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# Pipe Clamp Easy-Click plus M8 **ROMOS**

- Articulated pipe clamp, can be opened widely for building installation
- Locking screw clicks into place when pressed
- Captive locking screw with combi-cross slot
- Galvanized for high corrosion protection
- Special sound insulation insert made of EPDM (halogen and silicone-free) for sound insulation according to DIN 4109
- Heat-resistant from -50 °C to +100 °C
- Building material class: B2 according to DIN 4102
- Sound level improvement up to 19 db (A), measured at a 2"-pipe

## Product benefits:

- Practise-oriented clamping ranges, thus compact assortment
- Locking screw is secured against falling out of the thread
- With strong double grooves for high stability
- Connecting nut 4-point welded for high shear-off values
- Optimised sliding properties of sound insulation insert
- Short locking screws for quick installation and optically appealing insulation works
- High M8-connecting nut for secure connection to the thread

Article No.	Article Description	QTY
8601 12 14	PIPE CLAMP 1/4" 12-14 M8	g 150
8601 15 19	PIPE CLAMP 3/8" 15-19 M8	g 200
8601 20 23	PIPE CLAMP 1/2" 20-23 M8	g 200
8601 25 28	PIPE CLAMP 3/4" 25-28 M8	g 150
8601 32 35	PIPE CLAMP 1" 32-35 M8	g 100
8601 40 44	PIPE CLAMP 1 1/4" 40-44 M8	g 100
8601 48 51	PIPE CLAMP 1 1/2" 48-51 M8	75
8601 53 58	PIPE CLAMP 53-58 M8	75
8601 60 65	PIPE CLAMP 2" 60-65 M8	50
8601 75 80	PIPE CLAMP 2 1/2" 75-80 M8	25



## Technical Data

Steel	Steel	Copper VA	PP/HDPE HT	Cast/SML	Max. rec. loads in N*
inch	mm	mm	mm	DN DN	
1/4"	13,5	12	-	12	- - 550
3/8"	17,2	15 / 18	15 / 18	16	- - 550
1/2"	21,3	22	22	20	- - 550
3/4"	26,9	28	28	25	- - 550
1"	33,7	35	35	32	- - 550
1 1/4"	42,4	42	42	40	40 - 550
1 1/2"	48,3	-	-	50	50 40 550
-	-	54	54	-	- 50 550
2"	60,3	64	-	63	- - 800
2 1/2"	76,1	76,1	76,1	75	70 70 1.500

\*in case of central tension

# Pipe Clamp Easy-Click plus M8/M10 **ROMOS**

- Articulated pipe clamp, can be opened widely for building installation
- Locking screw clicks into place when pressed
- Captive locking screw with combi-cross slot
- Galvanized for high corrosion protection
- Special sound insulation insert made of EPDM (halogen and silicone-free) for sound insulation according to DIN 4109
- Heat-resistant from -50°C to +100°C
- Building material class: B2 according to DIN 4102
- Sound level improvement up to 19 db (A), measured at a 2"-pipe

## Product benefits:

- Practise-oriented clamping ranges, thus compact assortment
- Locking screw is secured against falling out of the thread
- With strong double grooves for high stability
- Connecting nut 4-point welded for high shear-off values
- Optimised sliding properties of sound insulation insert
- Short locking screws for quick installation and optically appealing insulation works
- Combi-connection thread M8/M10 for variable threaded connection

Article No.	Article Description	QTY
8601 1 12 14	PIPE CLAMP 1/4"12-14M8/10	g 150
8601 1 15 19	PIPE CLAMP 3/8"15-19M8/10	g 200
8601 1 20 23	PIPE CLAMP 1/2"20-23M8/10	g 200
8601 1 25 28	PIPE CLAMP 3/4"25-28M8/10	g 150
8601 1 32 35	PIPE CLAMP 1" 32-35M8/10	g 100
8601 1 40 44	PIPE CLAMP 1 1/4"40-44M8/10	g 100
8601 1 48 51	PIPE CLAMP 1 1/2"48-51M8/10	75
8601 1 53 58	PIPE CLAMP 53-58M8/10	75
8601 1 60 65	PIPE CLAMP 2" 60-65M8/10	50
8601 1 75 80	PIPE CLAMP 2 1/2"75-80M8/10	25
8601 1 83 90	PIPE CLAMP 3" 83-90M8/10	25
8601 1 108 114	PIPE CLAMP 4"108-114M8/10	25



## Technical Data

Steel inch	Steel mm	Copper mm	VA mm	PP/HDPE mm	HT DN	SML DN	Max. rec. loads in N*
1/4"	13,5	12	-	12	-	-	550
3/8"	17,2	15 / 18	15 / 18	16	-	-	550
1/2"	21,3	22	22	20	-	-	550
3/4"	26,9	28	28	25	-	-	550
1"	33,7	35	35	32	-	-	550
1 1/4"	42,4	42	42	40	40	-	550
1 1/2"	48,3	-	-	50	50	40	550
-	-	54	54	-	-	50	550
2"	60,3	64	-	63	-	-	800
2 1/2"	76,1	76,1	76,1	75	70	70	1.500
3"	88,9	88,9	88,9	90	-	80	1.500
4"	114,3	108	108	110	100	100	2.000

\*in case of central tension

# Two-Screw Pipe Clamp Easy-Lock **ROMOS**

- Two-screw pipe clamp with snapping quick-release fastener
- Locking screw with combi-cross slot against falling out
- Sound insulation insert made of high-quality EPDM (halogen and silicone-free) for sound insulation protection according to DIN 4109
- Heat-resistant from -50° C to +110° C
- Building material class: B2 according to DIN 4102
- Sound level improvement up to 20 db (A), measured at a 2"-pipe
- Galvanised for high corrosion protection

## Product benefits:

- Audible snapping quick-release fastener
- Locking screw is secured due to deepening of securing clip
- Can be opened and closed with only one hand
- M8-connection for cost-optimized suspensions of small pipe diameters or M8/M10 for variable threaded connection

## Fields of application:

- For pipelines in the entire Building Services



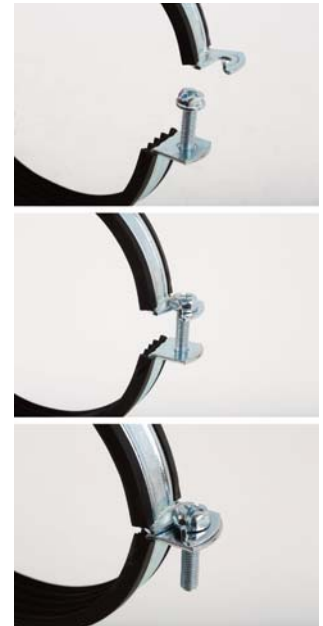
Article No.	Article Description	QTY
<b>8602 2 12 14</b>	TWO-SC.PIPE CL. 1/4"12-14 M8/10	100
<b>8602 2 15 19</b>	TWO-SC.PIPE CL. 3/8"15-19 M8/10	100
<b>8602 2 20 23</b>	TWO-SC.PIPE CL. 1/2"20-23 M8/10	g 100
<b>8602 2 24 28</b>	TWO-SC.PIPE CL. 3/4"24-28 M8/10	100
<b>8602 2 31 35</b>	TWO-SC.PIPE CL. 1" 31-35 M8/10	100
<b>8602 2 38 43</b>	TWO-SC.PIPE CL. 1" 38-43 M8/10	100
<b>8602 2 48 51</b>	TWO-SC.PIPE CL. 1 1/4" 48 M8/10	50
<b>8602 2 52 56</b>	TWO-SC.PIPE CL. 1 1/2" 52 M8/10	50

Article No.	Article Description	QTY
<b>8602 2 57 61</b>	TWO-SC.PIPE CL. 2" M8/10	50
<b>8602 2 63 67</b>	TWO-SC.PIPE CL. 63-67 M8/10	50
<b>8602 2 74 80</b>	TWO-SC.PIPE CL. 2 1/2" M8/10	25
<b>8602 2 83 91</b>	TWO-SC.PIPE CL. 3" 83-91 M8/10	25
<b>8602 2 108 114</b>	TWO-SC.PIPE CL. 108-114 M8/10	25
<b>8602 2 123 128</b>	TWO-SC.PIPE CL. 123-128 M8/10	25
<b>8602 2 136 142</b>	TWO-SC.PIPE CL. 5" M8/10	12
<b>8602 2 159 163</b>	TWO-SC.PIPE CL. 159-163 M8/10	12

## Technical Data

Art. No.	Steel inch	Steel mm	Cobber mm	VA mm	HT pipe DN	Cast/SML DN	Max. rec. load in N*	Breaking load in N*
8602 2 12 14	1/4"	13,5	12/15	15	-	-	700	2,100
8602 2 15 19	3/8"	17,2	15/18	15/18	-	-	700	2,100
8602 2 20 23	1/2"	21,3	22	22	-	-	700	2,100
8602 2 24 28	3/4"	26,9	28	28	-	-	700	2,100
8602 2 31 35	1"	33,7	35	35	-	-	700	2,100
8602 2 38 43	1"	42,4	42	42	-	-	700	2,100
8602 2 48 51	1 1/4"	48,3	-	-	50	40	700	2,100
8602 2 52 56	1 1/2"	-	54	54	-	50	700	2,100
8602 2 57 61	2"	60,3	64	-	-	-	700	2,100
8602 2 63 67	-	-	68/70	-	-	-	1.200	3,500
8602 2 74 80	2 1/2"	76,1	76,1	76,1	70	70	1.200	3,500
8602 2 83 91	3"	88,9	88,9	88,9	-	-	1.200	3,500
8602 2 108 114	-	108	108	108	100	100	1.200	3,500
8602 2 123 128	4"	114,3	114	-	-	-	1.200	3,500
8602 2 136 142	5"	139,7	133	133	125	125	1.200	3,500
8602 2 159 163	-	-	-	-	150	150	1.200	3,500
8602 2 165 169	-	-	159	159	-	-	1.200	3,500

\*for central tension



# Sliding Pipe Clip M8

One-piece hinged pipe clip for the installation of coated and uncoated plastic pipes – Noise-insulated in accordance with DIN 4109

- Quick-release safety fastening
- Temperature resistance: -35°C to +70°C
- Galvanised

**Product benefits:**

- Quick, one-hand installation with just one screw
- Low-noise gliding of pipes
- Screw secured against loss

**Areas of application:**

- Pipe clip for dry indoor spaces
- For plastic and multi-layer composite pipes



Article No.	Article Description	QTY
8504 15	SLIDING PIPE CLIP M8 15 MM	g 100
8504 20	SLIDING PIPE CLIP M8 20 MM	g 100
8504 25	SLIDING PIPE CLIP M8 25 MM	g 80
8504 32	SLIDING PIPE CLIP M8 32 MM	g 75
8504 38	SLIDING PIPE CLIP M8 38 MM	g 40

**Technical Data**

Dimension mm	Connection Thread	Material cross section mm	Max. recom. Load in N*
15	M8	20 × 0.8	750
20	M8	20 × 1.0	750
25	M8	20 × 1.0	750
32	M8	20 × 1.0	750
38	M8	20 × 1.0	750

\*With central tension

# Fixed Point Pipe Clip

Two-piece, high-capacity pipe clip without noise-insulating insert

- Screw fastening
- Galvanised

**Product benefits:**

- Two fastening screws for specific adaptation to pipe tolerances
- Connecting thread adapts to the respective pipe diameter

**Application areas:**

- For installation of pipes in environments at fluctuating temperatures
- Securing of pipelines in areas of increased load



Article No.	Article Description	QTY
8520 21	FIX. POINT PIPE CLIP 1/2" 21MM	ü 10
8520 27	FIX. POINT PIPE CLIP 1/2" 27MM	ü 10
8520 34	FIX. POINT PIPE CLIP 1/2" 34MM	ü 10
8520 42	FIX. POINT PIPE CLIP 3/4" 42MM	ü 10
8520 48	FIX. POINT PIPE CLIP 3/4" 48MM	ü 10
8520 54	FIX. POINT PIPE CLIP 3/4" 54MM	ü 10
8520 60	FIX. POINT PIPE CLIP 3/4" 60MM	ü 10
8520 64	FIX. POINT PIPE CLIP 3/4" 64MM	ü 10
8520 70	FIX. POINT PIPE CLIP 3/4" 70MM	ü 10
8520 76	FIX. POINT PIPE CLIP 1" 76MM	ü 10
8520 89	FIX. POINT PIPE CLIP 1" 89MM	ü 10
8520 108	FIX. POINT PIPE CLIP 1" 108MM	ü 10
8520 140	FIX. POINT PIPE CLIP 1" 140MM	ü 10

**Technical Data**

Connector thread Imperial	Nominal size Imperial/mm	Material thickn. mm	Max. recom. Load in N*
1/2"	1/2"	50 × 5.0	6,000
1/2"	3/4"	50 × 5.0	6,000
1/2"	1"	50 × 5.0	6,000
3/4"	1 1/4"	50 × 5.0	6,000
3/4"	1 1/2"	50 × 5.0	6,000
3/4"	54 mm	50 × 5.0	6,000
3/4"	2"	50 × 5.0	6,000
3/4"	64 mm	50 × 5.0	6,000
3/4"	70 mm	50 × 5.0	6,000
1"	1"	50 × 5.0	6,000
1"	1"	50 × 5.0	6,000
1"	1"	50 × 5.0	6,000
1"	1"	50 × 5.0	6,000

\*With central tension

# Threaded Pipe

- Direct connection between base plate and pipe clip
- Thread in accordance with DIN ISO 228-1
- Material: Electrolytically galvanised steel
- Length: 2 m

Article No.	Article Description	QTY
8544 12 2	THREADED PIPE 1/2" 2M	1
8544 34 2	THREADED PIPE 3/4" 2M	1
8544 1 2	THREADED PIPE 1" 2M	1





# Premium Double Screw Pipe Clip

**Robust two-piece double screw pipe clip for high load requirements in building technology and pipeline construction – Noise-insulated in accordance with DIN 4109**

- Snap lock
- Temperature resistance: -35°C to +100 °C
- Galvanised

**Product benefits:**

- Good adaption to pipe tolerances thanks to two fastening screws
- Combined thread enables variable thread connection

**Application areas:**

- Fastening of pipes in indoor areas
- Suitable for the securing of pipes in building technology



**Technical Data**

Art. No.	Clamp. range dA in mm	Steel pipe dA in mm	Steel pipe dA, inches	Copp. pipe dA in mm	VA pipe AD mm	HT pipe DN	HPDE pipe AD mm	Cast iron/ SML pipe DN
8502 12 15	12–15	13.5	1/4"	12.0/15.0	15.0	-	12	-
8502 15 20	15–20	17.2	3/8"	15.0/18.0	15.0/18.0	-	16	-
8502 20 25	20–25	21.3	1/2"	22.0	22.0	-	20	-
8502 25 30	25–30	26.9	3/4"	28.0	28.0	-	25	-
8502 32 37	32–37	33.7	1"	35.0	35.0	-	32	-
8502 42 46	42–46	42.4	1 1/4"	42.0	42.0	-	-	-
8502 47 52	47–52	48.3	1 1/2"	-	-	DN 50	50	DN 40
8502 53 58	53–58	54.0	-	54.0	54.0	-	-	DN 50
8502 59 65	59–65	60.3	2"	64.0	-	-	63	-
8502 70 73	70–73	70.0	-	-	-	-	-	-
8502 75 78	75–78	76.1	2 1/2"	76.1	76.1	DN 75	75	DN 70
8502 85 90	85–90	82.5	3"	88.9	88.9	-	90	-
8502 98 102	98–102	101.6	-	-	-	-	-	-
8502 108 114	108–114	108.0	4"	108.0	108.0	DN 110	110	DN 100
8502 121 125	121–125	127.0	-	-	-	DN 125	125	-
8502 132 136	132–136	133.0	-	133.0	133.0	-	-	DN 125
8502 137 141	137–141	139.7	5"	-	139.7	-	140	-
8502 159 163	159–163	159.0	-	159.0	159.0	DN 160	160	DN 150
8502 164 168	164–168	168.3	6"	-	168.3	-	-	-

Article No.	Article Description	QTY
8502 12 15	DS-PIPE C.PR.1/4" 12- 15M 8/10	g 100
8502 15 20	DS-PIPE C.PR.3/8" 15- 20M 8/10	g 200
8502 20 25	DS-PIPE C.PR.1/2" 20- 25M 8/10	g 200
8502 25 30	DS-PIPE C.PR.3/4" 25- 30M 8/10	g 150
8502 32 37	DS-PIPE C.PR.1" 32- 37M 8/10	g 125
8502 42 46	DS-PIPE C.PR.1 1/4" 42- 46M 8/10	g 75
8502 47 52	DS-PIPE C.PR.1 1/2" 47- 52M 8/10	g 75
8502 53 58	DS-PIPE C.PR. 53- 58M 8/10	50
8502 59 65	DS-PIPE C.PR.2" 59- 65M 8/10	50
8502 70 73	DS-PIPE C.PR. 70- 73M 8/10	40

Article No.	Article Description	QTY
8502 75 78	DS-PIPE C.PR.2 1/2" 75- 78M 8/10	30
8502 85 90	DS-PIPE C.PR. 85- 90M 8/10	30
8502 98 102	DS-PIPE C.PR. 98-102M 8/10	25
8502 108 114	DS-PIPE C.PR. 108-114M 8/10	25
8502 121 125	DS-PIPE C.PR. 121-125M10/12	25
8502 132 136	DS-PIPE C.PR. 132-136M10/12	20
8502 137 141	DS-PIPE C.PR.5" 137-141M10/12	12
8502 159 163	DS-PIPE C.PR. 159-163M10/12	12
8502 164 168	DS-PIPE C.PR.6" 164-168M10/12	10

# Vent Pipe Clip M8/M10

**Two-part, resilient vent pipe clip from DN 80 to DN 630 – Soundproofing in accordance with DIN 4109**

- Snap lock up to DN 200
- Temperature resistance: -35°C to +100 °C
- Galvanised

**Product benefits:**

- High quality galvanisation, thus also suitable for the visible areas
- Good adaption to pipe tolerances thanks to two fastening screws
- Continuous connecting thread M8 / M10
- The pipe can be easily inserted thanks to the large opening angle

**Application areas:**

- For fastening folded spiral-seam pipes in air conditioning, ventilation and process technology



Article No.	Article Description	QTY
8509 80	VENT. PIPE CLAMP M8/M10 80MM	25
8509 100	VENT. PIPE CLAMP M8/M10 100MM	25
8509 112	VENT. PIPE CLAMP M8/M10 112MM	25
8509 125	VENT. PIPE CLAMP M8/M10 125MM	25
8509 140	VENT. PIPE CLAMP M8/M10 140MM	25
8509 150	VENT. PIPE CLAMP M8/M10 150MM	25
8509 160	VENT. PIPE CLAMP M8/M10 160MM	25
8509 180	VENT. PIPE CLAMP M8/M10 180MM	25
8509 200	VENT. PIPE CLAMP M8/M10 200MM	15
8509 224	VENT. PIPE CLAMP M8/M10 224MM	15
8509 250	VENT. PIPE CLAMP M8/M10 250MM	10
8509 280	VENT. PIPE CLAMP M8/M10 280MM	10
8509 300	VENT. PIPE CLAMP M8/M10 300MM	10
8509 315	VENT. PIPE CLAMP M8/M10 315MM	10
8509 355	VENT. PIPE CLAMP M8/M10 355MM	10
8509 400	VENT. PIPE CLAMP M8/M10 400MM	10
8509 450	VENT. PIPE CLAMP M8/M10 450MM	5
8509 500	VENT. PIPE CLAMP M8/M10 500MM	5
8509 560	VENT. PIPE CLAMP M8/M10 560MM	5
8509 600	VENT. PIPE CLAMP M8/M10 600MM	5
8509 630	VENT. PIPE CLAMP M8/M10 630MM	5

**Technical Data**

Dimensions	Max. rec. Load in N*
DN	
80–200	610
224–450	1,320
500–630	1,970

\*With central tension

# Endless Clamp. Strap - Stainless St. 9mm **ROMOS**

- Perfect alternative for standard hose clamps
- The 30 m long stainless steel strap is flexible and can be used for various hose diameters
- The turnbuckles with its worm drive thread guarantees sealed and resistant hose-nozzle-connection
- Space and time saving solution

**Art.-No. 8626 1:**

- Stainless steel AISI 430/W3
- Dimension:
- Length: 30 m
- Width: 9 mm
- Thickness: 0.6 mm

**Art.- No. 8626 2:**

- Low carbon steel, nickel-faced
- Lock: stainless steel AISI 430/W3
- Screw: 7 mm cross recessed, galvanised steel

**Art.-No. 8626 3:**

- Stainless steel AISI 304/W4
- Screw: 7 mm cross recessed, stainless steel AISI 304/W4



Article No.	Article Description	QTY
8626 1	RO(30M)ENDLESS STRAP A2 9MM	1 z
8626 2	TURNBUCKLE GA FOR ENDL.STRAP	25
8626 3	TURNBUCKLE A2 FOR ENDL.STRAP	25

**Assembly Guide:**

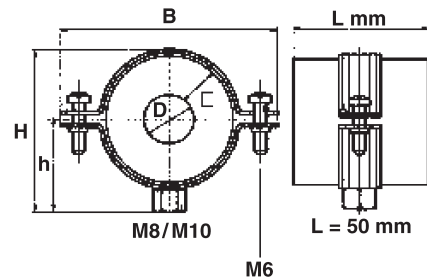
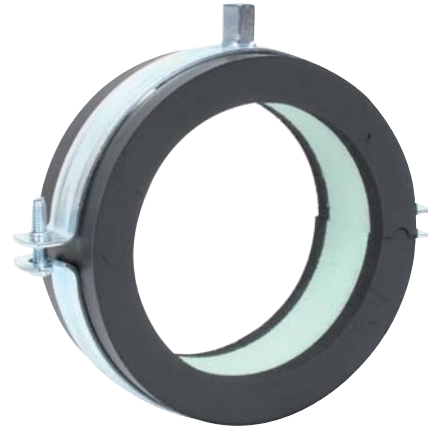
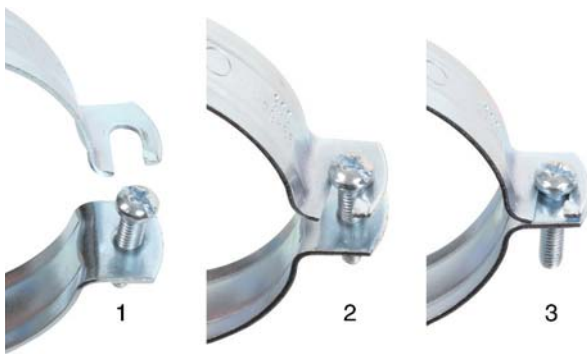


# Refrigerant Pipe Clamps 13 mm

- Excellent insulating and mechanical properties
- Bead-reinforced double screw pipe clip with 4-fold welded connecting nut
- Single-sided, quick-release safety fastener for quick, practical installation
- Pipe support made of elastomer rubber with a PIR core (PIR = polyisocyanurate – better insulating properties and fire protection properties, as well as more pressure-resistant and dimensionally stable than polyurethane)
- For fastening thermally insulated pipes made of steel, copper, stainless steel or plastic.
- Can be used with elastomer rubber insulation – adheres to the pipe insulation, forming a vapour-tight seal
- Matched to the increasing insulation thicknesses of cold rubber shapes

## Note on usage:

- The contact surfaces of the refrigerant pipe clamp must be aligned horizontally during assembly to prevent tensile and compressive forces.



Article No.	Article Description	QTY
8614 13 12	COLD PIPE CLA. 13X 12MM M8/M10	32
8614 13 15	COLD PIPE CLA. 13X 15MM M8/M10	24
8614 13 18	COLD PIPE CLA. 13X 18MM M8/M10	24
8614 13 22	COLD PIPE CLA. 13X 22MM M8/M10	24
8614 13 28	COLD PIPE CLA. 13X 28MM M8/M10	16
8614 13 35	COLD PIPE CLA. 13X 35MM M8/M10	12
8614 13 42	COLD PIPE CLA. 13X 42MM M8/M10	12
8614 13 48	COLD PIPE CLA. 13X 48MM M8/M10	12
8614 13 54	COLD PIPE CLA. 13X 54MM M8/M10	12
8614 13 60	COLD PIPE CLA. 13X 60MM M8/M10	10
8614 13 64	COLD PIPE CLA. 13X 64MM M8/M10	10
8614 13 70	COLD PIPE CLA. 13X 70MM M8/M10	16
8614 13 76	COLD PIPE CLA. 13X 76MM M8/M10	12
8614 13 89	COLD PIPE CLA. 13X 89MM M8/M10	8
8614 13 102	COLD PIPE CLA. 13X102MM M8/M10	10
8614 13 108	COLD PIPE CLA. 13X108MM M8/M10	10
8614 13 114	COLD PIPE CLA. 13X114MM M8/M10	10

## Technical Data

External Ø	Impe. Ø	External C	Insula. Thckn.	B	H	h	Max.perm. Fa,z <sup>2)</sup>
CU	FE	FE					Clamp Spacing <sup>1)</sup>
mm	mm	mm	mm	mm	mm	mm	N
12	-	-	13	75	60	38	40
15	1/4"	13.5	13	75	60	37	50
18	3/8"	17.2	13	75	69	40	60
22	1/2"	21.3	13	83	71	42	75
28	3/4"	26.9	13.5	92	77	46	75
35	1"	33.7	13.5	92	81	48	150
42	1 1/4"	42.4	14	102	93	55	200
-	1 1/2"	48.3	14	109	98	57	275
54	-	54.0	14	117	102	59	300
-	2"	60.3	15	117	108	62	475
64	-	63.5	15	123	112	63	475
70	-	70.0	15	138	116	62	600
76.1	2 1/2"	76.1	15	138	123	69	750
88.9	3"	88.9	15	153	140	76	1,100
-	3 1/2"	101.6	15.5	169	154	84	1,300
108	-	108.0	15.5	172	157	86	1,300
114	4"	114.3	15.5	178	163	89	1,700

<sup>1)</sup> according to DIN 1488 for steel pipe (the specifications of the pipe manufacturer must be taken into account)

<sup>2)</sup> Load index (Fa,z) is restricted to the pipe support

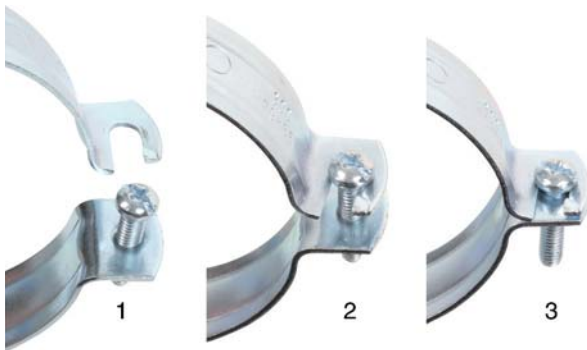
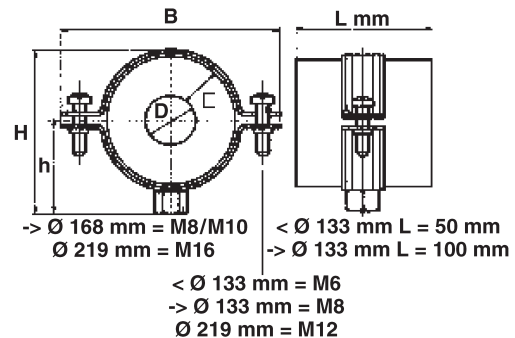
- Pipe clamp material: Electrolytically galvanised steel
- Pipe support material: Elastomer rubber with PIR core and encased in moisture barrier
- Thermal conductivity: 0.036 W/(m×K)
- Water vapour permeability in accordance with DIN EN 13469: > 8,000 μ
- Fire behaviour according to DIN 4102: B2
- Density of PIR core: 120 kg/m<sup>3</sup>
- Usable temperature range: from -50 °C to +105 °C
- Does not contain CFCs, HCFCs, formaldehyde or cadmium

# Refrigerant Pipe Clamps 19 mm

- Excellent insulating and mechanical properties
- Bead-reinforced double screw pipe clip with 4-fold welded connecting nut
- Single-sided, quick-release safety fastener for quick, practical installation
- Pipe support made of elastomer rubber with a PIR core (PIR = polyisocyanurate – better insulating properties and fire protection properties, as well as more pressure-resistant and dimensionally stable than polyurethane)
- For fastening thermally insulated pipes made of steel, copper, stainless steel or plastic.
- Can be used with elastomer rubber insulation – adheres to the pipe insulation, forming a vapour-tight seal
- Matched to the increasing insulation thicknesses of cold rubber shapes

## Note on usage:

- The contact surfaces of the refrigerant pipe clamp must be aligned horizontally during assembly to prevent tensile and compressive forces.



Article No.	Article Description	QTY
8614 19 12	COLD PIPE CLA. 19X 12MM M8/M10	26
8614 19 15	COLD PIPE CLA. 19X 15MM M8/M10	24
8614 19 18	COLD PIPE CLA. 19X 18MM M8/M10	24
8614 19 22	COLD PIPE CLA. 19X 22MM M8/M10	12
8614 19 28	COLD PIPE CLA. 19X 28MM M8/M10	12
8614 19 35	COLD PIPE CLA. 19X 35MM M8/M10	12
8614 19 42	COLD PIPE CLA. 19X 42MM M8/M10	12
8614 19 48	COLD PIPE CLA. 19X 48MM M8/M10	12
8614 19 54	COLD PIPE CLA. 19X 54MM M8/M10	16
8614 19 60	COLD PIPE CLA. 19X 60MM M8/M10	12
8614 19 64	COLD PIPE CLA. 19X 64MM M8/M10	12
8614 19 70	COLD PIPE CLA. 19X 70MM M8/M10	12
8614 19 76	COLD PIPE CLA. 19X 76MM M8/M10	18
8614 19 89	COLD PIPE CLA. 19X 89MM M8/M10	14
8614 19 102	COLD PIPE CLA. 19X102MM M8/M10	8
8614 19 108	COLD PIPE CLA. 19X108MM M8/M10	8
8614 19 114	COLD PIPE CLA. 19X114MM M8/M10	8
8614 19 133	COLD PIPE CLA. 19X133MM M8/M10	2
8614 19 139	COLD PIPE CLA. 19X139MM M8/M10	2
8614 19 159	COLD PIPE CLA. 19X159MM M8/M10	2
8614 19 168	COLD PIPE CLA. 19X168MM M8/M10	2
8614 19 219	COLD PIPE CLA. 19X219MM M16	2

## Technical Data

Ext. Ø CU mm	FE inch	Ext. Ø FE mm	C insul. thickn. mm	B mm	H mm	h mm	Max. perm. clamp spacing <sup>1)</sup> m	Fa,z <sup>2)</sup> N
12	-	-	19	83	72	43	-	40
15	1/4"	13.5	19	92	76	46	2.00	50
18	3/8"	17.2	19.5	92	76	46	2.25	60
22	1/2"	21.3	19.5	92	76	49	2.75	75
28	3/4"	26.9	20	102	89	52	3.00	75
35	1"	33.7	20	109	94	55	3.50	150
42	1 1/4"	42.4	21.5	117	102	59	3.75	200
-	1 1/2"	48.3	21.5	123	111	63	4.25	275
54	-	54.0	21.5	129	119	64	-	300
-	2"	60.3	22	198	123	69	4.75	475
64	-	63.5	22	198	126	71	4.75	475
70	-	70.0	22	144	192	73	5.00	600
76.1	2 1/2"	76.1	22	153	198	77	5.50	750
88.9	3"	88.9	22	162	150	83	6.00	1,100
-	3 1/2"	101.6	22.5	178	163	89	6.00	1,300
108	-	108.0	22.5	187	172	94	6.00	1,300
114	4"	114.3	25.5	187	175	95	6.00	1,700
133	-	133.0	25.5	233	200	107	6.00	2,000
-	5"	139.7	26	233	204	110	6.00	2,000
159	-	160.0	26	255.5	223	120	6.00	2,200
-	-	168.3	26	256	229	122	6.00	2,200
-	-	219.1	26	345.3	290	158	6.00	5,000

<sup>1)</sup> according to DIN 1488 for steel pipe (The specifications of the pipe manufacturer must be taken into account)

<sup>2)</sup> Load index (Fa,z) is restricted to the pipe support

- Pipe clamp material: Electrolytically galvanised steel
- Pipe support material: Elastomer rubber with PIR core and encased in moisture barrier
- Thermal conductivity: 0.036 W / (m\*K)
- Water vapour permeability in acc. with DIN EN 13469: > 8,000 µ
- Fire behaviour according to DIN 4102: B2
- Density of PIR core: 120 kg/m<sup>3</sup>
- Usable temperature range: from -50 °C to +105 °C
- Does not contain CFCs, HCFCs, formaldehyde or cadmium



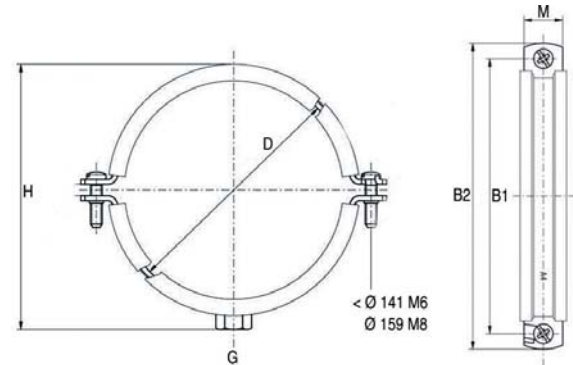
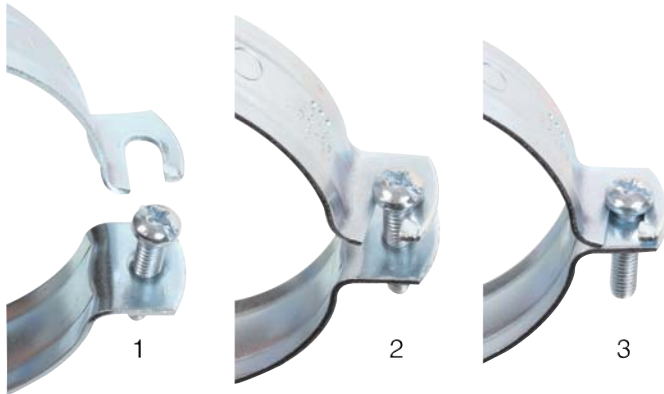
# Double Bolt Pipe Clamp, Stainless Steel A4

**Robust double bolt pipe clamp with a high degree of corrosion protection and a quick-release safety fastener**

- Bead-reinforced double screw pipe clip with 4-fold welded connecting nut
- Single-sided, quick-release safety fastener for quick, practical installation
- Ageing-resistant black noise-insulating insert made of EPDM rubber
- Material: Stainless steel A4 1.4401 (AISI No. 316) – all-round high degree of corrosion protection
- Fulfills construction material class B2 in accordance with DIN 4102
- Noise-insulated according to DIN 4109
- Long-term temperature-resistant from -50°C to +110 °C

**Application areas:**

- In highly corrosive environments (tunnels, chemical plants, washing facilities)
- For pipes run outdoors



Article No.	Article Description	QTY
8607 14 18	TS. PIPE CLA.A4 14- 18MM M8	100
8607 19 23	TS. PIPE CLA.A4 20- 23MM M8	w 100
8607 25 29	TS. PIPE CLA.A4 25- 28MM M8	w 100
8607 31 35	TS. PIPE CLA.A4 31- 35MM M8	w 100
8607 41 45	TS. PIPE CLA.A4 40- 43MM M8	50
8607 48 54	TS. PIPE CLA.A4 47- 51MM M8	z 50
8607 57 63	TS. PIPE CLA.A4 57- 64MM M8	z 50
8607 64 67	TS. PIPE CLA.A4 64- 67MM M10	25
8607 70 76	TS. PIPE CLA.A4 70- 76MM M10	ü 25
8607 86 91	TS. PIPE CLA.A4 86- 91MM M10	ü 25
8607 108 116	TS. PIPE CLA.A4 108-116MM M10	ü 25
8607 124 132	TS. PIPE CLA.A4 124-132MM M10	ü 25
8607 133 141	TS. PIPE CLA.A4 133-141MM M10	25
8607 159 168	TS. PIPE CLA.A4 159-168MM M10	ü 15

**Technical Data**

D mm	D Impe.	DN mm	G	B1	B2	H	M	Fa,Z N
14 – 18	3/8"	10	M8	45.5	61.5	36.5	20 × 1.5	1,520
19 – 23	1/2"	15	M8	48.0	64.0	41.5	20 × 1.5	1,520
25 – 29	3/4"	20	M8	54.0	70.0	46.5	20 × 1.5	1,520
31 – 35	1"	25	M8	62.0	78.0	53.5	20 × 1.5	1,520
40 – 43	1 1/4"	32	M8	69.0	85.0	63.0	20 × 1.5	1,520
47 – 51	1 1/2"	40	M8	75.5	91.5	70.1	20 × 1.5	1,520
57 – 63	2"	50	M8	86.0	102.0	80.0	20 × 2.0	1,910
64 – 67	-	-	M10	93.0	109.0	89.0	20 × 2.0	1,910
70 – 76	2 1/2"	65	M10	102.0	118.0	98.0	20 × 2.0	1,910
86 – 91	3"	80	M10	113.5	129.5	109.0	20 × 2.0	1,910
108 – 116	4"	100	M10	142.0	158.0	137.0	20 × 2.5	2,300
124 – 132	-	-	M10	153.5	169.5	149.1	20 × 2.5	2,300
133 – 141	5"	125	M10	163.0	179.0	158.6	20 × 2.5	2,300
159 – 168	6"	150	M10	213.0	233.0	194.5	25 × 2.5	3,010



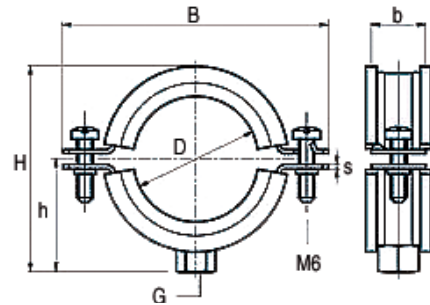
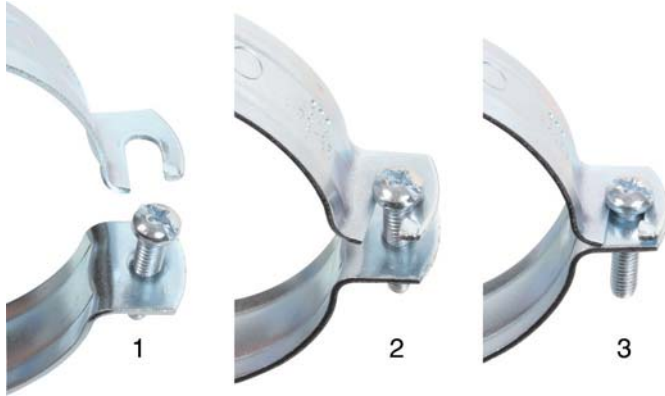
# Double Screw Pipe Clip, Silicone

## Robust double screw pipe clip with high-temperature-resistant silicone insert and quick-release safety fastener

- Bead-reinforced double screw pipe clip with 4-fold welded connecting nut
- Single-sided, quick-release safety fastener for quick, practical installation
- Age-resistant red-brown noise-insulating insert made of silicone rubber
- Material: Electrolytically galvanised steel
- Fulfills construction material class B2 in accordance with DIN 4102
- Noise-insulated according to DIN 4109
- Long-term temperature-resistant from -50°C to +200°C

