	kg		No.
ROMAX® EXPANDER AC ECO Basic Set for Standard Expander Heads	14.7	1	1.5717
ROMAX® EXPANDER AC ECO Basic Set for Type S Expander Heads	14.7	1	1.5718
ROMAX® EXPANDER AC ECO Basic Set for Type PE-X Expander Heads	14.7	1	1.5719

Expander Heads / PE-X Expander Heads see 12 and 71

ROMAX® EXPANDER AC ECO MAXI

For copper and aluminium pipe (soft and / or relaxed) from 35 up to 108 mm

Metric: 42-54-64-76.1-88, 9-108 mm
Inch: 1.3/8-1.5/8-2.1/8-2.5/8-3.1/8-4.1/8"



Article available on request*

*Availability, delivery and price of custom products for other pipe diameters available on request

1 Hydraulic Expander



ROMAX® EXPANDER Compact

Compact, electro-hydraulic expander with a constant axial thrust of 19 kN and 12 Volt Battery for portable operation, for expanding, reducing and calibrating of pipes up to Ø 67 mm (2.1/2")



Product Profile

KEY FEATURES

- 1 Portable operation with the battery and AC adaptor (accessories)
- 2 Extremely light (approx. 2.2 kg), ideal for one-handed operation
- 3 Increases the operating life of the expander head
- 4 Constant axial thrust with CFT®-Technology
- 5 Accurate adjustment of the capillary gap
- 6 Specially matched for expander heads Type Standard, Type S or PE-X for excellent expansion results
- 7 User safety with the easy to reach emergency switch
- Security - inhibits start when battery charge condition is low
- Reliable hold in any position

TECHNICAL DATA

Suitable for pipes made of:

Copper, aluminium (soft): max. Ø 67 mm and/or 2.1/2"
max. wall thickness 2 mm

Aluminium and Precision steel (soft): max. Ø 67 mm bzw. 2.1/2"
max. wall thickness 1 mm

Stainless steel: max. Ø 15 mm
max. wall thickness 1 mm

Dimensions: only 345 x 70 x 90 mm

Weight: approx. 2.56 kg

Battery: 12 V / 1.9 Ah (NiMH)



4 CFT®-Technology for a constant axial thrust of 19 kN

Expansion up to Ø 67 mm (Copper) and Ø 15 mm (Stainless steel)

3 Internal piston block

Increases the operating life of the expander head, only the actual power needed is conveyed to the expander head

2 Component Structure

Extremely light (2.56 kg)

Aluminium and precision steel (soft)
up to max. 1 mm wall thickness

5 Tool free KSO adjustment possible

Accurate adjustment of the capillary gap

6 Matched pin for each type of expander head

Specially matched for the Expander heads Type Standard, Type S or PE-X for excellent expansion results

Balanced weight distribution

Reliable hold in any position, ideal for one-handed operation

7 Emergency stop switch

High user safety with the immediate halt of the feed and reduction of the expander head load

1 Battery operation

Portable operation with battery and AC adaptor (accessories)

High savings potential

- Efficient, fitting-free installation of pipes in sanitary, heating, gas, refrigeration and air-conditioning systems
- Eliminates the cost of purchase and storage of fittings
- 50% reduction in labour
- 50% reduction of soldering materials and energy
- No additional costs for special expander heads

All-round application

- Expander head receiver is compatible with ROTHENBERGER expander heads
- Choice between the expander head standard, Type S or PE-X



ROMAX® EXPANDER Compact Basic Sets

5-part Basic Set I includes: ROMAX® EXPANDER Compact, 2 batteries 12 V / 1.9 Ah (No. 1.5019), quick-charger (No. 1.5017), in plastic carrying case (without expander heads)

3-part Basic Set II includes: ROMAX® EXPANDER Compact Basic Unit, power supply 230 V (No. 1.5037), in plastic carrying case, (without expander heads)

Battery version: 2 batteries are included in set! DUAL-POWER 12 or 230 Volt



Fig. Power supply unit 230 V (accessory) with 5 m long cable (No. 1.5037)



Fig. ROMAX® EXPANDER Set Basic

Model	Version	📦	No.
ROMAX® Expander Compact Basic Set I	for Expander Heads Standard	1	1.5714
ROMAX® Expander Compact Basic Set II	for Expander Heads Standard	1	1.5714R
ROMAX® Expander Compact Basic Set I	for Expander Heads Type S	1	1.5715
ROMAX® Expander Compact Basic Set II	for Expander Heads Type S	1	1.5715R
ROMAX® Expander Compact Basic Set I	for Expander Heads Type PE-X	1	1.5716
ROMAX® Expander Compact Basic Set II	for Expander Heads Type PE-X	1	1.5716R

Expander Heads / PE-X Expander Heads see 📖 12 and 71

ACCESSORIES



Description	📖	No.	Description	📖	No.
Power supply, 230 V		1.5037	Internal / external deburrer		121
Charger, 12 V / 230 V		1.5017	High-Performance Torches		184
Replacement battery, 12 V / 1.9 Ah (NiMh)		1.5019	Brazing Solder		209
Pipe Cutter	114		Plastic case with formed inlay 1		1.5016

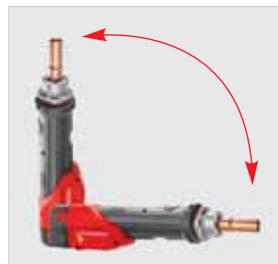
Universal adaptor for
ROTHENBERGER Expander Heads



Compatible with ROTHENBERGER
Expander Heads



Workbench function with the
stable surface support



Emergency stop switch



1 Hydraulic Expander



Hydraulic Expander System H 600

For expanding, reducing and calibrating normal and thick walled pipes in batch production



Product Profile

KEY FEATURES

- 1 Individual modular design
- 2 Industrial quality expansions
- 3 Proper and efficient handling of material

TECHNICAL DATA

Suitable for normal and thick walled pipes made of:

Copper and aluminium: Ø 8 - 110 mm, 5/16 - 4.1/4" max. wall thickness 3.0 mm

Precision and stainless steel: Ø 8 - 110 mm, 5/16 - 4.1/4" max. wall thickness 3.0 mm

TECHNICAL DATA

Rated power:	1.2 kW
Rated current:	2.1 A
Operating pressure:	80 - 600 bar
Max. operating pressure:	700 bar
Delivery capacity:	0.82 l / min
Duty factor:	100% / 80 bar
Safety category:	IP 54
Actuation:	400 V / 1200 W



Set No. 1.3100 includes: Electro-Hydraulic Expander System H 600 complete with hydraulic unit H 600 (No. 1.3002), expander pistol H 1 (No. 1.2001), control cable, hydraulic hose 2.5 m with circuit points, adjusting tool, tool rack (No. 1.3023), safety foot pedal and hydraulic oil 1 l (No. 5.8185). Without expander heads.
Set No. 1.3002 includes: Electro-hydraulic unit H 600 with safety foot pedal, adjusting tool, tool rack (No. 1.3023) and hydraulic oil 1 l (No. 5.8185) without expander heads.

Model	kg	No.
Hydraulic System complete, without heads	36.0	1.3100
Hydraulic Tool H 600	33.1	1.3002

Electro-Hydraulic Expander Pistol H 1

For use with:

Expander heads Standard: Ø 8 - 42 mm, 5/16 - 1.3/4"
up to 1.6 mm wall thickness

Expander heads Type S: Ø 22 - 67 mm, 7/8 - 2.1/2"
(with adaptor No. 1.1007) up to 2.5 mm wall thickness

Scope of delivery: 2.5 m control cable (No. F88928), hydraulic hose (No. 1.2023), adjusting tool (No. 1.2017), hydraulic oil 1 l (No. 5.8185)

Model	kg	No.
Electro-Hydraulic Expander Pistol H 1	2.9	1.2001
ACCESSORIES		
S-Head adaptor for H 1	0.6	1.1007



Electro-Hydraulic Expander Pistol H 2

For use with Electro-Hydraulic Unit H 600, comes with:

Expander heads Type S: Ø 22 - 67 mm, 7/8 - 2.1/2"
with adaptor (No. 1.2097) up to 2.5 mm wall thickness

Expander heads H 2: Ø Type 2 Ø 28 - 70 mm, 1.1/8 - 2.3/4"
up to 2.5 mm wall thickness

Expander heads H 2: Type 3 Ø 70 - 110 mm, 2.3/4 - 4.1/4"
up to 3.0 mm wall thickness

Graduated Expander heads: HA 2 Ø 28 - 110 mm, 1.1/8 - 4.1/4"
up to 3.0 mm wall thickness

Scope of delivery: Electro-Hydraulic Expander Pistol, 2.5 m control cable, hydraulic hose with quick coupling for H 600 and adjusting tool (without expander heads)

Model	kg	No.
Electro-Hydraulic Expander Pistol	7.5	1.2002
Electro-Hydraulic Expander Pistol HA 2	7.5	1.2003
S-head adaptor for H 2	1.1	1.2097



Riveted Expander Heads H 2

Only one head necessary for every pipe diameter.

Please state the applicable dimensions when ordering!

Graduated Expander Heads HA 2

With 6 aluminium graduated segments.

Please state the applicable pipe dimensions for each of the 6 steps when ordering!

