

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")

Made in Germany!

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



Product Profile

APPLICATION AREA

Suitable for pipes made of:
Copper, aluminium
and steel (soft): Ø 12 - 28 mm and 1/2 - 1.1/8"

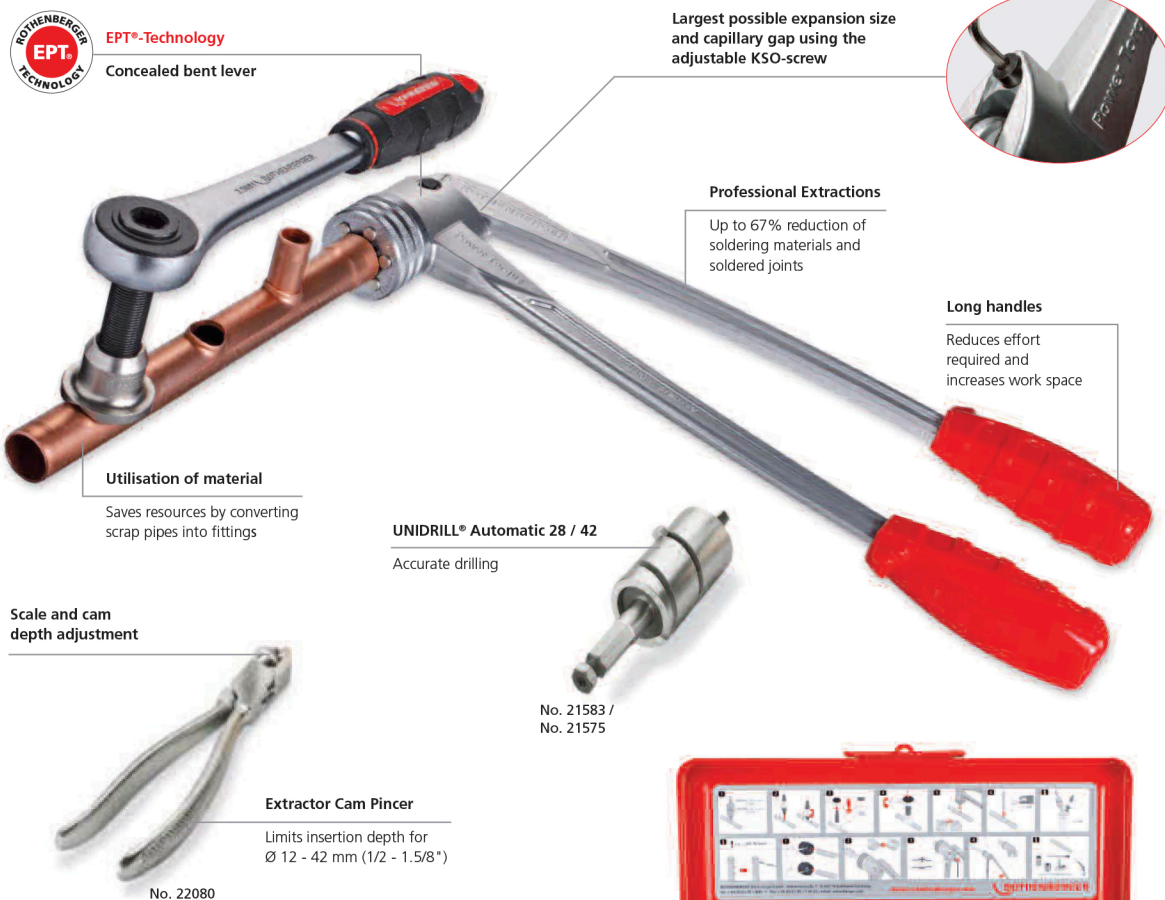
KEY FEATURES

- Increases safety by reducing the number of connections
- Suitable for making branches even in confined spaces through the compact design

KEY FEATURES

- Fine adjustment of the capillary gap using the KSO-screw
- Reduces effort required and increases work space
- Up to 67% reduction of soldering materials and soldered joints
- Accurate drilling
- Saves resources by converting scrap pipes into fittings
- Reliable pipe connections to DVGW standards