### Application areas:

- Steam pipes
- Hot water systems



Article No.	Article Description	QTY
8615 11 14	PIPE CLIP HT 11-14MM M8	g 50
8615 15 18	PIPE CLIP HT 15-18MM M8	g 50
8615 20 23	PIPE CLIP HT 20-23MM M8	g 50
8615 25 28	PIPE CLIP HT 25-28MM M8	g 50
8615 31 35	PIPE CLIP HT 31-35MM M8	g 50
8615 40 43	PIPE CLIP HT 40-43MM M8	g 50
8615 48 53	PIPE CLIP HT 48-53MM M8	g 50
8615 64 67	DS PIPE CLIP HT 64-67MM M8/10	10
8615 73 80	PIPE CLIP HT 73-80MM M8/10	g 50
8615 83 91	PIPE CLIP HT 83-91MM M8/10	25
8615 100 106	DS PIP.CLIP HT 100-106MM M8/10	10
8615 108 114	PIPE CLIP HT 108-114MM M8/10	25
8615 124 132	DS PIP.CLIP HT 124-132MM M8/10	5
8615 133 141	DS PIP.CLIP HT 133-141MM M8/10	5
8615 159 168	PIPE CLIP HT 159-168MM M8/10	10

### Technical Data

D mm	D inch	DN mm	G	B	H	h	b x s	Fa,Z N
11 – 14	1/4"	8	M8	48	32	20	20 x 1.00	600
15 – 18	3/8"	10	M8	48	44.5	22	20 x 1.00	600
20 – 23	1/2"	15	M8	55	48.5	23	20 x 1.00	600
25 – 28	3/4"	20	M8	60	53.5	26	20 x 1.00	600
31 – 35	1"	25	M8	67	60.5	30	20 x 1.00	600
40 – 43	1 1/4"	32	M8	83	60.5	34	20 x 1.25	800
48 – 53	1 1/2"	40	M8	85	68.5	45	20 x 1.25	800
64 – 67	-	-	M8/10	109	95	55	20 x 2.00	800
73 – 80	2 1/2"	65	M8/10	126	109	61	23 x 2.00	930
83 – 91	3"	80	M8/10	137	121	67	25 x 2.50	930
100 – 106	-	-	M8/10	144	130	72	25 x 2.00	930
108 – 116	4"	100	M8/10	160	141	79	25 x 2.50	930
124 – 132	-	-	M8/10	169	155	84	23 x 2.00	930
133 – 141	5"	125	M8/10	189	170	92	25 x 2.50	930
159 – 168	6"	150	M8/10	233	198	99	25 x 3.00	1,500

The max. permitted load (Fa,Z) was determined from the breaking load using statistical methods while observing a max. permitted distortion of 1.5 mm or 2% of the max. pipe diameter that can be clamped

# Premium BGP Double Screw Pipe Clip

**Robust two-piece double screw pipe clip for high load requirements in building technology and pipeline construction – fire-tested in accordance with DIN 4102; noise-insulated in accordance with DIN 4109**

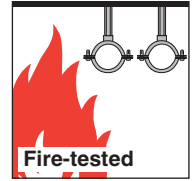
- Pivoting U-fastener
- Temperature resistance: -35°C to +100 °C
- Galvanised

**Product benefits:**

- Good adaption to pipe tolerances thanks to two fastening screws
- Combined thread enables variable thread connection

**Areas of application:**

- Fastening of pipes in indoor areas
- Suitable for securing pipes in industrial construction and in building technology



**Technical Data**

Art. No.	Clamp. range dA in mm	Steel pipe dA in mm	Steel pipe dA, inches	Copper pipe dA in mm	VA pipe dA in mm	HT pipe DN	HPDE pipe dA in mm	Cast iron/SML pipe DN
8516 15 20	15–20	17.2	3/8"	15.0/18.0	15.0/18.0	-	-	-
8516 22 28	22–28	21.3	1/2"	22.0/28.0	22.0/26.9	-	25	-
8516 38 42	38–42	38.0	-	42.0	42.0	-	40	-
8516 44 48	44–48	44.5	1 1/4"	-	-	-	-	40
8516 50 54	50–54	54.0	-	54.0	54.0	50	50	-
8516 56 60	56–60	57.0	-	-	-	-	-	50
8516 63 64	63–64	63.5	-	64.0	-	-	63	-
8516 75 83	75–83	76.1	2 1/2"	76.1	76.1	75	75	-
8516 84 89	84–89	88.9	3"	88.9	88.9	-	-	80
8516 90 95	90–95	-	-	-	-	-	90	-
8516 100 105	100–105	101.6	-	-	-	-	-	-
8516 108 112	108–112	108.0	-	108.0	-	110	110	100
8516 114 116	114–116	114.3	-	-	114.3	-	125	-
8516 121 125	121–125	-	-	-	-	125	-	-
8516 132 136	132–136	133.0	-	133.0	-	-	-	125
8516 159 163	159–163	159.0	-	159.0	159.0	160	160	-

Article No.	Article Description	QTY
8516 15 20	PIPE C.BGP M 8/10 3/8" 15- 20	25
8516 22 28	PIPE C.BGP M 8/10 1/2" 22- 28	25
8516 38 42	PIPE C.BGP M8/10 38- 42	25
8516 44 48	PIPE C.BGP M8/10 1 1/4" 44- 48	25
8516 50 54	PIPE C.BGP M8/10 1 1/2" 50- 54	25
8516 56 60	PIPE C.BGP M8/10 56- 60	25
8516 63 64	PIPE C.BGP M8/10 2" 63- 64	25
8516 75 83	PIPE C.BGP M8/10 2 1/2" 75- 83	10

Article No.	Article Description	QTY
8516 84 89	PIPE C.BGP M8/10 84- 89	10
8516 90 95	PIPE C.BGP M8/10 3" 90- 95	10
8516 100 105	PIPE C.BGP M8/10 100-105	10
8516 108 112	PIPE C.BGP M8/10 4" 108-112	10
8516 114 116	PIPE C.BGP M8/10 114-116	10
8516 121 125	PIPE C.BGP M8/10 121-125	10
8516 132 136	PIPE C.BGP M10/12 132-136	10
8516 159 163	PIPE C.BGP M10/12 5" 159-163	10

# Heavy-duty Pipe Clip

Heavy-duty, two-piece double screw pipe clip for high load requirements in building technology and pipeline construction – Noise-insulated in accordance with DIN 4109

- Pendulum plug-in nut
- Temperature resistance: -35°C to +100 °C
- Galvanised

**Product benefits:**

- Combined thread adapted to the load range
- Good adaption to pipe tolerances thanks to two fastening screws

**Areas of application:**

- For high loads in sanitary installations, heating and system construction, as well as pipeline and machine construction



Article No.	Article Description	QTY
8510 20 25	H.DUTY PIPE C. M 8/10 20- 25	g 50
8510 26 30	H.DUTY PIPE C. M 8/10 26- 30	g 50
8510 31 36	H.DUTY PIPE C. M 8/10 31- 36	g 50
8510 38 45	H.DUTY PIPE C. M 8/10 38- 45	g 50
8510 47 51	H.DUTY PIPE C. M 8/10 47- 51	g 50
8510 53 57	H.DUTY PIPE C. M 8/10 53- 57	g 50
8510 58 64	H.DUTY PIPE C. M 8/10 58- 64	g 50
8510 65 70	H.DUTY PIPE C. M10/12 65- 70	g 50
8510 72 78	H.DUTY PIPE C. M10/12 72- 78	g 50
8510 78 83	H.DUTY PIPE C. M10/12 78- 83	g 50
8510 84 90	H.DUTY PIPE C. M10/12 84- 90	g 50
8510 102 106	H.DUTY PIPE C. M10/12 102-106	g 50
8510 108 112	H.DUTY PIPE C. M10/12 108-112	g 50
8510 120 125	H.DUTY PIPE C. M10/12 120-125	g 50
8510 133 136	H.DUTY PIPE C. M10/12 133-136	25
8510 137 142	H.DUTY PIPE C. M10/12 137-142	25
8510 145 150	H.DUTY PIPE C. M10/12 145-150	25
8510 158 163	H.DUTY PIPE C. M10/12 158-163	25
8510 164 168	H.DUTY PIPE C. M10/12 164-168	25
8510 190 194	H.DUTY PIPE C. M10/12 190-194	10
8510 198 203	H.DUTY PIPE C. M10/12 198-203	10
8510 207 213	H.DUTY PIPE C. M10/12 207-213	10
8510 219 223	H.DUTY PIPE C. M10/12 219-223	10
8510 242 246	H.DUTY PIPE C. M10/12 242-246	1
8510 270 275	H.DUTY PIPE C. M10/12 270-275	1
8510 285 292	H.DUTY PIPE C. M10/12 285-292	1
8510 300 305	H.DUTY PIPE C. M10/12 300-305	1
8510 311 316	H.DUTY PIPE C. M10/12 311-316	1
8510 321 326	H.DUTY PIPE C. M10/12 321-326	1

**Technical Data**

Clamp. range dA in mm	Clamp. range dA in inches	Material thickn. mm	Max. recom. capacity in N*
20–25	1/2"	25×3.0	1,500
26–30	3/4"	25×3.0	1,500
31–36	1"	25×3.0	1,500
38–45	1 1/4"	25×3.0	1,500
47–51	1 1/2"	25×3.0	1,500
53–57	-	25×3.0	1,500
58–64	2"	25×3.0	1,850
65–70	-	30×3.0	1,850
72–78	2 1/2"	30×3.0	1,850
84–90	3"	30×3.0	1,850
102–106	-	30×3.0	1,850
108–112	-	30×3.0	1,850
120–125	-	35×4.0	5,000
133–136	-	35×4.0	5,000
137–142	5"	35×4.0	5,000
145–150	-	35×4.0	5,000
158–163	-	35×4.0	5,000
164–168	6"	35×4.0	5,000
190–194	-	35×4.0	5,000
198–203	-	35×4.0	5,000
207–213	-	35×4.0	5,000
219–223	8"	35×4.0	5,000
242–246	-	35×4.0	5,000
270–275	10"	35×4.0	5,000
285–292	-	35×4.0	5,000
300–305	-	35×4.0	5,000
311–316	-	35×4.0	5,000
321–326	-	35×4.0	5,000

\*with central tension

# Downpipe Clamps, Hot-dip Galvanised, M10

- Riveted
- Captive V2A ring bolt
- Strong triple lead thread
- Galvanised M10 connecting nut
- Clamp body hot-dip galvanised (galvanised all round)

Article No.	Article Description	QTY
8613 1 60	RAIN PIPE CLAMP 60MM M10	25
8613 1 76	RAIN PIPE CLAMP 76MM M10	25
8613 1 80	RAIN PIPE CLAMP 80MM M10	25
8613 1 87	RAIN PIPE CLAMP 87MM M10	25
8613 1 100	RAIN PIPE CLAMP 100MM M10	25
8613 1 120	RAIN PIPE CLAMP 120MM M10	25



## ISO Spiral Dowel with Threaded Pin

- Special threaded pin made of A2 stainless steel or with zinc flake coating for good corrosion protection
- Perfect solution for fixing downpipe clamps to the ETIC system: simple, flexible, fast and adjustable!
- Direct thermal-bridge-free attachment to the insulating material
- Pre-assembled special threaded pin: ideal distance of 30 mm between the downpipe and the wall; adjustment by up to a further 25 mm possible by hand
- Pre-assembled sealing ring made of weather-resistant cellular rubber
- Robust, self-drilling (ETICS plaster ≤ 7 mm) nylon dowel, weather resistant

### Suitable building materials:

- Heat insulation composite systems (ETICS), polystyrene panels (EPS, XPS), wood fibre insulation boards (pre-drilling: 13 mm), hard foam boards, polystyrene boards and Heraklith boards

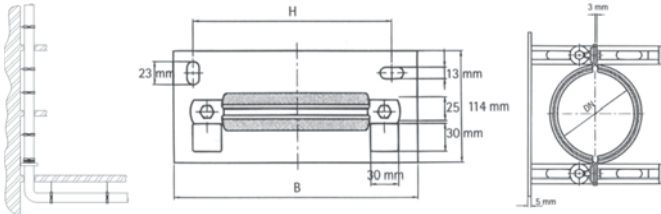


Article No.	Article Description	QTY
8137 10 95	ISO SPIR.DOWEL W.THR.PIN M10GV	z 50
8137 10 95 1	ISO SPIR.DOWEL W.THR.PIN M10A2	z 50

Technical Data					
Dowel length mm	Drive Dowel Ø	Drive threaded pin	Ø int. thread / connector thread	Recom. loads in kN polystyrene	
95	Size 17	TX 25 / SW 13	M 10	0.10	
95	Size 17	TX 25 / SW 13	M 10	0.10	

# Downpipe Support

- one-piece wall bracket with adjustable wall distance
- rapid assembly (only 2 bore holes)
- high load capacity (e.g. 3000 N at a distance of 130 mm from the wall to the center of the pipe)
- non-aging EPDM rubber inlay
- stainless assembly due to optimum adjustability
- optimum sound insulation profile according to DIN 4109
- steel 1.0332 electrolytically galvanized
- Console CO<sup>2</sup> welded



Article No.	Article Description	QTY
8627 70	DOWNPIPE SUPP. ID 70	1
8627 80	DOWNPIPE SUPP. ID 80	1
8627 100	DOWNPIPE SUPP. ID100	1
8627 125	DOWNPIPE SUPP. ID125	1
8627 150	DOWNPIPE SUPP. ID150	1
8627 200	DOWNPIPE SUPP. ID200	1

## Technical Data

ID	Height mm	Length mm	Width mm	Admissible load Fy (N)
70	167	210	212	3000
80	167	210	212	3000
100	199	210	244	3000
125	224	210	269	3000
150	248	210	293	3000
200	298	250	343	3000

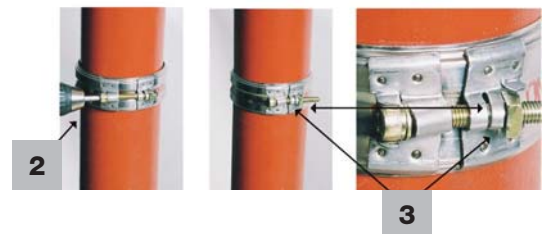
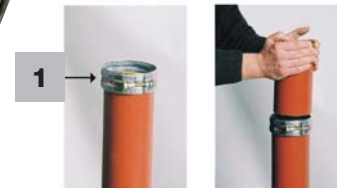
# SML Couplings

- Approval No Z-42.5-255
- Professional clamp made of stabilized chromium steel material number 1.4510/11 according to EN 10088-1
- Closure parts with only one screw
- Cylinder screw with internal hexagon 8.8, galv., yellow chromated
- Grip holders made of material number 1.4301
- Complete with inserted sealing collar made of EPDM, non-aging and resistant to hot water

## Assembly instruction:

- Shift the complete coupling (1) up to the center distance ring of the sealing onto the pipe end or fitting
- Shift the following pipe end or fitting from the other side onto the connection
- Firmly tighten the hexagon socket screw (2) using an impact screw driver until the chucking slot (3) is closed. The tightening torque is achieved.

Article No.	Article Description	QTY
8608 9 50	SML COUPLING ID 50	e 100
8608 9 70	SML COUPLING ID 70	e 100
8608 9 80	SML COUPLING ID 80	e 50
8608 9 100	SML COUPLING ID100	e 50
8608 9 125	SML COUPLING ID125	e 20
8608 9 150	SML COUPLING ID150	e 20
8608 9 200	SML COUPLING ID 200	1





# Securing Grip Collar for SML Coupling

- Approval No Z-42.5-255
- Galvanized securing clamp for SML pipe systems according to DIN 19 522/EN 877 and for twin-screw couplings
- For pipe systems with an pressure charge of up to 10 bar (ID50 - ID100), 5 bar (ID125 and ID150)

Article No.	Article Description	QTY
8608 1 50	COMB. SEC. GRIP COLL. ID 50	e 10
8608 1 70	COMB. SEC. GRIP COLL. ID 70	e 10
8608 1 80	COMB. SEC. GRIP COLL. ID 80	e 10
8608 1 100	COMB. SEC. GRIP COLL. ID 100	e 10
8608 1 125	COMB. SEC. GRIP COLL. ID 125	e 10
8608 1 150	COMB. SEC. GRIP COLL. ID 150	5
8608 1 200	COMB. SEC. GRIP COLL. ID 200	1



## Fix Coupling

- Approval number Z-42.5-255
  - Transition coupling including two sealing lips
  - For SML pipe system according to DIN 19 522/ EN877 with other pipe systems
  - Rubber cuff made of EPDM, tightening strap made of chrome nickel steel material number 1.450/11
  - **Advantage:** No cutting required = saving time when assembling!
- Assembly instruction:**
- Put the complete Fix coupling included in the delivery on the pipe end or fitting up to the distance ring of the sealing and fix it using the tension ring (1)
  - Pull the opening plug using tongs (2) and remove the rubber membrane
  - Label the connection pipe at the required installation depth, provide it with lubricant and insert it

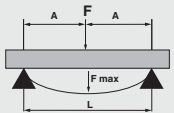
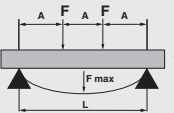


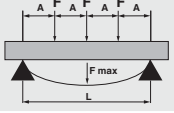
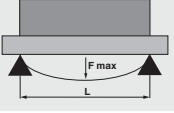
Article No.	Article Description	QTY
8608 2 50	FIX COUPLING ID 50	e 20
8608 2 70	FIX COUPLING ID 70	e 20
8608 2 80	FIX COUPLING ID 80	e 10
8608 2 100	FIX COUPLING ID 100	e 20
8608 2 125	FIX COUPLING ID 125	e 10

### Technical Data

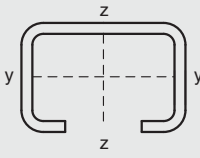


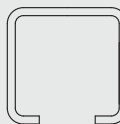
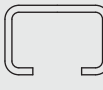
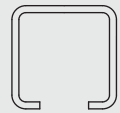
SML pipe ID	SML pipe outer Ø in mm	Outer Ø in in mm	Tightening torques in Nm
50	40 - 56	42	ca. 2
70	56 - 75	55	ca. 2
80	83 - 90	60	ca. 2
100	104 - 110	65	ca. 2
125	125	75	ca. 2

## Technical Data for Mounting Rails

Clamping width L mm	Deflection F max mm	Maximum permissible load values in Newton									
											
		TYPE 27	TYPE 28	TYPE 30 stainl. steel		TYPE 38	TYPE 27	TYPE 28	TYPE 30 stainl. steel		TYPE 38
		27/18	28/30	30/15	30/30	38/40	27/18	28/30	30/15	30/30	38/40
250	1,7	873	2.825	899	3.238	6.384	653	2.112	674	2.428	4.774
500	3,3	418	1.354	449	1.619	3.061	313	1.013	303	1.214	2.291
750	5,0	279	904	263	1.156	2.045	203	678	155	867	1.534
1.000	6,7	198	672	129	780	1.523	116	505	76	458	1.143
1.250	8,3	125	536	90	542	1.216	73	391	53	318	912
1.500	10,0	84	443	50	305	1.007	49	272	30	179	755
1.750	11,7	59	336	40	241	859	34	179	23	141	625
2.000	13,3	43	251	32	195	746	25	148	19	114	472
2.250	15,0	31	194	25	154	629	18	113	15	90	369
2.500	16,7	23	151	21	125	500	13	89	12	73	294
2.750	18,3	16	119	17	103	405	9	72	10	61	238
3.000	20,0	11	95	14	87	331	6	56		51	195
3.250	21,7			12	74	274				43	161
3.500	23,3			11	64	227				37	133
3.750	25,0				55	189				33	111
4.000	26,7				49	158				29	92
4.250	28,3				43	131				25	77
4.500	30,0				39	108				23	63
4.750	31,7				35	88				20	52
5.000	33,3				31	70				18	41
5.250	35,0				28	54				17	32
5.500	36,7				26	41				15	24
5.750	38,3				24	29				14	17
6.000	40,0				22	17				13	10

Clamping width L mm	Deflection F max mm	Maximum permissible load values in Newton									
											
		TYPE 27	TYPE 28	TYPE 30 stainl. steel		TYPE 38	TYPE 27	TYPE 28	TYPE 30 stainl. steel		TYPE 38
		27/18	28/30	30/15	30/30	38/40	27/18	28/30	30/15	30/30	38/40
250	1,7	437	1.412	449	1.619	3.192	7.570	24.485	1.797	6.475	55.331
500	3,3	209	677	217	809	1.530	1.672	5.415	826	3.238	12.242
750	5,0	140	452	111	578	1.022	738	2.431	421	2.313	5.503
1.000	6,7	84	336	54	328	761	317	1.344	206	1.248	3.046
1.250	8,3	52	268	38	228	608	161	848	143	867	1.951
1.500	10,0	35	195	21	128	503	90	494	81	488	1.342
1.750	11,7	25	141	17	101	429	54	308	64	385	966
2.000	13,3	18	106	14	82	339	34	201	52	312	644
2.250	15,0	13	82	11	65	265	22	138	41	247	448
2.500	16,7	9	64		53	211	14	97	33	200	320
2.750	18,3	7	50		43	171	9	70	27	165	236
3.000	20,0	5	40		36	140	6	51	23	139	177
3.250	21,7				31	116			20	118	135
3.500	23,3				27	96			17	102	104
3.750	25,0				23	80			15	89	81
4.000	26,7				21	66			13	78	63
4.250	28,3				18	55			11	69	50
4.500	30,0				16	45			10	62	38
4.750	31,7				15	37				55	30
5.000	33,3				13	30				50	23
5.250	35,0				12	23				45	17
5.500	36,7				11	17				41	12
5.750	38,3					12				38	8
6.000	40,0					7				35	5

## Technical Data for Mounting Rails

							
Material characteristics			27 / 18	28 / 30	38 / 40	30 / 15 stainl. st.	30 / 30 stainl. st.
Material thickness		mm	1,20	1,75	2,0	2,0	2,0
Delivery length		m	2 / 3	2 / 3	2 / 3 / 6	2	2
Weight		kg/m	0,59	1,14	1,84	0,87	1,34
Holes							
Slot width		mm	15	15	15	15	15
Oblong hole Ø		mm	18,5 × 6,5 / 10,5 10,5 × 6,5	26,0 × 10,5 8,5 × 10,5	28,0 × 15,0 8,5 × 15,0	26,5 × 10,5 8,5 × 10,5	26,5 × 10,5 8,5 × 10,5
Grid dimension		mm	100 / 35,5	50 / 100	50 / 100	50 / 100	50 / 100
Cross-section values							
y-axis							
Profile cross-section	A	cm <sup>2</sup>	0,68	1,38	2,24	1,02	1,62
Moment of inertia	I <sub>y</sub>	cm <sup>4</sup>	0,29	1,43	4,40	0,28	1,71
Moment of resistance	W <sub>y</sub>	cm <sup>3</sup>	0,29	0,91	2,13	0,35	1,08
z-axis							
Moment of inertia	I <sub>z</sub>	cm <sup>4</sup>	0,91	2,03	5,96	1,47	2,65
Moment of resistance	W <sub>z</sub>	cm <sup>3</sup>	0,67	1,45	3,14	0,98	1,76

## Material Constants:

Modulus of elasticity E	Shear modulus G	Poisson's ratio $\mu$	Coefficient of thermal expansion $\alpha \cdot T$
210.000 N/m <sup>2</sup>	81.000 N/m <sup>2</sup>	0,3	0,000012 1/K

## Calculation method:

The load-bearing capacity values for the bending load (primarily static load) are calculated according to the theory of elasticity, taking their own weight into account. To name but a couple of examples, these calculations use the material and cross-section constants. When calculating the load-bearing capacity values, the permissible steel stress of 160 N/mm<sup>2</sup> and the maximum deflection of L/150 are not exceeded. **The deflection indicated must be assessed for visual acceptability on a case-by-case basis!**

## Load:

If **several different** individual loads in **variable distances** affect a single-span beam (crossbar), they can be added and considered an estimated **individual load positioned centrally**.

For enhanced safety, it is advisable to use U-shaped brackets!

In case of high loads, "push-through installation" is recommended!

## Mounting on the ceiling and the wall:

The necessary fixing elements (screws and dowels) must be calculated individually and must be suitable for the load with mounting rails!

## Mounting Rail TYPE 27/18

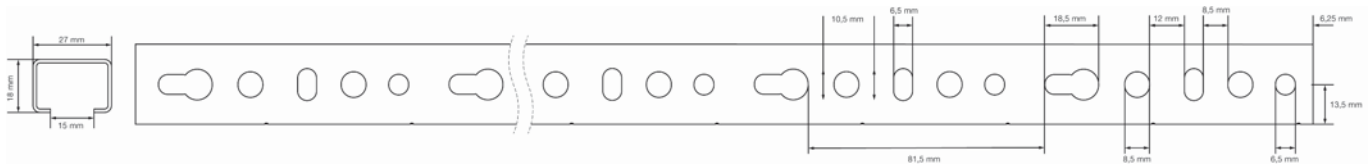
- Perforated mounting rails made of galvanised steel – improved corrosion protection and highest stability
- For manufacturing traverses, wall brackets and support frames for fastening pipe runs and pipe sections in the sanitary, heating, air-conditioning, ventilation and electrical trades

### Product benefits:

- Various fixing options due to different hole geometries
- Neat, visually pleasing assembly compared to single fixtures
- High resistance to bending and ultimate strength due to optimized profile cross sections
- The rails are matched to all the connecting parts of the FÖRCH fixing system and enable a variety of different constructions and connections without drilling or welding

### Areas of application:

- In house building
- Fastening standpipes
- Substructures



Article No.	Article Description	QTY
8540 27 18	MTR MOUNT. RAIL 2M GAL.27/18	i 50
8540 27 18 3	MTR MOUNT. RAIL 3M GAL.27/18	r 30

## Mounting Rail TYPE 28/30

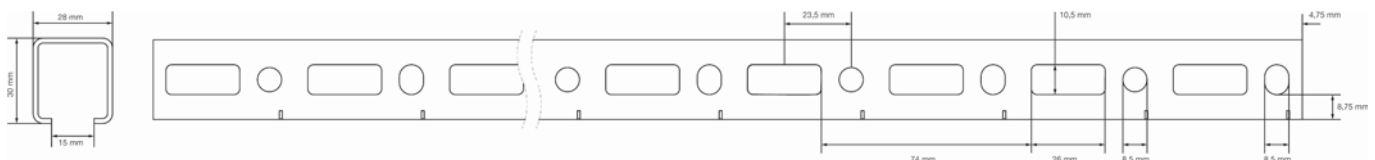
- Perforated mounting rails made of galvanised steel – improved corrosion protection and highest stability
- For manufacturing traverses, wall brackets and support frames for fastening pipe runs and pipe sections in the sanitary, heating, air-conditioning, ventilation and electrical trades

### Product benefits:

- Various fixing options due to different hole geometries
- Neat, visually pleasing assembly compared to single fixtures
- High resistance to bending and ultimate strength due to optimized profile cross sections
- The rails are matched to all the connecting parts of the FÖRCH fixing system and enable a variety of different constructions and connections without drilling or welding

### Areas of application:

- In house building
- Fixing lengths of pipe in supply ducts
- Fastening standpipes
- Substructures
- Supporting structure for ventilation ducts



Article No.	Article Description	QTY
8540 28 30	MTR MOUNT. RAIL 2M GAL.28/30	i 20
8540 28 30 3	MTR MOUNT. RAIL 3M GAL.28/30	r 24

## Mounting Rail TYPE 38/40

- Perforated mounting rails made of galvanised steel – improved corrosion protection and highest stability
- For manufacturing traverses, wall brackets and support frames for fastening pipe runs and pipe sections in the sanitary, heating, air-conditioning, ventilation and electrical trades

### Product benefits:

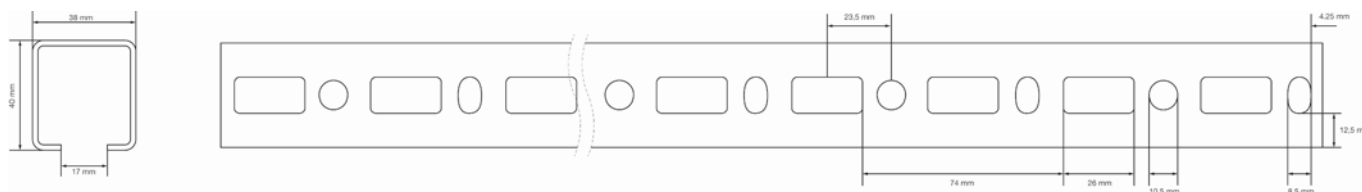
- Various fixing options due to different hole geometries
- Neat, visually pleasing assembly compared to single fixtures
- High resistance to bending and ultimate strength due to optimized profile cross sections
- The rails are matched to all the connecting parts of the FÖRCH fixing system and enable a variety of different constructions and connections without drilling or welding

### Areas of application:

- Supporting structure for ventilation ducts
- Fixing lengths of pipe in supply ducts
- Substructures
- Platform construction

### Ordering information:

- The minimum order quantity for 6 m mounting rails is 24 m



Article No.	Article Description	QTY
8540 38 40	MTR MOUNT. RAIL 2M GAL. 38/40	i 10
8540 38 40 3	MTR MOUNT. RAIL 3M GAL. 38/40	r 24
8540 38 40 6	MTR MOUNT. RAIL 6M GAL. 38/40	s 24

## Mounting Rail TYPE 30 Stainless Steel

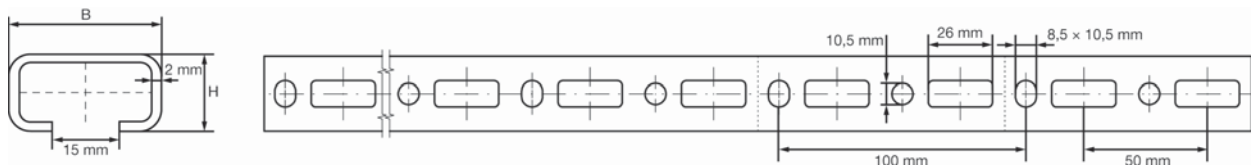
- Perforated mounting rail made from stainless steel A4 (1.4404) – highly corrosion resistant
- For manufacturing traverses, wall brackets and support frames in conjunction with a comprehensive range of system components
- In the workshop as a sub-assembly for fastening pipe runs and pipe sections in the sanitary, heating, ventilation, air-conditioning and electrical trades

### Advantages:

- The hole geometry offers numerous fixing options for neat and visually appealing assembly
- High resistance to bending and ultimate strength due to optimized profile cross sections

### Areas of application:

- Outdoors
- Mounting frames for solar installations
- In the food industry
- In the photochemical and pharmaceuticals industries
- In nuclear power stations



Article No.	Article Description	QTY
8539 30 15 2	MTR MOUNT. RAIL 2M A4 30/15	i 10
8539 30 30 2	MTR MOUNT. RAIL 2M A4 30/30	i 10

### Technical Data

B	H
mm	mm
30	15
30	30

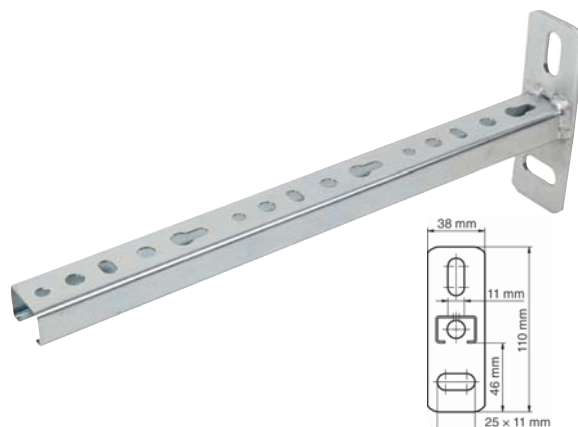


## Console TYPE 27/18


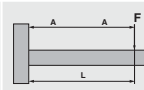
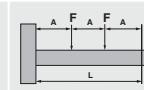
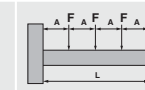
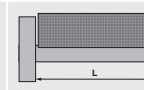
- Galvanised, assembly-ready cantilever bracket
- Robot-controlled precision welding – highest safety and stability
- Good adaptation to structural requirements thanks to graduated lengths
- The mounting holes in the base plate are punched slots at 90° to each other, to improve ease of installation
- Also suitable for fixing to ceilings

### Areas of application:

- Projecting support structures for pipe sections, fittings, cable racks, pumps, ventilation ducts, ventilation units and air-conditioning units



Article No.	Article Description	QTY
8545 200	CONSOLE GAL.TYPE 27/18 200MM	e 25
8545 300	CONSOLE GAL.TYPE 27/18 300MM	e 25

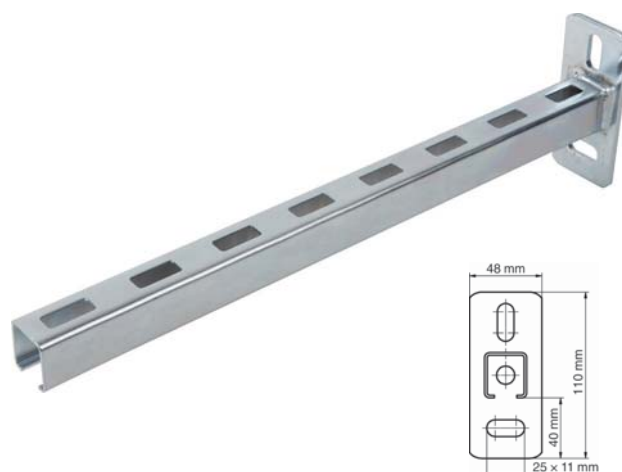
Length projection mm	Total length mm	Load values in Newton (N) for console TYPE 27/18				
		 F = single load A = 1/2 × L	 F = single load A = L	 F = single load A = 1/3 × L	 F = single load A = 1/4 × L	 Distributed load
200	204	530	265	265	177	2.650
300	304	352	140	176	117	1.174

## Console TYPE 28/30

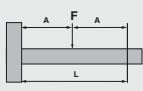
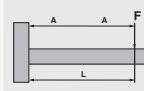
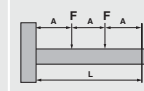
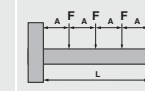
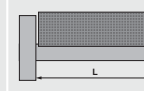
- Galvanised, assembly-ready cantilever bracket
- Robot-controlled precision welding – highest safety and stability
- Good adaptation to structural requirements thanks to graduated lengths
- The mounting holes in the base plate are punched slots at 90° to each other, to improve ease of installation
- Also suitable for fixing to ceilings

### Areas of application:

- Projecting support structures for pipe sections, fittings, cable racks, pumps, ventilation ducts, ventilation units and air-conditioning units



Article No.	Article Description	QTY
8546 250	CONSOLE GAL.TYPE 28/30 250MM	e 25
8546 350	CONSOLE GAL.TYPE 28/30 350MM	e 25
8546 400	CONSOLE GAL.TYPE 28/30 400MM	e 25
8546 550	CONSOLE GAL.TYPE 28/30 550MM	e 10

Length projection mm	Total length mm	Load values in Newton (N) for console TYPE 28/30				
		 F = single load A = 1/2 × L	 F = single load A = L	 F = single load A = 1/3 × L	 F = single load A = 1/4 × L	 Distributed load
250	254	1.354	677	677	450	1.354
350	354	965	482	482	322	964
400	404	843	421	421	281	842
550	554	610	305	305	203	610

When calculating the load-bearing capacity values, the permissible steel stress of 160 N/mm<sup>2</sup> and the maximum deflection of L/150 are not exceeded.

The loads indicated only apply to the console.

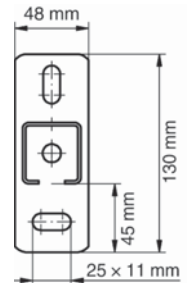
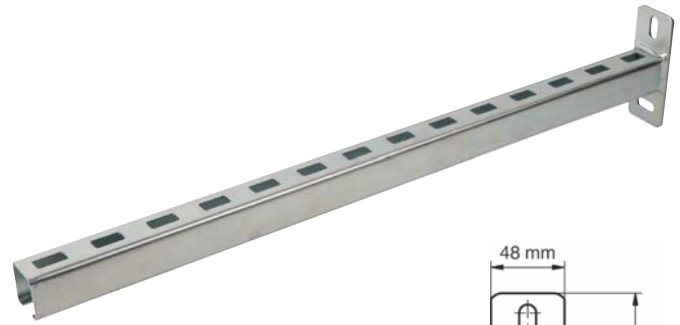
The other design parts must be tested for their permissible maximum load too.

# Console TYPE 38/40


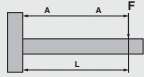
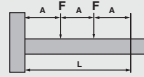


- Galvanised, assembly-ready cantilever bracket
- Robot-controlled precision welding – highest safety and stability
- Good adaptation to structural requirements thanks to graduated lengths
- The mounting holes in the base plate are punched slots at 90° to each other, to improve ease of installation
- Also suitable for fixing to ceilings

## Areas of application:

- Projecting support structures for pipe sections, fittings, cable racks, pumps, ventilation ducts, ventilation units and air-conditioning units



Article No.	Article Description	QTY
8547 200	CONSOLE GAL.TYPE 38/40 200MM	e 10
8547 350	CONSOLE GAL.TYPE 38/40 350MM	e 20
8547 450	CONSOLE GAL.TYPE 38/40 450MM	e 10
8547 600	CONSOLE GAL.TYPE 38/40 600MM	e 5
8547 700	CONSOLE GAL.TYPE 38/40 700MM	e 5
8547 1000	CONSOLE GAL.TYPE 38/40 1000MM	1 ü

Length projection mm	Total length mm	Load values in Newton (N) for console TYPE 38/40				
		 F = single load A = 1/2 × L	 F = single load A = L	 F = single load A = 1/3 × L	 F = single load A = 1/4 × L	 Distributed load
200	206	3.828	1.914	1.914	1.276	3.828
350	356	2.128	1.064	1.064	710	2.128
450	456	1.655	868	868	578	1.736
600	606	1.265	572	633	422	1.144
700	706	1.081	418	540	360	836
1.000	1.006	640	200	300	194	398

When calculating the load-bearing capacity values, the permissible steel stress of 160 N/mm<sup>2</sup> and the maximum deflection of L/150 are not exceeded.