Model	for pipe-Ø mm	max. mm	No.
H 2 / Type 2	28 - 70	2.5	1.2078
H 2 / Type 3	70 - 110	3.0	1.2080
HA 2	28 - 110	3.0	1.2070

Article available on request*

Only suitable for copper and aluminium pipes



*Custom-made products: Availability, delivery time and price available on request



Tee-Extractor

For efficient production of T-branches (extractions) for fitting-free pipe installations, Ø 12 - 42 mm (3/8 - 2.1/8")



Product Profile

KEY FEATURES

- Eliminates the cost for T-pieces, purchase and storage of fittings
- ❶ Up to 67% reduction in labour
- ❶ Up to 67% reduction in soldering materials and soldered joints
- ❷ Extractions even on installed pipes possible
- ❸ Accurate drilling
- ❹ Professional extractions with the optimum capillary gap
- ❺ Optimal positioning with the cam pincher depth adjustment
- ❻ Special screw thread reduces effort required

TECHNICAL DATA

Suitable for pipes made of:

Copper (soft, semi-, hard):

12 - 42 mm, 3/8 - 2.1/8"
max. wall thickness 2.5 mm

Aluminium:

12 - 42 mm, 3/8 - 2.1/8"
max. wall thickness 2.5 mm

Precision steel:

12 - 42 mm, 3/8 - 2.1/8"
max. wall thickness 2.5 mm



Tee-Extractor Sets

Sets include: Tee-Extractor according to chart, special ratchet (No. 2.2081), cam pincer (No. 2.2080) and special conical drill UNIDRILL Automatic 42 (No. 2.1575), in steel case (No. 2.4022)

The know-how from the pioneer of expanding technology and the leading manufacturer of expanding tools for over 40 years

Double V-block

Accurate and firm positioning for exact 90° branches



Special hook design

Easy insertion into the drilled hole



Fig. Tee-Extractor Set

Model	Description	kg		No.
Tee-Extractor Set	12-15-18-22-28-35-42 mm	5.50	1 3	2.2126
Tee-Extractor Set	10-12-1-16-18-22 mm	3.78	1 5	2.2111
Tee-Extractor Set	10-12-15-18-22 mm	3.50	1 5	2.2102
Tee-Extractor Set	12-14-16-18-22 mm	3.65	1 5	2.2109
Tee-Extractor Set	12-15-18-22 mm	3.43	1 5	2.2100
Tee-Extractor Set	12-15-18-22-28 mm	3.90	1 5	2.2103

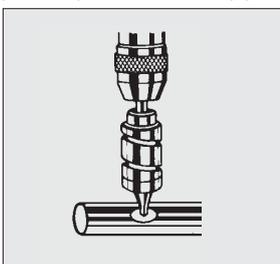
Model	Description	kg		No.
Tee-Extractor Set	12-15-22-28 mm	3.68	1 5	2.2101
Tee-Extractor Set	15-22-28 mm	3.65	1 5	2.2127
Tee-Extractor Set	1/2-5/8-3/4-7/8"	3.48	1 5	2.2121
Tee-Extractor Set	1/2-5/8-7/8-1.1/8"	3.74	1 5	2.2124
Tee-Extractor Set	1/2-3/4-1"	3.34	1 5	2.2135

ACCESSORIES

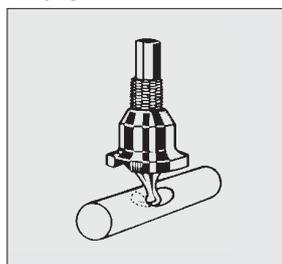


Description	No.	Description	No.
UNIDRILL automatic 28 / 42	23	Pipe cutter	114
Extractor cam pincer	23 2.2080	Internal / external deburrer	121
Extractor support plates	23	High-Performance torch	184
Evercool drill and extraction Paste	23 2.1549	Steel case	2.4022

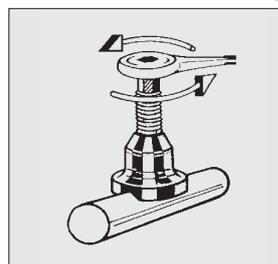
Precise drilling of the pipe without a centre punch – drill stop prevents perforation of the pipe



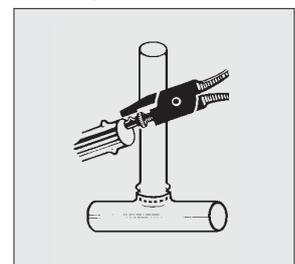
Insert extractor hook into the drilled hole and screw the bell firmly against the drill hole



Using the ratchet, turn the extractor to the left, while paying attention that the V-block is seated securely



After extraction, set correct insertion depth (dependant on pipe Ø) with cam pincer



Simply calibrate the tee Ø on the UNIDRILL Automatic and the drilled hole Ø will automatically correspond to the extractor hook required

Tee-Extractor

Tee-Extractor

With double V-block for accurate 90° branches
 Ø 10 - 54 mm (3/8 - 2.1/8")

Product Profile

KEY FEATURES

- Uniform and proper material extraction without scratches or burrs
- ① Optimum force transmission with special trapezoidal screw thread
- ② Burr-free operation with the specially polished extractor hooks
- ③ Easy insertion into the drilled hole with the special trapezoidal screw thread
- ④ Accurate and firm positioning for exact 90° branches



④ Double V-block

Accurate and firm positioning for exact 90° branches

Additive adaptor include in delivery scope of No. 2.2054 / 2.2050 / 2.2054



mm /Inch	mm	Drill-Ø mm	SW mm	g	No.
10	1.0	6	11	130	2.2010
12	1.0	7	11	150	2.2012
14	1.0	8	11	160	2.2014
15	1.0	8	11	160	2.2015
16	1.0	8	11	220	2.2016
18	2.0	10	11	220	2.2018
22	2.0	12	11	350	2.2022
28	2.5	15	11	470	2.2028
32	2.5	19	11	700	2.2032
35	2.5	22	11	700	2.2035
38	2.5	22	11	700	2.2038
40	2.5	24	11	890	2.2040
42	2.5	26	11	890	2.2042
54	2.5	30	3/4" ■	1380	2.2054

■ Square

● Hexagon



① Special trapezoidal screw thread

Optimum force transmission



② Forged and tempered extractor hooks with special polish

Burr-free operation

③ Special hook design

Easy insertion into the drilled hole

mm /Inch	mm	Drill-Ø mm	SW mm	g	No.
3/8"	1,0	6	11	110	2.2060
1/2"	1,0	7	11	140	2.2061
5/8"	1,0	8	11	220	2.2016
3/4"	2,0	10	11	220	2.2062
7/8"	2,0	12	11	350	2.2063
1"	2,5	14	11	470	2.2064
1.1/8"	2,5	15	11	480	2.2065
1.1/4"	2,5	19	11	700	2.2066
1.3/8"	2,5	22	11	700	2.2035
1.1/2"	2,5	22	11	700	2.2038
1.5/8"	2,5	26	11	900	2.2068
1.3/4"	2,5	26	11	900	2.2069
2"	2,5	30	3/4" ■	1380	2.2050
2.1/8"	2,5	30	3/4" ■	1380	2.2054

Spare Extractor Hooks

Forged hooks, specially polished, tempered and burnished from Ø 10 - 54 mm (3/8 - 2.1/8")



Special trapezoidal screw thread

Optimum force transmission

Note: For soft copper pipes, the use of an extractor support is recommended (23)

mm	g	No.	mm	g	No.
10	60	2.2210	3/8"	60	2.2260
12	70	2.2212	1/2"	70	2.2261
14	90	2.2214	5/8"	140	2.2216
15	90	2.2215	3/4"	140	2.2263
16	140	2.2216	7/8"	200	2.2264
18	140	2.2218	1"	210	2.2265
20	200	2.2220	1.1/8"	220	2.2266
22	210	2.2222	1.1/4"	270	2.2267
28	220	2.2228	1.3/8"	290	2.2235
32	260	2.2232	1.1/2"	290	2.2268
35	290	2.2235	1.5/8"	320	2.2270
38	290	2.2268	1.3/4"	360	2.2244
40	300	2.2240	2"	520	2.2246
42	320	2.2242	2.1/8"	560	2.2254
54	560	2.2254			

Tee-Extractor Ratchet

Chrome vanadium steel, fine toothed and right/left reversible



No. 2.2081



No. 2.7181

Model	SW	g	No.
10 - 42 mm, 3/8 - 1.3/4"	11 mm	435	2.2081
54 - 70 mm, 2 - 2.3/4"	3/4"	1140	2.7181

Extractor Cam Pincer

KEY FEATURES

- Identification point marks insertion depth exactly and prevents over-insertion
- Cam depth adjustment wheel with scale



mm	Inch	mm	g	No.
12 - 42	1/2 - 1.5/8"	150	170	2.2080

EVERCOOL

Drill and extraction paste

KEY FEATURES

- Longer tool life
- All-purpose use except for drinking water installation
- Suitable for aluminium and precision steel
- Easy application with the integrated pen for applying the paste



Model	Contents	g	No.
EVERCOOL	50 g	80	2.1549

UNIDRILL Automatic 28 / 42

HSS special conical drill

KEY FEATURES

- Fast, burr-free drilling
- Precise location without need for centre punch special drill tip
- Calibrated drill Ø automatically corresponds to the correct extractor hook and branch size
- Drill stop prevents damage to pipe walls

UNIDRILL Automatic 28 / 42

Accurate drilling



No. 2.1583

No. 2.1575

Model	mm	Inch	SW	g	No.
UNIDRILL 28	10 - 28	3/8 - 1.1/8"	11	110	2.1583
UNIDRILL 42	10 - 42	3/8 - 1.5/8"	11	430	2.1575