4



COMBI KIT Set includes: ROCAM® EXPANDER Power Torque (No. 12000), Standard expander heads, tee-extractor, special ratchet (No. 22081), UNIDRILL® Automatic 28 (No. 21583), extractor cam pincer (No. 22080), steel carrying case (No. 24022)

Model	Description	kg		No.
COMBI KIT	12 - 15 - 18 - 22 mm	4.4	1	011180X
COMBI KIT	12 - 14 - 16 - 18 mm	2.6	1	011186X
COMBI KIT	1/2 - 5/8 - 7/8 - 1.1/8"	2.8	1	011194X
COMBI KIT	1/2 - 3/4 - 1"	2.5	1	011195X



Bonding

Extracting Manual

Tee-Extractor Sets

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

Product Profile

APPLICATION AREA

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

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KEY FEATURES

- Eliminates the cost for T-pieces, purchase and storage of fittings
- Extractions even on installed pipes possible
- Accurate drilling
- Optimal positioning with the cam pincher depth adjustment

Scale and cam depth adjustment



Extractor Cam Pincer

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

No. 22081



Optimum capillary gap

Professional extractions

Limits the insertion depth

Optimal positioning

No pipe removal

Extractions even on installed pipes possible

UNIDRILL® Automatic 28 / 42

Accurate drilling



No. 21583 /
No. 21575



Tee-Extractor sets include: Tee-Extractor according to chart, special ratchet (No. 22081), cam pincer (No. 22080) and special conical drill, UNIDRILL Automatic 42 (No. 21575), in steel carrying case (No. 24022)

Model	Description	kg	1	No.
Tee-Extractor set 12 - 15 - 18 - 22 mm		3.4	1	22100
Tee-Extractor set 12 - 15 - 22 - 28 mm		3.6	1	22101
Tee-Extractor set 10 - 12 - 15 - 18 - 22 mm		3.5	1	22102
Tee-Extractor set 12 - 14 - 16 - 18 - 22 mm		3.6	1	22109
Tee-Extractor set 10 - 12 - 14 - 16 - 18 - 22 mm		3.7	1	22111
Tee-Extractor set 12 - 15 - 18 - 22 - 28 - 35 - 42 mm		5.5	1	22126
Tee-Extractor set 15 - 22 - 28 mm		3.6	1	22127
Tee-Extractor set 1/2 - 5/8 - 3/4 - 7/8"		3.4	1	22121
Tee-Extractor set 1/2 - 5/8 - 7/8 - 1.1/8"		3.7	1	22124
Tee-Extractor set 1/2 - 3/4 - 1"		3.3	1	22135








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

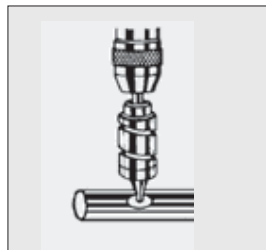
- Uniform and proper material extraction without scratches or burrs
- Burr-free operation with the specially polished extractor hooks
- Easy insertion into the drilled hole with the special trapezoidal screw thread
- Accurate and firm positioning for exact 90° branches

 mm /inch	 mm	Drill Ø mm	 SW mm	 g	No.
10	1.0	6	11	130	22010
12	1.0	7	11	150	22012
14	1.0	8	11	160	22014
15	1.0	8	11	160	22015
16	1.0	8	11	220	22016
18	2.0	10	11	220	22018
22	2.0	12	11	350	22022
28	2.5	15	11	470	22028
32	2.5	19	11	700	22032
35	2.5	22	11	700	22035
38	2.5	22	11	700	22038
42	2.5	26	11	890	22042
54	2.5	30	19 	1380	22054
3/8"	1.0	6	11	110	22060
1/2"	1.0	7	11	140	22061
5/8"	1.0	8	11	220	22016
3/4"	2.0	10	11	220	22062
7/8"	2.0	12	11	350	22063