**The loads indicated only apply to the console.**

**The other design parts must be tested for their permissible maximum load too.**

# Console TYPE 30 Stainless Steel

- Assembly-ready cantilever bracket
- Robot-controlled precision welding – highest safety and stability
- Good adaptation to structural requirements thanks to graduated lengths and oblong holes in the base plate
- Stainless steel A4 (1.4404) – highly corrosion resistant



## Areas of application:

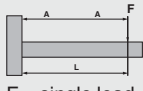
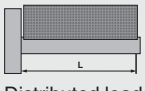
- Projecting support structures for pipe sections, fittings, cable racks, pumps, ventilation ducts, ventilation units and air-conditioning units
- In corrosive environments and in the food industry

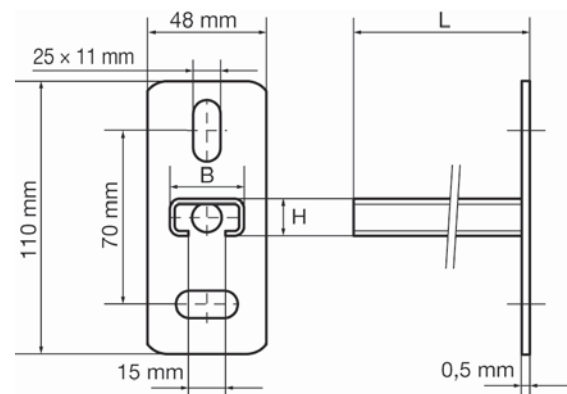


## Technical Data

Art. No.	Type	Base plate mm	L mm	B mm	H mm
8539 30 15 200	30/15	48×5	200	30	15
8539 30 30 300	30/30	48×5	300	30	30

Article No.	Article Description	QTY
8539 3015 200	CONSOLE A4 TYPE 30/15 200MM	e 5
8539 30 30 300	CONSOLE A4 TYPE 30/30 300MM	e 10

Length projection mm	Total length mm	Load values in Newton (N) for console TYPE 30	
		 F = single load A = L	 Distributed load
200	204	202	538
300	304	542	1.349



When calculating the load-bearing capacity values, the permissible steel stress of 160 N/mm<sup>2</sup> and the maximum deflection of L/150 are not exceeded.

**The loads indicated only apply to the console.**

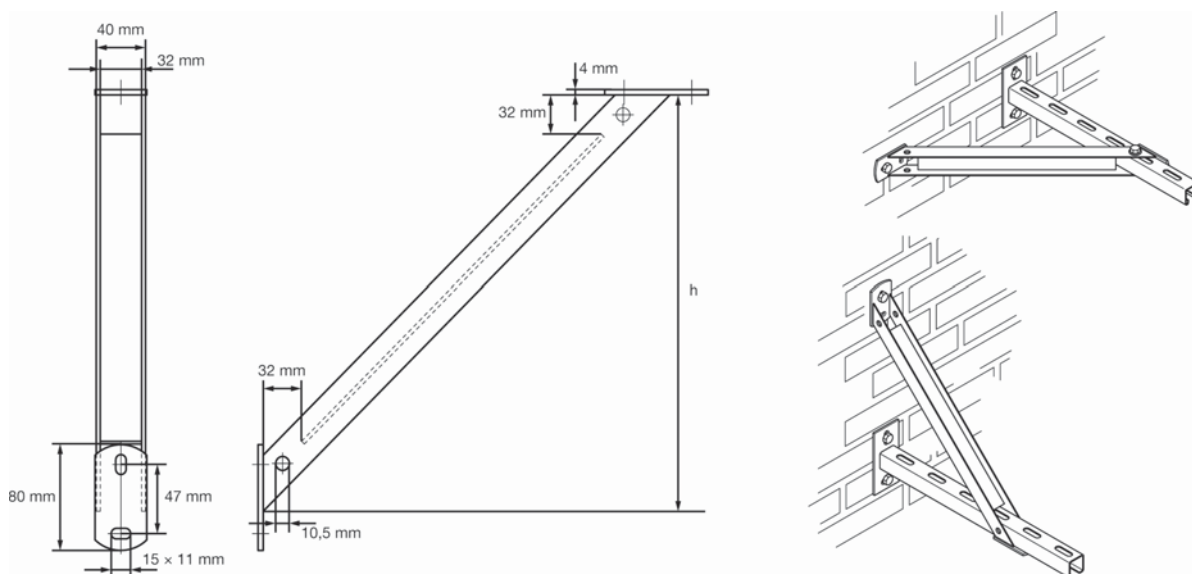
**The other design parts must be tested for their permissible maximum load too.**

# Console Supporting Beam

- For attaching as a support element above, below or next to a wall console
- Used to increase the load-bearing capability of rail structures
- Electrolytically galvanised
- Vertical attachment of the console supporting beam for consoles:  
Type 27/18; Type 28/30
- Horizontal attachment of the console supporting beam for consoles:  
Type 27/18



Article No.	Article Description	QTY
8548 250	CONSOLE SUPP. BEAM GAL.250MM	1
8548 350	CONSOLE SUPP. BEAM GAL.350MM	1

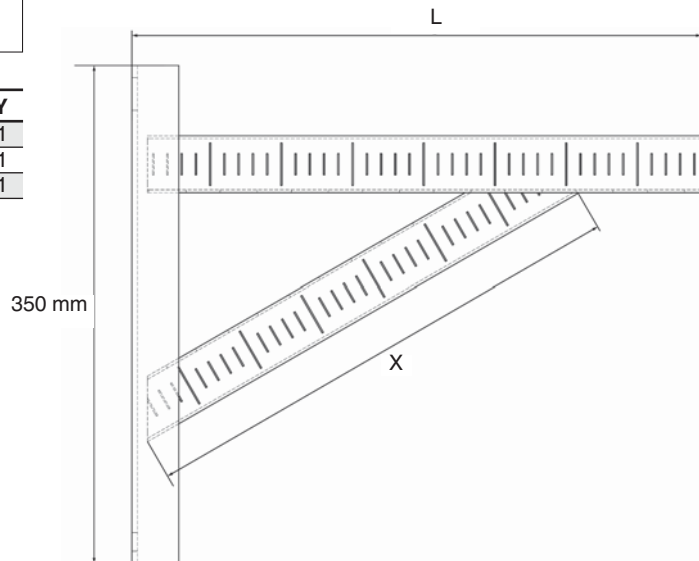


# Heavy Duty Console TYPE 38/40


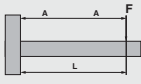
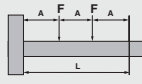
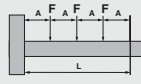
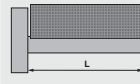
- Hot-dip galvanised console with welded support for fixing heavy pipes
- Suitable for outdoor applications (except for highly corrosive environments)
- Fixing heavy units, pumps and air conditioning equipment
- Profile thickness: 2 mm
- Slot width: 17 mm

## Technical Data

Art. No.	L mm	X mm
8547 2 400	400	350
8547 2 600	600	450
8547 2 800	800	450



Article No.	Article Description	QTY
8547 2 400	CONS.HEAVY 38/40 H-D.GAL.400MM	1
8547 2 600	CONS.HEAVY 38/40 H-D.GAL.600MM	1
8547 2 800	CONS.HEAVY 38/40 H-D.GAL.800MM	1

Length projection mm	Total length mm	Load values in Newton (N) for console TYPE 38/40				
		 F = single load A = 1/2 × L	 F = single load A = L	 F = single load A = 1/3 × L	 F = single load A = 1/4 × L	 Distributed load
400	406	2.128	1.064	1.064	710	2.128
600	606	1.265	572	633	422	1.144
800	806	1.081	418	540	360	836

When calculating the load-bearing capacity values, the permissible steel stress of 160 N/mm<sup>2</sup> and the maximum deflection of L/150 are not exceeded.

**The loads indicated only apply to the console.**

**The other design parts must be tested for their permissible maximum load too.**



## Console Set TYPE 38/40 SD

- Completely pre-assembled fastening kit for immediate efficient assembly
- Wall rail for extra height adjustment and / or simplification of fixing on an uneven substrate
- Vibration damper with pre-fitted sliding nut, washer and hexagonal locknut
- Soundproofing by means of vibration damper (supports made of vulcanised rubber)
- Various projections (depending on unit size)

Article No.	Article Description	QTY
8547 1 500	CONSOLE SET 38/40 M.SD 500MM	1
8547 1 550	CONSOLE SET 38/40 M.SD 550MM	1
8547 1 650	CONSOLE SET 38/40 M.SD 650MM	1



## Sound-deadening Profile Strip

- High degree of soundproofing due to small contact area
- Quick assembly
- Suitable for profiles Type 27/18, Type 28/30, Type 38/40 and Type 30

### Areas of application:

- To prevent acoustic bridges during the construction of traverses and consoles in ventilation systems

### Usage instructions:

- Push into the mounting rail profile
- Push over the threaded rod

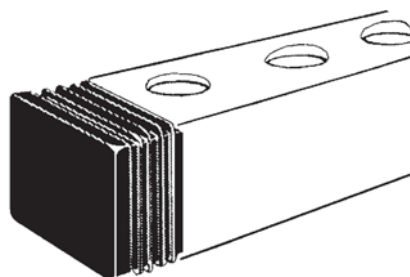
Article No.	Article Description	QTY
8558 273038	RO(30)RAIL DEAD. PROFILE	1



## Rail End Cap

- For safe and visually attractive finishing of the ends of mounting rails and consoles
- Made from high quality polyethylene
- Simply press or tap in

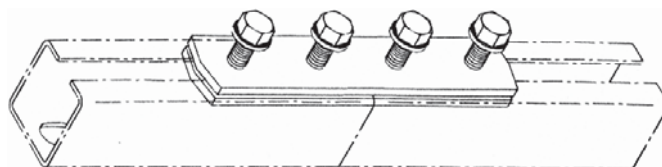
Article No.	Article Description	QTY
8561 27 18	RAIL END CAPS TYPE 27/18	f 100
8561 28 30	RAIL END CAPS TYPE 28/30	f 100
8561 38 40	RAIL END CAPS TYPE 38/40	50



## Rail Couplings

- Mounting rails can be joined on site simply by bolting together without drilling or welding
- Galvanised – corrosion-protected
- Pre-assembled and ready for fitting – time-saving and efficient
- Bolted into the oblong holes on the rear of the rail, thus increasing the tensile strength in ascending pipe assemblies

Article No.	Article Description	QTY
8554 27	RAIL COUPLING GAL. TYPE 27	e 25
8554 38	RAIL COUPLING GAL. TYPE 38	e 25



## Rail Bracket

- Pre-assembled rail bracket
- Easy to assemble, flexible connecting element for building correctly designed structures with mounting rails (rotationally stable attachment to the building structure)
- The perforations on the bracket permit the alignment of the rail slot in 4 directions
- Due to the clamping spring, the product can be easily and flexibly moved and positioned until it is finally fixed in the rail
- For cross connections in front wall installations and shelves made from mounting rails

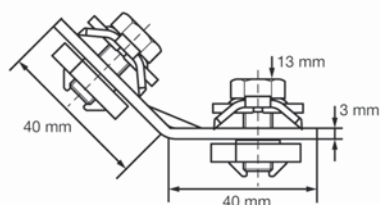
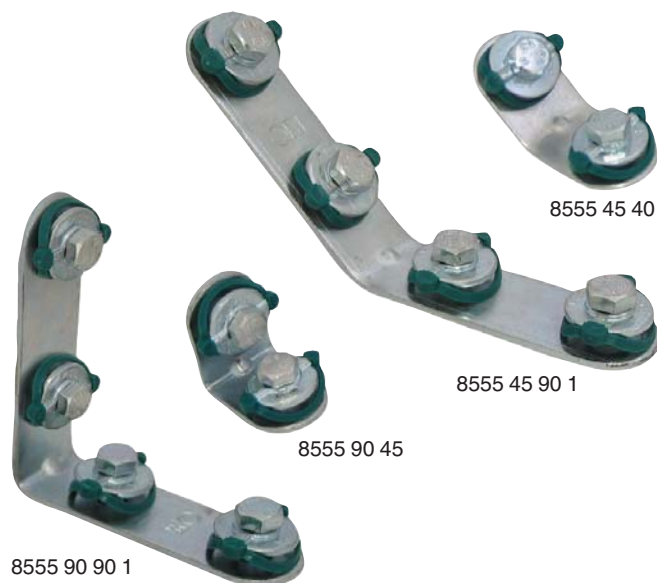
Article No.	Article Description	QTY
8554 28 30 1	RAIL BRACKET GAL. 28/30	25
8554 38 40	RAIL BRACKET GAL. 38/40	e 25



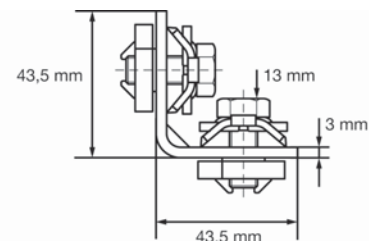
# Mounting Bracket TYPE 27

- Pre-assembled mounting bracket for manufacturing and bracing support systems without drilling or welding
- Electrolytically galvanised
- For quick, sturdy fastening
- Suitable for mounting rails Type 27/18 and 28/30
- Suitable for consoles Type 27/18 and Type 28/30

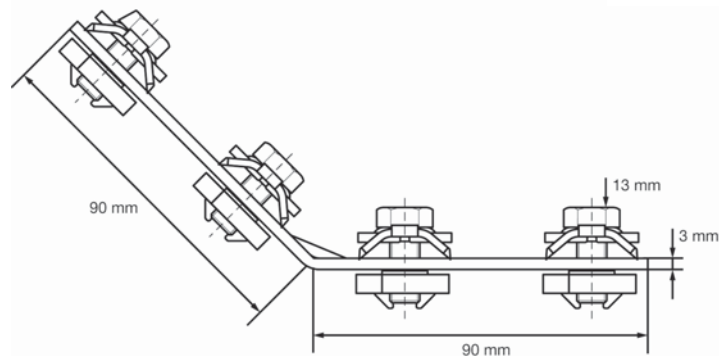
Article No.	Article Description	QTY
8555 45 40	MOUNT.BRACK.45°S TYPE27	e 25
8555 45 90 1	MOUNT.BRACK.45°L TYPE27	e 25
8555 90 45	MOUNT.BRACK.90°S TYPE27	e 25
8555 90 90 1	MOUNT.BRACK.90°L TYPE27	e 25



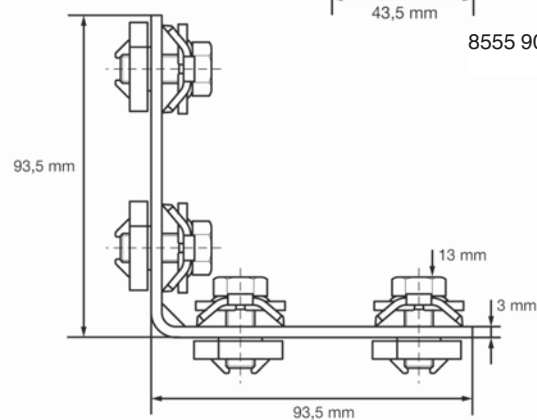
8555 45 40



8555 90 45



8555 90 90 1



8555 45 90 1

# Mounting Bracket TYPE 38

- Mounting bracket for manufacturing and bracing support systems without drilling or welding
- For quick, sturdy fastening
- Suitable for mounting rails Type 38/40
- Suitable for consoles Type 38/40

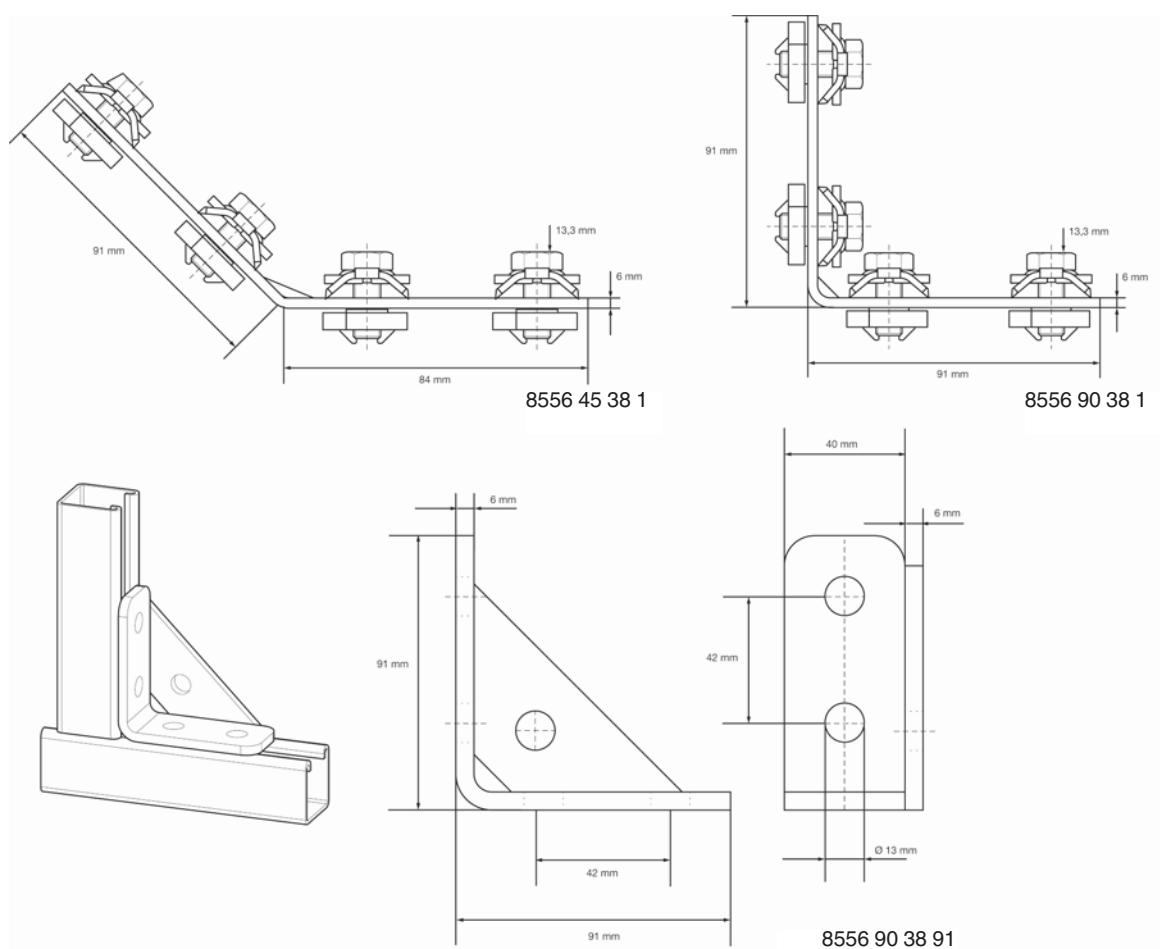
**Art. No. 8556 45 38 1 / 8556 90 38 1:**

- Electrolytically galvanised
- Pre-assembled

**Art. No. 8556 90 38 91:**

- High quality galvanisation 8 – 10  $\mu$
- 4-hole bracket not pre-fitted

Article No.	Article Description	QTY
8556 45 38 1	MOU.BRACK.45°GAL.PRE-AS.TYPE38	25
8556 90 38 1	MOU.BRACK.90°GAL.PRE-AS.TYPE38	25
8556 90 38 91	MOUNT.BRACK.90°SUPP. TYPE38	1

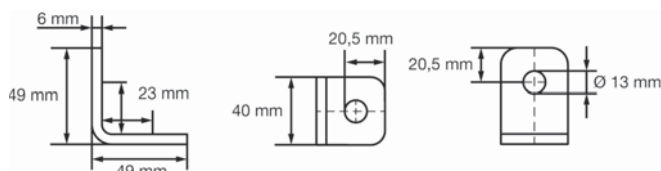




## Mounting Bracket TYPE 38 short

- For manufacturing and bracing support systems without drilling or welding
- Hot-dip galvanised
- Easy to fit due to rounded corners
- Suitable for mounting rails Type: 38/40
- Suitable for consoles Type: 38/40

Article No.	Article Description	QTY
8556 90 38	MOUNT.BRACK.90°SHO.GAL. TYPE38	25



## Mounting Bracket TYPE 38 VARIO

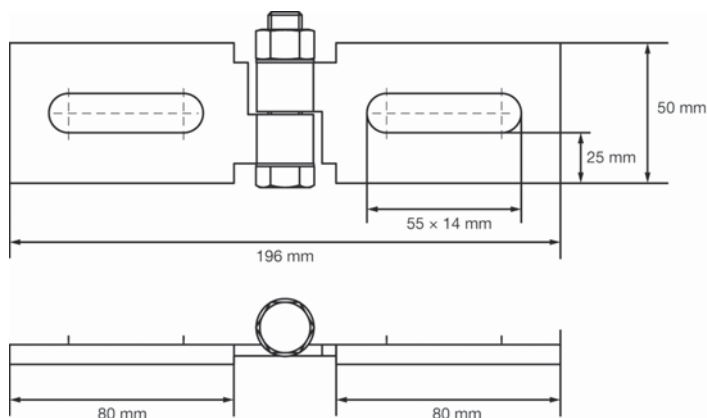
- Freely adjustable angle of inclination permits diverse structures
- Suitable for both galvanised and stainless steel mounting rails
- High quality galvanisation 8 – 10  $\mu$
- Suitable for mounting rails Type 38/40

### Areas of application:

- In corrosive environments and outdoors
- Mounting frames for solar installations
- Construction of racks and frameworks



Article No.	Article Description	QTY
8556 80 80 50	MOUNT.BRACK.VARIO 80X50	20



# Angle Bracket TYPE 38/40

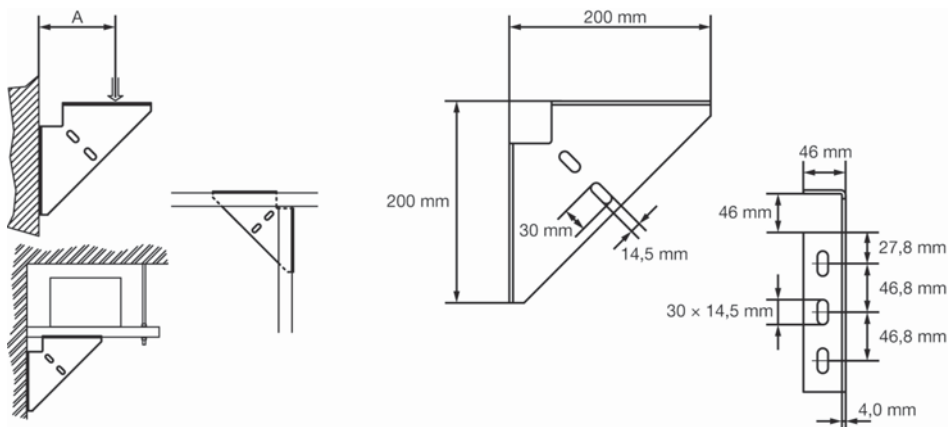
- High quality galvanisation 8 – 10  $\mu$
- One-piece support for attaching as a support element above, below or next to a wall console
- Attaching the support increases the load-bearing capability of the rail structure
- Suitable for installations indoors and outdoors

## Areas of application:

- Basic support or connecting element
- Fixing point for crossbars
- Support console for holding water meters, pumps, etc.



Article No.	Article Description	QTY
8547 1 04	ANGLE BRACKET 38/40 200X200X04	1



## Rail Holder Upright

- For manufacturing customised support structures in conjunction with mounting rails
- Pre-assembled and ready for fitting, with M10 hexagonal bolt and washer
- Galvanised – corrosion-protected
- Dimensions of base plate: 120 × 40 × 4 mm
- 2 Oblong holes: 11 × 24 mm
- Matching mounting rails
  - Art. No. 8549 27: Type: 27/18, 28/30
  - Art. No. 8549 38: Type: 38/40

Article No.	Article Description	QTY
<b>8549 27</b>	UPR.RAIL SUPP.FL. GAL. TYPE 27	ü 25
<b>8549 38</b>	UPR.RAIL SUPP.FL. GAL. TYPE 38	ü 25



## Rail Holder Transverse

- For manufacturing customised support structures in conjunction with mounting rails
- Pre-assembled and ready for fitting, with M10 hexagonal bolt and washer
- Galvanised – corrosion-protected
- Dimensions of base plate: 120 × 40 × 4 mm
- 2 Oblong holes: 11 × 24 mm
- Matching mounting rails
  - Art. No. 8549 27: Type: 27/18, 28/30
  - Art. No. 8549 38: Type: 38/40

Article No.	Article Description	QTY
<b>8550 27</b>	TR. RAIL SUPP.FL. GAL. TYPE 27	ü 25
<b>8550 38</b>	TR. RAIL SUPP.FL. GAL. TYPE 38	ü 25



## Rail Runner Upright

- Diverse options for use of mounting rails to create customised brackets and load-bearing systems for wall, floor and ceiling mounting
- System module for assembling sturdy crossbars
- Galvanised – corrosion-protected
- Pre-assembled design for large time savings
- Matching mounting rails
  - Art. No. 8552 27 (1): Type: 27/18, 28/30
  - Art. No. 8552 38 (1): Type: 38/40

### Technical Data

Type	Dimensions of base plate	Oblong hole
27	114 × 50 × 4 mm	19 × 11 mm
38	144 × 70 × 6 mm	19 × 11 mm



8552 27  
8552 38



8552 27 1  
8552 38 1

Article No.	Article Description	QTY
8552 27	UPR.RAIL SUPP.SADDLE GAL. T 27	ü 25
8552 27 1	UPR.RAIL SUPP.SAD.MOUNT T 27	ü 25
8552 38	UPR.RAIL SUPP.SADDLE GAL. T 38	ü 25
8552 38 1	UPR.RAIL SUPP.SAD.MOUNT T 38	ü 25

## Rail Runner Transverse

- Diverse options for use of mounting rails to create customised brackets and load-bearing systems for wall, floor and ceiling mounting
- System module for assembling sturdy crossbars
- Galvanised – corrosion-protected
- Pre-assembled design for large time savings
- Matching mounting rails
  - Art. No. 8553 27 (1): Type: 27/18, 28/30
  - Art. No. 8553 38 (1): Type: 38/40

### Technical Data

Type	Dimensions of base plate	Oblong hole
27	125 × 40 × 5 mm	19 × 11 mm
38	136 × 50 × 6 mm	19 × 11 mm



8553 27  
8553 38



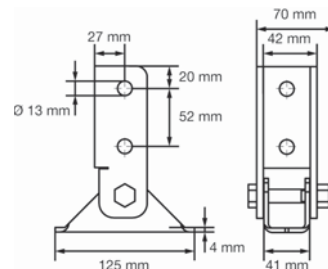
8553 27 1  
8553 38 1

Article No.	Article Description	QTY
8553 27	TR. RAIL SUPP.SADDLE GAL. T 27	ü 25
8553 27 1	TR. RAIL SUPP.SAD.MOUNT T 27	ü 25
8553 38	TR. RAIL SUPP.SADDLE GAL. T 38	ü 25
8553 38 1	TR. RAIL SUPP.SAD.MOUNT T 38	5 g

## Rail Support Saddle TYPE 38 VARIO

### Variable connecting element for mounting rails on inclined surfaces

- High quality galvanisation 8 – 10 µ
- Ideal for connecting mounting rails in shafts, arches and on inclined surfaces
- The angle of inclination is adjustable and can be adapted to the on-site circumstances
- Rails can be fitted with the slot facing down or to the side
- For long console booms with struts
- Survives at least 1,000 hours salt spray test in accordance with DIN ISO 9227



Article No.	Article Description	QTY
8552 38 2	VARIO RAIL SUPP.SAD.MOUNT T 38	5

# HakoFix Quick Fastener

## Insert, turn, fix

- Considerable time savings due to pre-assembled elements
- Large selection of pre-manufactured thread lengths
- Customised suspension length possible with threaded rods and threaded pins when mounting plates are used
- Simple height adjustment in the installed state – thus an up/down slope can be quickly adjusted
- Very good gripping force in the respective profile, yet easy to move in order to ensure optimum positioning in the rail slot

## Areas of application:

- Direct connection of pipe clamps to mounting rails

Article No.	Article Description	QTY
8668 1 6	HAKOFIX QUICK FAST.T 27 M6	120
8668 1 8	HAKOFIX QUICK FAST.T 27 M8	120
8668 1 8 30	HAKOFIX QUICK FAST.T 27 M8X 30	90
8668 1 8 40	HAKOFIX QUICK FAST.T 27 M8X 40	80
8668 1 8 60	HAKOFIX QUICK FAST.T 27 M8X 60	60
8668 1 8 80	HAKOFIX QUICK FAST.T 27 M8X 80	50
8668 1 8 100	HAKOFIX QUICK FAST.T 27 M8X100	40
8668 1 8 120	HAKOFIX QUICK FAST.T 27 M8X120	30
8668 1 10	HAKOFIX QUICK FAST.T 27 M10	120
8668 1 10 40	HAKOFIX QUICK FAST.T 27 M10X40	70
8668 2 6	HAKOFIX QUICK FAST.T 38 M6	100
8668 2 8	HAKOFIX QUICK FAST.T 38 M8	100
8668 2 8 30	HAKOFIX QUICK FAST.T 38 M8X 30	70
8668 2 8 40	HAKOFIX QUICK FAST.T 38 M8X 40	60
8668 2 8 60	HAKOFIX QUICK FAST.T 38 M8X 60	50
8668 2 8 80	HAKOFIX QUICK FAST.T 38 M8X 80	45
8668 2 8 100	HAKOFIX QUICK FAST.T 38 M8X100	40
8668 2 10	HAKOFIX QUICK FAST.T 38 M10	100
8668 2 10 40	HAKOFIX QUICK FAST.T 38 M10X40	50
8668 2 10 60	HAKOFIX QUICK FAST.T 38 M10X60	40
8668 2 10 80	HAKOFIX QUICK FAST.T 38 M10X80	35



TYPE 27



TYPE 38



TYPE 27



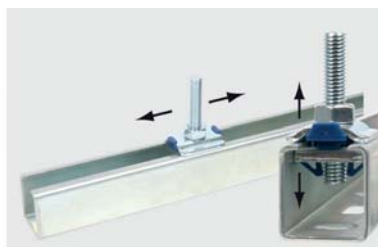
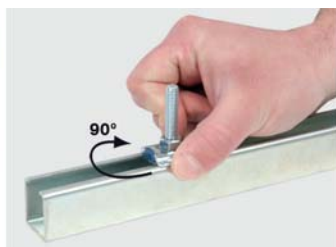
TYPE 38

## Technical Data

Art. No.	Suitable FÖRCH mounting rail	Usable thread length in mm	Tightening torque in N <sup>1</sup> )	Max. perm. tensile load in N	Skid point/ transver. thrust load in N <sup>2</sup> )
8668 1 6	27/18 – 28/30	-	-	2,700	231
8668 1 8	27/18 – 28/30	-	-	2,700	231
8668 1 8 30	27/18 – 28/30	23	12	2,700	231
8668 1 8 40	27/18 – 28/30	33	12	2,700	231
8668 1 8 60	27/18 – 28/30	53	12	2,700	231
8668 1 8 80	27/18 – 28/30	73	12	2,700	231
8668 1 8 100	27/18 – 28/30	93	12	2,700	231
8668 1 8 120	27/18 – 28/30	113	12	2,700	231
8668 1 10	27/18 – 28/30	-	-	2,900	299
8668 1 10 40	27/18 – 28/30	31	12	2,900	299
8668 2 6	38/24, 38/40, 40/60	-	-	3,500	278
8668 2 8	38/24, 38/40, 40/60	-	-	3,500	278
8668 2 8 30	38/24, 38/40, 40/60	23	13	3,500	278
8668 2 8 40	38/24, 38/40, 40/60	33	13	3,500	278
8668 2 8 60	38/24, 38/40, 40/60	53	13	3,500	278
8668 2 8 80	38/24, 38/40, 40/60	73	13	3,500	278
8668 2 8 100	38/24, 38/40, 40/60	93	13	3,500	278
8668 2 10	38/24, 38/40, 40/60	-	-	3,500	332
8668 2 10 40	38/24, 38/40, 40/60	31	17	3,500	332
8668 2 10 60	38/24, 38/40, 40/60	51	17	3,500	332
8668 2 10 80	38/24, 38/40, 40/60	71	17	3,500	332

1) Tightening torque should not be exceeded

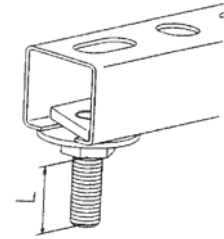
2) Following the requirements of the Gütegemeinschaft Rohrbefestigung (Quality Assurance Association for Pipe Supports) (RAL-GZ 655) with a safety factor of 2.0





# Hammer-Head Bolt Type 27

- For free turning in mounting rails
- Completely preassembled with nut and washer – no loss in assembly time
- Electrogalvanized – corrosion-resistant
- Appropriate for mounting rails type 27/18 and type 28/30
- Appropriate for consoles type 27/18 and type 28/30
- Thickness base plate: 4 mm
- Washer Ø: 28 mm, washer thickness: 2 mm



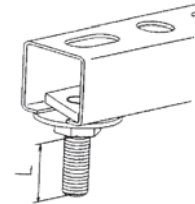
Article No.	Article Description	QTY
8666 8 20	HAM.-HEAD BOLT GAL. 8X20 T.27	100
8666 8 30	HAM.-HEAD BOLT GAL. 8X30 T.27	100
8666 8 40	HAM.-HEAD BOLT GAL. 8X40 T.27	100
8539 8 40	HAM.-HEAD BOLT A4 8X40 T.27	25
8666 8 50	HAM.-HEAD BOLT GAL. 8X50 T.27	100
8666 8 60	HAM.-HEAD BOLT GAL. 8X60 T.27	100
8666 8 80	HAM.-HEAD BOLT GAL. 8X80 T.27	100
8666 8 100	HAM.-HEAD BOLT GAL. 8X100 T.27	50

## Technical Data

Material	For profile	Useable thread length L in mm
galvanised	27/18 – 28/30	7
galvanised	27/18 – 28/30	15
galvanised	27/18 – 28/30	25
stainless steel	27/18 – 28/30	25
galvanised	27/18 – 28/30	35
galvanised	27/18 – 28/30	45
galvanised	27/18 – 28/30	65
galvanised	27/18 – 28/30	85

# Hammer-Head Bolt Type 38

- Completely preassembled with nut and washer – no loss in assembly time
- Electrogalvanized – corrosion-resistant
- Appropriate for mounting rails type 38/40 and type 40/60
- Appropriate for consoles type 38/40 and type 40/60
- Thickness base plate: 6 mm
- Washer Ø: 35 mm, washer thickness: 3 mm



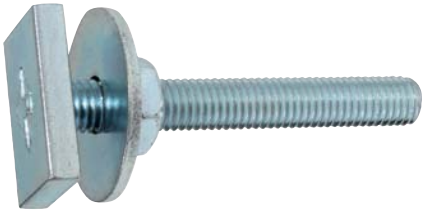
Article No.	Article Description	QTY
8667 8 25	HAM.-HEAD BOLT GAL. 8X25 T.38	100
8667 8 35	HAM.-HEAD BOLT GAL. 8X35 T.38	100
8667 8 40	HAM.-HEAD BOLT GAL. 8X40 T.38	100
8667 8 50	HAM.-HEAD BOLT GAL. 8X50 T.38	100
8667 8 80	HAM.-HEAD BOLT GAL. 8X80 T.38	100
8667 10 35	HAM.-HEAD BOLT GAL. 10X35 T.38	50
8539 10 40	HAM.-HEAD BOLT A4 10X40 T.38	25
8667 10 55	HAM.-HEAD BOLT GAL. 10X55 T.38	50
8667 10 80	HAM.-HEAD BOLT GAL. 10X80 T.38	50
8667 10 100	HAM.-HEAD BOLT GAL. 10X100 T.38	50

## Technical Data

Material	For profile	Useable thread length L in mm
galvanised	38/24 – 40/60	7
galvanised	38/24 – 40/60	20
galvanised	38/24 – 40/60	25
galvanised	38/24 – 40/60	34
galvanised	38/24 – 40/60	64
galvanised	38/24 – 40/60	18
stainless steel	38/24 – 40/60	18
galvanised	38/24 – 40/60	35
galvanised	38/24 – 40/60	60
galvanised	38/24 – 40/60	80

# Hammerhead Fastener TYPE 38 Robust

- Fire-tested as per DIN 4102, test report no. 210006413-2**
- Robust hammerhead fastener for affixing pipe clips directly to TYPE 38 mounting rails and brackets
  - Completely pre-assembled with washer and nut
  - Galvanised for maximum corrosion protection
  - Square threaded plate, twist-proof
  - Threaded plate dimensions: 32.8 × 23 × 6 mm
  - Washer dimensions: 36 × 2.5 mm



Article No.	Article Description	QTY
8667 1 10 100	HAM.HEAD FAST.GV 10X100 TYPE38	50

Technical Data	
For profile	Usable thread length L in mm
38/24 – 40/60	80

## Sliding Nuts Type 27

- To fix on mounting rails and consoles
- Electrogalvanized – corrosion-resistant
- Appropriate for mounting rails type 27/18 and type 28/30
- Appropriate for consoles type 27/18 and type 28/30
- Material thickness: 4 mm
- Type: single or double

Article No.	Article Description	QTY
<b>8663 8</b>	SLIDING NUT GAL. M8 TYPE27	200
<b>8539 8</b>	SLIDING NUT A4 M8 TYPE27	25
<b>8663 8 1</b>	DOUBLE SLID.NUT GAL. M8 TYPE27	50
<b>8663 10</b>	SLIDING NUT GAL. M10 TYPE27	100



## Sliding Nuts Type 38

- To fix on mounting rails and consoles
- Electrogalvanized – corrosion-resistant
- Appropriate for mounting rails type 38/40 and type 40/60
- Appropriate for consoles type 38/40 and type 40/60
- Material thickness: 6 mm
- Type: single or double
- **Art. No. 8539 10: of stainless steel**

Article No.	Article Description	QTY
<b>8664 8</b>	SLIDING NUT GAL. M8 TYPE38	125
<b>8539 10</b>	SLIDING NUT A4 M10 TYPE38	25
<b>8664 10</b>	SLIDING NUT GAL. M10 TYPE38	125
<b>8664 10 1</b>	DOUBLE SLID.NUT GAL.M10 TYPE38	50
<b>8664 12</b>	SLIDING NUT GAL. M12 TYPE38	100



## Retaining Bracket

- Prevents the mounting rail or console from spreading out under heavy loads
- Galvanised – corrosion-protected
- Bracket thickness: 2 mm



Article No.	Article Description	QTY
<b>8557 27 8</b>	CLAMP. PL. GAL. TYPE27 M 8	f 100
<b>8557 27 10</b>	CLAMP. PL. GAL. TYPE27 M 10	f 100
<b>8557 38 8</b>	CLAMP. PL. GAL. TYPE38 M 8	f 100
<b>8557 38 10</b>	CLAMP. PL. GAL. TYPE38 M 10	f 100

### Technical Data

Art. No.	For profile	Hole diameter mm
8557 27 8	27/18 – 28/30	8
8557 27 10	27/18 – 28/30	10
8557 38 8	38/40	8
8557 38 10	38/40	10

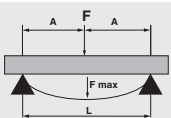
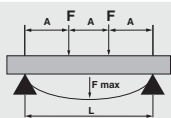
## Hanger

- For height adjustment of already suspended pipe and air conditioning pipelines
- For threaded rods from M8 to M12

Article No.	Article Description	QTY
<b>8671 8 12</b>	HANGER GAL. M8 - M12	25




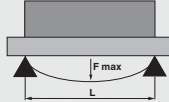
## Technical Data for Mounting Rails STRUT

Clamping width L mm	Maximum permissible load values in Newton (N)																	
	 F = single load A = 1/2 x L									 F = single load A = 1/3 x L								
	Single rail					Double rail				Single rail					Double rail			
	41/21	41/21	41/41	41/41	41/62	41/21D	41/41D	41/62D	41/82D	41/21	41/21	41/41	41/41	41/62	41/21D	41/41D	41/62D	41/82D
	1,5	2,0	2,0	2,5	2,5	2,5	2,5	2,5	2,5	1,5	2,0	2,0	2,5	2,5	2,5	2,5	2,5	2,5
250	1.848	2.114	6.556	7.611	14.730	7.081	22.804	32.686	42.030	1.386	1.586	4.917	5.708	11.048	5.311	17.103	24.515	31.523
300	1.540	1.762	5.463	6.342	12.275	5.901	19.004	27.238	35.025	1.155	1.320	4.098	4.757	9.206	4.426	14.253	20.429	26.269
350	1.320	1.560	4.683	5.436	10.522	5.058	16.289	23.347	30.021	990	1.130	3.512	4.077	7.891	3.793	12.217	17.510	22.516
400	1.155	1.320	4.098	4.757	9.206	4.426	14.253	20.429	26.269	866	991	3.073	3.568	6.905	3.319	10.690	15.322	19.702
450	1.027	1.177	3.642	4.228	8.183	3.934	12.669	18.159	23.350	770	881	2.732	3.717	6.138	2.950	9.502	13.619	17.513
500	924	1.057	3.278	3.805	7.365	3.540	11.402	16.343	21.015	693	793	2.459	2.854	5.524	2.655	8.552	12.257	15.761
600	770	881	2.732	3.171	6.138	2.950	9.502	13.619	17.513	578	676	2.049	2.378	4.603	2.213	7.126	10.214	13.134
700	660	755	2.341	2.718	5.261	2.529	8.144	11.674	15.011	427	390	1.756	2.039	3.946	1.897	6.108	8.755	11.258
800	557	638	2.049	2.378	4.603	2.213	7.126	10.214	13.134	327	374	1.537	1.784	3.452	1.660	5.345	7.661	9.851
900	440	504	1.821	2.114	4.092	1.967	6.335	9.079	11.675	258	296	1.366	1.586	3.069	1.475	4.751	6.810	8.756
1.000	356	408	1.639	1.903	3.683	1.770	5.701	8.172	10.508	209	240	1.229	1.427	2.762	1.328	4.276	6.129	7.881
1.200	247	283	1.366	1.586	3.069	1.475	4.751	6.810	8.756	145	166	993	1.163	2.302	1.059	3.563	5.107	6.567
1.400	182	218	1.171	1.359	2.630	1.264	4.072	5.837	7.505	107	123	730	854	1.973	778	3.054	4.378	5.629
1.600	139	160	952	1.114	2.302	1.015	3.563	5.107	6.567	82	94	559	654	1.726	596	2.672	3.830	4.925
1.800	110	126	752	881	2.046	802	3.167	4.540	5.838	65	74	442	517	1.489	471	2.375	3.405	4.378
2.000	89	102	609	713	1.841	650	2.851	-	-	52	60	358	419	1.206	381	2.138	-	-
2.250	70	80	481	564	1.624	513	2.534	-	-	41	47	283	331	953	301	1.900	-	-
2.500	57	66	390	456	1.315	416	2.280	-	-	33	38	229	268	772	244	1.576	-	-
2.750	47	54	322	377	1.087	344	2.073	-	-	28	32	189	221	638	202	1.302	-	-
3.000	40	45	271	317	913	289	1.864	-	-	23	26	159	186	536	169	1.094	-	-
3.250	34	39	231	270	778	246	1.588	-	-	20	23	135	159	457	144	932	-	-
3.500	29	34	199	233	671	212	1.370	-	-	17	19	117	137	394	124	804	-	-
3.750	25	29	173	203	584	185	1.193	-	-	15	17	102	119	343	108	700	-	-
4.000	22	26	152	178	514	162	1.049	-	-	13	15	89	105	302	95	615	-	-
4.250	20	22	135	158	455	144	929	-	-	12	13	79	93	267	84	545	-	-
4.500	18	21	120	141	406	128	828	-	-	10	12	71	83	238	75	486	-	-
4.750	16	18	108	126	364	115	744	-	-	-	-	63	74	214	68	436	-	-
5.000	14	16	97	114	329	104	671	-	-	-	-	57	67	193	61	394	-	-
5.250	13	15	88	104	298	94	609	-	-	-	-	52	61	175	55	357	-	-
5.500	12	13	81	94	272	86	555	-	-	-	-	47	55	159	50	326	-	-
5.750	11	12	74	86	249	79	507	-	-	-	-	43	51	146	46	298	-	-
6.000	-	-	68	79	228	72	466	-	-	-	-	40	47	134	42	274	-	-

The loads indicated only apply to the rail.