Extractor Support

KEY FEATURES

- Prevents deformation during extraction, especially for soft pipe material



Extractor support plates

Prevents deformation during extraction

Mainpipe	Branchpipe	g	No.
22 mm	20 mm	250	2.2157
28 mm	25 mm	300	2.2158
1/2"	3/8"	120	2.2170
5/8"	1/2"	170	2.2153
3/4"	5/8"	250	2.2172
7/8"	3/4"	250	2.2157
1"	7/8"	300	2.2174
1.1/8"	1"	300	2.2158

COMBI KIT Expander / Tee-Extractor

Practical, compact and cost-saving set combinations with ROCAM® EXPANDER Power Torque and Tee-Extractors. For all common pipe dimensions Ø 12 - 28 mm (1/2 - 1.1/8")

The know-how from the pioneer of expanding technology and the leading manufacturer of expanding tools for over 40 years



Product Profile

KEY FEATURES

- Saves time and facilitates installation
- Increases safety by reducing the number of connections
- Suitable for making branch connections even in confined spaces through the compact design
- ① Fine adjustment of the capillary gap using the KSO-screw
- ② Reduces effort required and increases work space
- ③ Up to 67% reduction of soldering materials and soldered joints
- ④ Accurate drilling

KEY FEATURES

- ⑤ Saves resources by converting scrap pipes into fittings
- ⑥ Protects against dirt with EPT®-Technology
- ⑦ Reliable pipe connections to DVGW standards

TECHNICAL DATA

Suitable for pipes made of:

Copper, aluminium and steel (soft):

Ø 12 - 28 mm and 1/2 - 1.1/8"



Scale and cam depth adjustment



Extractor Cam Pincer

Limits insertion depth for
Ø 12 - 42 mm (1/2 - 1.5/8")

No. 2.2080

④ UNIDRILL Automatic 28 / 42

Accurate drilling



No. 2.1583 / No. 2.1575

COMBI KIT Expander / Tee-Extractor Sets

Sets include: ROCAM® EXPANDER Power Torque (No. 1.2000), Standard expander heads, tee-extractor, special ratchet (No. 2.2081), UNIDRILL Automatic 28 (No. 2.1583), extractor cam pincer (No. 2.2080), steel case (No. 2.4022)



7 Proven expander heads with extra long segments
Reliable pipe connection to DVGW standards



Fig. COMBI KIT Expander / Tee-Extractor

The **EPT®-Technology (Enclosed Power Transmission)** of the expander heads offers the following technical benefits:

Concealed bent lever:

Protection against dirt and external mechanical damage

Energy efficient through the optimised operating principal:

Ergonomic, highly optimised force flow in relation to the hand force of the user, therefore reducing effort



The golden **Titanium-Nitride coating (TiN)** of the expander cone offers the following technical benefits:

High durability 2300 HV: Protection against dirt and abrasive wear

Lower friction value compared to steel:

Energy efficient

Good chemical resistance:

Good protection against corrosion

Universal wear resistance layer: Long-lasting



Model	Description	kg		No.
COMBI KIT Expander / Tee-Extractor Set	12-15-18-22 mm	4.47	1 5	1.1180X
COMBI KIT Expander / Tee-Extractor Set	12-14-16-18 mm	2.61	1 5	1.1186X
COMBI KIT Expander / Tee-Extractor Set	15-22-28 mm	2.30	1 5	1.1187X
COMBI KIT Expander / Tee-Extractor Set	1/2-5/8-7/8-1.1/8"	2.88	1 5	1.1194X
COMBI KIT Expander / Tee-Extractor Set	1/2-3/4-1"	2.50	1 5	1.1195X

ACCESSORIES



Description	No.	Description	No.
Expander heads standard	12	Pipe cutter	114
UNIDRILL automatic 28 / 42	23	Internal / external deburrer	121
Extractor support plate	23	Steel case	2.4022
Evercool drill and extraction paste	23 2.1549		
Extractor cam pincer	23 2.2080		

Quality protection against wear with the **TiN-sealed** expander heads. Lifelong expanding precision



KSO-Screw



EPT®-Technology – concealed bent lever



Tee-Extractor



Universal Tee-Extractor

For efficient production of T-branches (extractions) for fitting-free pipe installations, Ø 54 - 70 mm (2.1/8" - 2.3/4")

Product Profile

KEY FEATURES

- Suitable for making branches even in confined spaces through the compact design
- 1 Exact 90° branches through the accurate and firm positioning
- 2 Extractions even on installed pipes possible
- 3 Burr-free extractions through exact drilling
- 4 Cost-effective increase of the operating range
- 5 Optimum force transmission with the special trapezoidal screw thread
- 6 Quick and easy extraction

TECHNICAL DATA

Suitable for pipes made of:

Copper, Aluminium: Ø 54 - 70 mm, 2.1/8" - 2.3/4"
max. wall thickness 5.0 mm

Precision steel: Ø 54 - 70 mm, 2.1/8" - 2.3/4"
max. wall thickness 5.0 mm

6 ROKRAFT Power Multiplier

Quick and easy extraction

5 Hook and bell with special trapezoidal screw thread

Optimum force transmission

4 Other hook sizes usable within the operating area of a bell

Allows a cost-efficient increase of the operation range

3 Accurate drilling

Burr-free operation

1 Long double V-block

Accurate and firm positioning for exact 90° branches

2 No pipe removal

Extractions even on installed pipes possible

Attention:

When manually extracting on a copper pipe, warm-up approx. 20 mm around the drill hole to relax the material.



Fig. UNIVERSAL Tee-Extractor with optional accessories: ROKRAFT support (No. 2.2093), ROKRAFT power multiplier (No. 2.2090), and Special ratchet (No. 2.7181)

Availability, delivery time and price available on request

Scope of delivery: Universal Tee-Extractor with 2 chain wrenches (No. 2.2076), double arm telescopic receptacle (No. 2.2093) for ROKRAFT support, steel case (No. 3.6715)

mm	Inch	mm	Drill-Ø mm	SW	kg	No.
54	2.1/8"	3.0	30	3/4"	10.8	2.2052
60	2.3/8"	3.0	32	3/4"	10.9	2.2055
64	2.1/2"	3.0	32	3/4"	11.2	2.2056

Forged and tempered extractor hooks with special polish

Burr-free extraction

mm	Inch	mm	Drill-Ø mm	SW	kg	No.
67	2.5/8"	3.0	32	3/4"	11.5	2.2053
70	2.3/4"	3.0	35	3/4"	12.0	2.2057



Extractor Hooks

Interchangeable within the same bell size
 ● Easily refitted for other pipe sizes



Availability, delivery time and price available on request

mm	Inch	Bell Size	Drill-Ø mm	SW	kg	No.
54	2.1/8"	1	30	3/4"	0.9	2.2281
60	2.3/8"	1	32	3/4"	0.9	2.2282
64	2.1/2"	1	32	3/4"	0.9	2.2283
67	2.5/8"	1	32	3/4"	0.9	2.2284
70	2.3/4"	1	35	3/4"	0.9	2.2285

Chain Wrench

With quick-release lever for simple and secure fixing of the tee-extractor bells



Model	max mm	max. Inch	mm	kg	No.
Clamp pliers	80	3.1/2"	480	1.36	2.2076

EVERCOOL

Drill and extraction paste

- Longer tool life
- All-purpose use except for drinking water installation
- Suitable for aluminium and high-precision pipes
- Easy application with the integrated pen for applying the paste



Model	Contents	kg	No.
EVERCOOL	50 g	80	2.1549

Extractor Ratchet

Chrome vanadium steel, fine toothed and right/left reversible

Model	SW	mm	kg	No.
54 - 70 mm, 2.1/8" - 2.3/4"	3/4"	400	1.14	2.7181

HSS Bi-Metal Hole Saw

Without adaptor



for Tee-Extractor-Ø	Drill-Ø mm	Mount Type	g	No.
54 mm	2.1/8"	30 A 11	80	11.4030
60 - 67 mm	2.3/8" - 2.5/8"	32 A 2	104	11.4032
70 mm	2.3/4"	35 A 2	110	11.4035

For additional hole saws see 139 / 140

Adaptor with Central Drill



Model	SW	g	No.
A 11 for hole saw - Ø 14 - 30 mm	11 mm	75	11.4161
A 2 for hole saw - Ø 32 - 152 mm	11 mm	230	11.4162
HSS spare centre drills Ø 6.35 mm		20	11.4171

ROKRAFT Power Multiplier*

For fast and effortless operation, with epicyclical gear, multiplication factor 1:4, max. 1.7 kNm, without support



*Availability, delivery and price available on request

Model	for Extractor size	Drive	Hook	kg	No.
ROKRAFT 54 - 70 mm, 2.1/8" - 2.3/4"	3/4"	3/4"	3/4"	3.5	2.2090
Support, double arm				1.7	2.2093

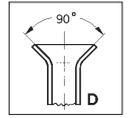


Flaring Tools

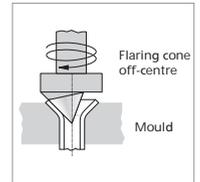


Reeling Flaring Tool

For producing precision 45° single flares on copper pipes Ø 6 - 18 mm (1/8 - 3/4")



High quality flares



Reeling Flaring Tool set includes: Reeling Flaring Tool in plastic case with Mould in metric and/or imperial format

Model	mm / Inch	No.
Set EB	6 - 8 - 10 - 12 - 14 - 15 - 16 - 18 mm 1/8 - 3/16 - 1/4 - 5/16 - 3/8 - 1/2 - 5/8 - 3/4"	2224.01
Set EB	1/8 - 3/16 - 1/4 - 5/16 - 3/8 - 1/2 - 5/8 - 3/4"	2224.02
Set EB	6 - 8 - 10 - 12 - 14 - 15 - 16 - 18 mm	2224.03