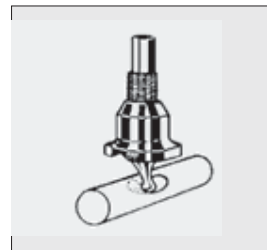
 Hexagon  Square

 mm	 g	No.	 inch	 g	No.
10	60	22210	3/8"	60	22260
12	70	22212	1/2"	70	22261
14	90	22214	5/8"	140	22216
15	90	22215	3/4"	140	22263
16	140	22216	7/8"	200	22264
18	140	22218	1"	210	22265
22	210	22222	1.1/8"	220	22266
28	220	22228	1.1/4"	270	22267
32	260	22232	1.3/8"	290	22235
35	290	22235	1.1/2"	290	22268
38	290	22268	1.5/8"	320	22270
42	320	22242	2"	520	22246
54	560	22254	2.1/8"	560	22254

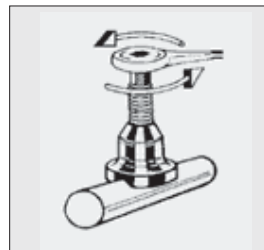
Precise drilling of the pipe without a centre punch – drill stop prevents perforation of the pipe



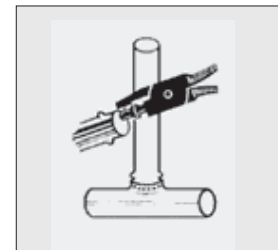
Insert extractor hook into the drilled hole and screw the bell firmly against the drill hole



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 (dependent 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

Double V-block

Accurate and firm positioning for exact 90° branches



Specially polished, forged and tempered extractor hooks







Burr-free operation

Special hook design

Easy insertion into the drilled hole



Ratchet adaptor with No. 22050 / 22054 included in scope of delivery (square, 3/4")

 mm /Zoll	 mm	Drill-Ø mm	 SW mm	 g	No.
1"	2.5	14	11	470	22064
1.1/8"	2.5	15	11	480	22065
1.1/4"	2.5	19	11	700	22066
1.3/8"	2.5	22	11	700	22035
1.1/2"	2.5	22	11	700	22038
1.5/8"	2.5	26	11	900	22068
2"	2.5	30	19 	1380	22050
2.1/8"	2.5	30	19 	1380	22054

Accessories

Socket 19 mm	F80053
Square connection 3/4"	F80054

Spare Extractor Hooks

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



Note: For copper pipes (soft), the use of an extractor support is recommended ( 96)!

Bonding

Accessories Extracting Manual

Tee-Extractor Ratchet

Chrome vanadium steel, fine toothed and right/left reversible



No. 22081



No. 27181

Model	SW	g	No.
10 - 42 mm, 3/8 - 1.3/4"	11 mm	435	22081
54 - 70 mm, 2 - 2.3/4"	3/4"	1140	27181

Extractor Cam Pincer

KEY FEATURES

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



mm	Zoll	mm	g	No.
12 - 42	1/2 - 1.5/8"	150	170	22080

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



Description	Content	g	No.
EVERCOOL	50 g	80	21549

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. 21583

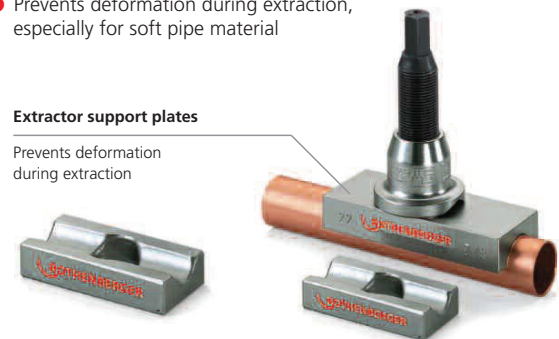
No. 21575

Model	mm	inch	SW	g	No.
UNIDRILL® 28	10 - 28	3/8 - 1.1/8"	11	110	21583
UNIDRILL® 42	10 - 42	3/8 - 1.5/8"	11	430	21575

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	22157
28 mm	25 mm	300	22158
1/2"	3/8"	120	22170
5/8"	1/2"	170	22153
3/4"	5/8"	250	22172
7/8"	3/4"	250	22157
1.1/8"	1"	300	22158