The other design parts must be tested for their permissible maximum load too.

## Technical Data for Mounting Rails STRUT




Clamping width L mm	Maximum permissible load values in Newton (N)																			
	 F = single load A = 1/4 × L										 Distributed load									
	Single rail					Double rail					Single rail					Double rail				
	41/21	41/21	41/41	41/41	41/62	41/21D	41/41D	41/62D	41/82D	41/21	41/21	41/41	41/41	41/62	41/21D	41/41D	41/62D	41/82D		
	1,5	2,0	2,0	2,5	2,5	2,5	2,5	2,5	2,5	1,5	2,0	2,0	2,5	2,5	2,5	2,5	2,5	2,5		
250	924	1.057	3.278	3.805	7.365	3.540	11.402	16.343	21.015	3.697	4.230	13.112	15.222	29.460	14.162	45.609	65.372	84.060		
300	770	881	2.732	3.171	6.138	2.950	9.502	13.619	17.513	3.081	3.524	10.927	12.685	24.550	11.802	38.007	54.477	70.050		
350	660	755	2.341	2.718	5.261	2.529	8.144	11.674	15.011	2.640	3.020	9.366	10.873	21.043	10.116	32.578	46.694	60.043		
400	578	561	2.049	2.378	4.603	2.213	7.126	10.214	13.134	2.310	2.643	8.195	9.514	18.413	8.851	28.506	40.858	52.538		
450	513	587	1.821	2.114	4.092	1.957	6.335	9.079	11.675	2.054	2.345	7.285	8.457	16.367	7.868	25.338	36.318	46.700		
500	462	529	1.639	1.903	3.683	1.770	5.701	8.172	10.508	1.848	2.115	6.556	7.611	14.730	7.081	22.804	32.686	42.030		
600	385	440	1.366	1.586	3.069	1.475	4.751	6.810	8.756	1.540	1.762	5.463	6.342	12.275	5.901	19.004	27.238	35.025		
700	306	351	1.171	1.359	2.630	1.264	4.072	5.837	7.505	1.163	1.333	4.683	5.436	10.522	5.058	16.289	23.347	30.021		
800	234	269	1.024	1.189	2.302	1.106	3.563	5.107	6.567	891	1.021	4.098	4.757	9.206	4.426	14.253	20.429	26.269		
900	185	212	911	1.057	2.046	983	3.167	4.540	5.838	704	806	3.642	4.228	8.183	3.934	12.669	18.159	23.350		
1.000	150	172	820	951	1.841	885	2.851	4.086	5.254	570	654	3.278	3.805	7.365	3.540	11.402	16.343	21.015		
1.200	104	119	683	793	1.534	738	2.375	3.405	4.378	396	454	2.708	3.170	6.138	2.887	9.502	13.619	17.513		
1.400	77	88	524	613	1.315	558	2.036	2.918	3.753	291	332	1.989	2.329	5.261	2.121	8.144	11.674	15.011		
1.600	59	68	401	469	1.151	427	1.782	2.554	3.284	223	255	1.523	1.783	4.603	1.624	7.126	10.214	13.134		
1.800	46	53	317	371	1.023	338	1.584	2.270	2.919	176	201	1.204	1.409	4.059	1.283	6.335	9.079	11.675		
2.000	38	43	257	300	865	274	1.425	-	-	143	164	975	1.141	3.288	1.039	5.701	-	-		
2.250	30	34	203	237	684	216	1.267	-	-	113	140	770	902	2.598	821	5.068	-	-		
2.500	24	27	164	192	554	175	1.130	-	-	91	105	624	730	2.104	665	4.295	-	-		
2.750	20	23	136	159	458	145	934	-	-	75	86	516	604	1.739	550	3.549	-	-		
3.000	17	19	114	133	385	122	785	-	-	63	72	433	507	1.461	462	2.983	-	-		
3.250	14	16	97	114	328	104	669	-	-	54	62	369	432	1.245	394	2.541	-	-		
3.500	12	14	84	98	283	89	577	-	-	47	53	318	373	1.074	339	2.191	-	-		
3.750	11	12	73	85	246	78	502	-	-	41	46	277	325	935	296	1.909	-	-		
4.000	-	-	64	75	216	68	441	-	-	36	41	244	285	822	260	1.678	-	-		
4.250	-	-	57	67	192	61	391	-	-	32	36	216	253	728	230	1.486	-	-		
4.500	-	-	51	59	171	54	349	-	-	28	32	193	225	649	205	1.326	-	-		
4.750	-	-	45	53	153	48	313	-	-	25	29	173	202	583	184	1.190	-	-		
5.000	-	-	41	48	138	44	283	-	-	23	26	156	183	526	166	1.074	-	-		
5.250	-	-	37	44	126	40	256	-	-	21	24	141	166	477	151	974	-	-		
5.500	-	-	34	40	114	36	234	-	-	19	21	129	151	435	137	887	-	-		
5.750	-	-	31	36	105	33	214	-	-	17	19	118	138	398	126	812	-	-		
6.000	-	-	29	33	96	30	196	-	-	16	18	108	127	365	115	746	-	-		

The loads indicated only apply to the rail.

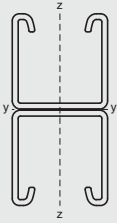
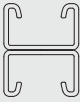
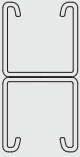


The other design parts must be tested for their permissible maximum load too.



## Technical Data for STRUT Mounting Rails

							
Material characteristics			TYPE 41/21 1,5	TYPE 41/21 2,0	TYPE 41/41 2,0	TYPE 41/41 2,5	TYPE 41/62 2,5
Material thickness	mm		1,5	2,0	2,0	2,5	2,5
Delivery length	m		2 / 3	2 / 3 / 6	2 / 3 / 6	2 / 3 / 6	3
Weight	kg/m		1,15	1,44	2,35	2,45	3,33
Holes							
Slot width	mm		22	22	22	22	22
Oblong hole Ø	mm		30 × 14	30 × 14	30 × 14	30 × 14	30 × 14
Grid dimension	mm		50	50	50	50	50
Cross-section values							
y-axis							
Profile cross-section	A	cm <sup>2</sup>	1,34	1,72	2,52	3,0	4,05
Moment of inertia	I <sub>y</sub>	cm <sup>4</sup>	0,78	0,97	5,34	6,26	18,03
Moment of resistance	W <sub>y</sub>	cm <sup>3</sup>	0,72	0,89	2,56	2,97	5,75
z-axis							
Moment of inertia	I <sub>z</sub>	cm <sup>4</sup>	3,70	4,66	7,79	9,30	13,20
Moment of resistance	W <sub>z</sub>	cm <sup>3</sup>	1,80	2,27	3,77	4,50	6,39

## Technical Data STRUT Double Mounting Rails

						
Material characteristics			TYPE 41/21 2,5	TYPE 41/41 2,5	TYPE 41/62 2,5	TYPE 41/82 2,5
Material thickness	mm		2,5	2,5	2,5	2,5
Delivery length	m		6	6	6	6
Weight	kg/m		3,68	5,24	6,90	8,46
Holes						
Slot width	mm		22	22	22	22
Oblong hole Ø	mm		30 × 14	30 × 14	30 × 14	30 × 14
Grid dimension	mm		50	50	50	50
Cross-section values						
y-axis						
Profile cross-section	A	cm <sup>2</sup>	3,98	6,00	8,09	10,08
Moment of inertia	I <sub>y</sub>	cm <sup>4</sup>	5,70	36,79	111,21	240,93
Moment of resistance	W <sub>y</sub>	cm <sup>3</sup>	2,77	8,91	17,94	29,38
z-axis						
Moment of inertia	I <sub>z</sub>	cm <sup>4</sup>	10,76	18,56	26,37	33,90
Moment of resistance	W <sub>z</sub>	cm <sup>3</sup>	5,21	8,99	12,77	16,42

(continued on the following page)

**Material Constants STRUT:**

Modulus of elasticity E	Shear modulus G	Poisson's ratio $\mu$	Coefficient of thermal expansion $\alpha T$
210.000 N/m <sup>2</sup>	81.000 N/m <sup>2</sup>	0,3	0,000012 1/K

**Calculation method:**

The load-bearing capacity values for the bending load (primarily static load) are calculated according to the theory of elasticity, taking their own weight into account. To name but a couple of examples, these calculations use the material and cross-section constants. When calculating the load-bearing capacity values, the permissible steel stress of 160 N/mm<sup>2</sup> and the maximum deflection of L/150 are not exceeded.

**The deflection indicated must be assessed for visual acceptability on a case-by-case basis!**

**Load:**

If **several different** individual loads in **variable distances** affect a single-span beam (crossbar), they can be added and considered an estimated **individual load positioned centrally**.

For enhanced safety, it is advisable to use U-shaped brackets!

In case of high loads, "push-through installation" is recommended!

**Mounting on the ceiling and the wall:**

The necessary fixing elements (screws and dowels) must be calculated individually and must be suitable for the load with mounting rails!

# Mounting Rail Type 41/21 STRUT

Mounting rail for quick fastening of pipes and complex pipe structures

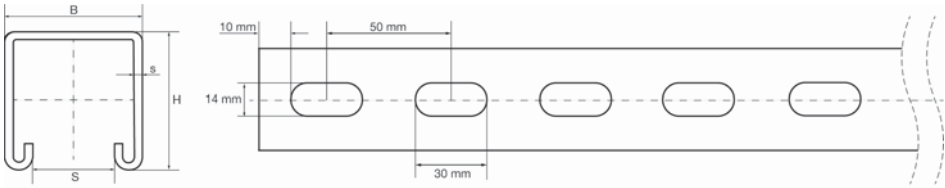
- Sendzimir galvanised
- For medium weight and heavy rail fastenings

**Product benefits:**

- Compatible with all STRUT accessories
- The distance between the end of the rail and the first perforation is always the same
- With cm scale stamped into the side
- Sides bent inwards with teeth for extra hold
- Different material thicknesses (s) depending on application

**Areas of application:**

- Supporting structure for ventilation ducts
- Fixing lengths of pipe in supply ducts
- Substructures



Article No.	Article Description	QTY
8541 4121 15 2	MTR-MO.RAIL-STRUT.2M 41/21 1.5	i 20
8541 4121 15 3	MTR-MO.RAIL-STRUT.3M 41/21 1.5	r 30
8541 4121 20 2	MTR-MO.RAIL-STRUT.2M 41/21 2.0	i 20
8541 4121 20 3	MTR-MO.RAIL-STRUT.3M 41/21 2.0	r 30
8541 4121 20 6	MTR-MO.RAIL-STRUT.6M 41/21 2.0	s 60

**Technical Data**

Length m	B mm	H mm	S mm	s mm
2	41	21	22	1.5
3	41	21	22	1.5
2	41	21	22	2.0
3	41	21	22	2.0
6	41	21	22	2.0

# Mounting Rail Type 41/41 STRUT

## Mounting rail for quick fastening of pipes and complex pipe structures

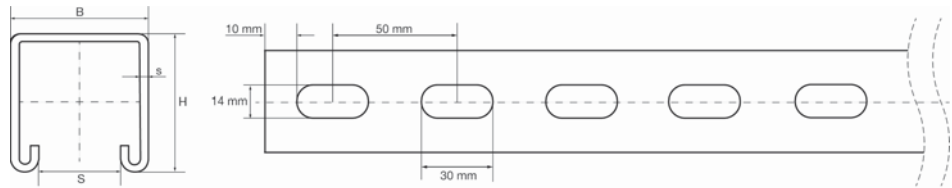
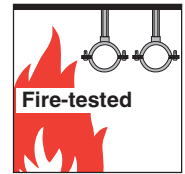
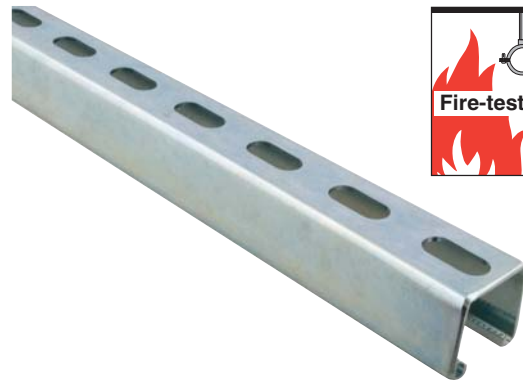
- Sendzimir galvanised
- Fire-tested from material thickness (s) 2.5
- For medium weight and heavy rail fastenings

### Product benefits:

- Compatible with all STRUT accessories
- The distance between the end of the rail and the first perforation is always the same
- With cm scale stamped into the side
- Sides bent inwards with teeth for extra hold
- Different material thicknesses (s) depending on application

### Areas of application:

- Supporting structure for ventilation ducts
- Fixing lengths of pipe in supply ducts
- Substructures



Article No.	Article Description	QTY
8541 4141 20 2	MTR-MO.RAIL-STRUT.2M 41/41 2.0	i 20
8541 4141 20 3	MTR-MO.RAIL-STRUT.3M 41/41 2.0	r 30
8541 4141 20 6	MTR-MO.RAIL-STRUT.6M 41/41 2.0	s 60
8541 4141 25 2	MTR-MO.RAIL-STRUT.2M 41/41 2.5	i 20
8541 4141 25 3	MTR-MO.RAIL-STRUT.3M 41/41 2.5	r 30
8541 4141 25 6	MTR-MO.RAIL-STRUT.6M 41/41 2.5	s 60

### Technical Data

Length m	B mm	H mm	S mm	s mm
2	41	41	22	2.0
3	41	41	22	2.0
6	41	41	22	2.0
2	41	41	22	2.5
3	41	41	22	2.5
6	41	41	22	2.5

# Mounting Rail Type 41/62 STRUT

## Mounting rail for quick fastening of pipes and complex pipe structures

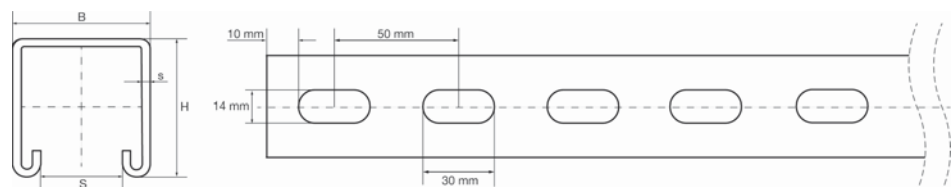
- Sendzimir galvanised
- Fire tested
- For medium weight and heavy rail fastenings

### Product benefits:

- Compatible with all STRUT accessories
- The distance between the end of the rail and the first perforation is always the same
- With cm scale stamped into the side
- Sides bent inwards with teeth for extra hold
- Different material thicknesses (s) depending on application

### Areas of application:

- Supporting structure for ventilation ducts
- Fixing lengths of pipe in supply ducts
- Substructures



Article No.	Article Description	QTY
8541 4162 25 3	MTR-MO.RAIL-STRUT.3M 41/62 2.5	r 30

### Technical Data

Length m	B mm	H mm	S mm	s mm
3	41	62	22	2.5

# Mounting Rail Doubled STRUT

**Doubled mounting rail for quick fastening of pipes and complex pipe structures**

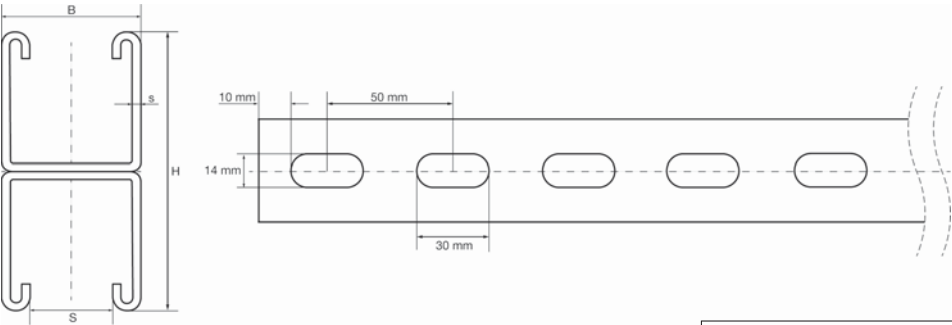
- Sendzimir galvanised
- Fire tested Type 41/41; Type 41/62; Type 41/82
- For heavy rail fastenings

**Product benefits:**

- Compatible with all STRUT accessories
- Uniform hole pattern matches current trapezoidal profiles
- The distance between the end of the rail and the first perforation is always the same
- With cm scale stamped into the side

**Areas of application:**

- Mounting pipework, ventilation pipes and cable runs
- Construction of varied steel support structures with a high degree of flexibility for adaptation
- Installation of several pipework levels



Article No.	Article Description	QTY
8551 4121 25 6	MTR-MO.RA.D-STRUT.6M 41/21 2.5	s 30
8551 4141 25 6	MTR-MO.RA.D-STRUT.6M 41/41 2.5	s 30
8551 4162 25 6	MTR-MO.RA.D-STRUT.6M 41/62 2.5	s 30
8551 4182 25 6	MTR-MO.RA.D-STRUT.6M 41/82 2.5	s 30

Technical Data			
B	H	S	s
mm	mm	mm	mm
41	42	22	2.5
41	82	22	2.5
41	124	22	2.5
41	164	22	2.5

# Console Type 41/21 STRUT

## Cantilever bracket for fixing to walls

- High quality galvanisation 8 – 10  $\mu$

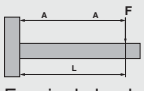
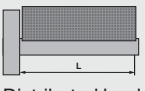
### Product benefits:

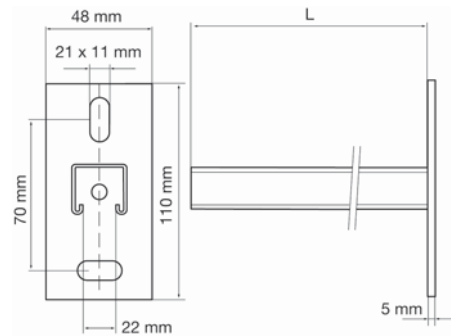
- The mounting holes are punched slots at 90° to each other, to improve ease of installation
- Sides bent inwards with teeth for extra hold

### Areas of application:

- Projecting support structures for pipe sections, fittings, cable racks, pumps, ventilation ducts, ventilation units and air-conditioning units

Article No.	Article Description	QTY
8571 4121 200	CONSO.STRUT GAL.41/21 200MM	e 10
8571 4121 300	CONSO.STRUT GAL.41/21 300MM	e 10
8571 4121 450	CONSO.STRUT GAL.41/21 450MM	e 10
8571 4121 600	CONSO.STRUT GAL.41/21 600MM	e 10

Length Konsole mm	Load values in Newton (N) for console TYPE 41/21		
	 F = single load A = L	 Distributed load	
200	638	1.321	
300	283	756	
450	126	336	
600	71	225	



# Console Type 41/41 STRUT

## Cantilever bracket for fixing to walls

- Galvanised
- Fire tested

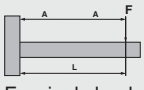
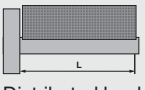
### Product benefits:

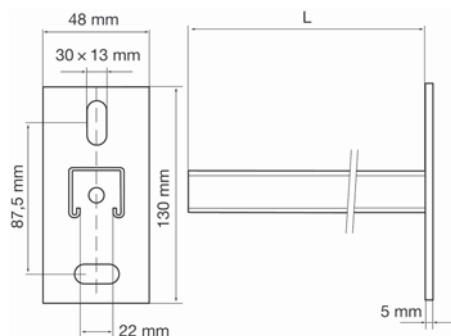
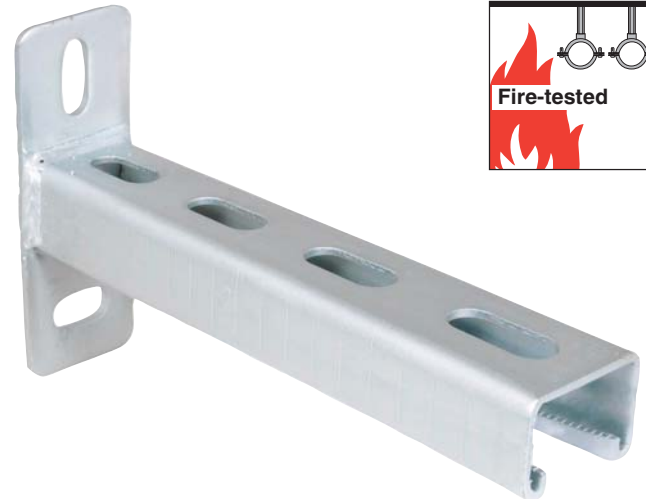
- The mounting holes are punched slots at 90° to each other, to improve ease of installation
- Sides bent inwards with teeth for extra hold

### Areas of application:

- Projecting support structures for pipe sections, fittings, cable racks, pumps, ventilation ducts, ventilation units and air-conditioning units

Article No.	Article Description	QTY
8572 4141 300	CONSO.STRUT GAL.41/41 300MM	e 10
8572 4141 450	CONSO.STRUT GAL.41/41 450MM	e 10
8572 4141 600	CONSO.STRUT GAL.41/41 600MM	e 8
8572 4141 750	CONSO.STRUT GAL.41/41 750MM	e 8
8572 4141 1000	CONSO.STRUT GAL.41/41 1000MM	1

Length Konsole mm	Load values in Newton (N) for console TYPE 41/41		
	 F = single load A = L	 Distributed load	
300	1.586	3.171	
450	881	2.114	
600	495	1.321	
750	321	856	
1.000	178	476	



The loads indicated only apply to the console.

The other design parts must be tested for their permissible maximum load too.



# Console with Support Type 41/41 STRUT

## Cantilever bracket with support for fixing to walls

- Hot-dip galvanised

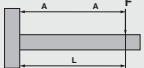
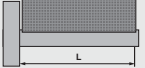
### Product benefits:

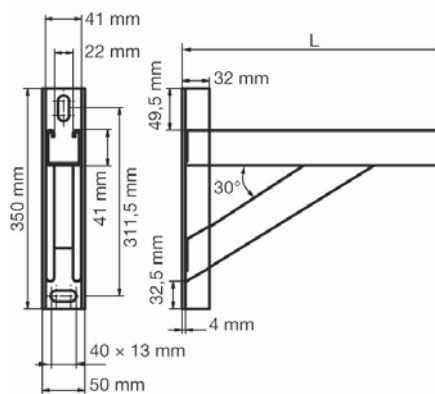
- The mounting holes are punched slots at 90° to each other, to improve ease of installation
- Sides bent inwards with teeth for extra hold

### Areas of application:

- Projecting support structures for pipe sections, fittings, cable racks, pumps, ventilation ducts, ventilation units and air-conditioning units

Article No.	Article Description	QTY
8572 4141 600 1	CONSO.STRUT HD-GAL.41/41 600MM	1

Length Konsole mm	Load values in Newton (N) for console TYPE 41/41	
	 F = single load A = L	 Distributed load
600	1.400	3.700



# Console Doubled STRUT

## Doubled cantilever bracket for fixing to walls

- High quality galvanisation 8 – 10 μ
- Fire tested

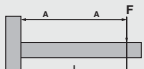
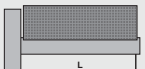
### Product benefits:

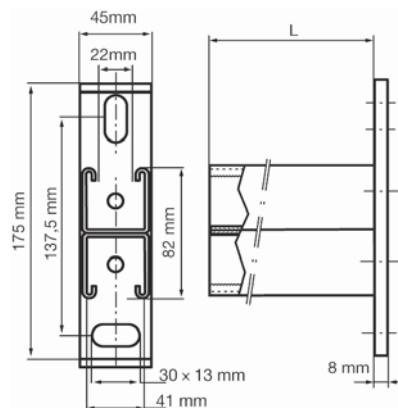
- The mounting holes are punched slots at 90° to each other, to improve ease of installation
- Sides bent inwards with teeth for extra hold

### Areas of application:

- Projecting support structures for pipe sections, fittings, cable racks, pumps, ventilation ducts, ventilation units and air-conditioning units

Article No.	Article Description	QTY
8573 4141 450	CONSO.STRUTD GAL.41/41 450MM	e 8
8573 4141 600	CONSO.STRUTD GAL.41/41 600MM	1 v
8573 4141 750	CONSO.STRUTD GAL.41/41 750MM	1 v
8573 4141 1000	CONSO.STRUTD GAL.41/41 1000MM	1

Length Konsole mm	Load values in Newton (N) for console TYPE 41/21	
	 F = single load A = L	 Distributed load
450	3.167	6.335
600	2.375	4.751
750	2.036	4.072
1.000	1.049	2.796



The loads indicated only apply to the console.

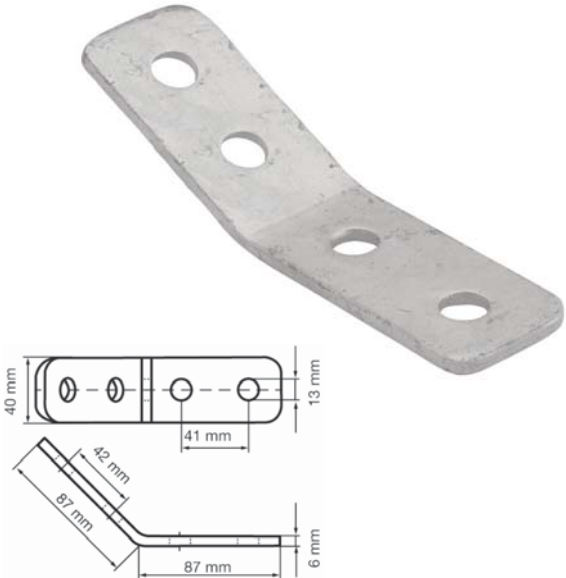
The other design parts must be tested for their permissible maximum load too.

# Mounting Bracket 45° STRUT

Mounting bracket for connecting STRUT rail structures

- Hot-dip galvanised
- Product benefits:**
  - Easy to fit due to rounded corners
- Areas of application:**
  - Construction of assembly elements
  - Production of corner connections

Article No.	Article Description	QTY
8577 41 135 87	MOUNT.BRACKET STRUT 45° 87MM	25

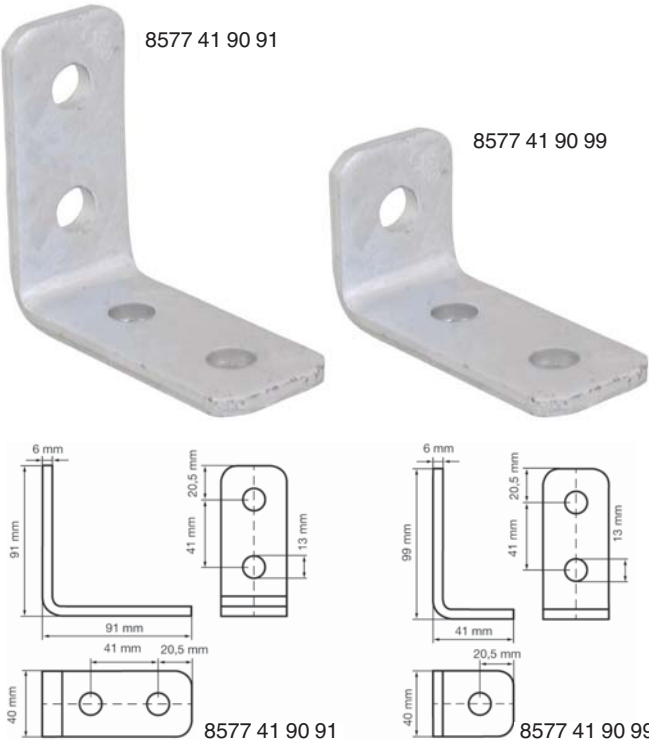


# Mounting Bracket 90° STRUT

Mounting bracket for connecting STRUT rail structures

- Hot-dip galvanised
- Product benefits:**
  - Easy to fit due to rounded corners
  - 3-hole version (Art. No. 8577 41 90 99)
  - 4-hole version (Art. No. 8577 41 90 91)
- Areas of application:**
  - Construction of assembly elements
  - Production of corner connections

Article No.	Article Description	QTY
8577 41 90 91	MOUNT.BRACKET STRUT 90° 91MM	25
8577 41 90 99	MOUNT.BRACKET STRUT 90° 99MM	25



# Rail Couplings STRUT

## U-shaped rail couplings for connecting STRUT rail structures

- High quality galvanisation 8 – 10 µ
- Survives at least 1,000 hours salt spray test in accordance with DIN ISO 9227

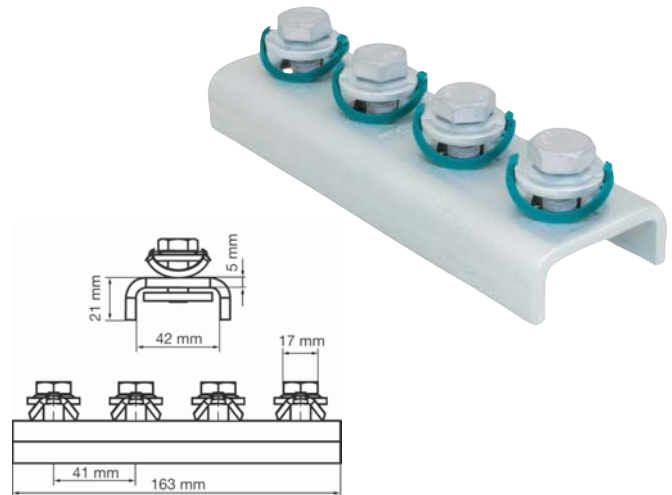
### Product benefits:

- Connector is already pre-assembled
- Due to the clamping spring, the product can be easily and flexibly moved and positioned until it is finally fixed in the rail

### Areas of application:

- To produce structures with STRUT rails
- Extensions to rails and consoles

Article No.	Article Description	QTY
8574 163	RAIL CONNECTOR STRUT 163MM	e 20



# Support Bracket STRUT

## Support bracket as a connecting element for manufacturing rail cross-bracings

- Hot-dip galvanised

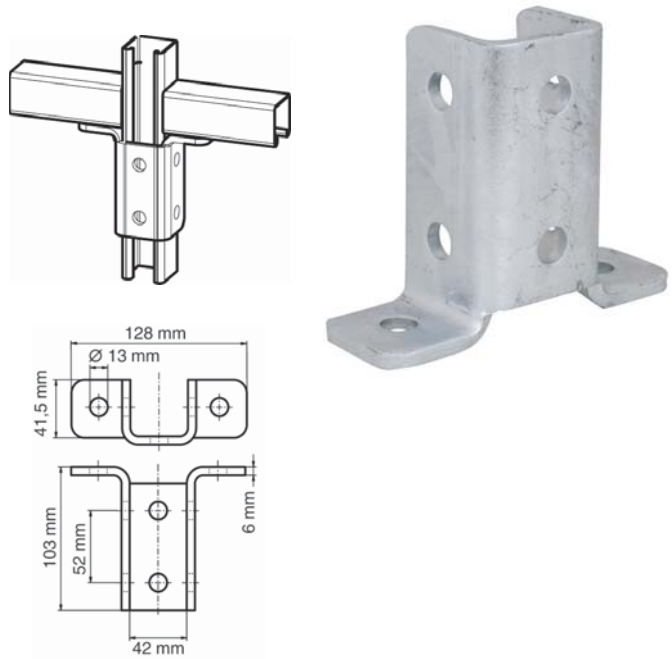
### Product benefits:

- Easy to fit due to rounded corners
- High degree of flexibility on the building site
- Enables simple structures without welding

### Areas of application:

- To produce structures with STRUT rails

Article No.	Article Description	QTY
8574 2 90	SUPPORT BRACKET STRUT 90	e 10



# Rail Bracket STRUT

## Rail bracket for manufacturing crossover connections

- Hot-dip galvanised
- Art. No. 8579 41 21; suitable for Type 41/21
- Art. No. 8579 41 41; suitable for Type 41/41

### Product benefits:

- Easy to fit due to rounded corners
- The perforations on the rail bracket permit the alignment of the rail slot in four directions

### Areas of application:

- For cross connections in front wall installations and shelves made from mounting rails

Article No.	Article Description	QTY
8579 41 21	RAIL BRACKET STRUT FVZ 41/21	25
8579 41 41	RAIL BRACKET STRUT FVZ 41/41	25



# Connecting Piece X and T-Form STRUT

## Robust connecting piece for STRUT rail structures

- Hot-dip galvanised

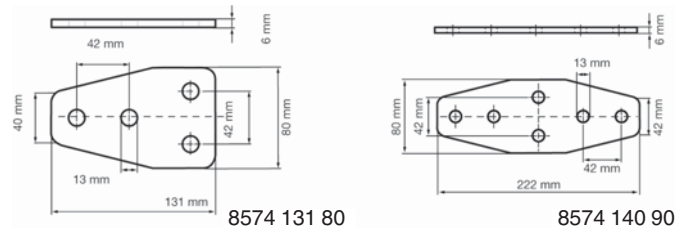
### Product benefits:

- Easy to fit due to rounded corners
- T and X-form for optimum adaptation to circumstances

### Areas of application:

- For fitted assembly of rail corner connections

Article No.	Article Description	QTY
8574 131 80	CONNECTION PLATE STRUT X 131MM	e 25
8574 140 90	CONNECTION PLATE STRUT T 140MM	e 25



# Universal Joint STRUT

## Connecting element for fastening to walls

- High quality galvanisation 8 – 10  $\mu$
- Survives at least 1,000 hours salt spray test in accordance with DIN ISO 9227

### Product benefits:

- Joint flexibly adjustable up to 90°
- Two  $\varnothing$  13 mm through holes

### Application areas:

- Especially suitable for inclined installations with struts and braces
- For connecting to building structures and mounting rails

Article No.	Article Description	QTY
8574 1 100	UNIVERSAL JOINT STRUT	e 10



# Clamping Plate STRUT

## U-shaped washer to prevent STRUT mounting rails from bending open

- High quality galvanisation 8 – 10  $\mu$
- $\varnothing$  11 mm and  $\varnothing$  13 mm fire tested

### Product benefits:

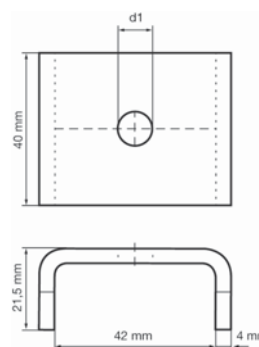
- U-shape ensures greater stability
- Various hole diameters

### Application areas:

- Stabilisation of STRUT mounting rails

Technical Data	
Art. No.	d1 mm
8576 9	9
8576 11	11
8576 13	13

Article No.	Article Description	QTY
8576 9	CLAMPING PLATE STRUT 9MM	f 100
8576 11	CLAMPING PLATE STRUT 11MM	f 100
8576 13	CLAMPING PLATE STRUT 13MM	f 100



# Support Saddle STRUT

## For fastening STRUT mounting rails to walls

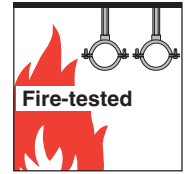
- Hot-dip galvanised
- Heavy duty version (Art. No. 8581 41 41), fire tested

### Product benefits:

- The mounting holes are punched slots at 90° to each other, to improve ease of installation
- Pre-fitted sliding nuts

### Areas of application:

- System module for assembling sturdy crossbars
- Manufacture of customised consoles from rails



Technical Data		
Art. No.	Dimensions of base plate mm	Dimensions of holes mm
8581 41 21	60 × 133	25 × 11
8581 41 41	70 × 163	34 × 14