Fig. Reeling Flaring Tool Set

Mould	mm / Inch	No.
Metric	6 - 8 - 10 - 12 - 14 - 15 - 16 - 18 mm	2224.13
Imperial	1/8 - 3/16 - 1/4 - 5/16 - 3/8 - 1/2 - 5/8 - 3/4"	2224.12

Universal Flaring Tool

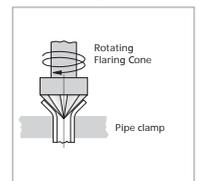
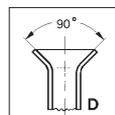
For producing precision 45° single flares on copper pipes Ø 4 - 16 mm (3/16 - 5/8")

- Universal application and highest flare precision through self-centring pipe clamp for all diameters
- Controlled flaring without tearing, forming perfect surfaces
- Hardened flare cone with special geometry



No. 2226.01

Best flaring results



Universal Flaring Tool set (No. 2226.01) includes: Universal Flaring Tool for pipe diameters 4 - 16 mm, 3/16 - 5/8", in plastic case

Model	mm	Inch	g	No.
Set EB	4 - 16 mm	3/16 - 5/8"	900	2226.01

Precision Double Flaring Press DB 10

For standard precision expands according to DIN 74234
 Ø 4.75 - 10 mm, wall thickness 0.7 - 1.0 mm

Product Profile

Application Area

On copper, aluminium and steel pipes, seamless pipe and double-walled pipes, for example **Bundy®-pipe and KUNIFER brake pipes**

KEY FEATURES

- 1 Ideal for endless pipes
- 2 For several flaring profiles, wall thickness 0.7 - 1 mm
- 3 Universal use with the pluggable pressure cone
- 4 Accurate and reproducible results
- 5 Clamping block for several pipe diameters
- 6 Reliable hold with the 25 mm pipe clamping length
- 7 Suitable for clamping in a vice

Formation of the various flares made possible with the appropriate flaring attachments

D - Contour:

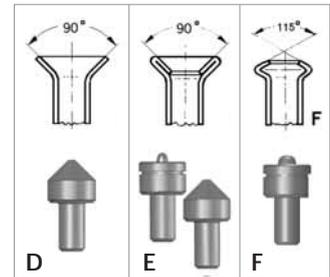
- Universal flaring contour

E and F - Contour:

- Extension of brake and / or hydraulic pipes
- Connection by means of coupling rings, sealed by means of flaring surface

F - Contour

- Mounting using coupling ring, for example hydraulic control block and / or distributor block
- Seal between drill-hole and flaring surface



Set (No. 2.6013) includes: Basic tool with pressure cone (No. 2.6010), flaring attachments, 1 set of clamping blocks (No. 2.6011)

Accessories

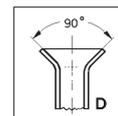
Model	mm	kg	No.
DB 10 Set	4.75 - 5 - 6 - 8 - 9 - 10 mm	2.64	2.6013
Flaring attachments	4.75 / 5 mm	0.20	2.6001
Flaring attachments	6 mm	0.20	2.6002
Flaring attachments	8 mm	0.20	2.6003
Flaring attachments	9 mm	0.20	2.6004
Flaring attachments	10 mm	0.20	2.6005

Description	mm	kg	No.
Pressure cone		20	2.6010
Clamping spindle		90	2.6015
Flaring spindle		300	2.6016
Distance bolt		30	2.6017
Set of clamping blocks (2 pc.) for Pipes 4.75 - 5 - 6 - 8 - 9 - 10 mm		190	2.6011



ROFLARE

Flaring tool for producing precisions 45° single flares and precision soldered sockets on soft and hard pipes, Ø 6 - 16 mm (3/16 - 5/8")



Product Profile

Application Area

Application in the refrigeration and automotive (brakes) industries

KEY FEATURES

- 1 Accurate off-centre clamping of the pipe and automatic self-centring
- 2 Efficient and gentle handling of material
- 3 Light-weight and long-lasting
- 4 Controlled flaring and shaping without tearing

KEY FEATURES

- 5 Pipe will not slip
- With the ROFLARE double flare attachments, double flares are also possible

TECHNICAL DATA

Suitable for pipes up to a wall thickness of 1 mm made of:

Copper, conifer, brass, aluminium and precision steel pipes



ROFLARE sets include: ROFLARE Basic Unit with integrated attachments

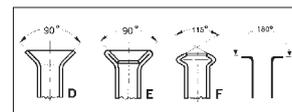
Model	Description	kg	No.
ROFLARE Set	6 - 8 - 10 - 12 - 14 - 16 mm	1.0	2.6038
ROFLARE Set	6 - 8 - 10 - 12 - 15 - 16 mm	1.0	2.6022
ROFLARE Set	3/16 - 1/4 - 5/16 - 3/8 - 1/2 - 5/8"	1.0	2.6033

ROFLARE / ROFORM accessories

Double flare attachment type E and F / Adaptor 180° fits ROFLARE flaring tools type EB as well as ROFORM socket and flaring tool



Adapter 180°



Double flare attachment with pipe depth stop for pipe clamping

Model	Description	kg	No.
DB	6 - 8 - 10 - 12 - 15 mm	120	2.6023
DB	3/16 - 1/4 - 5/16 - 3/8 - 1/2"	120	2.6034
Adaptor for 180° Flare		50	2.6039

ROFORM Set

Double flare attachment Type E and F / Adaptor 180° fits ROFLARE flaring tools type EB as well as ROFORM socket and flaring tool



Fig. ROFORM Set



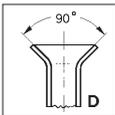
Model	Description	kg	No.
ROFORM Set	6 - 8 - 10 - 12 - 14 - 16 mm	2.2	2.6711
ROFORM Set	6 - 8 - 10 - 12 - 15 - 16 mm	2.2	2.6710
ROFORM Set	3/16 - 1/4 - 5/16 - 3/8 - 1/2 - 5/8"	2.2	2.6717

ROFORM sets include: ROFORM Basic Unit, 45° cone, expander pin, internal and external deburrer Ø 4 - 36 mm (No. 1.1006), pipe cutter TUBE CUTTER 28 Ø 3 - 28 mm (No. 7.0010), in plastic case

Standard Flaring Tool

For producing precision 45° single flares on copper, brass, aluminium, KUNIFER and precision steel pipes up to 1 mm wall thickness

Ideal for mobile use for pipes in refrigeration, air-conditioning and automotive (brakes) industries



Product Profile

KEY FEATURES

- Made of light, durable high-quality steel
- Special screw thread ensures efficient and gentle handling of material
- Highest flare precision with the self-centring die
- High-quality flare sealing surface due to hardened and polished flaring cone
- Non-slip die available in metric and imperial sizes

Made of light, durable high-quality steel



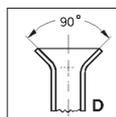
Model	mm / Inch	g	No.
Set EB	4 - 4.75 - 6 - 8 - 10 - 12 - 14 mm	980	2.6050
Set EB	3/16 - 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8"	980	2.6051



Standard Flaring Tool Sets



For producing precision 45° single flares on copper, brass, aluminium, KUNIFER and precision steel pipes up to 1 mm wall thickness



Sets include: Standard Flaring Tool and TUBE CUTTER 30 PRO (No. 7.1019), for pipes Ø 3 - 30 mm and Z/or 1/8 - 1.1/8", plastic carrying case

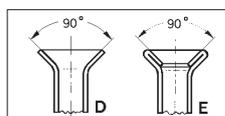
Model	mm / Inch	kg	No.
Set EB	4 - 4,75 - 6 - 8 - 10 - 12 - 14 mm	1.5	2.6053
Set EB	3/16 - 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8"	1.5	2.6054



Standard Flaring Tool Sets



For producing 45° single and double flares on copper, brass, aluminium, KUNIFER and precision steel pipes up to 1 mm wall thickness



Sets include: Standard Flaring Tool and TUBE CUTTER 30 PRO (No. 7.1019), for pipes Ø 3 - 30 mm and/or 1/8 - 1.1/8", incl. 7 double flaring attachments, plastic carrying case

Model	mm / Inch	kg	No.
Set DB	4 - 4.75 - 6 - 8 - 10 - 12 - 14 mm	1.55	2.6048
Set DB	3/16 - 1/4 - 5/16 - 3/8 - 7/16 - 1/2 - 5/8"	1.55	2.6052



Flaring and Swaging Set



Universal applications in industry and trade for sanitary and heating installation, refrigeration and air-conditioning systems, automotive and hydraulic systems

Flaring and Swaging set (No. 2.6020) includes: MINICUT I, Ø 3 - 16 mm (No. 7.0401), internal and external deburrer, Ø 4 - 36 mm (No. 1.1006), double flare press DB 10 (No. 2.6013), TUBE BENDER set, Ø 4,75 - 10 mm (No. 2.4112), in steel carrying case (No. 2.4022)

Model	mm	kg	No.
Flaring / Swaging Set	4.75 - 5 - 6 - 8 - 9 - 10	5.5	2.6020
ACCESSORIES			
ROCOL Extraction and Flaring Lubrication (only suitable for heating installation)		0.1	2.2399
Steel case, empty		1.3	2.4022



TUBE BENDER

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

Product Profile

KEY FEATURES

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

TECHNICAL DATA

Suitable for pipe made of:

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



Various bends possible



TUBE BENDER



Bending Formers



Back Plates



Bending Segments



TUBE BENDER sets include: Basic tool complete with bending segments, bending formers, in plastic carrying case (No. 2.4025)

Model	kg	kg	kg	No.
Basic Set (basic tool, back plates, bending formers, plastic case)	1.00	1	5	2.4010
TB Set 5 - 6 - 8 - 10 mm	2.84	1	5	2.4131
TB Set 6 - 8 - 10 - 12 mm	3.03	1	5	2.4132
TB Set 8 - 10 - 12 mm	2.82	1	5	2.4133
TB Set 1/4 - 5/16 - 3/8 - 1/2"	2.92	1	5	2.4134
ACCESSORIES				
Basic tool without bending segments	0.36			2.4130
Plastic carrying case	0.60			2.4025

TUBE BENDER Bending Segments

Model	Size	g	No.
Bending Segments	5 mm		190 2.4001
Bending Segments	6 mm		210 2.4002
Bending Segments	8 mm		250 2.4003
Bending Segments	9 mm		360 2.4004
Bending Segments	10 mm		390 2.4005
Bending Segments	12 mm		390 2.4007
Bending Segments	1/4"		210 2.4002
Bending Segments	5/16"		250 2.4003
Bending Segments	3/8"		270 2.4006
Bending Segments	1/2"		380 2.4008

Previous bending segments are compatible (Without back plates)!