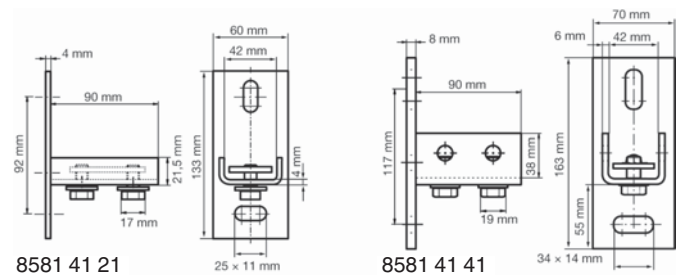
Article No.	Article Description	QTY
8581 41 21	UPR.SUPPORT SADDLE STRUT 41	ü 30
8581 41 41	UPR.SUPPORT SADDLE STRUT S 41	ü 10



8581 41 21



8581 41 41



# Rail Support Flange STRUT

## For fastening STRUT mounting rails to walls

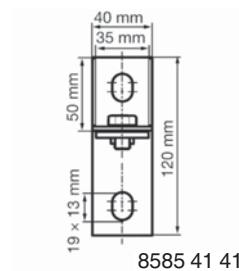
- Hot-dip galvanised
- Pre-fitted sliding nuts

- Transverse and upright base plates for optimum adaptation to local conditions

### Areas of application:

- For manufacturing customised support structures in conjunction with STRUT mounting rails

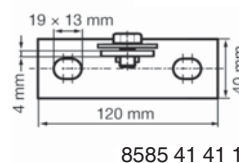
Article No.	Article Description	QTY
8585 41 41	UPR. RAIL SUPPORT FLANGE STRUT	ü 25
8585 41 41 1	TR. RAIL SUPPORT FLANGE STRUT	ü 25



8585 41 41



8585 41 41 1



8585 41 41 1

# Rail Foot Solid STRUT

**Heavy duty version for fastening STRUT mounting rails to walls**

- Hot-dip galvanised
- Art. No. 8580 41 82 suitable for double mounting rail STRUT Type 41/41 (Art. No. 8551 4141 25 6)

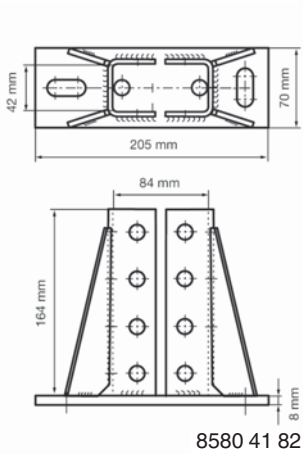
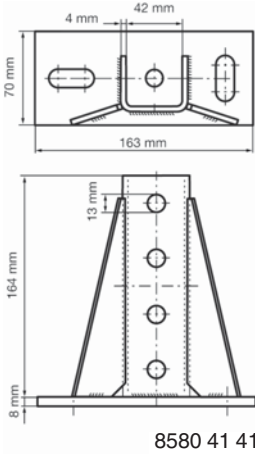
**Product benefits:**

- The mounting holes are punched slots at 90° to each other, to improve ease of installation
- Support Saddle is braced by the base plate

**Areas of application:**

- System module for assembling sturdy crossbars
- Manufacture of customised consoles from rails

Article No.	Article Description	QTY
8580 41 41	RAIL FOOT STRUT HD-GAL.41/41	ü 10
8580 41 82	RAIL FOOT STRUT HD-GAL.41/82	ü 10





# Console Support STRUT

**Support for wall consoles and rail structures**

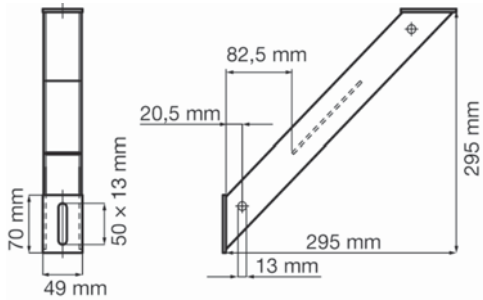
- High quality galvanisation 8 – 10µ

**Product benefits:**

- Suitable for both indoors and outdoors

**Areas of application:**

- For attaching as a support element above, below or next to a wall console
- Used to increase the load-bearing capability of rail structures
- Vertical attachment of the console supporting beam for consoles:  
Type 41/21; Type 41/41
- Horizontal attachment of the console supporting beam for consoles:  
Type 41/21; Type 41/41



Article No.	Article Description	QTY
8574 3840 295	CONSOLE SUPPORT STRUT 295MM	e 10



# Quick Fastener Hammerfix STRUT

## Quick fastener for fitting pipe clamps to mounting rails

- High quality galvanisation 8 – 10 µ
- Insert, turn, fix
- Art. No. 8584 10 60 1 fire-tested version

### Product benefits:

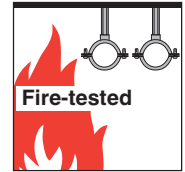
- Time saving due to pre-assembled sliding nut with set screw, washer and spring washer
- Due to the clamping spring, the fastener can be easily moved and positioned until it is finally fixed in the rail
- Survives at least 1,000 hours salt spray test in accordance with DIN ISO 9227
- Suitable for mounting rails Type 41 STRUT

### Areas of application:

- Direct connection of pipe clamps to mounting rails
- One system for installation indoors and outdoors

### Art. No. 8584 10 60 1:

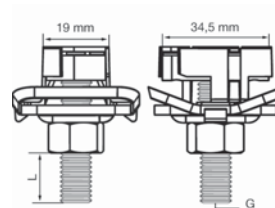
- U-shape for greater stability
- Safety-PLUS: Closure checking by means of assembly marking



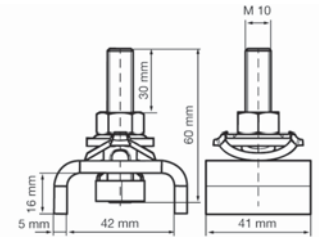
8584 8 40 - 8584 10 60



8584 10 60 1



8584 8 40 - 8584 10 60



8584 10 60 1

Article No.	Article Description	QTY
8584 8 40	STRUT QUICK FAST. M 8X40MM	h 60
8584 8 50	STRUT QUICK FAST. M 8X50MM	h 60
8584 10 40	STRUT QUICK FAST. M10X40MM	h 60
8584 10 60	STRUT QUICK FAST. M10X60MM	g 50
8584 10 60 1	STRUT QUICK FAST.U-S.M10X60MM	g 50

### Technical Data

Usable thread Length L in mm	Tightening torque In Nm <sup>1</sup>	Max. recommended Tensile load in N
16	15	6,000
26	15	6,000
12	15	9,500
32	15	9,500
30	15	10,000

# Wing Nut STRUT

## For secure connection of system components to rails

- Sliding nut with securing aid
- Fire protection tested from size M10
- Electrolytically galvanised

### Product benefits:

- As a result of fixing in the rail slot, locating and bolting on the system components is very simple and practice-oriented
- Compatible with all mounting rails Type 41 STRUT
- Optimum assembly convenience, hence no time-consuming pre-assembly of brackets, sliding nuts and bolts is necessary
- The wing nut can be moved as desired in the rail slot and can be positioned with a 45° rotation

### Areas of application:

- When connecting two mounting rails with a bracket, for example



Article No.	Article Description	QTY
8575 8	WING NUT STRUT M 8	g 50
8575 10	WING NUT STRUT M10	g 50
8575 12	WING NUT STRUT M12	g 50

### Technical Data

Art. No.	Tightening Torque in Nm <sup>1</sup>	Max. recommended Tensile load in N
8575 8	15	6,000
8575 10	15	9,500
8575 12	30	10,000

1) Tightening torque should not be exceeded

# Sliding Nut STRUT

**For fixing in mounting rails and consoles**

- Electrolytically galvanised
- Material thickness: 6 mm
- Compatible with all mounting rails Type 41 STRUT

Technical Data	
<b>Tightening Torque in Nm<sup>1</sup></b>	<b>Max. recommended Tensile load in N</b>
15	6,000

1) Tightening torque should not be exceeded

Article No.	Article Description	QTY
8578 8	SLIDING NUT STRUT M 8	f 100
8578 10	SLIDING NUT STRUT M10	f 100
8578 12	SLIDING NUT STRUT M12	f 100



# Rail Insulation Profile STRUT

**To prevent acoustic bridges during the construction of traverses and consoles in ventilation systems**

- Sound-deadening insert for mounting rails Type 41 STRUT
- Noise insulation according to DIN 4109

**Product benefits:**

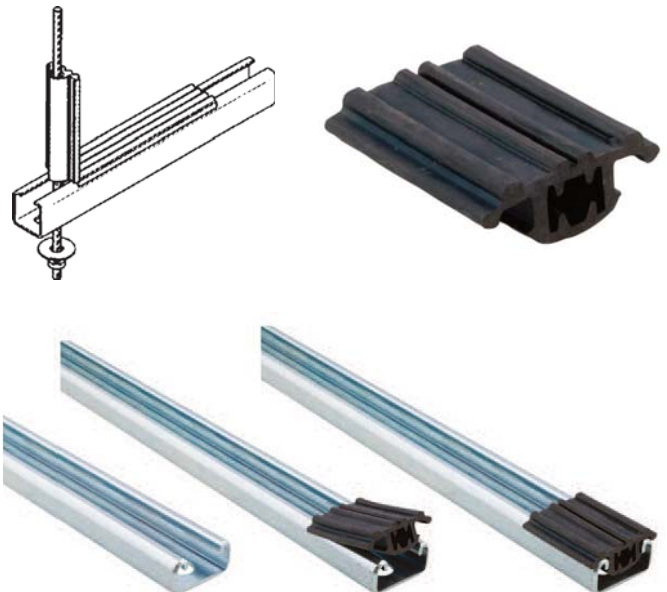
- Quick assembly
- Made from high quality EPDM rubber
- Can also be used with M6, M8 and M10 threaded rods

**Usage instructions:**

- Press into the mounting rail profile
- Push over the threaded rod

Technical Data	
<b>For rails</b>	<b>For threaded rods</b>
STRUT Type 41	M6 / M8 / M10

Article No.	Article Description	QTY
8574 41	RO(30M)RAIL INS.PROFILE STRUT	e 30



# Rail End Cap STRUT

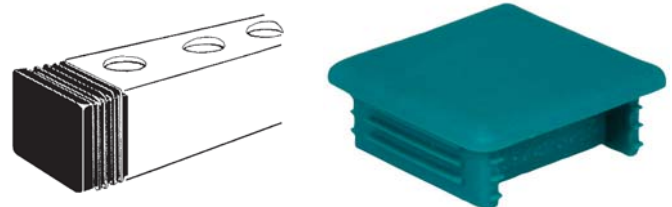
**For safe and neat finishing of the ends of mounting rails and consoles**

- Simply press or tap in
- Ribbed on the sides for better hold

**Product benefits:**

- Made from high quality polyethylene
- Suitable for mounting rails Type 41 × 21 and Type 41 × 41 STRUT

Article No.	Article Description	QTY
8574 1 41 21	RAIL END CAP STRUT 41/21	e 50
8574 1 41 41	RAIL END CAP STRUT 41/41	e 50



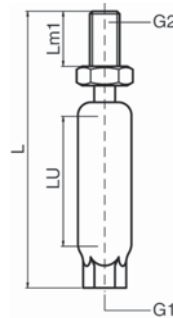
# Pendulum Hanger / Ball and Hinge Joint

- For hanging pipes and components with spaced threads
- Recommended for metallic pipes up to DN 50 and for plastic pipes up to DN 100
- Particularly suitable for large ceiling distances
- Prevents tilting of pipe clamps
- Prevents uncontrolled tensile forces on the fixture
- Simple, continuously variable height adjustment (see LU)

## Technical Data

Art. No.	L mm	LU mm	G1	G2	Lm1 mm	Max. recommended effective load N
8562 8	49	7	M8	M8	15	3,100
8562 10	49	7	M10	M10	15	3,100
8562 8 1	74	32	M8	M8	15	3,100
8562 10 1	74	32	M10	M10	15	3,100

Article No.	Article Description	QTY
<b>8562 8</b>	PENDULUM HANGER SHORT M 8	50
<b>8562 10</b>	PENDULUM HANGER SHORT M 10	50
<b>8562 8 1</b>	PENDULUM HANGER LONG M 8	25
<b>8562 10 1</b>	PENDULUM HANGER LONG M 10	25

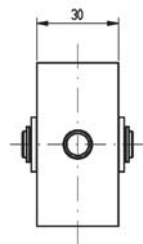
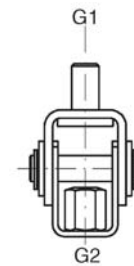
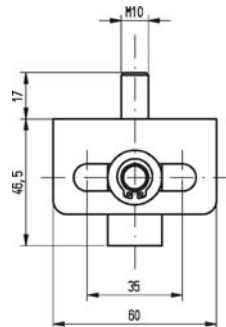


# Sliding Component M10, Galvanized

- Fixture for pipes with linear thermal expansion
- Avoids strain forces on pipe clamps
- Assembly directly on the ceiling or on a mounting rail by means of a sliding nut M10
- Combined connection thread M8/M10 for variable connection
- Screw and nut CO<sub>2</sub> welded
- Material: steel electrolytically galvanized

## Fields of application:

- In installation and pipeline construction



Article No.	Article Description	QTY
<b>8660 4 10</b>	SLIDING COMPONENT M10	10

## Technical Data

Connection-thread(G1)	Connection-thread(G2)	Admissible load in N
M10	M8/M10	1300

## Trapezoidal Sheet Metal Hanger VdS

- For fastening installation structures directly on to trapezoidal metal sheets
- Galvanised – corrosion-protected
- Various versions – optimum application options
- Material thickness: 25 × 2.5 mm
- Approved by VdS for fixing pipes up to DN 50 in accordance with VdS Approval No. G 4881021

### Art. No. 8583 8, 8583 10:

- Welded nut

### Art. No. 8583 8 1, 8583 10 1:

- Rotating threaded part permits subsequent continuous adjustment of the height



Article No.	Article Description	QTY
8583 8	TRAPEZ.METAL SHEET HANG. M8	50
8583 8 1	TRAPEZ.METAL SHEET H. M8 HREG.	50
8583 10	TRAPEZ.METAL SHEET HANG. M10	50
8583 10 1	TRAPEZ.ME.S.HANG.M10 HREG.	50

## Trapezodial Sheet Metal Hanger

- Ideal for suspending pipe clips on trapezoidal plates
- Galvanised – corrosion-protected
- Designed with soundproofing element for assembly in accordance with DIN 4109
- Soundproofing element secured from falling out
- With predetermined bend perforations – easy bending and adjustment to the desired trapezoidal plate profiles
- The through-hole of the soundproofing element is dimensioned so that assembly with threaded rods up to a maximum size of M10 is possible
- Material thickness: 25 × 2.5 mm



Article No.	Article Description	QTY
8521 1	TRAPEZ.ME.S.HANG.TYPE L GAL.SD	100
8521 2	TRAPEZ.ME.S.HANG.TYPE L GAL.	100

## Trapezoidal Metal Sheet Tongs

- To punch trapezoidal steel sheets with a thickness up to 1.25 mm

Article No.	Article Description	QTY
8625 1	TRAPEZOIDAL METAL SHEET TONGS	1
8625 2	PAIR(2)PUNCHING DIES	1

### Delivery volume (item No 8625 1):

- 1x 1 kit punching dies 10.5 mm



# Ventilation Pipe Fastener

- Galvanised – corrosion-protected
- Designed with soundproofing element for assembly in accordance with DIN 4109 soundproofing
- Soundproofing element secured from falling out
- With predetermined bend perforations – easy bending and adjustment to the desired pipe diameter
- The through-hole of the soundproofing element is dimensioned so that assembly with threaded rods up to a maximum size of M10 is possible
- Universal fixing options
  - Pop rivets up to max. Ø 4.2 mm
  - Self-tapping screws Ø 3.9 to 4.2 mm
- Material thickness: 35 × 2.00 mm
- Max. recommended load: 900 N

Article No.	Article Description	QTY
8521 3	VENT.PIPE FASTEN.TYPE L GAL.SD	100



## Vent Duct Bracket

**Vent duct bracket with soundproofing insert in L and Z form for fastening vent ducts in ventilation and air conditioning systems**

- Temperature resistance (soundproofing element): -35 °C to +100 °C
- Galvanised

**Product benefits:**

- Soundproofing element secured from falling out
- Universal fastening options thanks to various hole geometries
  - Pop rivets up to Ø 4.8 mm (Art. No. 2723 48 125)
  - Self-tapping screws up to Ø 4.8 mm (Art. No. 1312 42 95)

**Application areas:**

- For assembling ventilation ducts

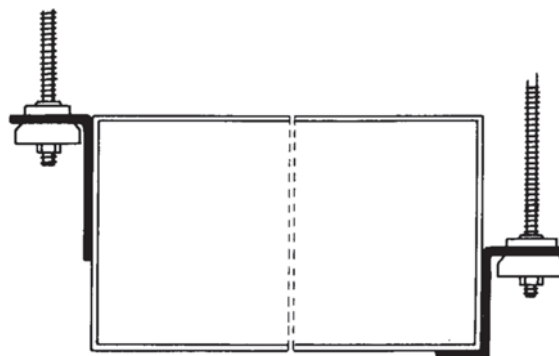


8522 40 80

8522 40 65

Technical Data			
Art. No.	Length mm	Material mm	Rec. perm. load in N
8522 40 65	65	35×2.5	300
8522 40 80	80	35×2.5	300
8522 40 165	165	35×2.5	900

Article No.	Article Description	QTY
8522 40 65	VENT DUCT BRACK. Z40X 65MM	50
8522 40 80	VENT DUCT BRACK. L40X 80MM	50
8522 40 165	VENT DUCT BRACK.BLAC.L40X165MM	50





## Air Duct Clamp M8 × 20

- Galvanised
- Connecting element for duct flanges
- Suitable for all duct cross-sections
- Art. No. 8622 8 20 1 in stainless steel

### Product benefits:

- The points on the clamp bite into the profile (without making holes) and thus provide a perfect and permanent hold on the duct flange
- The V bead in the clamp increases its rigidity by more than 50 %
- Optimised handling and assembly properties



Article No.	Article Description	QTY
8622 8 20 2	AIR DUCT CLAMP GAL.M8X20	100
8622 8 20 1	AIR DUCT CLAMP A4 M8X20	100

## Sealing Tape for the Ventilation Construction

- For the sealing of ventilation ducts and exhaust air units
- Closed PE cell structure
- Weather-proof and resistant against chemicals
- Acts movement-restraining in case of high wind load and similar mechanic influences
- High elasticity
- Perfect thermal insulation values without PE peel off film
- Waste disposal of PE film which accrue when using other sealing tapes is committed
- Constant adhesive power since the sealing tapes are not unrolled and this way do not soil
- Avoids three-point adhesion
- Little consumption of sealing material

Article No.	Article Description	QTY
8802 3 12	MTR<200>SEALING TAPE GREY 3X12	200
8802 3 15	MTR<200>SEALING TAPE GREY 3X15	200
8802 4 9	MTR<200>SEALING TAPE GREY 4X9	200
8802 4 12	MTR<200>SEALING TAPE GREY 4X12	200
8802 4 15	MTR<200>SEALING TAPE GREY 4X15	200



## Cold-shrink Tape Butyl

- Elastic polyethylene film, coated with a cold sealing butyl natural rubber glue
- Temperature range: from -30°C up to +80°C
- Reel length: 15 m

### Fields of application:

- For durable sealing of butt joints and sleeve joints for sleeve joints of air ducts, spiral pipes and flex pipes in air-technical systems made of aluminum and galvanized steel sheet
- To seal flexible and rigid pipings made of polyethylene and PVC
- For durable sealing of penetrations and to glue butt joints on steep roofs

Article No.	Article Description	QTY
8840 2 50	REEL(15M)COLD-SHRINK TAPE 50MM	1
8840 2 75	REEL(15M)COLD-SHRINK TAPE 75MM	1
8840 2 100	REEL(15M)COLD-SHRINK TAPE 100MM	1



# Insulation PE Rohrflex *Forlen*

- Made of flexible, stable, closed-cell soft polyethylene foam (extruded)
- Of universal use for insulating in sanitary and heating technology in the wall, ceiling and duct areas
- Colour: Grey
- Split along its length – no laborious slitting necessary
- Also suitable for pipes made of chrome-nickel-steel conforming to DIN 53 110
- Resistant to ageing, recyclable
- CFC-free
- Length supplied: 2 m

\*Insulation for heating pipes in floor constructions conforming to ENEC (German regulation for energy saving in buildings and building systems) and of sanitary cold water pipes



Article No.	Article Description	QTY
8710 9 12	MTR.PE ROHRFLEX 9/ 12	300
8710 9 15	MTR.PE ROHRFLEX 1/4" 9/ 15	232
8710 9 18	MTR.PE ROHRFLEX 3/8" 9/ 18	190
8710 9 22	MTR.PE ROHRFLEX 1/2" 9/ 22	162
8710 9 28	MTR.PE ROHRFLEX 3/4" 9/ 28	126
8710 9 35	MTR.PE ROHRFLEX 1" 9/ 35	92
8710 9 42	MTR.PE ROHRFLEX 1 1/4" 9/ 42	y 110
8710 13 15	MTR.PE ROHRFLEX 50 1/4" 13/ 15	162
8710 13 18	MTR.PE ROHRFLEX 50 3/8" 13/ 18	136
8710 13 22	MTR.PE ROHRFLEX 50 1/2" 13/ 22	120
8710 13 28	MTR.PE ROHRFLEX 50 3/4" 13/ 28	98
8710 13 35	MTR.PE ROHRFLEX 1" 13/ 35	72
8710 13 42	MTR.PE ROHRFLEX 1 1/4" 13/ 42	56
8710 20 15	MTR.PE ROHRFLEX 1/4" 20/ 15	100
8710 20 18	MTR.PE ROHRFLEX 3/8" 20/ 18	88
8710 20 22	MTR.PE ROHRFLEX 1/2" 20/ 22	80
8710 20 28	MTR.PE ROHRFLEX 50 3/4" 20/ 28	68
8710 20 35	MTR.PE ROHRFLEX 50 1" 20/ 35	50
8710 20 42	MTR.PE ROHRFLEX 50 1 1/4" 20/ 42	44
8710 25 15	MTR.PE ROHRFLEX 100 1/4" 25/ 15	56
8710 25 18	MTR.PE ROHRFLEX 100 3/8" 25/ 18	56
8710 25 22	MTR.PE ROHRFLEX 100 1/2" 25/ 22	50
8710 25 28	MTR.PE ROHRFLEX 100 3/4" 25/ 28	46
8710 25 35	MTR.PE ROHRFLEX 1" 25/ 35	28
8710 25 42	MTR.PE ROHRFLEX 50 1 1/4" 25/ 42	28

(Inch / insulation thickness x pipe Ø (outer) mm)

## Technical Data

ENEV	Exter. Ø mm (CU)	Nom. size DN (CU)	Nom. size DN (FE)	Exter. Ø mm (FE)	Exter. Ø mm (PP)
*	12	10	-	-	12
*	15	-	8	13.5	-
*	18	15	10	17.2	16
*	22	20	15	21.3	20
*	28	25	20	26.9	25
*	35	32	25	33.7	32
*	42	40	32	42.4	40
50 %	15	-	8	13.5	-
50 %	18	15	10	17.2	16
50 %	22	20	15	21.3	20
50 % (FE)	28	25	20	26.9	25
-	35	32	25	33.7	32
-	42	40	32	42.4	40
-	15	-	8	13.5	-
-	18	15	10	17.2	16
-	22	20	15	21.3	20
50 % (CU)	28	25	20	26.9	25
50 %	35	32	25	33.7	32
50 % (FE)	42	40	32	42.4	40
100 %	15	-	8	13.5	-
100 %	18	15	10	17.2	16
100 %	22	20	15	21.3	20
100 % (FE)	28	25	20	26.9	25
-	35	32	25	33.7	32
50 %	42	40	32	42.4	40

## Copper pipe (CU) / steel pipe (FE) / polypropylene pipe (PP)

- Material: closed-cell, round extruded soft polyethylene foam
- Thermal conductivity: 0.040 W/(m.K) according to DIN 52613
- Usable temperature range: -45 °C to +105 °C
- Fire behaviour: B1 flame retardant according to DIN 4102
- Structure-borne sound insulation: up to 23 dB (A) reduction according to DIN 52218

## Non-Woven Hose *Forlen*

- Hose made from PE-coated polyester fleece, highly flexible
- For insulating cold drinking water pipes conforming to DIN 1988 Part 2 for cold water pipes and areas with no ENEC requirements
- CFC-free
- Length supplied: 25 m
- **Art. No. 8712 ....**: white outer skin and grey inner fleece
- **Art. No. 8712 1 ....**: silver-grey outer skin and grey inner fleece



Article No.	Article Description	QTY
8712 4 15	MTR.NON-WOVEN HOSE 1/4" 4/15	g 600
8712 4 18	MTR.NON-WOVEN HOSE 3/8" 4/18	g 550
8712 4 22	MTR.NON-WOVEN HOSE 1/2" 4/22	g 450
8712 4 28	MTR.NON-WOVEN HOSE 3/4" 4/28	g 425
8712 4 35	MTR.NON-WOVEN HOSE 1" 4/35	g 350
8712 1 4 15	MTR.NON-WOV.HOSE GR. 1/4" 4/15	g 600
8712 1 4 18	MTR.NON-WOV.HOSE GR. 3/8" 4/18	g 550
8712 1 4 22	MTR.NON-WOV.HOSE GR. 1/2" 4/22	g 450
8712 1 4 28	MTR.NON-WOV.HOSE GR. 3/4" 4/28	g 425
8712 1 4 35	MTR.NON-WOV.HOSE GR. 1" 4/35	g 350

(inch" / insulation thickness x Ø pipe (outer) mm)

### Technical Data

Outs. Ø mm (CU)	Nom. size ID (CU)	Nom. size ID (FE)	Outs. Ø mm (FE)	Outs. Ø mm (PP)
15	-	8	13,5	-
18	15	10	17,2	16
22	20	15	21,3	20
28	25	20	26,9	25
35	32	25	33,7	32
15	-	8	13,5	-
18	15	10	17,2	16
22	20	15	21,3	20
28	25	20	26,9	25
35	32	25	33,7	32

### Copper pipe (CU) / Steel pipe (FE) / Polypropylene tube (PP)

- Material: polyester non-woven, incl. PE protective film
- Temperature range: from -50°C to +120°C
- Fire behavior: B2, normally inflammable DIN 4102

## Fleece Hose 10 Metres *Forlen*

- Hose made from PE-coated polyester fleece, highly flexible
- For insulating cold drinking water pipes conforming to DIN 1988 Part 2 for cold water pipes and areas with no ENEC requirements
- CFC-free
- Length supplied: 10 m
- **Art. No. 8712 ....**: white outer skin and grey inner fleece
- **Art. No. 8712 1 ....**: silver-grey outer skin and grey inner fleece



Article No.	Article Description	QTY
8712 4 15 10	MTR<10>NON-WOV.HOSE 1/4"4/15	10
8712 4 18 10	MTR<10>NON-WOV.HOSE 3/8"4/18	10
8712 4 22 10	MTR<10>NON-WOV.HOSE 1/2"4/22	10
8712 4 28 10	MTR<10>NON-WOV.HOSE 3/4"4/28	10
8712 4 35 10	MTR<10>NON-WOV.HOSE 1" 4/35	10
8712 1 4 15 10	MTR<10>N-WOV.HOS.GREY 1/4"4/15	10
8712 1 4 18 10	MTR<10>N-WOV.HOS.GREY 3/8"4/18	10
8712 1 4 22 10	MTR<10>N-WOV.HOS.GREY 1/2"4/22	10
8712 1 4 28 10	MTR<10>N-WOV.HOS.GREY 3/4"4/28	10
8712 1 4 35 10	MTR<10>N-WOV.HOS.GREY 1" 4/35	10

(Inch / insulation thickness x pipe Ø (outer) mm)

### Technical Data

Exter. Ø mm (CU)	Nom. size DN (CU)	Nom. size DN (FE)	Nom. size DN (FE)	Exter. Ø mm (FE)
15	-	8	8	13.5
18	15	10	10	17.2
22	20	15	15	21.3
28	25	20	20	26.9
35	32	25	25	33.7
15	-	8	8	13.5
18	15	10	10	17.2
22	20	15	15	21.3
28	25	20	20	26.9
35	32	25	25	33.7

### Copper pipe (CU) / steel pipe (FE) / polypropylene pipe (PP)

- Material: Polyester fleece, with PE protective film
- Temperature range: -50 °C to +120 °C
- Fire behaviour: B2 normal flammability DIN 4102

# Non-Woven Hose for Sewage Water *Forlen*

- Hose made of PE-coated polyester non-woven, highly flexible
- For damping of solid-borne sound of sewage water pipes
- Avoids condensation water formation for HT, PE and SML sewage water pipes
- CFC-free
- Delivery length: 25 m or 10 m (art. no. ending with '10')

## Art. No. 8712....:

- White skin and white non-woven at the inside

## Art. No. 8712 1....:

- Silver-grey skin and grey non-woven at the inside



Article No.	Article Description	QTY
8712 4 50	MTR.NON-WOVEN HOSE 4/ID 50	g 200
8712 4 70	MTR.NON-WOVEN HOSE 4/ID 70	g 150
8712 4 90	MTR.NON-WOVEN HOSE 4/ID 90	g 100
8712 4 100	MTR.NON-WOVEN HOSE 4/ID 100	g 100
8712 1 4 50	MTR.NON-WOV.HOSE GR. 4/ID 50	g 200
8712 1 4 70	MTR.NON-WOV.HOSE GR. 4/ID 70	g 150
8712 1 4 90	MTR.NON-WOV.HOSE GR. 4/ID 90	g 100
8712 1 4 100	MTR.NON-WOV.HOSE GR. 4/ID 100	g 100

(insulation thickness x Ø pipe (outer) mm)

### Technical Data

Outs. Ø mm (SML)	Nom. size DN (SML)	Nom. size DN (HT)	Outs. Ø mm (HT) pipe	Outs. Ø mm (HT) bush.
58	50	50	50	53,5
78	70	70	75	78,8
-	-	90	90	110,0
110	100	100	100	115,2
58	50	50	50	53,5
78	70	70	75	78,8
-	-	90	90	110,0
110	100	100	100	115,2

### Cast iron pipes (SML) DIN 19522 / Plastic mat. pipes (HT) DIN 19560

- Material: polyester non-woven, incl. PE protective film
- Temperature range: from -50 °C to +120 °C
- Fire behavior: B2, normally inflammable DIN 4102

# Fleece Hose Waste Water *Forlen* 10 Metres

- Hose made from PE-coated polyester fleece, highly flexible
- For structure-borne sound insulation of waste water pipes
- Prevents formation of condensate in HT, PE and SML drain pipes
- CFC-free
- Length supplied: 10 m

## Art. No. 8712 ....:

- White outer skin and white inner fleece

## Art. No. 8712 1 ....:

- Silver grey outer skin and grey inner fleece



Article No.	Article Description	QTY
8712 4 50 10	MTR<10>NON-WOV.HOSE 4/DN 50	10
8712 4 70 10	MTR<10>NON-WOV.HOSE 4/DN 70	10
8712 4 90 10	MTR<10>NON-WOV.HOSE 4/DN 90	10
8712 4 100 10	MTR<10>NON-WOV.HOSE 4/DN 100	10
8712 1 4 50 10	MTR<10>NON-WOV.HOS.GREY 4/DN50	10
8712 1 4 70 10	MTR<10>NON-WOV.HOS.GREY 4/DN70	10
8712 1 4 90 10	MTR<10>NON-WOV.HOS.GREY 4/DN90	10
8712 1 4 100 10	MTR<10>NON-WOV.HOS.GREY 4/DN100	10

(Inch / insulation thickness x pipe Ø (outer) mm)

### Technical Data

Ext. Ø mm (SML)	Nom. size DN (SML)	Nom. size DN (HT)	Ext. Ø mm (HT) pipe	Ext. Ø mm (HT) sleeve
58	50	50	50	53.5
78	70	70	75	78.8
-	-	90	90	110.0
110	100	100	100	115.2
58	50	50	50	53.5
78	70	70	75	78.8
-	-	90	90	110.0
110	100	100	100	115.2

### Copper pipe (CU) / steel pipe (FE) / polypropylene pipe (PP)

- Material: Polyester fleece, with PE protective film
- Temperature range: -50 °C to +120 °C
- Fire behaviour: B2 normal flammability DIN 4102

# Insulating Sleeve Quadra *Forlen*

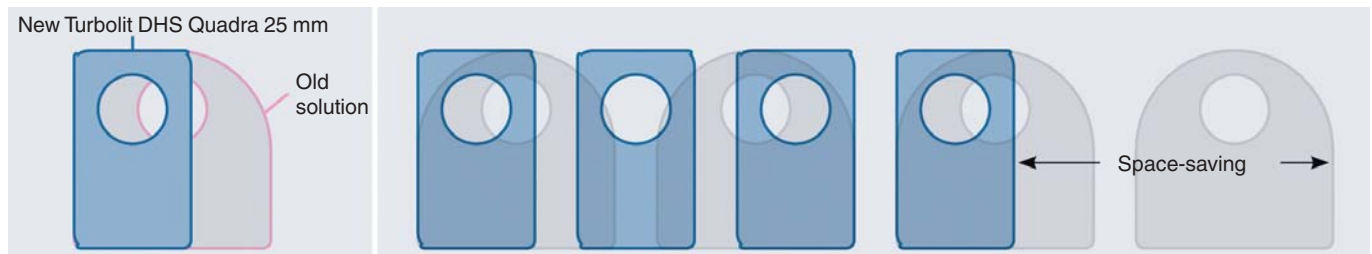
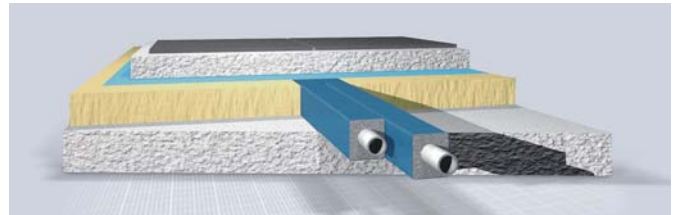
- Square insulating sleeve for floor laying
- The eccentric cross-section minimises the downwards energy losses and at the same time reduces the overall height of the floor structure
- The rectangular profile enables tightly packed assembly of the pipes and brings significant space savings
- Embossed film coating, hence high crush and tear resistance

## Fields of application:

- For heating and hot water pipes conforming to EnEV
- For cold water pipes conforming to DIN 1988

## Product benefits:

- Compact, space-saving design – cost-saving
- Footfall sound insulation guaranteed by test certificate
- Minimises the risk of crack formation in the screed



Article No.	Article Description	QTY
8713 4 9 15	MTR.INS.SL.QUADRA 1/4" 9/15	190
8713 4 9 18	MTR.INS.SL.QUADRA 3/8" 9/18	160
8713 4 9 22	MTR.INS.SL.QUADRA 1/2" 9/22	140
8713 4 9 28	MTR.INS.SL.QUADRA 3/4" 9/28	100
8713 4 25 15	MTR.INS.SL.QUAD100% 1/4" 25/15	130
8713 4 25 18	MTR.INS.SL.QUAD100% 3/8" 25/18	120
8713 4 25 22	MTR.INS.SL.QUAD100% 1/2" 25/22	100
8713 4 25 28	MTR.INS.SL.QUAD100% 3/4" 25/28	70

## Technical Data

EnEV	Insulation thickn. in mm	Height in mm	Cu in mm	FE in inches	FE in mm
App. 5, Z. 7	9	33	15	1/4"	13.5
App. 5, Z. 7	9	36	18	3/8"	17.2
App. 5, Z. 7	9	40	22	1/2"	21.3
App. 5, Z. 7	9	46	28	3/4"	26.9
100 %	27	50	15	1/4"	13.5
100 %	26	52	18	3/8"	17.2
100 %	26	56	22	1/2"	21.3
100 %	25	64	28	3/4"	26.9

## Copper pipe (CU) / steel pipe (FE)

- Material: closed cell polyethylene, CFC and silicone free
- Outer skin: co-extruded, moisture blocking outer skin
- Length supplied: 2 m hoses
- Usable temperature range: up to + 100 °C
- Thermal conductivity: 0.040 W (m × K) according to building authority approval Z-23.14-1739
- Fire behaviour: B2, normal flammability according to building authority approval Z-23.14-1739
- Footfall soundproofing: Sound reduction in accordance with test report P-BA 251-1/2006
- EnEV demonstration of equivalence: verified by test report P7-177/2006



# Insulating Sleeve IsoSlim FÖRCH\*\*\*\*\*

- For use in floor construction in accordance with energy saving regulations EnEV 2014
- With integrated soundproofing
- Low profile height
- The floor structure height is reduced by this form
- With a constant internal room height, all the interior and exterior brickwork can be made lower; this reduces building costs
- The special shape enables the smallest possible interruption of the load-bearing levelling and/or footfall sound insulating layer
- Structure-borne sound contacts (e.g., building element irregularities or small stones pushing through) are reliably prevented by the fibre pad layer

**The resistance to initial tear and propagation of tears is increased by up to a factor of ten compared with pure foam materials.**

- Thermally and acoustically tested
- Thermal conductivity  $40^{\circ}\text{C} = 0.035 \text{ W}/(\text{m} \times \text{K})$
- Water vapour diffusion resistance factor  $\mu \geq 5200$
- Building material class B2 according to DIN 4102, EL according to DIN EN 13501-1
- CE marking in accordance with EN 14313
- Dynamic stiffness:  $19.7 \text{ MN}/\text{m}^2$
- Length supplied: 2 m lengths



8713 5 10 15 – 8713 5 15 42



8713 5 20 15 – 8713 5 30 42

Article No.	Article Description	QTY
8713 5 10 15	MTR.INS.S.ISOSLIM 1/4"10/15 5*	90
8713 5 10 18	MTR.INS.S.ISOSLIM 3/8"10/18 5*	90
8713 5 10 22	MTR.INS.S.ISOSLIM 1/2"10/22 5*	90
8713 5 10 28	MTR.INS.S.ISOSLIM 3/4"10/28 5*	90
8713 5 15 35	MTR.INS.S.ISOSLIM 1" 15/35 5*	50
8713 5 15 42	MTR.INS.S.ISOSLIM 1 1/4" 15/42	40
8713 5 20 15	MTR.INS.S.ISOSLIM 1/4"20/15 5*	90
8713 5 20 18	MTR.INS.S.ISOSLIM 3/8"20/18 5*	90
8713 5 20 22	MTR.INS.S.ISOSLIM 1/2"20/22 5*	70
8713 5 20 28	MTR.INS.S.ISOSLIM 3/4"20/28 5*	60
8713 5 30 35	MTR.INS.S.ISOSLIM 1" 30/35 5*	40
8713 5 30 42	MTR.INS.S.ISOSLIM 1 1/4" 30/42	30

## Technical Data

EnEV	Insulation thckn. in mm	CU pipe in mm	FE pipe in inches	Profile height in mm
50 %	10	15	1/4"	29
50 %	10	18	3/8"	32
50 %	10	22	1/2"	36
50 %	10	28	3/4"	42
50 %	15	35	1"	58
50 %	15	42	1 1/4"	65
100 %	20	15	1/4"	39
100 %	20	18	3/8"	42
100 %	20	22	1/2"	46
100 %	20	28	3/4"	52
100 %	30	35	1"	73
100 %	30	42	1 1/4"	80

## System Fastener FÖRCH IsoSlim Sound Decoupled

- Sound decoupling system fastening for IsoSlim insulating sleeve FÖRCH 5\*
- Made of stainless steel
- With fibre pad layer and tear-resistant mesh weave overlay



Article No.	Article Description	QTY
8713 6 9 15	SYSTEM FAST.ISOSLIM 50% 1/4"	50
8713 6 9 18	SYSTEM FAST.ISOSLIM 50% 3/8"	50
8713 6 9 22	SYSTEM FAST.ISOSLIM 50% 1/2"	50
8713 6 9 28	SYSTEM FAST.ISOSLIM 50% 3/4"	50
8713 6 25 15	SYSTEM FAST.ISOSLIM 100% 1/4"	50
8713 6 25 18	SYSTEM FAST.ISOSLIM 100% 3/8"	50
8713 6 25 22	SYSTEM FAST.ISOSLIM 100% 1/2"	50
8713 6 25 28	SYSTEM FAST.ISOSLIM 100% 3/4"	50

## Technical Data

Art. No. System fastener	Art. No. IsoSlim
8713 6 9 15	8713 5 10 15
8713 6 9 18	8713 5 10 18
8713 6 9 22	8713 5 10 22
8713 6 9 28	8713 5 10 28
8713 6 25 15	8713 5 20 15
8713 6 25 18	8713 5 20 18
8713 6 25 22	8713 5 20 22
8713 6 25 28	8713 5 20 18



# Protective Hose „S“ for Sewage Water Pipes **Forlen**

- For damping of solid-borne sound of sewage water pipes – sound pressure level 23 dB (A)
- Avoids condensation water formation on HT, PE and SML sewage water pipes
- Hose made of highly flexible, closed-cell soft polyethylene with hard-wearing, moisture-barrier skin – tear-resistant and non-crushing
- Non-ageing and recyclable
- With interior sliding film – rapid assembly
- Color: red
- CFC-free
- Delivery length: 10 m



Article No.	Article Description	QTY
8714 9 50	MTR.PROTECT. HOSE 'S' 9/ID 50	50
8714 9 70	MTR.PROTECT. HOSE 'S' 9/ID 70	50
8714 9 90	MTR.PROTECT. HOSE 'S' 9/ID 90	50
8714 9 100	MTR.PROTECT. HOSE 'S' 9/ID 100	50
8714 9 125	MTR.PROTECT. HOSE 'S' 9/ID 125	40

(insulation thickness x nominal size ID)

## Technical Data

Nom. size ID (SML)	Outs. Ø mm (SML)	Nom. size ID (HT)	Outs. Ø mm (HT) pipe	Outs. Ø mm (HT) bush.
50	58	50	50	53,5
70	78	70	75	78,8
-	-	90	90	110,0
100	110	100	100	115,2
125	135	125	125	131,0

## Cast iron pipes (SML) DIN 19522 / Plastic mat. pipes (HT) DIN 19560

- Material: closed-cell soft polyethylene foam with moisture-barrier, hard-wearing skin
- Thermal conductivity:  $R = 0.040 \text{ W/(m.K)}$  according to DIN 52613
- Operating temperature range: from  $-45^\circ\text{C}$  to  $+105^\circ\text{C}$
- Fire behavior: B2, normally inflammable according to DIN 4102

# Protective Hose for Sewage Water Pipes **Forlen**

- For damping of solid-borne sound of sewage water pipes – sound pressure level 23dB (A)
- Avoids condensation water formation on HT, PE and SML sewage water pipes
- Hose made of highly flexible, closed-cell soft polyethylene with hard-wearing, moisture-barrier skin – tear-resistant and non-crushing
- Non-ageing and recyclable
- With interior sliding film – rapid assembly
- Color: red
- CFC-free
- Delivery length: 10 m



Article No.	Article Description	QTY
8714 4 50	MTR.PROTECT. HOSE 4/ID 50	z 100
8714 4 70	MTR.PROTECT. HOSE 4/ID 70	z 100
8714 4 90	MTR.PROTECT. HOSE 4/ID 90	z 100
8714 4 100	MTR.PROTECT. HOSE 4/ID 100	z 100
8714 4 125	MTR.PROTECT. HOSE 4/ID 125	50

(insulation thickness x nominal size ID)

## Technical Data

Nom. size ID (SML)	Outs. Ø mm (SML)	Nom. size ID (HT)	Outs. Ø mm (HT) pipe	Outs. Ø mm (HT) bush.
50	58	50	50	53,5
70	78	70	75	78,8
-	-	90	90	110,0
100	110	100	100	115,2
125	135	125	125	131,0

## Cast iron pipes (SML) DIN 19522 / Plastic material pipes (HT) DIN 19560

- Material: closed-cell soft polyethylene foam with moisture-barrier, hard-wearing skin
- Thermal conductivity:  $R = 0.040 \text{ W/(m.K)}$  according to DIN 52613
- Operating temperature range: from  $-45^\circ\text{C}$  to  $+105^\circ\text{C}$
- Fire behavior: B2, normally inflammable according to DIN 4102

# Protective Hose for Cold Water Pipes **Forlen**

- For cold water pipes according to DIN 1988 part 2
- Hose made of high-flexible, closed-cell soft polyethylene with hard-wearing, moisture-barrier skin – tear-resistant and non-crushing
- To insulate drinking water pipes of moderate-energy according to TRWI (drinking water supply systems) (DIN 1988) for the 4 mm insulation range as well as to insulate heating pipes without requirements according to ENEC (German regulation for energy saving in buildings and building systems)
- Also applicable for pipes made of chrome nickel steel according to DIN 53110
- Non-ageing and recylcable
- With interior sliding film – rapid assembly
- Color: red
- CFC-free
- Delivery length: 10 m



Article No.	Article Description	QTY
<b>8714 4 15</b>	MTR.PROTECT. HOSE 1/4" 4/15	z 200
<b>8714 4 18</b>	MTR.PROTECT. HOSE 3/8" 4/18	z 200
<b>8714 4 22</b>	MTR.PROTECT. HOSE 1/2" 4/22	z 200
<b>8714 4 28</b>	MTR.PROTECT. HOSE 3/4" 4/28	z 200
<b>8714 4 35</b>	MTR.PROTECT. HOSE 1" 4/35	z 200
<b>8714 4 42</b>	MTR.PROTECT. HOSE 1 1/4" 4/42	z 200

(insulation thickness x Ø pipe (outer) mm)

## Technical Data

Outer Ø mm (CU)	Nom. size ID (CU)	Nom. size ID (FE)	Outer Ø mm (FE)	Outer Ø mm (PP)
12/15	-	8	13,5	-
18	15	10	17,2	16
22	20	15	21,3	20
28	25	20	26,9	25
35	32	25	33,7	32
42	40	32	42,4	40

## Copper pipe (CU) / Steel pipe (FE) / Polypropylene pipe (PP)

- Material: closed-cell soft polyethylene foam with moisture-barrier, hard-wearing skin
- Thermal conductivity:  $R = 0.040 \text{ W/(m.K)}$  according to DIN 52613
- Operating temperature range: from  $-45^{\circ}\text{C}$  to  $+105^{\circ}\text{C}$
- Fire behavior: B2, normally inflammable DIN 4102

# Insulating Hose *Forlen*

- According to DIN 1988 part 2 for cold water pipes
- Round extruded, flexible pipe insulation made of closed-cell soft polyethylene foam
- Coextruded, hard-wearing, moisture-barrier skin – non-crushing and tear-resistant
- Universal pipe insulation for sanitary, heating, and air conditioning
- Also appropriate for pipes made of chrome nickel steel according to DIN 53110
- Non-ageing and recyclable
- CFC-free
- Color: red
- Delivery length: 2 m



Article No.	Article Description	QTY
8715 9 15	MTR.INS.HOSE1/4" 9/15	380
8715 9 18	MTR.INS.HOSE3/8" 9/18	330
8715 9 22	MTR.INS.HOSE1/2" 9/22	250
8715 9 28	MTR.INS.HOSE3/4" 9/28	190
8715 9 35	MTR.INS.HOSE1" 9/35	150
8715 9 42	MTR.INS.HOSE1 1/4" 9/42	110
8715 13 15	MTR.INS.HOSE 50 1/4" 13/15	256
8715 13 18	MTR.INS.HOSE 50 3/8" 13/18	220
8715 13 22	MTR.INS.HOSE 50 1/2" 13/22	180
8715 13 28	MTR.INS.HOSE 50 3/4" 13/28	140
8715 13 35	MTR.INS.HOSE1" 13/35	120
8715 20 28	MTR.INS.HOSE 50 3/4" 20/28	96
8715 20 35	MTR.INS.HOSE 50 1" 20/35	70
8715 20 42	MTR.INS.HOSE50 1 1/4"20/42	60
8715 25 15	MTR.INS.HOSE100 1/4" 27/15	90
8715 25 18	MTR.INS.HOSE100 3/8" 26/18	90
8715 25 22	MTR.INS.HOSE100 1/2" 26/22	70
8715 25 28	MTR.INS.HOSE100 3/4" 25/28	66
8715 25 35	MTR.INS.HOSE1" 25/35	56
8715 25 42	MTR.INS.HOSE50 1 1/4"25/42	48

(insulation thickness x Ø pipe (outer) mm)

## Technical Data

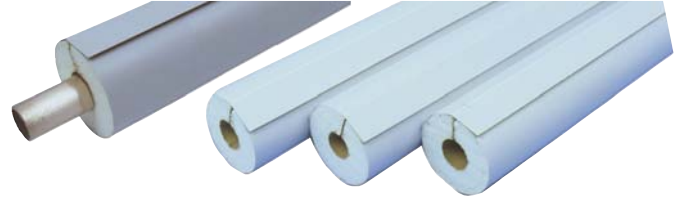
Outs. Ø mm (CU)	Nom. size ID (CU)	Nom. size ID (FE)	Outs. Ø mm (FE)	Outs. Ø mm (PP)	Acc. to EnEV %
15	-	8	13,5	-	-
18	15	10	17,2	16	-
22	20	15	21,3	20	-
28	25	20	26,9	25	-
35	32	25	33,7	32	-
42	40	32	42,4	40	-
50%	15	-	8	13,5	50%
50%	18	15	10	17,2	50%
50%	22	20	15	21,3	50%
50% (FE)	28	25	20	26,9	50% (Fe)
35%	35	32	25	33,7	50%
50% (CU)	28	25	20	26,9	50% (Cu)
50%	35	32	25	33,7	50%
50% (FE)	42	40	32	42,4	50% (Fe)
100%	15	-	8	13,5	100%
100%	18	15	10	17,2	100%
100%	22	20	15	21,3	100%
100% (FE)	28	25	20	26,9	100% (Fe)
50%	35	32	25	33,7	50%
50% (CU)	42	40	32	42,4	50% (Cu)

## Copper pipe (CU) / Steel pipe (FE) / Polypropylene pipe (PP)

- Material: excentrically extruded soft polyethylene foam with coextruded moisture-barrier, tear-resistant and non-crushing skin
- Thermal conductivity:  $R = 0.040 \text{ W/(m.K)}$  according to DIN 52613
- Operating temperature range: from  $-45^\circ\text{C}$  to  $+105^\circ\text{C}$
- Fire behavior: B1, hardly inflammable according to DIN 4102
- Damping of solid-borne sound up to 23 dB (A) reduction according to DIN 52218

## Pipe Insulation PUR 035 *Forlen*

- Complies 100% with ENEC (German regulation for energy saving in buildings and building systems)
- Round foamed pipe shells made of polyurethane foam with PVC envelope and self-adhesive closure
- Perfect in the sanitary, heating and air condition technology in the visual range
- Also appropriate for pipes made of chrome nickel steel according to DIN 53110
- CFC-free
- Color: clear grey
- Delivery length: 1 m



Article No.	Article Description	QTY
8718 20 15	MTR.THERMFLEX PUR 100 20/15	70
8718 20 18	MTR.THERMFLEX PUR 100 20/18	70
8718 20 22	MTR.THERMFLEX PUR 100 20/22	60
8718 30 28	MTR.THERMFLEX PUR 100 30/28	28
8718 30 35	MTR.THERMFLEX PUR 100 30/35	24
8718 40 42	MTR.THERMFLEX PUR 100 40/42	15
8718 40 48	MTR.THERMFLEX PUR 100 40/48	12
8718 50 60	MTR.THERMFLEX PUR 100 50/60	8

(insulation thickness x Ø pipe (outer) mm)

### Technical Data

Outs. Ø mm (CU)	Nom. size ID (CU)	Nom. size ID (FE)	Outs. Ø mm (FE)	Outs. Ø mm (PP)
15	-	8	13,5	-
18	15	10	17,2	16
22	20	15	21,3	20
28	25	20	26,9	25
35	32	25	33,7	32
42	40	32	42,4	40
-	-	40	48,3	-
-	-	50	60,3	63

### Copper pipe (CU) / Steel pipe (FE) / Polypropylene pipe (PP)

- Thermal conductivity:  $R = 0.035 \text{ W(m.K)}$  according to DIN 52613
- Operating temperature range: from  $-20^\circ\text{C}$  to  $+115^\circ\text{C}$
- Fire behavior: B2, normally inflammable according to DIN 4102

## Pipe Insulation PUR 040 *Forlen*

- Complies 50% with ENEC (German regulation for energy saving in buildings and building systems)
- Round foamed pipe shells made of polyurethane foam with PVC envelope and self-adhesive closure
- Perfect in the sanitary, heating and air condition technology in the visual range
- Also appropriate for pipes made of chrome nickel steel according to DIN 53110
- CFC-free
- Color: clear grey
- Delivery length: 1 m



Article No.	Article Description	QTY
8719 20 15	MTR.THERMFLEX PUR 50 20/15	70
8719 20 18	MTR.THERMFLEX PUR 50 20/18	70
8719 20 22	MTR.THERMFLEX PUR 50 20/22	60
8719 20 28	MTR.THERMFLEX PUR 50 20/28	48
8719 20 35	MTR.THERMFLEX PUR 50 20/35	40
8719 25 48	MTR.THERMFLEX PUR 50 25/48	20
8719 30 60	MTR.THERMFLEX PUR 50 30/60	15

(insulation thickness x Ø pipe (outer) mm)

### Technical Data

Outs. Ø mm (CU)	Nom. size ID (CU)	Nom. size ID (FE)	Outs. Ø mm (FE)	Outs. Ø mm (PP)
15	-	8	13.5	-
18	15	10	17.2	16
22	20	15	21.3	20
-	-	-	-	-
35	32	25	33.7	32
-	-	40	48.3	-
-	-	50	60.3	63

### Copper pipe (CU) / Steel pipe (FE) / Polypropylene pipe (PP)

- Thermal conductivity:  $R = 0.040 \text{ W(m.K)}$  according to DIN 52613
- Operating temperature range: from  $-20^\circ\text{C}$  to  $+115^\circ\text{C}$
- Fire behavior: B2, normally inflammable according to DIN 4102

# Pipe Insulation PUR Universal Arc *Forlen*

- PVC arc with insulation core made of soft MF-resin foam
- Appropriate for S-welding arc, bend for welding according to DIN 2605
- Universally applicable for Thermflex-Pur 035 and Thermflex-Pur 040



Article No.	Article Description	QTY
8720 20 15	THERMFLEX PUR ARC 20/15	90
8720 20 18	THERMFLEX PUR ARC 20/18	30
8720 20 22	THERMFLEX PUR ARC 20/22	30
8720 20 28	THERMFLEX PUR ARC 20/28	30
8720 30 28	THERMFLEX PUR ARC 30/28	40
8720 20 35	THERMFLEX PUR ARC 20/35	30
8720 30 35	THERMFLEX PUR ARC 30/35	20
8720 40 42	THERMFLEX PUR ARC 40/42	10
8720 25 48	THERMFLEX PUR ARC 25/48	20
8720 40 48	THERMFLEX PUR ARC 40/48	10
8720 30 60	THERMFLEX PUR ARC 30/60	10

(insulation thickness x Ø pipe (outer) mm)

## Technical Data

Outs. Ø mm (CU)	Nom. size ID (CU)	Nom. size ID (FE)	Outs. Ø mm (FE)	Outs. Ø mm (PP)
15	-	8	13.5	-
18	15	10	17.2	16
20	22	15	21.3	20
28	25	20	26.9	25
28	25	20	26.9	25
35	32	25	33.7	32
35	32	25	33.7	32
42	40	32	42.4	40
-	-	40	48.3	-
-	-	40	48.3	-
-	-	50	60.3	63

Copper pipe (CU) / Steel pipe (FE) / Polypropylene pipe (PP)

# Cold Rubber, Insulation Tube *Forlen*

Fire tested according to construction test certificate P-3553/829/11-MPA BS

- Highly flexible, closed-cell insulation material made of synthetic rubber
- High steam diffusion resistance according to DIN EN ISO 13469
- Thermal conductivity of 0.036 (W/m\*K) at 0°
- Complies with DIN 1988 part 7 (corrosion prevention)
- CFC and HCFC free, Formaldehyde and Cadmium
- Fire rating: hardly flammable – self-extinguishing, does not propagate fire and produces no burning droplets in a fire situation
- Delivery: 2 m tubes
- Material: Foam based on synthetic rubber
- Application range (temperature):
  - Max. medium temperature: +105 °C
  - Min. medium temperature: -40 °C (-200 °C)
- Thermal conductivity WLF DIN EN ISO 8497:
  - Medium temperature °C: -30 / -20 / 0 / +10 / +20 / +40 / +70
  - Thermal conductivity W/(m·K): 0.033 / 0.034 / 0.036 / 0.037 / 0.038 / 0.040 / 0.043
- Water vapour permeability according to DIN EN 13469: ≥ 8.000 µ
- Fire rating: B<sub>L</sub> - s3, d0, highly flame retardant

## Application areas:

- For condensation prevention and energy loss limitation where pipes and ducts, chillers and air conditioning equipment are required



## Technical Data

Insulation thickn. mm	Outer Ø mm (CU)	Nom.width DN (CU)	Inch (FE)	Outer Ø mm (FE)	Nom.width DN (FE)
6.0	6.0	4	-	-	-
6.0	8.0	6	-	-	-
7.5	10.0	8	1/8"	10.2	6
7.5	12.0	10	-	-	-
8.0	15.0	-	1/4"	13.5	8
8.0	18.0	15	3/8"	17.2	10
8.5	22.0	20	1/2"	21.3	15
8.5	28.0	25	3/4"	26.9	20
9.0	35.0	32	1"	33.7	25
9.0	42.0	40	1 1/4"	42.4	32
11.0	10.0	8	1/8"	10.2	6

Copper pipe (CU) / Steel pipe (FE)

(Continued on next page)



# Cold Rubber, Insulation Tube *Forlen*



Article No.	Article Description	QTY
8730 13 12	MTR.COLD RUBBER 13/12	168
8730 13 15	MTR.COLD RUBBER 1/4" 13/15	144
8730 13 18	MTR.COLD RUBBER 3/8" 13/18	120
8730 13 22	MTR.COLD RUBBER FOAM1/2" 13/22	96
8730 13 28	MTR.COLD RUBBER FOAM3/4" 13/28	80
8730 13 35	MTR.COLD RUBBER 1" 13/35	60
8730 13 42	MTR.COLD RUBBER 1 1/4" 13/42	40
8730 13 48	MTR.COLD RUBBER 1 1/2" 13/48	40
8730 13 54	MTR.COLD RUBBER 13/54	32
8730 19 18	MTR.COLD RUBBER 3/8" 19/18	72
8730 19 22	MTR.COLD RUBBER 1/2" 19/22	64
8730 19 28	MTR.COLD RUBBER 3/4" 19/28	50
8730 19 35	MTR.COLD RUBBER 1" 19/35	40
8730 19 42	MTR.COLD RUBBER 1 1/4" 19/42	32
8730 19 48	MTR.COLD RUBBER 1 1/2" 19/48	24
8730 19 54	MTR.COLD RUBBER 19/54	24
8730 19 60	MTR.COLD RUBBER 2" 19/60	20
8730 19 64	MTR.COLD RUBBER 19/64	18
8730 19 76	MTR.COLD RUBBER 19/76	16
8730 19 89	MTR.COLD RUBBER 19/89	12
8730 19 108	MTR.COLD RUBBER 19/108	10
8730 19 114	MTR.COLD RUBBER 4" 19/114	z 18
8730 25 18	MTR.COLD RUBBER 3/8" 25/18	50
8730 25 22	MTR.COLD RUBBER 1/2" 25/22	42
8730 25 28	MTR.COLD RUBBER 3/4" 25/28	40
8730 25 35	MTR.COLD RUBBER 1" 25/35	24
8730 25 42	MTR.COLD RUBBER 1 1/4" 25/42	22
8730 25 48	MTR.COLD RUBBER 1 1/2" 25/48	18
8730 25 54	MTR.COLD RUBBER 25/54	16
8730 32 28	MTR.COLD RUBBER 3/4" 32/28	24
8730 32 35	MTR.COLD RUBBER 1" 32/35	22
8730 32 42	MTR.COLD RUBBER 1 1/4" 32/42	16
8730 32 48	MTR.COLD RUBBER 1 1/2" 32/48	12
8730 32 54	MTR.COLD RUBBER 32/54	12

## Technical Data

Insulation thickn. mm	Outer Ø mm (CU)	Nom.width DN (CU)	Inch (FE)	Outer Ø mm (FE)	Nom.width DN (FE)
11.0	12.0	10	-	-	-
11.0	15.0	-	1/4"	13.5	8
11.5	18.0	15	3/8"	17.2	10
12.0	22.0	20	1/2"	21.3	15
12.5	28.0	25	3/4"	26.9	20
13.0	35.0	32	1"	33.7	25
13.5	42.0	40	1 1/4"	42.4	32
13.5	-	-	1 1/2"	48.3	40
13.5	54.0	50	-	54.0	-
17.5	18.0	15	3/8"	17.2	10
18.0	22.0	20	1/2"	21.3	15
19.0	28.0	25	3/4"	26.9	20
19.5	35.0	32	1"	33.7	25
20.0	42.0	40	1 1/4"	42.4	32
20.5	-	-	1 1/2"	48.3	40
21.0	54.0	50	-	54.0	-
21.5	-	-	2"	60.3	50
21.5	64.0	-	-	63.5	-
22.0	76.1	65	2 1/2"	76.1	65
22.5	88.9	80	3"	88.9	80
19.0	108.0	100	-	108.0	-
19.0	114.0	100	4"	114.3	100
21.5	18.0	15	3/8"	17.2	10
22.5	22.0	20	1/2"	21.3	15
23.5	28.0	25	3/4"	26.9	20
24.5	35.0	32	1"	33.7	25
25.5	42.0	40	1 1/4"	42.4	32
26.0	-	-	1 1/2"	48.3	40
26.5	54.0	50	-	54.0	-
31.5	28.0	25	3/4"	26.9	20
33.0	35.0	32	1"	33.7	25
34.0	42.0	40	1 1/4"	42.4	32
35.0	-	-	1 1/2"	48.3	40
35.5	54.0	50	-	54.0	-

Copper pipe (CU) / Steel pipe (FE)



# Cold Rubber, Endless Tube *Forlen*

- Highly flexible, closed-cell insulation material made of synthetic base rubber
- High steam diffusion resistance according to DIN EN ISO 13469
- Low thermal conductivity of 0.036 (W/m\*K) at 0°
- Complies with DIN 1988 part 7 (corrosion prevention)
- CFC and HCDF-free, Formaldehyde and Cadmium
- Fire rating: hardly flammable – self-extinguishing, does not propagate fire and produces no burning droplets in a fire situation
- Delivery: Endless tube in dispenser box

#### Advantages:

- No waste
- Fewer butt seams, saves adhesive
- Saves space during transport and storage due to carton sizes
- Saves time during mounting

#### Application areas:

- For condensation prevention and energy loss limitation where pipes and ducts, chillers and air conditioning equipment are required



Article No.	Article Description	QTY
8730 5 9 06	RO(40M)ENDL.COLD RUBBER 9X06	1
8730 5 9 08	RO(37M)ENDL.COLD RUBBER 9X08	1
8730 5 9 10	RO(34M)ENDL.COLD RUBBER 9X10	1
8730 5 9 12	RO(31M)ENDL.COLD RUBBER 9X12	1
8730 5 9 15	RO(27M)ENDL.COLD RUBBER 9X15	1
8730 5 9 18	RO(23M)ENDL.COLD RUBBER 9X18	1
8730 5 9 22	RO(19M)ENDL.COLD RUBBER 9X22	1
8730 5 9 28	RO(14M)ENDL.COLD RUBBER 9X28	1
8730 5 13 06	RO(26M)ENDL.COLD RUBBER 13X06	1
8730 5 13 08	RO(26M)ENDL.COLD RUBBER 13X08	1
8730 5 13 10	RO(23M)ENDL.COLD RUBBER 13X10	1
8730 5 13 12	RO(18M)ENDL.COLD RUBBER 13X12	1
8730 5 13 15	RO(17M)ENDL.COLD RUBBER 13X15	1
8730 5 13 18	RO(15M)ENDL.COLD RUBBER 13X18	1
8730 5 13 22	RO(14M)ENDL.COLD RUBBER 13X22	1
8730 5 13 28	RO(10M)ENDL.COLD RUBBER 13X28	1

#### Technical Data

Ins. thickn. mm	Outer Ø mm (CU)	Nom.width DN (CU)	Inch (FE)	Outer Ø mm (FE)	Nom.width DN (FE)
6.0	6	4	-	-	-
6.0	8	6	-	-	-
7.5	10	8	1/8"	10.2	6
7.5	12	10	-	-	-
8.0	15	-	1/4"	13.5	8
8.0	18	15	3/8"	17.2	10
8.5	22	20	1/2"	21.3	15
8.5	28	25	3/4"	26.9	20
9.5	6	4	-	-	-
9.0	8	6	-	-	-
11.0	10	8	1/8"	10.2	6
11.0	12	10	-	-	-
11.0	15	-	1/4"	13.5	8
11.5	18	15	3/8"	17.2	10
12.0	22	20	1/2"	21.3	15
12.5	28	25	3/4"	26.9	20

#### Copper pipe (CU) / steel pipe (FE)

- Material: Foam based on synthetic rubber
- Application range (temperature):
  - Max. medium temperature: +105°C
  - Min. medium temperature: -40°C (-200°C)
- Thermal conductivity WLF DIN EN ISO 8497:
  - Medium temperature °C: -30 / -20 / 0 / +10 / +20 / +40 / +70
  - Thermal conductivity W/(m·K): 0.033 / 0.034 / 0.036 / 0.037 / 0.038 / 0.040 / 0.043
- Water vapour permeability according to DIN EN 13469:  $\geq 8.000 \mu$
- Fire rating: B<sub>L</sub> - s3, d0, highly flame retardant

# Cold Rubber - Endless Sheets *Forlen*

- Highly flexible, closed-cell insulation material made of synthetic rubber
- Increasing insulation thickness
- High steam diffusion resistance according to DIN EN ISO 13469
- Low thermal conductivity of 0.036 (W/m²K) at 0°
- Complies with DIN 1988 part 7 (corrosion prevention)
- CFC and HCFC free, Formaldehyde and Cadmium
- Fire rating: hardly flammable - self-extinguishing, does not propagate fire and produces no burning droplets in a fire situation
- Delivery: Endless sheets with 1m width, Art. No. 8730 3 ... self-adhesive

## Application areas:

- For condensation prevention and energy loss limitation where pipes and ducts, chillers and air conditioning equipment are required



8730 2 ...



8730 3 ...

Article No.	Article Description	QTY
8730 2 06	RO(30M)C-RUBB.ENDL.SHEET 6MM	1
8730 2 09	RO(20M)C-RUBB.ENDL.SHEET 9MM	1
8730 2 13	RO(14M)C-RUBB.ENDL.SHEET 13MM	1
8730 2 19	RO(10M)C-RUBB.ENDL.SHEET 19MM	1
8730 3 06	RO(30M)C-RUB.ENDL.SHEET SA 6MM	1
8730 3 09	RO(20M)C-RUB.ENDL.SHEET SA 9MM	1
8730 3 13	RO(14M)C-RUB.ENDL.SHEET SA13MM	1
8730 3 19	RO(10M)C-RUB.ENDL.SHEET SA19MM	1
8730 3 25	RO( 8M)C-RUB.ENDL.SHEET SA25MM	1
8730 3 32	RO( 6M)C-RUB.ENDL.SHEET SA32MM	1

## Technical Data

Ins. thickn. in mm	Width in m	Length in m
6.0	1	30
10.0	1	20
13.0	1	14
19.0	1	10
6.0	1	30
10.0	1	20
13.0	1	14
19.0	1	10
25.0	1	11
32.0	1	12

- Material: Foam based on synthetic rubber
- Application range (temperature):
  - Max. medium temperature: +85°C
  - Min. medium temperature: -40°C (-200°C)
- Thermal conductivity WLF DIN EN 8497:
  - Medium temperature °C: -30 / -20 / 0 / +10 / +20 / +40 / +70
  - Thermal conductivity W/(m·K): 0,033 / 0,034 / 0,036 / 0,037 / 0,038 / 0,040 / 0,043
- Water vapour permeability according to DIN EN 13469: ≥ 8.000 μ
- Fire rating: B - s3, d0, highly flame retardant

# Heating Rubber HK Plus *Forlen*

- Highly flexible, closed cell insulating material with low thermal conductivity (0.036 W/m × K) for applications in the sanitary and heating sectors
- Meets the requirements of DIN 1988 Parts 2 and 7
- Available as 2 m hose or endless roll in dispenser box (Art. No. 8723 5 ...)

## Fields of application:

- For insulating heating and hot water pipes in accordance with EnEV 2009
- For insulating cold water pipes in accordance with DIN 1988

## Product benefits:

- Lower thermal conductivity due to new microcell structure
- Simplified range, hence lower warehousing costs
- Highly flexible and easy-to-process material
- Meets the requirements of the energy saving regulations (EnEV)



Article No.	Article Description	QTY
8723 10 15	MTR.UNV.RUB+ 50 10/15	150
8723 10 18	MTR.UNV.RUB+ 50 10/18	130
8723 10 22	MTR.UNV.RUB+ 50 10/22	100
8723 10 28	MTR.UNV.RUB+ 50 10/28	80
8723 10 35	MTR.UNV.RUB+ 10/35	70
8723 10 42	MTR.UNV.RUB+ 10/42	60
8723 10 48	MTR.UNV.RUB+ 10/48	50
8723 10 54	MTR.UNV.RUB+ 10/54	44
8723 10 60	MTR.UNV.RUB+ 10/60	40
8723 19 28	MTR.UNV.RUB 50 3/4"19/28	48
8723 19 35	MTR.UNV.RUB 50 1" 19/35	36
8723 25 15	MTR.UNV.RUB 100 1/4"25/15	36
8723 25 18	MTR.UNV.RUB 100 3/8"25/18	36
8723 25 22	MTR.UNV.RUB 100 1/2"25/22	36
8723 25 28	MTR.UNV.RUB 100 3/4"25/28	32
8723 25 42	MTR.UNV.RUB 50 1 1/4"25/42	24
8723 36 28	MTR.UNV.RUB+ 100 36/28	18
8723 36 35	MTR.UNV.RUB 100 1" 36/35	16
8723 46 42	MTR.UNV.RUB+ 100 46/42	8

## Technical Data

Application area According to EnEV	External Ø Cu in mm	Steel pipe Fe Imperial	Steel pipe Fe mm
50 %	15	1/4"	13.5
50 %	18	3/8"	17.2
50 %	22	1/2"	21.3
50 % Fe	-	3/4"	26.9
-	35	1"	33.7
-	42	1 1/4"	42.4
-	-	1 1/2"	48.3
-	54	-	-
-	-	2"	60.3
50 % Cu	28	-	-
50 %	35	1"	33.7
100 %	15	1/4"	13.5
100 %	18	3/8"	17.2
100 %	22	1/2"	21.3
100 % Fe	-	3/4"	26.9
50 % Fe	-	1 1/4"	42.4
100 % Cu	28	-	-
100 %	35	1"	33.7
100 %	42	1 1/4"	42.2

# Heating Rubber HK Plus Endless Rolls *Forlen*

- Colour: Grey
- Thermal conductivity at 40 °C:  
≤ 10 mm: 0.036 W / (m × K)  
> 10 mm 0.040 W / (m × K)
- Usable temperature range: -8 °C to +105 °C
- Building material class: B1 – flame retardant according to DIN 4102
- Practical fire behaviour: self-extinguishing, non-dripping, does not propagate fire
- Corrosion risk: conforms to DIN 1988 Part 7, does not contain any substances that attack metals
- Material: Elastomer foam based on synthetic rubber



Article No.	Article Description	QTY
8723 5 10 15	RO(35M)UNV.RUB+ 50 10/15	1
8723 5 10 18	RO(30M)UNV.RUB+ 50 10/18	1
8723 5 10 22	RO(25M)UNV.RUB+ 50 10/22	1
8723 5 10 28	RO(20M)UNV.RUB+ 50 10/28	1

## Technical Data

Application area According to EnEV	External Ø Cu in mm	Steel pipe Fe Imperial	Steel pipe Fe mm
50 %	15	1/4"	13.5
50 %	18	3/8"	17.2
50 %	22	1/2"	21.3
50 % Fe	-	3/4"	26.9

Cu = meets the requirements of the EnEV for copper pipes

Fe = meets the requirements of the EnEV for steel pipes and plastic pipes

# Heating Rubber HK Plus SK *Forlen*

- Furnished with self-adhesive strips, highly flexible and closed-celled insulating material with low thermal conductivity (0.036)
- Meets the requirements of DIN 1988 Parts 2 and 7
- Length supplied: 2 m

## Fields of application:

- For insulating heating and hot water pipes in accordance with EnEV 2009
- For insulating cold water pipes in accordance with DIN 1988

## Product benefits:

- Self-adhesive strips for retrospective insulation of installed pipes
- Lower thermal conductivity due to new microcell structure
- Simplified range, hence lower warehousing costs
- Highly flexible and east-to-process material



Article No.	Article Description	QTY
8723 2 10 15	MTR.UNV.RUB SK+ 50 10/15	150
8723 2 10 18	MTR.UNV.RUB SK+ 50 10/18	130
8723 2 10 22	MTR.UNV.RUB SK+ 50 10/22	100
8723 2 10 28	MTR.UNV.RUB SK+ 50 10/28	80
8723 2 19 28	MTR.UNV.RUB/SK 50 3/4"18/28	48
8723 2 19 35	MTR.UNV.RUB/SK 50 1" 19/35	40
8723 2 25 15	MTR.UNV.RUB/SK100 1/4"25/15	36
8723 2 25 18	MTR.UNV.RUB/SK100 3/8"25/18	36
8723 2 25 22	MTR.UNV.RUB/SK100 1/2"25/22	36
8723 2 25 28	MTR.UNV.RUB/SK100 3/4"25/28	32

## Technical Data

Application area according to EnEV	External Ø CU in mm	Steel pipe FE imperial	Steel pipe FE mm
50 %	15	1/4"	13.5
50 %	18	3/8"	17.2
50 %	22	1/2"	21.3
50 % FE	-	3/4"	26.9
50 % CU	28	-	-
50 %	35	1"	33.7
100 %	15	1/4"	13.5
100 %	18	3/8"	17.2
100 %	22	1/2"	21.3
100 % FE	-	3/4"	26.9

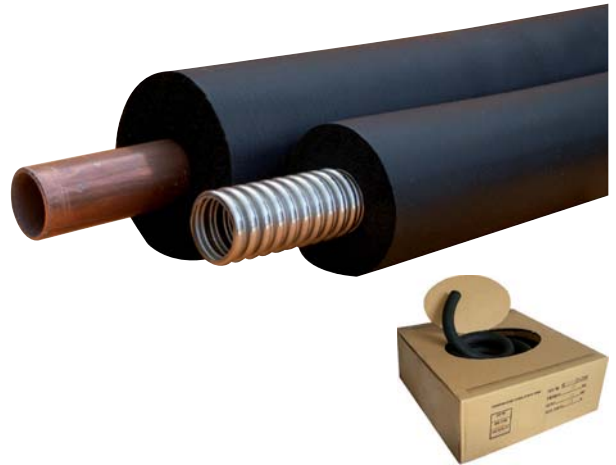
**Cu = meets the requirements of the EnEV for copper pipes**

**FE = meets the requirements of the EnEV for steel pipes and plastic pipes**

- Colour: Grey
- Thermal conductivity at 40°: 10 mm – 0.036 W / (m\*K), > 10 mm 0.040 W / (m\*K)
- Usable temperature range: -8 °C to +105 °C
- Building material class: B1 – flame retardant according to DIN 4102
- Practical fire behaviour: self-extinguishing, non-dripping, does not propagate fire
- Corrosion risk: Conforms to DIN 1988 Part 7, does not contain any substances that attack metals
- Material: Elastomer foam based on synthetic rubber

# High Temp. Unvulcanized Rubber HTK UV **Forlen**

- Weather and UV resistant solar insulation
  - special insulation for applications outdoors
  - Elastic and high-flexible, easy-to-install
  - Closed-cell elastomer foam
  - Also appropriate for insulation of cold pipes outdoors
  - Outstanding insulation properties
  - Environmental-friendly; CFC- and H CFC free
  - Low in nitrosamine
  - UV resistant and weatherproof according to DIN 8580
  - Also complies with DIN 1988 part 7 and Euro class E
  - Available as 2 m hose or as 25 m roll
- The insulation maintains its UV resistance and weatherproofness without envelope or special paint coating**



Article No.	Article Description	QTY
8723 6 13 15	MTR.UNV.RUB HTK UV 1/4"13/15	100
8723 6 13 18	MTR.UNV.RUB HTK UV 3/8"13/18	90
8723 6 13 22	MTR.UNV.RUB HTK UV 1/2"13/22	70
8723 6 13 28	MTR.UNV.RUB HTK UV 3/4"13/28	60
8723 6 13 35	MTR.UNV.RUB HTK UV 1" 13/35	44
8723 6 19 15	MTR.UNV.RUB HTK UV 1/4"19/15	64
8723 6 19 18	MTR.UNV.RUB HTK UV 3/8"19/18	60
8723 6 19 22	MTR.UNV.RUB HTK UV 1/2"19/22	44
8723 6 19 28	MTR.UNV.RUB HTK UV 3/4"19/28	40
8723 6 19 35	MTR.UNV.RUB HTK UV 1" 19/35	30
8723 7 13 15	R.(25M)EL-UNV.RUBHTK UV 13X15	1
8723 7 13 18	R.(25M)EL-UNV.RUBHTK UV 13X18	1
8723 7 13 22	R.(25M)EL-UNV.RUBHTK UV 13X22	1
8723 7 19 15	R.(25M)EL-UNV.RUBHTK UV 19X15	1
8723 7 19 18	R.(25M)EL-UNV.RUBHTK UV 19X18	1
8723 7 19 22	R.(25M)EL-UNV.RUBHTK UV 19X22	1

(Outer Ø mm)