Please consult guide for accurate bending according to the chart starting on 44.

1 Standard Benders



TUBE BENDER MAXI

For accurate one handed bending up to 90°, Ø 12 - 32 mm (3/8 - 1.1/4")



Product Profile	
Application Area	Universal application possibilities in sanitary and heating installations, floor heating, refrigeration and air-conditioning, as well as hydraulic systems
KEY FEATURES	<ol style="list-style-type: none"> 1 Production of U-bends, counter bends, swan-neck bends and connecting bends possible at all levels 2 Bending formers are easily changeable through the bayonet coupling 3 Quick release and reset of the bending former 4 Ideal in restricted spaces and for one handed operation 5 Tough and long-lasting

KEY FEATURES	
6 Optimum bending results	
TECHNICAL DATA	
Suitable for pipe made of:	
Copper and aluminium (soft):	Ø 12 - 22 mm, 3/8 - 7/8"
Copper (soft, coated):	Ø 10 - 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 - 32 mm, 5/8 - 1.1/4"

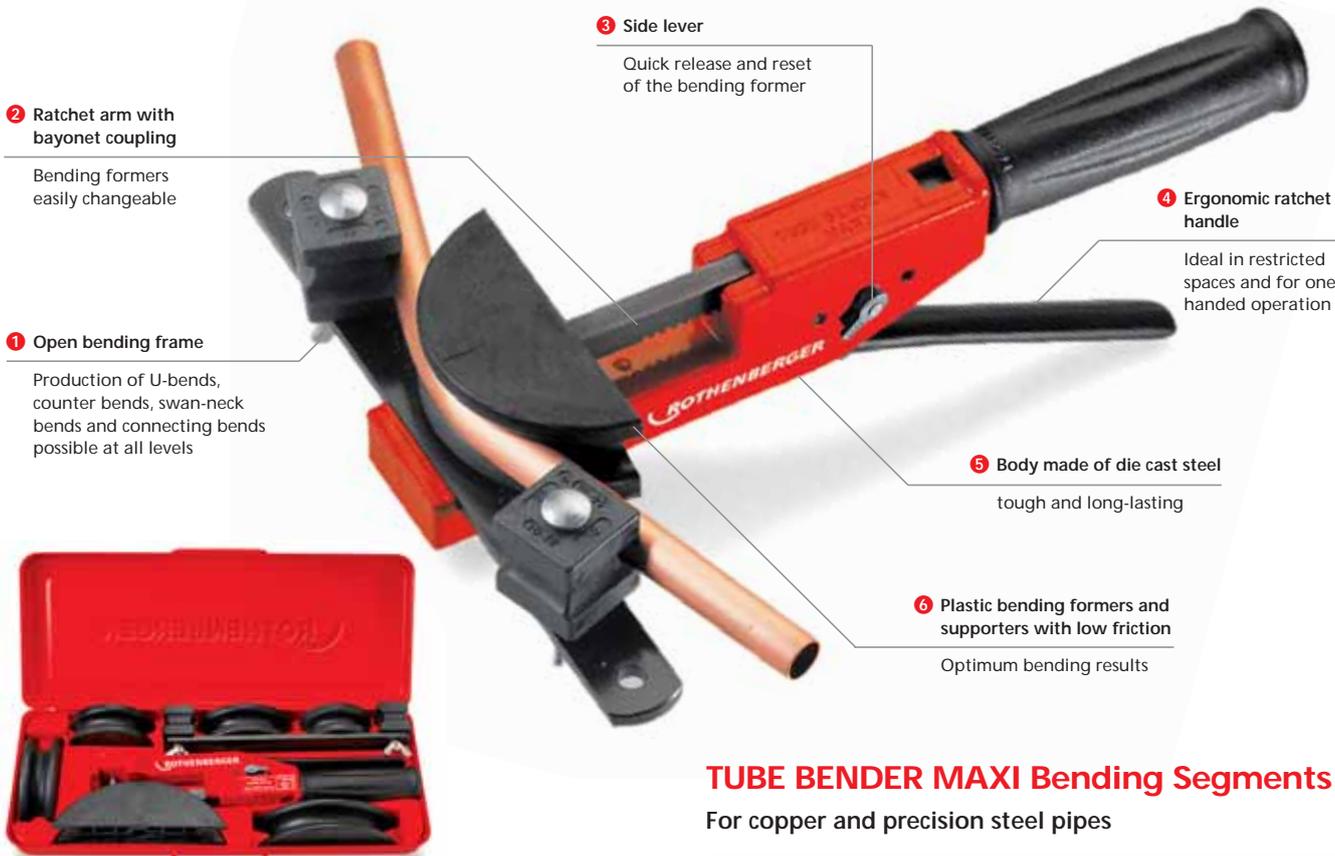


Fig. TUBE BENDER MAXI-Set

Sets include: Basic Tool (No. 2.3000), bending support (No. 2.3001) with bending segments, bending formers, in steel carrying case (No. 2.4002)

Model	kg	No.
Set 12 - 15 - 18 - 22 mm	3.46	2.3020
Set 12 - 14 - 16 - 18 - 22 mm	3.52	2.3021
Set 3/8 - 1/2 - 5/8 - 3/4 - 7/8"	3.42	2.3022
Set MSR 14 - 16 - 18 - 20 - 25 mm	3.62	2.3090
Set MSR 14 - 16 - 18 - 20 - 26 mm	3.62	2.3091
Set MSR 14 - 16 - 18 - 20 - 26 - 32 mm	8.20	2.3095
ACCESSORIES		
Basic tool (without bending support)	0.97	2.3000
Bending support with R/L formers	0.52	2.3001
Steel carrying case	1.33	2.4002

TUBE BENDER MAXI Bending Segments

For copper and precision steel pipes

Model	Size	max. mm	g	No.
Bending Segments	12 mm	1.0	80	2.3002
Bending Segments	14 mm	1.0	80	2.3003
Bending Segments	15 mm	1.0	90	2.3004
Bending Segments	16 mm	1.0	100	2.3005
Bending Segments	18 mm	1.0	140	2.3006
Bending Segments	20 mm	1.0	150	2.3052
Bending Segments	22 mm	1.0	170	2.3007
Bending Segments	3/8"	1.0	70	2.3010
Bending Segments	1/2"	1.0	80	2.3011
Bending Segments	5/8"	1.0	100	2.3012
Bending Segments	3/4"	1.0	120	2.3013
Bending Segments	7/8"	1.0	170	2.3014

Please consult guide for accurate bending according to the chart on 44.



TUBE BENDER MAXI CT

For accurate one handed bending up to 90°, Ø 10 - 18 mm and a wall thickness of 0.6 - 0.8 mm

Universally applicable bending unit, also suitable for coated, thin-walled, soft copper pipe

Endorsed by KM Europa Metal AG, the outokumpu essen GmbH and the Wieland-Werke AG

Product Profile	
KEY FEATURES	
1	Bending of copper, MSR (multi-layer) or coated pipes
2	Ideal for one handed operation and in restricted areas
3	Bending formers easily changeable through the bayonet coupling
4	Quick release and reset of the bending formers
5	Tough and long-lasting
6	Production of U-bends, counter bends, swan-neck bends and connecting bends possible at all levels
7	Optimum bending results with the plastic bending formers and supporters with low friction

TECHNICAL DATA	
Suitable for pipe made of:	
Copper pipe, according to DIN EN 1057 standards (thin-walled, soft, coated):	Ø 10 x 0.6 mm
	Ø 12 x 0.6 mm
	Ø 15 x 0.7 mm
	Ø 18 x 0.8 mm
MSR (Multilayer):	Ø 14 - 32 mm



Fig. TUBE BENDER MAXI CT-Set

3-part set (No. 2.3054) includes: Basic tool (No. 2.3076), bending support (No. 2.3080), bending formers in steel carrying case (No. 2.5197)

Bending former



Various bends possible



Model	kg	No.
TUBE BENDER MAXI CT-Set	3.46	2.3054

Please consult guide for accurate bending according to the chart starting on 44.

TUBE BENDER MAXI CT Bending Formers

Model	Outer-pipe-Ø Part coating	kg	No.
Bending Former CT 10 x 0.6 mm	14 mm	80	2.3003
Bending Former CT 12 x 0.6 mm	16 mm	100	2.3005

Model	Outer-pipe-Ø Part coating	kg	No.
Bending Former CT 15 x 0.7 mm	19 mm	140	2.3059
Bending Former CT 18 x 0.8 mm	22 mm	170	2.3007

1 Standard Benders



Size	mm	R Radius mm	L mm	kg	No.
12 mm	1.0	43	460	1.4	46.2212
15 mm	1.0	60	600	2.3	46.2215
18 mm	1.0	74	860	3.2	46.2218
22 mm	1.0	87	900	4.3	46.2222

Standard Two Handed Bender 90°

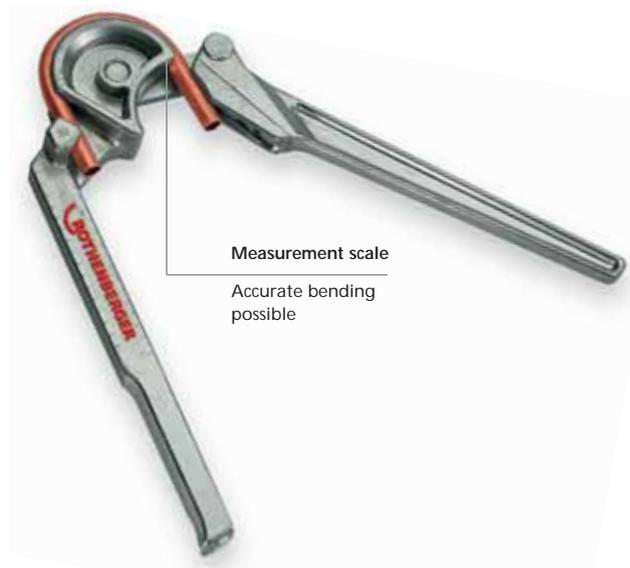
For accurate bending up to 90° for pipes made of soft and semi-hard copper according to DIN EN 1057 Ø 12 x 1.0 - 28 x 1.0 mm

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

KEY FEATURES

- Long handles allow for better leverage in the bending of semi-hard 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.
26 mm	1.0	107	960	6.3	46.2226
28 mm	1.0	108	1100	6.8	46.2228



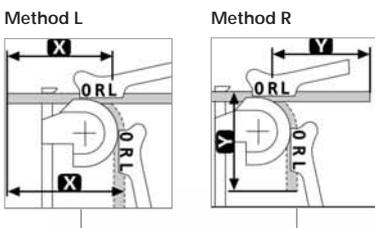
MULTIBEND Two Handed Bender 180°

For accurate bending up to 180° of pipes made of soft and coated copper, as well as precision steel Ø 10 - 18 mm

KEY FEATURES

- Accurate bending with the bending radius display and measurement scale
- Fatigue-free hand operation

Size	R Radius mm	max. mm	kg	No.
10 mm	30	1.0	0.37	2.5401
12 mm	36	1.0	0.64	2.5402
14 mm	42	1.0	0.98	2.5403
15 mm	48	1.0	1.45	2.5404
16 mm	48	1.0	1.46	2.5405
18 mm	54	1.0	2.00	2.5406



Accurate bending

supporters with low friction 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	kg	No.
MINIBEND	6 - 8 - 10 mm	420	2.5150
MINIBEND	1/4 - 5/16 - 3/8"	420	2.5151

Standard Two Handed 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



Size	R Radius mm	mm	g	No.
18 mm	66	480	2110	2.5137
1/4"	18	305	560	2.5140
5/16"	24	305	640	2.5131
3/8"	30	390	970	2.5141
1/2"	42	390	1680	2.5142
5/8"	58	450	1830	2.5136

Size	R Radius mm	mm	g	No.
6 mm	18	305	550	2.5130
8 mm	24	305	640	2.5131
10 mm	30	390	970	2.5132
12 mm	36	390	980	2.5133
14 mm	47	450	1580	2.5134
15 mm	54	450	1830	2.5135
16 mm	58	450	1830	2.5136

EUROBEND ULTRA Two Handed Bender

For accurate bending up to 90°, Ø 12 - 16 mm

KEY FEATURES

- Accurate free-hand bending
- Bender made of sturdy, fibre glass reinforced plastic
- For copper pipes (soft and semi-hard)
- Also for thin-walled pipes and multi-layered composite pipes

Model	g	No.
EUROBEND ULTRA 12 mm	0.9	2.5301
EUROBEND ULTRA 14 mm (also for MSR pipe)	2.0	2.5302
EUROBEND ULTRA 15 mm	1.0	2.5303
EUROBEND ULTRA 16 mm (also for MSR pipe)	2.0	2.5304



Copper Tube Bending Spring

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.
6 mm	60	2.5180
10 mm	80	2.5182
12 mm	160	2.5183
14 mm	200	2.5184
15 mm	220	2.5185
16 mm	220	2.5186
1/4"	80	2.5187
5/16"	70	2.5181
3/8"	90	2.5188
7/16"	120	2.5189
1/2"	130	2.5190
5/8"	220	2.5186



ACCESSORIES



Description	No.
Internal / external deburrer	121
Bending Spray, 150 ml	2.5120

1 Standard Benders



ROBEND® H+W PLUS

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



Product Profile

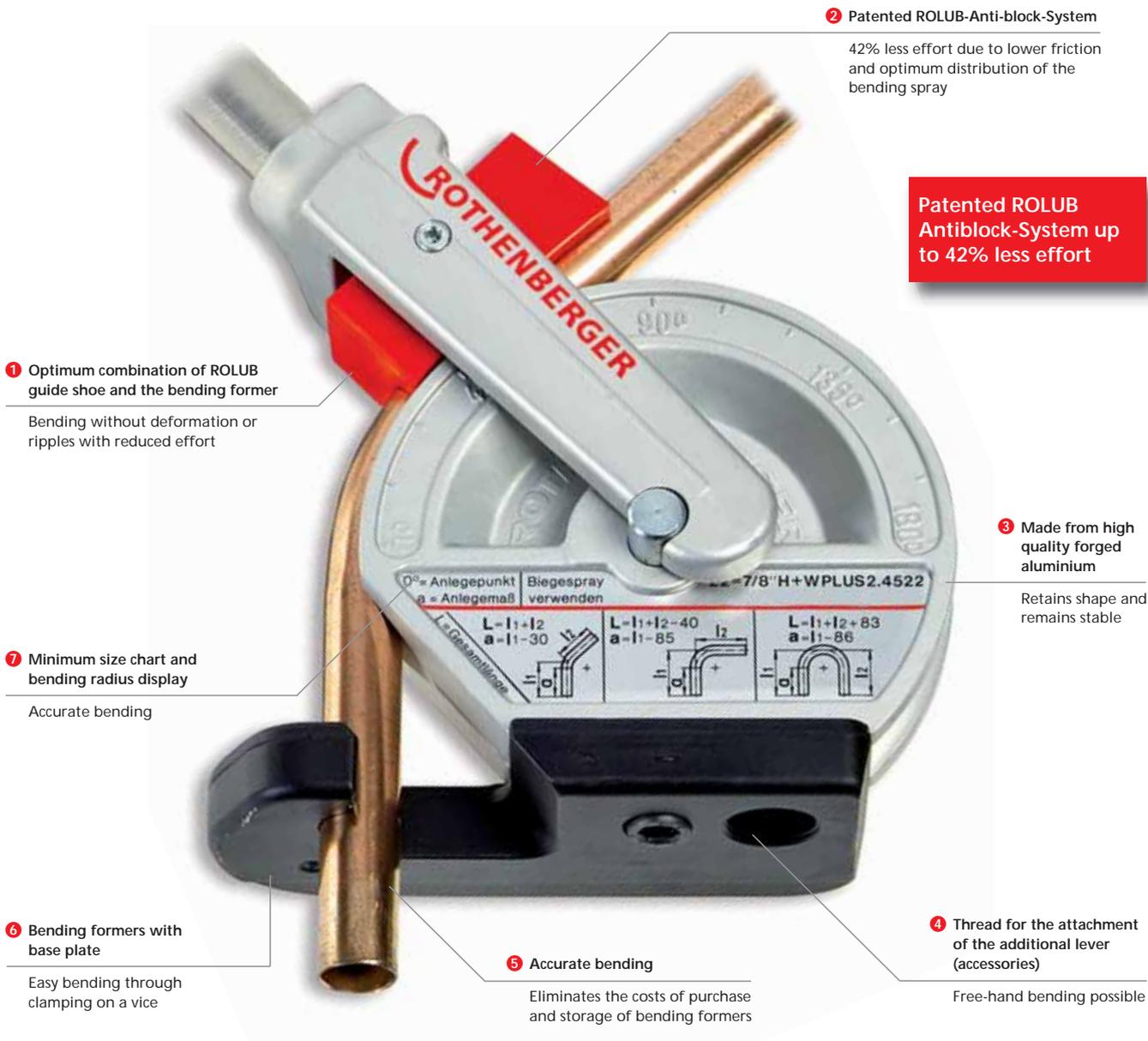
KEY FEATURES

- Exact bending to the mm on continuous pipe
- ❶ Bending without deformation or ripples with reduced effort
- ❷ 42% less effort due to lower friction
- ❸ Retains shape and remains stable
- ❹ Free-hand bending possible with the additional handle up to Ø 18 mm / 5/8"
- ❺ Eliminates the costs of purchase and storage of bending formers
- ❻ Easy bending through clamping on a vice
- ❼ Exact bending with the minimum size chart and bending radius display

TECHNICAL DATA

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"



❷ Patented ROLUB-Anti-block-System

42% less effort due to lower friction and optimum distribution of the bending spray

Patented ROLUB Antiblock-System up to 42% less effort

❶ Optimum combination of ROLUB guide shoe and the bending former

Bending without deformation or ripples with reduced effort

❸ Made from high quality forged aluminium

Retains shape and remains stable

❼ Minimum size chart and bending radius display

Accurate bending

❹ Thread for the attachment of the additional lever (accessories)

Free-hand bending possible

❺ Bending formers with base plate

Easy bending through clamping on a vice

❻ Accurate bending

Eliminates the costs of purchase and storage of bending formers

Please consult guide for accurate bending according to the chart on 44.