## Technical Data

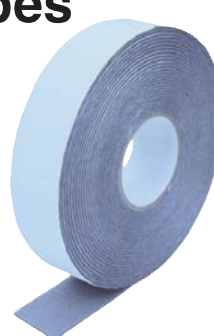
Outer Ø mm (CU)	Nom. size ID (CU)	Outer Ø mm (FE)	Nom. size ID (FE)	Outer Ø mm (VA)	Nom. size ID (VA)
15	-	13.5	8	14.2	10
18	15	17.2	10	16.7	12
22	20	21.3	15	21.4	16
28	25	26.9	20	26.7	20
35	32	33.7	25	33.0	25

- Material: closed-cell elastomer foam
- Delivery form/length: Box, 2 m hose or 25 m roll
- Operate in temperature range: from -40°C to +150°C
- Heat conductivity:  $\wedge 40^{\circ}\text{C} = 0,038 \text{ W/m}^2 \text{ K}$  /  $\wedge 0^{\circ}\text{C} = 0,035 \text{ W/m}^2 \text{ K}$
- Fire behavior (DIN 4102): B2 normally inflammable
- Corrosion risk: complies with DIN 1988, part 7
- Weatherproof and UV resistant: complies with DIN 8580
- Water vapor diffusion resistance EN 12086:  $\mu > 3000$

## Unvulcan. Rubber Winding Tapes

- Self-adhesive
- Length 15 m
- Width 50 mm
- Material thickness 3 mm

Article No.	Article Description	QTY
8724 50	RE15M.WIND.TA.S.-AD50MM UN.RUB	e 12
8724 3 50	RE15M.WIND.TA.S.-AD.50MM HTK UV	e 10



8724 50



8724 3 50

## Rubber Adhesive, 220 g

- Special adhesive for rubber products
- Adhesive for bonding joints in rubber insulation
- Final strength after 36 hours
- Usable temperature -50°C to +105°C
- Processing temperature: ideal at 20°C but not below 0°C
- Suitable for processing on metal and plastic pipes
- Not suitable for bonding pipe connections
- Not suitable for use on solar installations

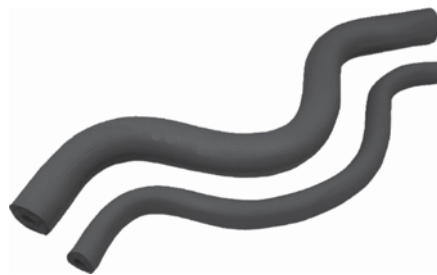
Article No.	Article Description	QTY
8724 220	CN(220G)RUBBER ADHESIVE	1





# Insulation Unvulcanized Rubber/HT **Forlen**

- Made of high-flexible closed-cell elastomer foam on synthesis unvulcanized rubber Basis (appropriate for solar Systems)
- Temperature-resistant from -40 °C to +150 °C, short term permanent load up to +175 °C
- Ozone resistance: excellent according to ISO 7326
- UV resistance: good according to UNI ISO 4892
- In order to guarantee a UV resistance the hose needs to be protected against general environmental influences (e.g. steel sheet envelope or paint coating)
- Color: black
- CFC-free
- Delivery length: 2 m



Article No.	Article Description	QTY
8723 1 13 15	MTR.UNV.RUB/HT 1/4"13/15	112
8723 1 13 18	MTR.UNV.RUB/HT 3/8"13/18	98
8723 1 13 22	MTR.UNV.RUB/HT 1/2"13/22	84
8723 1 13 28	MTR.UNV.RUB/HT 3/4"13/28	64
8723 1 19 15	MTR.UNV.RUB/HT 1/4" 19/15	64
8723 1 19 18	MTR.UNV.RUB/HT 3/8" 19/18	58
8723 1 19 22	MTR.UNV.RUB/HT 1/2" 19/22	50
8723 1 19 28	MTR.UNV.RUB/HT 3/4" 19/28	48
8723 1 19 35	MTR.UNV.RUB/HT 1" 19/35	32

(insulation thickness - pipe Ø (outer) mm)

## Technical Data

Outer Ø mm (CU)	Nom. size ID (CU)	Nom. size ID (FE)	Outer Ø mm (FE)	Outer Ø mm (PP)
15	-	8	13.5	-
18	15	10	17.2	16
22	20	15	21.3	20
28	25	20	26.9	25
15	-	8	13.5	-
18	15	10	17.2	16
22	20	15	21.3	20
28	25	20	26.9	25
35	32	25	33.7	32

## Copper pipe (CU) / Steel pipe (FE) / Polypropylene pipe (PP)

- Coefficient of thermal conductivity: 0,040 W(m·K) acc. to DIN 52613
- Fire behavior: B2, non dropping in case of fire test acc. to DIN4102, part 1
- Steam-diffusion-resistance-number  $\mu$  value: >3000 in-shop tested according to DIN 52615



# Corrug. Stainless Steel Tube Solar Comp. **Forlen**

With high temperature unvulcanized rubber pre-isolated corrugated stainless steel tube A4 for the interior and exterior

- Double pipelines easily divisible into single pipelines without damaging the protective film and the insulation
- Connectionless from the roof to the cellar
- High temperature resistant unvulcanized rubber insulation with unchanging insulation thickness
- Utilization in solar thermal and heating systems
- Easy separability of the double pipe at the collector as well as in the central heating room by special gluing technology

## Application:

- Division and connection pipelines of solar systems and heating systems



Article No.	Article Description	QTY
8722 1 16 15	MTR.SOLAR COMP. ID16 15M	15
8722 1 16 25	MTR.SOLAR COMP. ID16 25M	25
8722 1 16 50	MTR.SOLAR COMP. ID16 50M	50
8722 1 20 15	MTR.SOLAR COMP. ID20 15M	15
8722 1 20 25	MTR.SOLAR COMP. ID20 25M	25
8722 1 20 50	MTR.SOLAR COMP. ID20 50M	50
8722 1 25 15	MTR.SOLAR COMP. ID25 15M	15
8722 1 25 25	MTR.SOLAR COMP. ID25 25M	25
8722 2 16 15	MTR.SOLAR COMP. 13MM ID16 15M	15
8722 2 16 25	MTR.SOLAR COMP. 13MM ID16 25M	25
8722 2 16 50	MTR.SOLAR COMP. ID16 50M	50
8722 2 20 15	MTR.SOLAR COMP. 13MM ID20 15M	15
8722 2 20 25	MTR.SOLAR COMP. 13MM ID20 25M	25
8722 2 20 50	MTR.SOLAR COMP. ID20 50M	50

(ID mm / Length of each bunch mm)

## Technical Data

DN mm	Insulating Ø mm	Dimensions L x B	PN at 250° bar	Bending degree m
16	19	122 x 60	11	0.15
20	19	134 x 66	6.9	0.15
25	19	148 x 73	6.9	0.20
16	13	98 x 48	11	0.15
20	13	110 x 54	6.9	0.15

- Insulation: closed-cell, synthetic high temperature unvulcanized rubber up to +150 °C, short term up to +175 °C
- Heat conductivity: R = 0.038 W/m\*K
- Lagging: tear-proof PE lagging, black

# Corrugated Stainless Steel Tube A4 **Forlen**

The corrugated stainless steel tube is a parallel corrugated stainless steel tube provided with a longitudinal welding seam. Its little corrugated height and the narrow corrugation provide outstanding flow properties to the tube of this category.

- Parallel corrugated overall metal tube
- Rust-, acid-, heat-, vibration- and pressure-resistant
- Very good flexibility and cross compressive strength
- Easy structure of detachable threaded joints
- **Material Quality 1.4404 (Aisi 316L)**
- Application and solar thermal and heating systems
- Optimum for collector connections and boiler connections



Article No.	Article Description	QTY
8722 3 16 50	MTR.CORR. STAINL.ST TUBE ID16	50
8722 3 20 50	MTR.CORR. STAINL.ST TUBE ID20	50
8722 3 25 50	MTR.CORR. STAINL.ST TUBE ID25	50
8722 3 32 50	MTR.CORR. STAINL.ST TUBE ID32	50
8722 3 40 50	MTR.CORR. STAINL.ST TUBE ID40	50

## Technical Data

ID mm	Dimension inch	Length m
16	1/2"	50
20	3/4"	50
25	1"	50
32	1 1/4"	50
40	1 1/2"	50

# META-DICHT Quick-connection System

## Quick-connection system with metallic sealing

- Metallic sealing
- The right connection for any collector
- No special tools necessary
- Quick and easy installation in only four steps
- Suitable for extremely high temperatures > 200 °C
- Half-shells with fixing mechanism prevent the corrugated pipe from falling and thus enable safe and easy installation
- Extremely durable connection without maintenance requirements (replacement of sealing rings no longer necessary)
- Specifically adjusted to the Förch stainless steel corrugated pipes and the Solar Kompakt connection system

### Installation note:

- Trim the pipe to the desired length with a pipe cutter
- Slide the union nut over the corrugated pipe (Figure 1)
- Press half-shells onto the second-last corrugation of the corrugated pipe – the last corrugation of the pipe must be visible (see Figure 2)
- Push the fitting all the way into the half-shell and screw it down to the union nut

Fixing mechanism



## Screw Connection Set with External Thread

### Metallic sealing screw connection with external thread

#### Technical Data

Art. No.	DN	AG* Reduced Imperial
8722 12 16	16	1/2"
8722 12 22	20	3/4"
8722 12 25	25	1"

\*AG = male thread

Article No.	Article Description	QTY
8722 12 16	METAL-SEAL SC.CON.ID16 OT 1/2"	1
8722 12 20	METAL-SEAL SC.CON.ID20 OT 3/4"	1
8722 12 25	METAL-SEAL SC.CON.ID25 OT 1"	1



## Soldered and Compression Connector Set

### Metallic sealing screw connection set with combined soldered and compression fitting for the transition to a copper pipe

#### Technical Data

Art. No.	DN	Cu pipe ext. (mm)	Cu pipe int. (mm)
8722 14 16	16	22	18
8722 14 20	20	22	18

Article No.	Article Description	QTY
8722 14 16	METAL-SEAL SOLD./COMP.CON.ID16	1
8722 14 20	METAL-SEAL SOLD./COMP.CON.ID20	1



## Compression Fitting Set

Metallic sealing screw connection set with clamping collar for the transition to a copper pipe – consequently no soldering required

### Technical Data

Art. No.	DN	Cu pipe External (mm)
8722 15 16 18	16	18
8722 15 16 22	16	22
8722 15 20 18	20	18
8722 15 20 22	20	22



Article No.	Article Description	QTY
8722 15 16 18	METAL-SEAL CLAMP.COL.ID16/18CU	1
8722 15 16 22	METAL-SEAL CLAMP.COL.ID16/22CU	1
8722 15 20 18	METAL-SEAL CLAMP.COL.ID20/18CU	1
8722 15 20 22	METAL-SEAL CLAMP.COL.ID20/22CU	1

## Screw Connection Set with 3/4" Internal Thread

Metallic sealing screw connection set with flexible connecting nut and broad sealing surface – for direct connection to collectors with 3/4" male thread

- Suitable seal for 3/4" female thread: Art. No. 8722 10 16

### Technical Data

Art. No.	DN	IG* Reduced Imperial
8722 16 16 34	16	3/4"
8722 16 20 34	20	3/4"

\*IG = female thread

Article No.	Article Description	QTY
8722 16 16 34	METAL-SEAL SCR.CON.ID16-IT3/4"	1
8722 16 20 34	METAL-SEAL SCR.CON.ID20-IT3/4"	1



## Coupling Kit

Metallic sealing coupling kit for joining stainless steel corrugated pipes of the same diameter

### Technical Data

Art. No.	DN
8722 13 16	16
8722 13 20	20
8722 13 25	25

Article No.	Article Description	QTY
8722 13 16	METAL-SEAL COUPLING ID16	1
8722 13 20	METAL-SEAL COUPLING ID20	1
8722 13 25	METAL-SEAL COUPLING ID25	1



## Insert Ring

Article No.	Article Description	QTY
8722 9 16	INSERT RING ID16	10
8722 9 20	INSERT RING ID20	10
8722 9 25	INSERT RING ID25	10



## Washer Solar

Article No.	Article Description	QTY
8722 10 16	WASHER SOLAR ID16	10
8722 10 20	WASHER SOLAR ID20	10
8722 10 25	WASHER SOLAR ID25	10



## Impact Tool

- Impact kit to manufacture flange connections for flexible corrugated stainless steel tubes
- Impact tool with clamping jaws and flanged rod

Article No.	Article Description	QTY
8722 7 16	IMPACT TOOL ID16	1
8722 7 20	IMPACT TOOL ID20	1
8722 7 25	IMPACT TOOL ID25	1



## Oval Mounting Clamp

- Oval mounting clamps are excellently appropriate to mount the pre-insulated corrugated stainless steel tube solar compact
- Terminal nut: M8

Article No.	Article Description	QTY
8722 4 16	OVAL MOUNT. CLAMP 19MM ID16	10
8722 4 20	OVAL MOUNT. CLAMP 19MM ID20	10
8722 4 25	OVAL MOUNT. CLAMP 19MM ID25	10
8722 4 16 13	OVAL MOUNT. CLAMP 13MM ID20	10
8722 4 20 13	OVAL MOUNT. CLAMP 13MM ID20	10



## Repair Strip for Tube Insulation,Unvulcanized Rub.

- Appropriate to repair any kind of insulation made of unvulcanized rubber (heating, high temperature and low-temperature unvulcanized rubber)
- The repair strip can be applied as additional protection of an insulation made of unvulcanized rubber
- Cost saving since subsequent renewal of insulation is being omitted
- UV-stable
- Fabric reinforced
- Continuously temperature resistant up to + 90° C
- Type of fabric: plastic-laminated, reinforced fabric strip
- Glue on the basis of natural rubber
- Adhesive force: 100 N/25 mm
- Elongation at tear: about 5%
- Appropriate for the long-term use inside and outside
- Dimensions WxT: 50 x 0,3 mm Dimensions WxT: 50 m

### Handling instruction:

- At the exterior it is necessary to glue the tape overlapping.

Article No.	Article Description	QTY
8724 5 50	REEL(50M)REPAIR STRIP UNV.RUB	1





# Tube Shell Made of Rock Wool SW 50 **Forlen**

Tube shell made of rock wool alu-laminated acc. to EnEV  
(German Regulation for Energy Saving and Building Systems)  
50 %

- German approval number: Z-23.14-1623
- Stable to formation of decomposition and development of mildew, non-aging
- Rock wool cut from the block
- Concentric, tube shells made of rock wool accurate to dimension slit on one side laminated with a tear-proof, pure aluminum film of AS quality according to AGI Q135
- Highly water repellent and odourless
- Easy assembly due to double sided adhesive tape to close the tube shell
- The alu-laminated type is perfect for efficient vapor barriers
- Resistant to compression stress and dimensionally stable
- Melting point of the rock wool  $\geq 1,000\text{ }^{\circ}\text{C}$
- Universally applicable for heat and impact sound insulation

#### Field of application:

- Heating and processing water pipes, chimneys

#### Handling instruction:

- Tube shells need to be secured each running meter using at least 6 turns of tie wire according to DIN 4140
- Before gluing the longitudinal and round joints it needs to be made sure that the substructure is free of grease, clean and dry
- In order to guarantee the adhesive force it is necessary to firmly press the adhesive tapes on the substructure
- The self-adhesive overlapping must always show downward

Article No.	Article Description	QTY
8725 20 15	MTR.TUBE SHEL.R.WO50 1/4"20/15	42
8725 20 18	MTR.TUBE SHEL.R.WO50 3/8"20/18	42
8725 20 22	MTR.TUBE SHEL.R.WO50 1/2"20/22	36
8725 20 28	MTR.TUBE SHEL.R.WO50 3/4"20/28	30
8725 20 35	MTR.TUBE SHEL.R.WO50 1"20/35	25
8725 20 42	MTR.TUBE SH.R.WO50 1 1/4"20/42	20
8725 20 57	MTR.TUBE SH.ROCK WOOL 20/57	15
8725 20 60	MTR.TUBE SHELL.R.WOOL 2"20/60	12
8725 20 64	MTR.TUBE SH.ROCK WOOL 20/64	12
8725 25 42	MTR.TUBE SH.R.WO50 1 1/4"25/42	16
8725 25 48	MTR.TUBE SH.R.WO50 1 1/2"25/48	16
8725 30 22	MTR.TUBE SH.ROCK WO.1/2"30/22	20
8725 30 28	MTR.TUBE SH.ROCK WO.3/4"30/28	20
8725 30 35	MTR.TUBE SH.ROCK WOOL 1"30/35	16
8725 30 42	MTR.TUBE SHELL.R.WO1 1/4"30/42	12
8725 30 48	MTR.TUBE SHELL.R.WO1 1/2"30/48	11
8725 30 54	MTR.TUBE SHELL.R.WO50 30/54	9
8725 30 60	MTR.TUBE SHELL R.WO50 2"30/60	9
8725 30 64	MTR.TUBE SH.ROCK WOOL 30/64	9
8725 40 76	MTR.TUBE SH.R.WO50 2 1/2"40/76	5
8725 50 57	MTR.TUBE SH.ROCK WOOL 50/57	5
8725 50 89	MTR.TUBE SH.R.WOOL50 3"50/89	4
8725 60 114	MTR.TUBE SH.ROCK WO50 4"60/114	2

(insulation thickness x pipe Ø (outer) mm)



#### Technical Data

EnEV	Outer Ø mm (CU)	Outer Ø mm (FE)	Outer Ø mm (PP)
50 %	15	13.5	-
50 %	18	17.2	16
50 %	22	21.3	20
50 %	28	26.9	25
50 %	35	33.7	32
50 % (FE)	42	42.4	40
-	-	-	-
-	-	60.3	-
-	64	-	63
50 % (CU)	42	42.4	40
50 %	-	48.3	-
-	22	21.3	20
-	28	26.9	25
-	34	33.7	32
-	42	42.4	40
-	-	48.3	-
50 %	54	-	-
50 %	-	60.3	-
-	64	-	63
50 %	76,1	76.1	75
-	-	-	-
50 %	89	88.9	90
50 %	-	114.3	-

- Material: concentric, tube shells made of rock wool accurate to dimension slit on one side, laminated with a tear-proof pure aluminum film of AS quality according to AGI Q135
- Fire class: A2 – not inflammable according to DIN 4102 part 1
- Volume weight: 80 kg/m<sup>3</sup>
- Delivery form/length: box, 1 m
- Operating temperature range: 250 °C for the wool max. 100 °C on the lamination
- Coefficient of thermal conductivity: 0.037 W / (m<sup>2</sup>K) at 40 °C

# Tube Shell Made of Rock Wool SW 100 **Forlen**

Tube shell made of rock wool alu-laminated according to EnEV (German Regulation for Energy Saving and Building and Building systems) 100%

- German approval number: Z-23.14-1623
- Stable to formation of decomposition and development of mildew, non-aging
- Rock wool cut from the block
- Concentric, tube shells made of rock wool accurate to dimension slit on one side laminated with a tear-proof, pure aluminum film of AS quality according to AGI Q135
- Highly water repellent and odourless
- Easy assembly due to double sided adhesive tape to close the tube shell
- Perfect for efficient vapor barriers
- Resistant to compression stress and dimensionally stable
- Melting point of the rock wool  $\geq 1.000^\circ\text{C}$
- Universally applicable for heat and impact sound insulation

#### Field of application:

- Heating and processing water pipes, chimneys

#### Handling instruction:

- Tube shells need to be secured each running meter using at least 6 turns of tie wire according to DIN 4140
- Before gluing the longitudinal and round joints it needs to be made sure that the substructure is free of grease, clean and dry
- In order to guarantee the adhesive force it is necessary to firmly press the adhesive tapes on the substructure
- The self-adhesive overlapping must always show downward

Article No.	Article Description	QTY
8727 23 15	MTR.TUBE SHE.R.WO100 1/4"23/15	36
8727 23 18	MTR.TUBE SHE.R.WO100 3/8"23/18	35
8727 23 22	MTR.TUBE SHE.R.WO100 1/2"23/22	30
8727 23 28	MTR.TUBE SHE.R.WO100 3/4"23/28	25
8727 34 28	MTR.TUBE SHE.R.WO100 3/4"34/28	16
8727 34 35	MTR.TUBE SHELL.R.WO100 1"34/35	12
8727 40 42	MTR.TUBE SH.R.WO100 1 1/4"40/42	9
8727 44 42	MTR.TUBE SH.R.WO100 1 1/4"44/42	9
8727 47 48	MTR.TUBE SH.R.WO100 1 1/2"47/48	6
8727 56 54	MTR.TUBE SHELL R.WO100 56/54	4
8727 59 60	MTR.TUBE SH.R.WOOL100 2"59/60	4
8727 67 64	MTR.TUBE SH.R.WO100 2"67/64	4
8727 76 76	MTR.TUBE SH.R.WO100 2 1/2"76/76	2
8727 80 76	MTR.TUBE SH.R.WO100 2 1/2"80/76	2
8727 90 89	MTR.TUBE SH.R.WO100 3"90/89	1
8727 94 89	MTR.TUBE SH.R.WO100 3"94/89	1
8727 111 108	MTR.TUBE SH.R.WO100 3"111/108	1
8727 111 114	MTR.TUBE SH.R.WO100 4"111/114	1

(insulation thickness - pipe Ø (outer) mm)



#### Technical Data

Ext. Ø mm (CU)	Nom. size ID (CU)	Ext. Ø mm (FE)	Nom. size ID (FE)	Ext. Ø mm (PP)
15	-	13.5	8	-
18	15	17.2	10	16
22	20	21.3	15	20
28	25	26.9	20	25
28	25	26.9	20	25
35	32	33.7	25	32
42	40	42.4	32	40
42	40	42.4	32	40
-	-	48.3	40	-
54	50	54.0	-	-
-	-	60.3	50	63
-	-	60.3	50	63
76	65	76.1	65	75
76	65	76.1	65	75
89	80	88.9	80	90
89	80	88.9	80	90
108	100	108.0	-	-
-	-	114.3	100	-

- Material: concentric, tube shells made of rock wool accurate to dimension slit on one side, laminated with a tear-proof pure aluminum film of AS quality according to AGI Q135
- Fire class: A2 – not inflammable according to DIN 4102 part 1
- Volume weight: 80 kg/m<sup>3</sup>
- Delivery form/length: box, 1 m
- Operating temperature range: 250°C for the wool max. 100°C on the lamination
- Coefficient of thermal conductivity: 0.037 W / (m\*K) at 40°C

**\*Deviating minimum insulation thickness for copper according to EnEV (German Regulation for Energy Saving and Building and Building systems)**



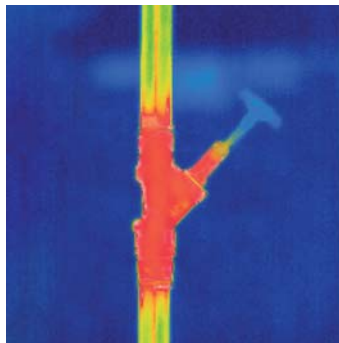
# Valve Insulation Universal *Forlen*

## The clever valve insulation for virtually all common European slanted seat and KFR types

- Made of closed-cell foamed polyethylene with additional firm mesh effect made of PE
- Easy and rapid assembly: shift, fold and securely closed by means of closing clips
- Equipped with universal recess
- Warm remains warm – cold remains cold!
- Avoids formation of condensation water
- **A non-insulated valve emits as much heat or absorbs as much heat as several meters of tube**
- Offers a rapid and easy mountable closing of gaps in professionally installed and exemplarily insulated cold water bearing drinking water pipes, hot water bearing service water pipes, heating pipes as well as industrial piping networks

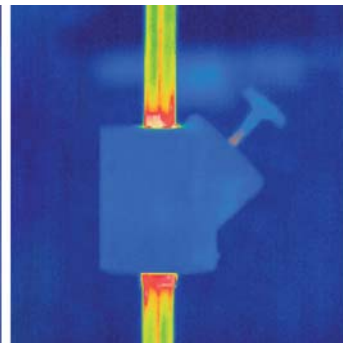
### Fields of application:

- DIN 1988 TRWI: Protection against heating up, formation of condensation water and sound transmission of drinking water pipes
- EnEV Annex 5: Requirements to limit the heat emission of heat distribution and heat water pipes as well as of fittings



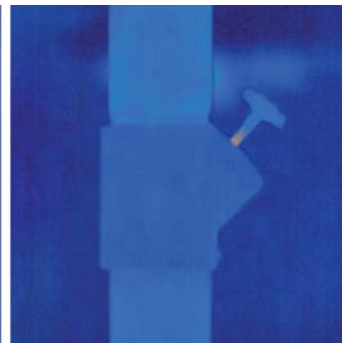
### Installation under non-insulated conditions:

The heat loss at the valve is greatest due to the flow resistance.



### Insulated valve:

The temperature on the outer skin of the shell almost complies with the environmental temperature.



### According to the energy saving regulation of insulated installations:

Piping and valves are exemplarily insulated and this way conforming to the law.

Article No.	Article Description	QTY
8729 1 15	VALVE INSULATION 1/2" DN15	e 10
8729 1 20	VALVE INSULATION 3/4" DN20	e 10
8729 1 25	VALVE INSULATION 1" DN25	e 10
8729 1 32	VALVE INSULATION 1 1/4" DN32	e 10
8729 1 40	VALVE INSULATION 1 1/2" DN40	e 5
8729 1 50	VALVE INSULATION 2" DN50	e 5

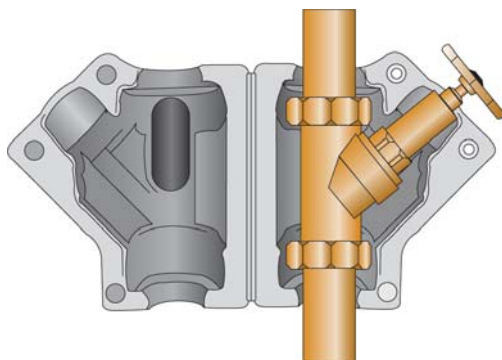
### Technical Data

<b>Thermal conduct./calcul. value:</b>	at 10°C ISO 2581 W/mk 0,035 at 40°C ISO 2581 W/mk 0,040
<b>Noise insulation:</b>	DIN 4109 dB
<b>Fire protection:</b>	Ü-No Z-23.14-1141 PE foam is quality controlled DIN 4102 B1
<b>Water vapor permeability:</b>	ISO 1663 g/m <sup>2</sup> 1,1 (5,0 mm)
<b>Water vapor diffusion factor:</b>	$\mu \geq 4000$
<b>Use temperature:</b>	DIN 1988 -80°C to +100°C

### Included in delivery:

- 2x Closing clips
- 1x Valve insulation

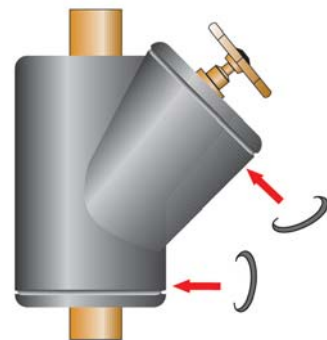
### Installation Instructions:



1. Put the opened valve isolation against the valve, which needs to be isolated and check if it is fitting.



2. Close the insulation shell.



3. Close the closed valve insulation using the clips included in the delivery.

# Insulation for Ball Valves *Forlen*

## The clever insulation for ball valves for virtually all common European ball valve types

- Made of closed-cell foamed polyethylene with additional firm mesh effect made of PE
- Easy and rapid assembly: shift, fold and securely closed by means of closing clips
- Equipped with universal recess
- Warm remains warm – cold remains cold!
- Avoids formation of condensation water
- **A non-insulated valve emits as much heat or absorbs as much heat as several meters of tube**
- Offers a rapid and easy mountable closing of gaps in professionally installed and exemplarily insulated cold water bearing drinking water pipes, hot water bearing service water pipes, heating pipes as well as industrial piping networks
- No time consuming cutting of isolation mats, no expensive individual solutions or even brilliant valves which would reduce the overall effect of costly mounted pipe insulations and which would impair the optics of the system

### Fields of application:

- DIN 1988 TRWI: Protection against heating up, formation of condensation water and sound transmission of drinking water pipes
- EnEV Annex 5: Requirements to limit the heat emission of heat distribution and heat water pipes as well as of fittings

Article No.	Article Description	QTY
8729 2 15	INSULATION BALL VALVE 1/2"DN15	e 10
8729 2 20	INSULATION BALL VALVE 3/4"DN20	e 10
8729 2 25	INSULATION BALL VALVE 1"DN25	e 10
8729 2 32	INSULAT.BALL VALVE 1 1/4"DN32	e 10
8729 2 40	INSULAT.BALL VALVE 1 1/2"DN40	e 5
8729 2 50	INSULATION BALL VALVE 2"DN50	1

### Included in delivery:

- 2x Closing clips
- 1x Valve insulation



### Technical Data

<b>Thermal conduct./calcul. value:</b>	at 10°C ISO 2581 W/mk 0,035 at 40°C ISO 2581 W/mk 0,040
<b>Noise insulation:</b>	DIN 4109 dB
<b>Fire protection:</b>	Ü-No Z-23.14-1141 PE foam is quality controlled DIN 4102 B1
<b>Water vapor permeability:</b>	ISO 1663 g/m <sup>2</sup> 1,1 (5,0 mm)
<b>Water vapor diffusion factor:</b>	μ ≥ 4000
<b>Use temperature:</b>	DIN 1988 -80°C to +100°C

# Insulation for AP Water Meters *Forlen*

## The insulations for water meters are available with the connection diameters ½" and ¾" for all products according to DIN

- Is an accurately fitting solution for water meters of the manufacturers Allmess, Rossweiner, WasserGeräte GmbH, Conter Caracioni and Sensus Metering Systems
- Made of closed-cell foamed polyethylene with additional firm mesh effect made of PE
- Easy and rapid assembly: shift, fold and securely closed by means of locking clips
- Equipped with universal recess
- Warm remains warm – cold remains cold!
- Avoids formation of condensation water
- **A non-insulated valve emits as much heat or absorbs as much heat as several meters of tube**

### Fields of application:

- DIN 1988 TRWI: Protection against heating up, formation of condensation water and sound transmission of drinking water pipes
- EnEV Annex 5: Requirements to limit the heat emission of heat distribution and heat water pipes as well as of fittings

Article No.	Article Description	QTY
8729 3 15	AP WATER MET.INSULAT.1/2"DN15	e 10
8729 3 20	AP WATER MET.INSULAT.3/4"DN20	e 10

### Included in delivery:

- 2x Closing clips
- 1x Valve insulation



### Technical Data

<b>Thermal conduct./calcul. value:</b>	at 0°C ISO 2581 W/mk 0,035 at 40°C ISO 2581 W/mk 0,040
<b>Noise insulation:</b>	DIN 4109 dB
<b>Fire protection:</b>	Ü-No Z-23.14-1141 PE foam is quality controlled DIN 4102 B1
<b>Water vapor permeability:</b>	ISO 1663 g/m <sup>2</sup> 1,1 (5,0 mm)
<b>Water vapor diffusion factor:</b>	μ ≥ 4000
<b>Use temperature:</b>	DIN 1988 -80°C to +100°C

# Insulation for UP-Valves *Forlen*

## No time consuming cutting of insulation mats and no expensive individual solutions

- Suitable for all DIN products, e.g. JRG and Seppelfricke made of closed-cell foamed polyethylene with additional, solid structure made of PE
- Easy and quick assembly: shift, fold and securely closed by means of closing clips
- Equipped with universal recess
- Warm remains warm - cold remains cold!
- Avoids formation of condensation water
- **A non-insulated valve emits as much heat or absorbs as much heat as several meters of tube**

### Fields of application:

- DIN 1988 TRWI: Protection against heating up, formation of condensation water and sound transmission of drinking water pipes
- EnEV Annex 5: Requirements to limit the heat emission of heat distribution and heat water pipes as well as of fittings



Article No.	Article Description	QTY
8729 4 12	UP-VALVE INSULATION 1/2"	e 20
8729 4 16	UP-VALVE INSULATION Ø16-20MM	e 20
8729 4 32	UP-VALVE INSULATION Ø32MM	e 10
8729 4 34	UP-VALVE INSULATION 3/4"	e 10

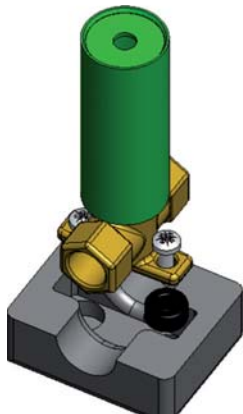
### Technical Data

<b>Thermal conduct./calcul. value:</b>	at 10°C ISO 2581 W/mk 0,035 at 40°C ISO 2581 W/mk 0,040
<b>Noise insulation:</b>	DIN 4109 dB
<b>Fire protection:</b>	Ü-Nr. Z-23.14-1141 PE foam is quality controlled DIN 4102 B1
<b>Water vapor permeability:</b>	ISO 1663 g/m² 1,1 (5,0 mm)
<b>Water vapor diffusion factor:</b>	$\mu \geq 4000$
<b>Use temperature:</b>	DIN 1988 -80°C to +100°C

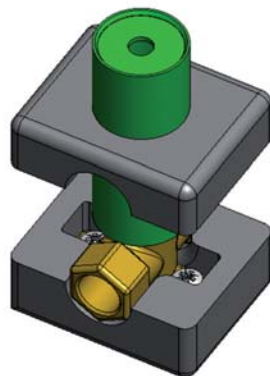
### Included in delivery:

- 2x Closing clips
- 1x Valve insulation

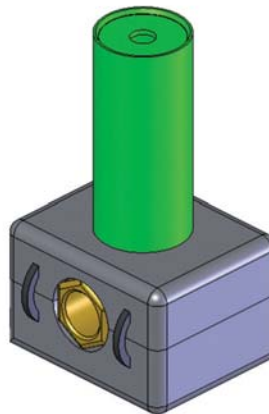
### Installation Instructions:



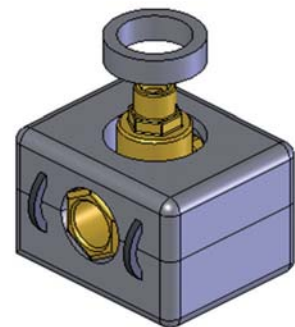
1. The valve has to be mounted with the lower part. If rubber punch rings are delivered valve-sided, insert and fix them into the insulation.