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



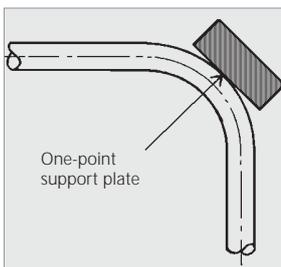
Fig. ROBEND® H+W Bender

ROBEND® H+W PLUS Bender

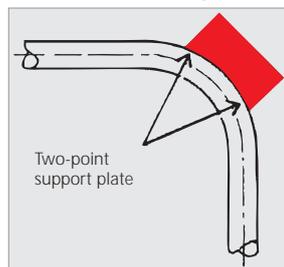
Size	max mm	R Radius mm	g	No.
8 mm	1.0	22	660	2.4508
10 mm	1.0	32	1180	2.4510
12 mm	1.0	38	1110	2.4512
14 mm	1.0	45	1370	2.4514
15 mm	1.0	45	1370	2.4515
16 mm	1.0	64	2620	2.4516
18 mm	1.0	64	2620	2.4518
20 mm	1.0	81	3820	2.4520
22 mm	1.0	81	3800	2.4522
5/16"	1.0	22	660	2.4508
3/8"	1.0	32	1185	2.4551
1/2"	1.0	38	1110	2.4552
5/8"	1.0	64	2620	2.4516
3/4"	1.0	81	3850	2.4519
7/8"	1.0	81	3800	2.4522

Accessories (additional lever for free-hand bending)				
Lever for bending formers up to Ø 15 mm				2.5076
Lever for bending formers bigger than Ø 15 mm				2.5078
Bending spray 150 ml				2.5120

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. 2.5120). Bender corresponds to the respective pipe dimensions.



Fig. ROBEND® H+W PLUS Set

ROBEND® H+W PLUS Bending Sets

Model	Description	mm	kg	No.
ROBEND® H+W PLUS	12 - 15 - 18 - 22 mm	1.0	16.5	2.4500
ROBEND® H+W PLUS	10 - 12 - 14 - 16 mm	1.0	16.3	2.4501
ROBEND® H+W PLUS	12 - 14 - 16 - 18 mm	1.0	13.6	2.4502
ROBEND® H+W PLUS	15 - 18 - 22 mm	1.0	14.9	2.4505
ROBEND® H+W PLUS	1/2 - 5/8 - 3/4"	1.0	13.6	2.4503
ROBEND® H+W PLUS	1/2 - 5/8 - 7/8"	1.0	13.7	2.4504

ROLUB Anti-Block Special Guide Shoe

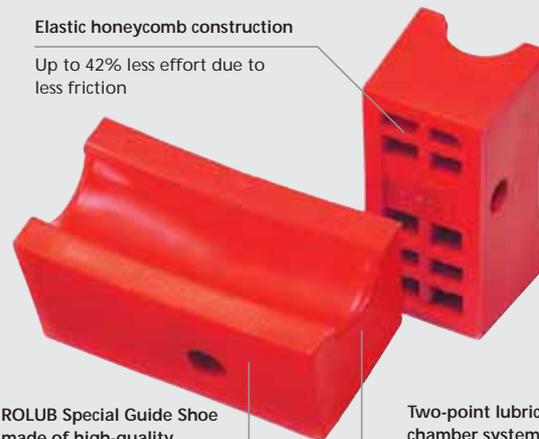
Size	g	No.	Size	g	No.
8 mm	20	2.5308	22 mm	90	2.5322
10 mm	20	2.5310	5/16"	20	2.5308
12 mm	30	2.5312	3/8"	25	2.5310
14 mm	30	2.5314	1/2"	30	2.5313
15 mm	30	2.5315	5/8"	50	2.5316
16 mm	50	2.5316	3/4"	90	2.5319
18 mm	50	2.5318	7/8"	90	2.5322
20 mm	90	2.5320			

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

Power Benders



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 pipe-line 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

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

TECHNICAL DATA

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

wall thickness 1.0 - 1.2 mm

MSR:

Ø 16 - 32 mm

Motor rating:

1010 Watt

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

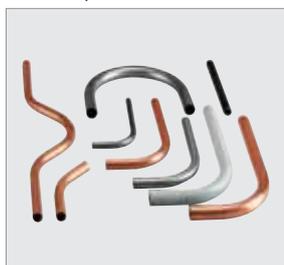
Automatic switch-off when preset bending angle is obtained

Fast batch production possible

Bending technology

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

Bending of pipes made of various materials possible



Seven-fold drive



Comfortable carry handle



Controlled bending process





ROBEND® 3000 Sets

Sets include: Basic 230 V Unit (No. 2.5740X), bending formers and guide shoes for respective pipe diameters, guide shoe axle (No. 2.5743), adaptor for tripod (No. 2.5748) in basic unit (tripod optional), in a plastic carrying case (No. 2.5745)

Patented ROLUB Anti-block System
Up to 42% less effort



Fig. ROBEND® 3000 Set 12 - 15 - 18 - 22 - 28 mm (No. 2.5703X) (without tripod stand No. 2.5748, available as accessory)



Fig. ROBEND® 3000 Set

Model	Description	Pipe Type	kg	No.
ROBEND® 3000 Set	15 - 22 - 28 mm	Cu, Fe, et al.	21.10	2.5760
ROBEND® 3000 Set	12 - 14 - 16 - 18 - 22 - 28 mm	Cu, Fe, et al.	24.10	2.5710X
ROBEND® 3000 Set	12 - 14 - 16 - 18 - 22 mm	Cu, Fe, et al.	21.10	2.5709X
ROBEND® 3000 Set	12 - 15 - 18 - 22 mm	Cu, Fe, et al.	20.60	2.5700X
ROBEND® 3000 Set	12 - 15 - 18 - 22 - 28 mm	Cu, Fe, et al.	23.50	2.5703X
ROBEND® 3000 Set	15 - 18 - 22 - 28 mm	Cu, Fe, et al.	22.95	2.5705X
ROBEND® 3000 Set	1/2 - 5/8 - 3/4" - 7/8"	Cu, Fe, et al.	19.60	2.5711X
ROBEND® 3000 Set MSR	16 - 20 - 25 - 32 mm	MSR	23.50	2.5707X
ROBEND® 3000 Set MSR	20 - 25 - 32 mm	MSR	22.90	2.5706X

ACCESSORIES



Description	No.	Description	No.
Tripod Stand, dismantable	2.5748	Internal / external deburrer	121 1.1006
Bending spray 150 ml	2.5120	High-Performance torch	184
Pipe cutter	114	Brazing solder	209

Additional accessories starting on **42**

Pre-adjustment of the bending angle without tools



Forged aluminium former with bending radius display



ROBEND® bending sets



ROLUB guide shoes



Power Benders



ROBEND® 3000 Bending Formers

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



Fig. ROBEND® 3000 Bending Former with ROLUB Guide Shoe

Size	wall thickness mm	Bending radius mm	kg	No.
PG-Sizes (protective pipe / casing pipe)				
9	1.2	55	0.7	2.5661
11	1.2	80	1.3	2.5662
16	1.5	88	1.4	2.5664
20	1.2	80	1.4	2.5620
21	1.5	112	2.8	2.5665

Size	wall thickness mm	Bending radius mm	kg	No.
For copper pipe DIN EN 1057, aluminium pipe, precision steel pipe DIN 2391/93/94, stainless steel pipe and others				
12 mm	1.0	42	0.48	2.5612
14 mm	1.0	49	0.48	2.5614
15 mm	1.0	52	0.53	2.5615
16 mm	1.0	56	0.60	2.5616
18 mm	1.0	72	1.17	2.5618
20 mm	1.0	80	1.42	2.5620
22 mm	1.2	88	1.42	2.5622
28 mm	2.0	112	2.90	2.5628

For copper pipe

1/2"	1.2	45	0.53	2.5652
5/8"	1.2	56	0.60	2.5616
3/4"	1.2	80	1.42	2.5619
7/8"	1.2	88	1.42	2.5622
1"	1.5	112	2.90	2.5625
1.1/8"	1.6	112	2.90	2.5626

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

1/2"	3.25	88	1.42	2.5684
3/4"	3.25	112	2.90	2.5685

ROBEND® 3000



Fig. ROBEND® 3000 Set 12 - 15 - 18 - 22 - 28 mm (No. 2.5703X) (without tripod (No. 2.5748), available as accessory)

Model	Description	kg	No.
ROBEND® 3000 Basic Unit	230 V - 50/60 Hz	13.0	2.5740X
ROBEND® 3000 Basic Unit	110/115 V - 60 Hz	13.0	2.5741X

ROBEND® 3000 parts and accessories



Fig. ROLUB Guide Shoes



Tripod Stand (No. 2.5748)

Description	kg	No.
Guide shoe axel	0.36	2.5743
Tripod Stand, dismantable	3.45	2.5748
Workbench clamp, screwable	0.55	2.5749
Bending Spray 150 ml	0.15	2.5120
ROBEND®-Carrying case, for 5 formers up to Ø 30 mm	3.30	2.5745

ROBEND® 3000 BS

Tough, portable power bender for quick, effort saving bending of reinforced concrete steel, Ø 10 - 16 mm



Product Profile

KEY FEATURES

- 1 Fast batch production possible
- 1 Automatic shut-off
- 2 Proven and tested for continuous operation
- 3 Bending of pipes and reinforced steel with one unit
- 4 Tough and long lasting
- 5 Larger application area up to Ø 16 mm reinforced steel
- 6 Precise bending with the angle pre-set

5 Bending of reinforced steel up to Ø 16 mm

Large application area

6 Pre-setting of the bending angle without tools

Precise bending

4 Bending former and support roller made of high-quality steel

Tough and long-lasting

3 Adaptor suitable for bending formers and ROLUB Guide Shoes from the ROBEND® 3000 program

Bending of pipes and reinforced steel with one unit

1 Automatic switch-off when preset bending angle is obtained

Fast batch production possible

2 High performance 1010 W motor

Proven and tested for continuous operation

Easy pre-setting of the bending angle without use of a tool



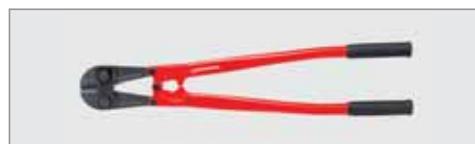
5-piece set (No. 2.5770) includes: Basic 230 V Unit (No. 2.5740X), bending formers, plastic carrying case (No. 2.5745)



Fig. ROBEND® 3000 BS SET

Model	Size	kg	No.
ROBEND® 3000 BS Bending Set	10 - 12 - 16 mm	15.6	2.5770

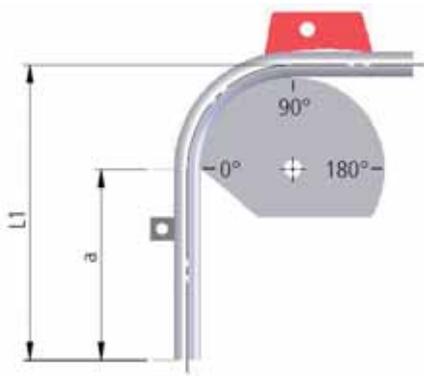
ACCESSORIES



Description	No.	Description	No.
ROBEND® 3000 BS bending former 10 mm	2.5630	ROBEND® 3000 BS bending former 16 mm	2.5632
ROBEND® 3000 BS bending former 12 mm	2.5631	Bending spray, 150 ml	2.5120
ROBEND® 3000 BS bending former 14 mm	2.5633	Bolt cutter	132



Draw-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:

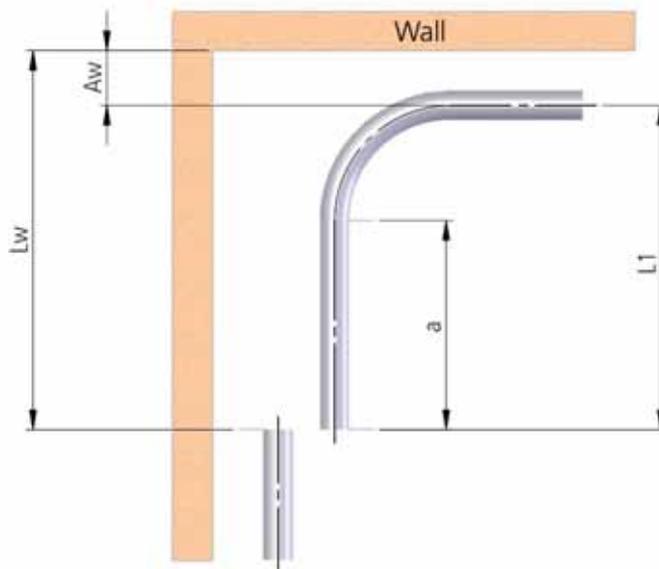
- Installation in corner areas
 L_w = 1200 mm
 A_w = 30 mm
 Pipe-Ø 12 mm, 90°-Arc

Sought after:

- Leg length L₁
 Applied size a

Solution:

Summary from the ROBEND® 3000 bending table



ROBEND® 3000			at 45°		at 90°		at 180°	
for Pipe Ø mm / Inch	Pipe type	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

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

H&W Plus		at 45°		at 90°		at 180°	
Pipe 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	32	34
12	38	15	-	40	20	38	39
14	45	17	-	44	22	44	51
15	45	17	-	44	22	44	51
16	64	25	-	67	30	68	65
18	64	25	-	67	30	68	65
20	81	30	-	85	40	86	83
22	81	30	-	85	40	86	83
5/16"	22	-	-	-	-	-	-
3/8"	32	12	-	32	20	32	34
1/2"	38	15	-	40	22	38	39
5/8"	64	25	-	67	30	68	65
3/4"	81	30	-	85	40	86	83
7/8"	81	30	-	85	40	86	83

MINIBEND		at 45°		at 90°		at 180°	
Pipe 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 Pipe 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

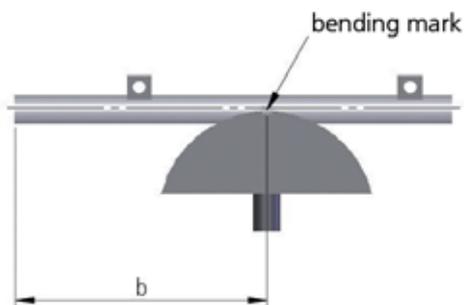
MULTIBEND		at 45°		at 90°		at 180°	
For Pipe Ø mm	Bending radius R (mm)	Reserve length L _R mm	Minimum length L _M mm	Reserve length L _R mm	Minimum length L _M mm	Reserve length L _R mm	Minimum length L _M mm
8	24.0	9.5	1.0	24.0	10.0	24.0	26.0
10	30.0	12.0	1.3	30.5	14.5	30.5	32.5
12	36.0	14.0	1.5	36.5	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 Pipe 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	coated	52.5	21	-	53	30	53	87
15		52.5	21	-	53	30	53	87
17	coated	72.0	28	-	72	41	72	107
18		72.0	28	-	72	41	72	107
20	coated	88.5	35	-	89	51	89	121
22		88.0	35	-	88	50	88	119
24	coated	112.0	43	-	110	62	110	144
28		112.0	44	-	112	64	112	148
30	coated	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 indicated are standard sizes which are dependant on the material and wall thickness. Bending dimensions are based on the bending radius - tabular value.



Push-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° - Arch



$$L = L_1 + L_2$$

$$b = L_1 - L_R$$

90° - Arch



$$L = L_1 + L_2 - L_M$$

$$b = L_1 - L_R$$

Calculation examples (ROBEND® 3000)

Specifications:

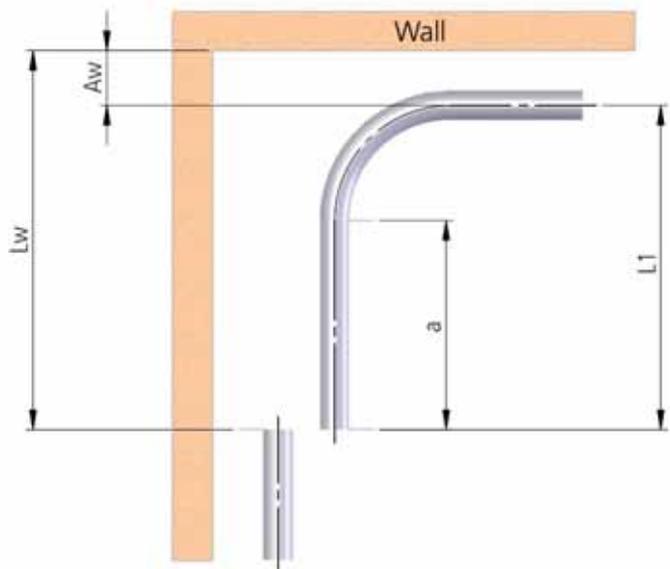
- Installation in corner areas
- L_w = 1200 mm
- A_w = 30 mm
- Pipe-Ø 12 mm, 90°-Arch

Sought after:

- Leg length L₁
- Applied size a

Solution:

Summary from the TUBE BENDER MAXI bending table



TUBE BENDER		at 45°		at 90°		at 180°	
for Pipe 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	-	-

Leg length $L_1 = L_w - A_w = 1200 - 30 = 1.170 \text{ mm}$
 Applied size $b = L_1 - L_R = 1170 - 7.5 = 1.162,5 \text{ mm}; L_R \dots \text{Tabular value}$



TUBE BENDER		at 45°		at 90°		at 180°	
for Pipe Ø mm / Zoll	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 Pipe Ø mm / Zoll	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	35.0	-	-
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 composite pipes		at 45°		at 90°		at 180°	
Pipe Ø / Ws 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
14 x 2.0	42.5	0.9	12.5	9.0	42.5	-	-
16 x 2.0	49.0	1.1	14.5	10.5	49.0	-	-
18 x 2.0	49.0	1.7	22.0	16.0	49.0	-	-
25 x 2.5	74.0	2.0	26.0	19.0	74.0	-	-
32 x 3.0	128.0	2.8	26.0	27.5	74.0	-	-

TUBE BENDER MAXI CT		at 45°		at 90°		at 180°	
Pipe Ø / Ws 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 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 indicated are standard sizes which are dependant on the material and wall thickness. Bending dimensions are based on the bending radius - tabular value.