2. Push the upper part over the mounting aid.



3. Securely connect the insulation with the enclosed four clips.



4. After final assembly, after the removal of the mounting aid, insert the sealing ring.

## Rubber & Universal Contact Adhesive K142

- For long-term adhesion of rubber, rubber-metal connections, foam rubber, insulating material, PVC, textiles, paper, cardboard, wood, leather etc.
- Not suitable for polystyrene

**Art.-No. 6400 4050:**

- Tin with included brush

Article No.	Article Description	QTY
6400 4049	TB(90G)UNIVERSAL ADHESIVE K142	e 12
6400 4050	RUBB.&UNIV.CONT.ADH.K142 200G	e 6
6400 4055	UNIV.CONT.ADHESIVE K142 640G	1



6400 40 49

6400 40 50

6400 40 55

## Miter Box

- To cut miters

Article No.	Article Description	QTY
8711 10	MITER BOX	1
8711 15	TEMPLATE FORLEN	1



8711 10

8711 15

## Miter Knife

**Art. No. 8711 11:**

- For cutting PE, fleece, rubber and PUR insulating material

**Art. No. 8711 13:**

- For cutting insulating material made of mineral fibre

Article No.	Article Description	QTY
8711 11	MITER KNIFE SMOOTH BLADE	1
8711 13	MITER KNIFE CORRUGATED BLADE	1



8711 11



8711 13

## Fastening Clips

Article No.	Article Description	QTY
8711 12	FASTENING CLIPS	H 400





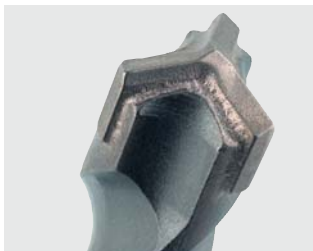
# Hammer drill with SDS-plus TRIAL



- Innovative 3-edged drill head with chambered drill flute
- Self-centring drill bit
- Self-sharpening and specially soldered carbide plate
- Temperature resistant up to +1,100°C
- Fits into all hammer drills with SDS-plus chuck (licence Bosch, Hilti TE system)
- Permanently aggressive drilling behaviour
- Long service life and high drilling speed when drilling in concrete reinforcement, cuts costs
- Low-vibration, so easier on the joints

## Your Advantage / Benefit

- Can be used in the hardest materials such as granite and marble
- Does not catch when hitting reinforcing steel, so longer lifespan
- Circular holes thanks to centre point and the three cutting lips
- Does not drift when starting drilling
- More drill holes suitable for anchors, thereby saving time

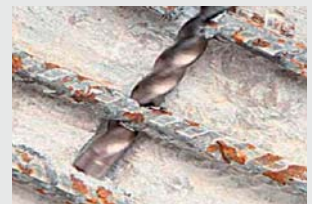


Trial HM-plate



Chambered Coil System

## Application



Article No.	Article Description	QTY
5613 5 110	SDS+HA-DR TRIAL 5X110/50 5*	1 ü
5613 5 160	SDS+HA-DR TRIAL 5X160/100 5*	1 ü
5613 6 110	SDS+HA-DR TRIAL 6X110/ 50 5*	1
5613 6 160	SDS+HA-DR TRIAL 6X160/100 5*	1
5613 6 210	SDS+HA-DR TRIAL 6X210/150 5*	1
5613 6 260	SDS+HA-DR TRIAL 6X260/200 5*	1
5613 6 310	SDS+HA-DR TRIAL 6X310/250 5*	1
5613 65 160	SDS+HA-DR TRIAL 6.5X160/100 5*	1
5613 65 210	SDS+HA-DR TRIAL 6.5X210/150 5*	1
5613 65 260	SDS+HA-DR TRIAL 6.5X260/200 5*	1
5613 65 310	SDS+HA-DR TRIAL 6.5X310/250 5*	1
5613 65 460	SDS+HA-DR TRIAL 6.5X460/400 5*	1
5613 7 160	SDS+HA-DR TRIAL 7X160/100 5*	1
5613 7 210	SDS+HA-DR TRIAL 7X210/150 5*	1
5613 7 260	SDS+HA-DR TRIAL 7X260/200 5*	1
5613 8 110	SDS+HA-DR TRIAL 8X110/ 50 5*	1
5613 8 160	SDS+HA-DR TRIAL 8X160/100 5*	1
5613 8 210	SDS+HA-DR TRIAL 8X210/150 5*	1
5613 8 260	SDS+HA-DR TRIAL 8X260/200 5*	1
5613 8 310	SDS+HA-DR TRIAL 8X310/250 5*	1
5613 8 460	SDS+HA-DR TRIAL 8X460/400 5*	1
5613 8 610	SDS+HA-DR TRIAL 8X610/550 5*	1
5613 10 160	SDS+HA-DR TRIAL 10X160/100 5*	1
5613 10 210	SDS+HA-DR TRIAL 10X210/150 5*	1
5613 10 260	SDS+HA-DR TRIAL 10X260/200 5*	1
5613 10 310	SDS+HA-DR TRIAL 10X310/250 5*	1
5613 10 460	SDS+HA-DR TRIAL 10X460/400 5*	1
5613 10 610	SDS+HA-DR TRIAL 10X610/550 5*	1

(Ø x total length / working length mm)

Article No.	Article Description	QTY
5613 12 160	SDS+HA-DR TRIAL 12X160/100 5*	1
5613 12 210	SDS+HA-DR TRIAL 12X210/150 5*	1
5613 12 260	SDS+HA-DR TRIAL 12X260/200 5*	1
5613 12 310	SDS+HA-DR TRIAL 12X310/250 5*	1
5613 12 460	SDS+HA-DR TRIAL 12X460/400 5*	1
5613 12 610	SDS+HA-DR TRIAL 12X610/550 5*	1
5613 14 160	SDS+HA-DR TRIAL 14X160/100 5*	1
5613 14 210	SDS+HA-DR TRIAL 14X210/150 5*	1
5613 14 260	SDS+HA-DR TRIAL 14X260/200 5*	1
5613 14 310	SDS+HA-DR TRIAL 14X310/250 5*	1
5613 14 460	SDS+HA-DR TRIAL 14X460/400 5*	1
5613 14 610	SDS+HA-DR TRIAL 14X610/550 5*	1
5613 15 160	SDS+HA-DR TRIAL 15X160/100 5*	1
5613 15 210	SDS+HA-DR TRIAL 15X210/150 5*	1
5613 15 460	SDS+HA-DR TRIAL 15X460/400 5*	1
5613 16 210	SDS+HA-DR TRIAL 16X210/150 5*	1
5613 16 310	SDS+HA-DR TRIAL 16X310/250 5*	1
5613 16 460	SDS+HA-DR TRIAL 16X460/400 5*	1
5613 16 610	SDS+HA-DR TRIAL 16X610/550 5*	1
5613 18 210	SDS+HA-DR TRIAL 18X210/150 5*	1
5613 18 310	SDS+HA-DR TRIAL 18X310/250 5*	1
5613 18 460	SDS+HA-DR TRIAL 18X460/400 5*	1
5613 18 610	SDS+HA-DR TRIAL 18X610/550 5*	1
5613 20 210	SDS+HA-DR TRIAL 20X210/150 5*	1
5613 20 310	SDS+HA-DR TRIAL 20X310/250 5*	1
5613 20 460	SDS+HA-DR TRIAL 20X460/400 5*	1
5613 20 610	SDS+HA-DR TRIAL 20X610/550 5*	1

(Ø x total length / working length mm)

## Related Products

- Hammer drill SDS-plus TRIAL **FÖRCH** **VAROIBOXX** Art.-No. 9007 5613 1



- Hammer drill TRIAL 7-parts Art.-No. 5609 5613 7



- "Alpha" clear safety glasses Art.-No. 5400 901 1



## Hammer drill in assortment TRIAL **FÖRCH**\*\*\*\*\*

- 10-piece in practical drill bag

Article No.	Article Description	QTY
5609 5613	10-PCS HAMMER DRILL ASS. TRIAL	1

### Contents:

- Each 2x Hammer drills TRIAL with SDS-plus mounting shaft  
6x 110/50, 6x 160/100, 8x 160/100 mm
- Each 1x Hammer drill TRIAL with SDS-plus mounting shaft  
8x 110/50, 10x 160/100, 12x 160/100, 14x 160/100 mm



## Hammer drill TRIAL 7-piece **FÖRCH**\*\*\*\*\*

- 7-piece in practical drill bag

Article No.	Article Description	QTY
5609 5613 7	7PCS HAMMER DRILL ASS. TRIAL 5*	1

### Contents:

- Each 1x hammer drill TRIAL with SDS-plus mounting  
6x 110/50, 8x 110/50, 10x 110/50, 6x 160/100, 8x 160/100, 10x 160/100, 12x 160/100 mm



## Hammer drill TRIAL 5-piece **FÖRCH**\*\*\*\*\*

- 5- piece in practical drill bag

Article No.	Article Description	QTY
5609 5613 5	5PCS HAMMER DRILL ASS. TRIAL 5*	1

### Contents:

- Each 1x hammer drill TRIAL with SDS-plus mounting  
6x 110/50, 8x 110/50, 6x 160/100, 8x 160/100, 10x 160/100 mm





# Hammer drill with SDS-max mounting shaft **TRIALMAX**



- Suitable for all hammer drills with SDS-max mounting shaft
- Considerably longer service life and drilling speed, especially when drilling into concrete with reinforcement
- Usable for hard material such as granite and marble
- No hooking in when hitting reinforcement
- Low-vibration drilling
- 3-spiral chambered coil system for faster drilling dust transport
- Self-sharpening and specially soldered HM-plate
  - Aggressive drilling behaviour
  - Temperature resistant up to +1,100°C

## **Trial-HM-Plate**

- Self-centering specially soldered HM-plate
- 3-cutting impacts per stroke, thus longer service, spherical bore holes especially in hard rock

## **Chambered Coil System**

- Pressure channel followed by underpressure chamber - accelerated dust guide (principle of piston engine)
- Square clamping flue, stronger drill body - improves the transmission to HM-plate



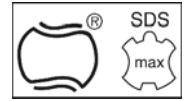
Article No.	Article Description	QTY
5634 12 340	SDS TRIAL-MAX HADR 12X340/200	1
5634 12 540	SDS TRIAL-MAX HADR 12X540/400	1
5634 14 340	SDS TRIAL-MAX HADR 14X340/200	1
5634 14 540	SDS TRIAL-MAX HADR 14X540/400	1
5634 15 340	SDS TRIAL-MAX HADR 15X340/200	1
5634 15 540	SDS TRIAL-MAX HADR 15X540/400	1
5634 16 340	SDS TRIAL-MAX HADR 16X340/200	1
5634 16 540	SDS TRIAL-MAX HADR 16X540/400	1
5634 18 340	SDS TRIAL-MAX HADR 18X340/200	1
5634 18 540	SDS TRIAL-MAX HADR 18X540/400	1
5634 20 340	SDS TRIAL-MAX HADR 20X340/200	1
5634 20 540	SDS TRIAL-MAX HADR 20X540/400	1

(Ø x total length / working length mm)

# Hammer drill with SDS-max mounting shaft **TRIMAX**



- Suitable for all hammer drills with SDS-max mounting shaft or Hilti TE-Y
- 6-edge drilling head with centering tip
  - Max. drilling progress with optimum service life
  - No hooking in when hitting reinforcement
  - Low-vibration drilling
- Extra deep big volume spiral
  - Quick dust transport
  - No deflagration
- Solid skin and tough core due to shot-peened surface
  - High abrasion resistance at minimum risk of breakage
- HM-plates with special solder, soldered
  - Temperature resistance up to +1,100°C
- For all known materials e.g. bricks, natural stone, concrete, reinforced concrete, granite
- Ø 12 – 14 mm: 2-edge-Dual-drilling head



## Application:

- From a total length of 540 mm pre-drill a hole with minimum depth of 150 mm using a shorter drill bit with the same Ø

Article No.	Article Description	QTY
5635 15 340	SDS-MAX TRIMAX HADR.15X340/200	1
5635 22 540	SDS-MAX TRIMAX HADR.22X540/400	1
5635 22 920	SDS-MAX TRIMAX HADR.22X920/780	1
5635 24 340	SDS-MAX TRIMAX HADR.24X340/200	1
5635 25 540	SDS-MAX TRIMAX HADR.25X540/400	1
5635 25 690	SDS-MAX TRIMAX HADR.25X690/550	1
5635 28 540	SDS-MAX TRIMAX HADR.28X540/400	1
5635 30 540	SDS-MAX TRIMAX HADR.30X540/400	1
5635 30 690	SDS-MAX TRIMAX HADR.30X690/550	1
5635 32 540	SDS-MAX TRIMAX HADR.32X540/400	1

(Ø x total length / working length mm)

# Hammer drills in pack TRIAL F

Article No.	Article Description	QTY
5613P 6 110	P(10)SDS+HADR-TR. 6X110/50 5*	1
5613P 6 110 25	P(25)SDS+HADR-TR. 6X110/50 5*	1
5613P 6 160	P(10)SDS+HADR-TR. 6X160/100 5*	1
5613P 6 160 25	P(25)SDS+HADR-TR. 6X160/110 5*	1
5613P 6 210	P(10)SDS+HADR-TR. 6X210/150 5*	1
5613P 6 210 25	P(25)SDS+HADR-TR. 6X210/150 5*	1
5613P 6 260	P(10)SDS+HADR-TR. 6X260/200 5*	1
5613P 6 260 25	P(25)SDS+HADR-TR. 6X260/200 5*	1
5613P 65 160	P(10)SDS+HADR-TR. 6.5X160/100 5*	1
5613P 65 210	P(10)SDS+HADR-TR. 6.5X210/150 5*	1
5613P 65 260	P(10)SDS+HADR-TR. 6.5X260/200 5*	1
5613P 65 260 25	P(25)SDS+HADR-TR. 6.5X260/200 5*	1
5613P 7 160	P(10)SDS+HADR-TR. 7X160/100 5*	1
5613P 7 210	P(10)SDS+HADR-TR. 7X210/150 5*	1
5613P 7 260	P(10)SDS+HADR-TR. 7X260/200 5*	1
5613P 8 110	P(10)SDS+HADR-TR. 8X110/50 5*	1
5613P 8 110 25	P(25)SDS+HADR-TR. 8X110/ 50 5*	1
5613P 8 160	P(10)SDS+HADR-TR. 8X160/100 5*	1
5613P 8 160 25	P(25)SDS+HADR-TR. 8X160/100 5*	1
5613P 8 210	P(10)SDS+HADR-TR. 8X210/150 5*	1
5613P 8 210 25	P(25)SDS+HADR-TR. 8X210/150 5*	1
5613P 8 260	P(10)SDS+HADR-TR. 8X260/200 5*	1
5613P 8 260 25	P(25)SDS+HADR-TR. 8X260/200 5*	1
5613P 10 160	P(10)SDS+HADR-TR. 10X160/100 5*	1
5613P 10 160 25	P(25)SDS+HADR-TR. 10X160/110 5*	1
5613P 10 210	P(10)SDS+HADR-TR. 10X210/150 5*	1
5613P 10 210 25	P(25)SDS+HADR-TR. 10X210/150 5*	1
5613P 10 260	P(10)SDS+HADR-TR. 10X260/200 5*	1
5613P 10 260 25	P(25)SDS+HADR-TR. 10X260/200 5*	1
5613P 12 160	P(10)SDS+HADR-TR. 12X160/100 5*	1
5613P 12 160 25	P(25)SDS+HADR-TR. 12X160/110 5*	1
5613P 12 210	P(10)SDS+HADR-TR. 12X210/150 5*	1
5613P 12 210 25	P(25)SDS+HADR-TR. 12X210/150 5*	1
5613P 12 260	P(10)SDS+HADR-TR. 12X260/200 5*	1
5613P 12 260 25	P(25)SDS+HADR-TR. 12X260/200 5*	1
5613P 14 160	P(10)SDS+HADR-TR. 14X160/100 5*	1
5613P 14 210	P(10)SDS+HADR-TR. 14X210/150 5*	1
5613P 14 260	P(10)SDS+HADR-TR. 14X260/200 5*	1
5613P 15 210	P(10)SDS+HADR-TR. 15X210/150 5*	1
5613P 16 210	P(10)SDS+HADR-TR. 16X210/150 5*	1
5613P 18 210	P(10)SDS+HADR-TR. 18X210/150 5*	1
5613P 20 210	P(10)SDS+HADR-TR. 20X210/150 5*	1

(Ø x total length / working length mm)



## Hammer drill TRIAL window construction



- SDS-plus
- Reinforced shaft without helix, with conical transition to insertion, prevents breakage of the drill

Article No.	Article Description	QTY
5613 6 210 1	SDS+HA.DR. TRIAL 6X210/90 5*	1
5613 6 260 1	SDS+HA.DR. TRIAL 6X260/120 5*	1
5613 65 210 1	SDS+HA.DR. TRIAL 6.5X210/90 5*	1
5613 65 260 1	SDS+HA.DR. TRIAL 6.5X260/120 5*	1

(Ø x total length / working length mm)

### Technical Data

#### Max. drilling depth

90  
120  
90  
120

# Step Drill HSS

- For precise and burr-free drilling and grinding of sheets, pipes and profiles up to max. 6 mm material strength
- With 2 edges and solid centring point
- Shank with three phases prevents inside spinning of the drill chuck

**Art.-No. 5522 12 / 5522 13:**

- Without centre point

## Technical Data

**Art.-No. Grading Ø in mm**

5522 11	4.0 / 5.0 / 6.0 / 7.0 / 8.0 / 9.0 / 10.0 / 11.0 / 12.0
5522 12	12.0 / 13.0 / 14.0 / 15.0 / 16.0 / 17.0 / 18.0 / 19.0 / 20.0
5522 13	20.0 / 21.0 / 22.0 / 23.0 / 24.0 / 25.0 / 26.0 / 27.0 / 28.0 /
5522 22	29.0 / 30.0
5522 23	4.0 / 6.0 / 8.0 / 10.0 / 12.0 / 14.0 / 16.0 / 18.0 / 20.0
5522 31	4.0 / 6.0 / 8.0 / 10.0 / 12.0 / 14.0 / 16.0 / 18.0 / 20.0 / 22.0 /
	24.0 / 26.0 / 28.0 / 30.0
	6.0 / 9.0 / 12.5 (PG7) / 15.2 (PG9) / 18.6 (PG11) / 20.4
	(PG13.5) / 22.5 (PG16) / 26.0 / 28.3 (PG21) / 30.5 / 34.0 /
	37.0 (PG29)



Article No.	Article Description	QTY
5522 11	STEP DRILL 1-P 4-12MM S 6MM	1
5522 12	STEP DRILL 1-P 12-20MM S 9MM	1
5522 13	STEP DRILL 1-P 20-30MM S 12MM	1
5522 22	STEP DRILL 2-PCS 4-20MM S 8MM	1
5522 23	STEP DRILL 2-PCS 4-30MM S 10MM	1
5522 31	STEP DRILL 3-PCS 9-36MM S 12MM	1

(Pitch / drill steps / S = Ø-shank mm)

# Step Drill HSS for Metric Cable Screw Connections

- For the core hole and the clearance hole of metrical cable screw connections in accordance with DIN/EN 60423 and DIN/EN 50262
- With spiral groove and fixed centring tip with split point
- 2-blade geometry
- Laser scaling
- Shaft with 3 bevels prevents slipping in the chuck

## Technical Data

Thread	5522 16 Ø thread core hole	5522 17 Ø through-hole
M6 × 0.75	5.3 mm	6.5 mm
M8 × 1.0	7.0 mm	8.5 mm
M10 × 1.0	9.0 mm	10.5 mm
M12 × 1.5	10.5 mm	12.5 mm
M16 × 1.5	14.5 mm	16.5 mm
M20 × 1.5	18.5 mm	20.5 mm
M25 × 1.5	23.5 mm	25.5 mm
-	27.0 mm	29.0 mm
M32 × 1.5	30.5 mm	32.5 mm
-	34.5 mm	38.5 mm
M40 × 1.5	38.5 mm	40.5 mm



Article No.	Article Description	QTY
5522 16	STEP DRILL HSS 5.3-38.5MM S10	1
5522 17	STEP DRILL HSS 6.5-40.5MM S10	1

(Drill steps / S = Ø shaft mm)

## Step Drill HSS-TIAN with Edge Breaker

- With Titanium-Aluminium-Nitride-coating
- For exact and ridge-free drilling and attrition of sheets, pipes and profiles up to a material thickness of 6 mm, e.g. construction steel, CrNi-steel, NF-metals, plexiglass, plastic and stainless steel sheets up to 1.5 mm
- The de-ridging zone on the 10-mm-Ø level enables even and double-sided de-ridging (edge-breaker) up to a material thickness of 1.5 mm
- 2 deep-ground and spiral-shaped flutes ensure calmer drilling, high cutting performance, longer lifetime and better chip removal
- CBN ground drill bits with cross cut as per DIN 1412C enables thin-walled materials to be aligned and centered as well
- Step length: 4 mm, total length: 98 mm
- Drill-Ø in the flute signed by laser
- Drill levels - division : Ø 6 / 8 / 10 / 12 / 14 / 16 / 18 / 20 / 22 / 24 / 26 / 28 / 30 mm
- Special shaft Ø 10 mm with 3 phases prevents spinning in chuck



Article No.	Article Description	QTY
5522 24	STEP DRILL CB T.2 6-30MM S10MM	1

## Step Drill HSS with Chip Breaker

- For precise and burr-free drilling and grinding of sheets, pipes and profiles up to max. 6 mm material strength
- Shank with three phases prevents spinning inside the drill chuck
- Deburring zone on 10 mm Ø step, simultaneous and double-sided deburring (chip breaking) of drilled and long holes in sheets with max. 1.5 mm strength



Article No.	Article Description	QTY
5522 10	STEP DRILL CB D.1 4-12MM S 6MM	1
5522 20	STEP DRILL CB D.2 4-20MM S 8MM	1

(Pitch / drill steps / S = Ø-shank mm)

### Technical Data

Art.-No.	Grading Ø in mm
5522 10	4.0 / 5.0 / 6.0 / 7.0 / 8.0 / 9.0 / 10.0 / 11.0 / 12.0
5522 20	4.0 / 6.0 / 8.0 / 10.0 / 12.0 / 14.0 / 16.0 / 18.0 / 20.0

## Step Drill Set HSS

- 3 pieces in plastic drill box

Article No.	Article Description	QTY
5529 5522	STEP DRILL BOX 3-PIECES	1

### Contents:

- Each 1x step drill HSS with chip breaker  
Ø 4 – 12 / 4 – 20 / 6 – 30 mm



## Plastic Clip

- Single type
- With brass threaded sleeve M6
  - Stable and fixture that will not tear out
  - Universally applicable in connection with fixing plug for nails M6; fix thread nail /M6, threaded rods M6 mountable
- Made of high quality polypropylene
  - Permanent temperature resistance from -30°C to +120°C
  - Elastic material guarantees indenting of pipes, cables for hoses
- Color: white



Article No.	Article Description	QTY
<b>8630 8</b>	PLASTIC CLIP M6 8MM	120
<b>8630 10</b>	PLASTIC CLIP M6 10MM	120
<b>8630 12</b>	PLASTIC CLIP M6 12MM	100
<b>8630 14 15</b>	PLASTIC CLIP M6 14-15MM	100
<b>8630 16 18</b>	PLASTIC CLIP M6 16-18MM	100
<b>8630 20 22</b>	PLASTIC CLIP M6 20-22MM	65
<b>8630 28</b>	PLASTIC CLIP M6 28MM	50

(Nominal size mm)

### Technical Data

Item No	For Wicu-pipes	For threaded-pipes DIN 2440/41 NW	For blank tubes, hoses and cables
8630 8	-	-	8
8630 10	6	6	10
8630 12	8	-	12
8630 14 15	10	8	14 - 15
8630 16 18	12	10	16 - 18
8630 20 22	15	15	20 - 22
8630 28	22	22	28

## Plastic Clip Duo

- Double type
- With brass threaded sleeve M6
  - Stable and fixture that will not tear out
  - Universally applicable in connection with fixing plug for nails M6; fix thread nail /M6, threaded rods M6 mountable
- Made of high quality polypropylene
  - Permanent temperature resistance from -30 °C to +120 °C
  - Elastic material guarantees indenting of pipes, cables for hoses
- Color: white



Article No.	Article Description	QTY
<b>8631 8</b>	PLASTIC CLIP DUO M6 8MM	100
<b>8631 10</b>	PLASTIC CLIP DUO M6 10MM	75
<b>8631 14 15</b>	PLASTIC CLIP DUO M6 14-15MM	45
<b>8631 16 18</b>	PLASTIC CLIP DUO M6 16-18MM	30
<b>8631 20 22</b>	PLASTIC CLIP DUO M6 20-22MM	25
<b>8631 28</b>	PLASTIC CLIP DUO M6 28MM	20

(Nominal size mm)

### Technical Data

Item No	For Wicu-pipes	For threaded-pipes DIN 2440/41 NW	For blank tubes, hoses and cables
8631 8	-	-	8
8631 10	6	6	10
8631 14 15	10	8	14 - 15
8631 16 18	12	10	16 - 18
8631 20 22	15	15	20 - 22
8631 28	22	22	28



## Mounting Perforated Tape Galvanized

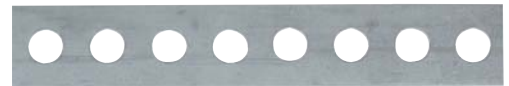
- Tape thickness 0.75 mm
- For:
  - Ø 5.0 mm: Fix set nails
  - Ø 6.3 / 6.5 mm: M6
  - Ø 8.3 mm: M8

### Breaking load:

- 12 mm: 193 kg
- 17 mm: 314 kg
- 25 mm: 483 kg

Article No.	Article Description	QTY
8900 0 10	MTR10 ROU.PERF.TAPE12MM 5MM GA	z 100
8900 1 10	MTR10 OBL.H.PER.T.17MM 6.3MMGA	z 100
8900 1 25	MTR25 OBL.H.PER.T.17MM 6.3MMGA	25
8900 3 10	MTR10 ROU.PERF.TAPE17MM6.3MMGA	z 100
8900 3 25	MTR25 ROU.PERF.TAPE17MM6.3MMGA	25
8900 5 10	MTR10 OBL.H.PER.TA.25MM8.3MMGA	z 100
8900 5 25	MTR 25 OB.H.PE.T.25MM8.3MMGA	g 125
8900 7 10	MTR10 ROU.PERF.T.25MM8.3MM GA	z 50
8900 7 25	MTR25 ROU.PER.TAPE25MM8.3MM GA	g 125

(RD = Round hole / LG = Oblong hole / Tape thickness / Hole size / QTY = content in m)



Round hole design



Oblong hole design

## Mounting Perforated Tape Plastic-coated

- Sound-absorbing according to DIN 4109
- For:
  - Ø 5.0 mm: Fix set nails
  - Ø 6.3 / 6.5 mm: M6
  - Ø 8.3 mm: M8

### Breaking load:

- 14 mm: 193 kg
- 19 mm: 314 kg
- 27 mm: 483 kg

Article No.	Article Description	QTY
8901 1 10	MTR10 ROU.PER.TAP.14MM5MM PLST	z 100
8901 2 10	MTR10 OB.H.PE.T.19MM6.3MM PLST	z 100
8901 4 10	MTR10 ROU.PE.TA.19MM6.3MM PLST	z 100
8901 8 10	MTR10 ROU.PE.TA.27MM8.3MM PLST	z 50

(RD = Round hole / LG = Oblong hole / Tape thickness / Hole size / QTY = content in m)



## Nail Tape, Poly

- Polyester fabric tape, width 15 mm
- Breaking strength up to 300 daN
- Temperature resistance up to +100°C
- Field of application – fixing of pipes and electrical lines on the unfinished ceiling
- Very flexible, but break-proof tape
  - Comfortable, safe mounting
  - Easy-to-use as steel perforated tape
- Nail tape is available in a PVC dispenser box – optimum handling advices and storage

Article No.	Article Description	QTY
8902 15	CASE(15M)NAIL TAPE I. DISP.BOX	e 10
8902 15 1	REEL(15M)REFILL NAIL TAPE	10
8902 15 2	DISPENSER BOX EMPTY 2 PIECES	1



## Rivet Nails Fix Standard

- Rapid and safe fixing of Fix mounting clamps, Fix-Duo mounting clamps and perforated tape in concrete and other solid building materials
- No pre-drilling - efficient
- Saves bolt impulse technology- cost-efficient
- Special steel allows easy driving in using Fix set hammer and sledge hammer
  - No expensive additional tools required
  - Break-proof

Article No.	Article Description	QTY
8702 14	FIX RIVET NAILS F. CLAMPS 14MM	W 1000
8702 18	FIX RIVET NAILS F. CLAMPS 18MM	W 1000
8702 22	FIX RIVET NAILS F. CLAMPS 22MM	W 1000
8702 35	FIX RIVET NAILS F. CLAMPS 35MM	H 500

(length mm)



### Technical Data

Item No	Max. mounting thickness mm
8702 14	2
8702 18	6
8702 22	10
8702 35	23

## Rivet Nails Fix Top

- Rapid and safe fixing of Fix mounting clamps, Fix-Duo mounting clamps and perforated tape in concrete and other solid building materials
- No pre-drilling - efficient
- Saves bolt impulse technology – cost-efficient
- Special steel allows easy driving in using Fix set hammer and sledge hammer
  - No expensive additional tools required
  - Break-proof
- Corrugative and with large collar
  - Easy penetration and better hold
  - Also appropriate for perforated tapes of large perforation

Article No.	Article Description	QTY
8703 14	FIX RIVET NAILS TOP 14MM	W 1000
8703 18	FIX RIVET NAILS TOP 18MM	W 1000
8703 22	FIX RIVET NAILS TOP 22MM	W 1000

(length mm)



### Technical Data

Item No	Max. mounting thickness mm
8703 14	2
8703 18	6
8703 22	10

## Rivet Setter Fix

- With hand protective handle made of stroke-resistant plastic material
- **Mounting advice:**
  - Only mount set nails using a set hammer
  - Drive in vertically
  - Wear protective goggles

### Item No 8702 1:

- For Fix set nails

### Item No 8704 1:

- For thread nails

Article No.	Article Description	QTY
8702 1	FIX NAIL RIVET SETTER	1
8704 1	FIX THREAD NAILS RIVET SETTER	1



## Mounting Perforated Tape

- Galvanized in a stable plastic box
- Tape thickness 0.75 mm
- For Fix set nails

Article No.	Article Description	QTY
8900 0 10 1	CASE(10M)ROU.PER.TAPE12MM5MMGA	ez 20
8900 0 10 2	CASE(10M)ROU.PER.T.17MM6.3MMGA	1

(RD = Round hole / Tape thickness / Hole size in mm)



## Mounting Clamps Fix

- Simple type
- For rapid and efficient mounting of heating pipes and electric lines in the flooring area
- Manufactured from 20 mm wide and 1.5 mm thick band steel – dimensionally stable
- Subsequently galvanized – overall corrosion protected
- Fixing hole Ø: 6.1 mm

Article No.	Article Description	QTY
8700 16	FIX MOUNT. CLAMPS 16MM	100
8700 18	FIX MOUNT. CLAMPS 18MM	100
8700 20	FIX MOUNT. CLAMPS 20MM	100
8700 22	FIX MOUNT. CLAMPS 22MM	100
8700 24	FIX MOUNT. CLAMPS 24MM	100
8700 28	FIX MOUNT. CLAMPS 28MM	100
8700 35	FIX MOUNT. CLAMPS 35MM	50
8700 40	FIX MOUNT. CLAMPS 40MM	25

(Nominal size mm)



### Technical Data

Art. No.	For pipe Ø mm	For armor steel tube
8700 16	15 – 16	M16
8700 18	17 – 18	
8700 20	19 – 20	M20
8700 22	21 – 22	
8700 24	23 – 24	
8700 28	27 – 28	
8700 35	34 – 35	M32
8700 40	39 – 40	M40

## Mounting Clamps Duo Fix

- Double type
- For rapid and efficient mounting of heating pipes and electric lines in the flooring area
- Manufactured from 20 mm wide and 1.5 mm thick band steel – dimensionally stable
- Subsequently galvanized – overall corrosion protected
- Fixing hole Ø: 6.1 mm

Article No.	Article Description	QTY
8701 16	FIX DUO MOUNT. CLAMP 16MM	50
8701 18	FIX DUO MOUNT. CLAMP 18MM	50
8701 20	FIX DUO MOUNT. CLAMP 20MM	50
8701 22	FIX DUO MOUNT. CLAMP 22MM	50
8701 24	FIX DUO MOUNT. CLAMP 24MM	50
8701 28	FIX DUO MOUNT. CLAMP 28MM	25
8701 35	FIX DUO MOUNT. CLAMP 35MM	25
8701 40	FIX DUO MOUNT. CLAMP 40MM	25

(Nominal size mm)



### Technical Data

Art. No.	For pipe Ø mm	For armor steel pipes
8701 16	15 – 16	M16
8701 18	17 – 18	
8701 20	19 – 20	M20
8701 22	21 – 22	
8701 24	23 – 24	
8701 28	27 – 28	
8701 35	34 – 35	M32
8701 40	39 – 40	M40

## Thread Nails Fix M6

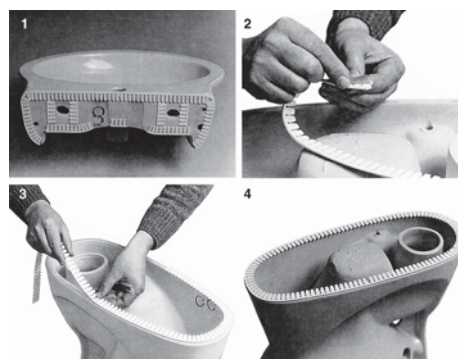
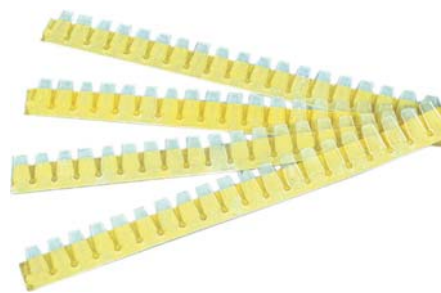
- Rapid fixing of plastic clips as well as electrical add serial clips with M6 connection thread
- Manufactured from hardened galvanized steel - break-proof and corrosion protected
- Nail thickness: 4 mm
- Connection thread M6
- Height connection thread: 8 mm

Article No.	Article Description	QTY
8704 4 18	FIX THREAD NAILS GA M6 4X18MM	W 1000



## Mounting Tape Sanitary Field

- Universally applicable in the sanitary ceramics
  - Noise insulation
  - Protects the sanitary ceramics against porcelain breakage
- Self-adhesive moldable smoothly elastic tape
  - Easy and rapid mounting
  - Elastic absorption of impacts
- Compensates uneven wall/flooring surfaces
  - No „crunching „ of the wash stand, wash basin, water-closet, bidet, etc.
  - Reduces the risk of spalling of ceramic edges, spalling screw holes, etc. during the process of fixing or in case of uptight assembly
- Closed surface according to DIN 16778
  - Resistant against thinned mineral acids, soapy water, alcohol, greases and oils
  - Avoids deposit of bacterias
- No waiting times compared to white cement mounting – efficient, time-saving and commercial
- Courts of 50 cm



Article No.	Article Description	QTY
8691 20	MOUNT. TAPE 20X500MM	b 300

## Mounting Tape Sanitary Type Zigzag

- To interrupt acoustical bridges between wall tiles and hang-up ceramic objects
- Universally applicable
- Easy to process
- PE strip, one-side self-adhesive
- Thickness: 5 mm
- Reel length: 2 x 4,5 m = 9 m



Article No.	Article Description	QTY
8691 48	REEL(9)ZIGZAG MOUNT. TAPE	1

## Tub Connection Insulation Profile

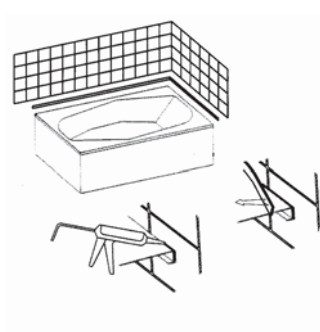
- To interrupt acoustical bridges between wall tiles and the bath tub
- PE strip, one-side self-adhesive with special glue (can be removed without residues)
- Universally applicable for any type of tub
- Easy to process

### Item No 8691 48 33:

- Thickness 4 mm

### Item No 8691 70 33:

- Thickness 5 mm



Article No.	Article Description	QTY
8691 48 33	REEL(3.3)TUB CONN.INS.PR. 48MM	1
8691 70 33	REEL(3.3)TUB CONN.INS.PR. 70MM	1

# Mounting Tape Hydrostrip

- To interrupt acoustical bridges between floor tiles and ceramic objects
- PE strip, one-side self.adhesive
- Universally applicable
- Thickness: 2 mm
- Length: 0,5 m
- PU: 2 pcs mounting tapes per strip, 150 strips of 2 mounting tapes

Article No.	Article Description	QTY
8691 22	HYDROSTRIP MOUNT. TAPE	b 300



# Protectband 2in1 Plus

## Soundproofing and wall-sealing with one tape

Ideal for protecting wall joints against breakdown of the silicone seam and for soundproofing the wall in a single step. Simply stick it on the shower tray / bath tub and on the wall for sealing and soundproofing.

- Soundproofing for the joint between the shower tray / bath tub and the wall
- Sealing tape for the wall joints in case the silicone seam breaks down
- Two steps in one with a single product
- Simple treatment
- Putting the soundproofing tape between the wall and the sealing tape provides good protection against moisture penetration.

**Art. No. 8691 360:**

- Roll length 3.60 m

**Art. No. 8691 1000:**

- Roll length 10 m



Article No.	Article Description	QTY
8691 360	PROTECTBAND PLUS 2IN1 (3.6M)	1
8691 1000	PROTECTBAND PLUS 2IN1 (10M)	1



1. Installation.



2. Fix the band with noise protection on the rear side of the the tub.



3. Remove upper protection foil.



4. Fix on the wall a little over the tub and press to fasten.



5. Plaster.



6. Apply silicone joint.



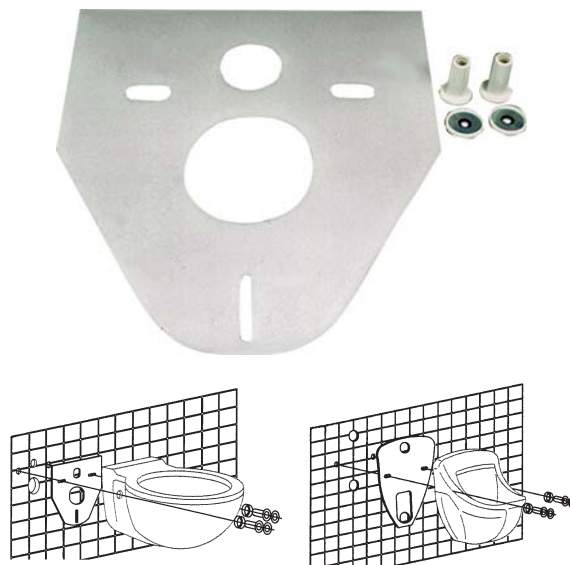
## Sound Insulation Kit Water-Coset, Bidet and Urinal

- To interrupt acoustical bridges between wall tiles and hung-up water-closets, bidets or urinals
- Two-side smooth expanded film
- Elastic fixing plate for high loads
- Insulates flowing and cracking noises
- Avoids formation of soild-borne sound
- Reduces the interferences of up to 6 dB (noise insulation certificate)

Article No.	Article Description	QTY
8691 1	WATER-CL./BIDET S.- INSUL. KIT	1

### Delivery volume:

- 1x sound insulation plate
- 2x insulation bushings
- 2x collars
- 2x washers



## Sound Insulation Kit Wash Stand

- To interrupt acoustical bridges between wall tiles and wash hand basins or wash stands
- Avoids formation of solid-borne sounds, flowing and cracking noises
- Easy to process
- Available in 3 formats
- Thickness: 5 mm

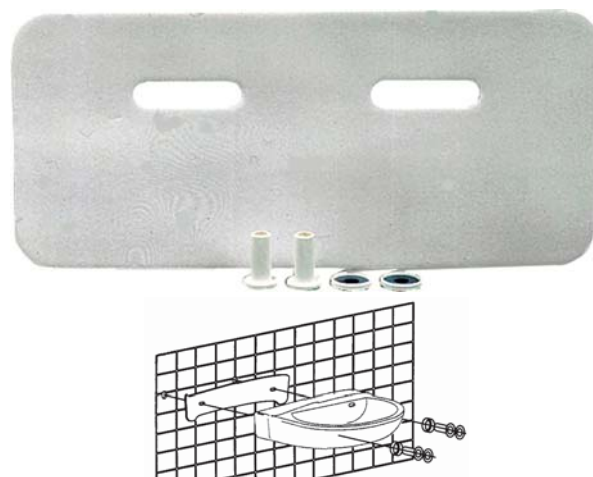
### Technical Data

Item No	Use for
8691 550	Wash hand basins
8691 750	Wash stands
8691 840	Double wash stands

Article No.	Article Description	QTY
8691 550	WASH ST. SOUND INS. KIT 550	1
8691 750	WASH ST. SOUND INS. KIT 750	1
8691 840	WASH ST. SOUND INS. KIT 840	1

### Delivery volume:

- 1x sound insulation plate
- 2x insulation bushings
- 2x sealing washers



## Universal Sound-deadening Pad

- Rubber pads for acoustic decoupling of shower and bathtub bases
- Also suitable for other purposes everywhere

### Technical Data

Art. No.	Dimensions (L x W x H)
8691 60 60	60 x 60 x 10 mm
8691 100 100	100 x 100 x 10 mm

Article No.	Article Description	QTY
8691 60 60	SOUND-DEAD. PAD 60X 60X10MM	w 100
8691 100 100	SOUND-DEAD. PAD 100X100X10MM	w 100



## Water-Closet Fixing Kits Blank Brass

Article No.	Article Description	QTY
8676 6 60	WATER-CL. FIX.KIT MS 6X60	e 25
8676 6 60 1	WATER-CL. FIX.KIT MS/W 6X60	e 25
8676 6 70	WATER-CL. FIX.KIT MS 6X70	e 25
8676 6 70 1	WATER-CL. FIX.KIT MS/W 6X70	e 25
8676 6 80	WATER-CL. FIX.KIT MS 6X80	e 25
8676 6 80 1	WATER-CL. FIX.KIT MS/W 6X80	e 25

### Contents of kit, 2 pieces each:

- Nylon expansion anchors F8
- Water-closet collars white, for fixing kit MS additionally with chrome-plated water-closet covering caps
- Oval head countersunk wooden screws DIN 7995
- Water-closet covering caps white



## Water-Closet Fixing Kits Chrome-Plated Brass

Article No.	Article Description	QTY
8677 6 60	W.-CL.FIX.KIT MS-CHR.-P.D 6X60	e 25
8677 6 60 1	W.-CL.F.KIT MS-CHR.-P.D/W 6X60	e 25
8677 6 70	W.-CL.F.KIT MS-CHR.-P.L.D 6X70	e 25
8677 6 70 1	W.-CL.F.KIT MS-CHR.-P.D/W 6X70	e 25
8677 6 80	W.-CL.F.KIT MS-CHR.-P.D 6X80	e 25
8677 6 80 1	W.-CL.F.KIT MS-CHR.-P.D/W 6X80	e 25

### Contents of kit, 2 pieces each:

- Nylon expansion anchors F8
- Water-closet collars white
- Oval head countersunk wooden screws DIN 7995
- Water-closet covering caps white, for fixing kit MS-VC additionally with chrome-plated water-closet covering caps



## Water-Closet Fixtures with Hexagon Blank Brass

Article No.	Article Description	QTY
8678 6 70	HEX. WATER-CL. FIX.KIT MS 6X70	e 25
8678 6 70 1	HEX. WATER-CL. F.KIT MS/W 6X70	e 25
8678 6 80	HEX. WATER-CL. FIX.KIT MS 6X80	e 25
8678 6 80 1	HEX. WATER-CL. F.KIT MS/W 6X80	e 25
8678 6 85	HEX. WATER-CL. FIX.KIT MS 6X85	e 25
8678 6 85 1	HEX. WATER-CL. F.KIT MS/W 6X85	e 25

### Contents of kit, 2 pieces each:

- Nylon expansion anchors F8
- Water-closet collars white
- Wooden screws hexagon DIN 571 with slot brass
- Water-closet covering caps white, for fixing kit MS additionally with chrome-plated water-closet covering caps



## WC Fastening with Hexagonal Screw, Galvanised

Article No.	Article Description	QTY
8674 6 70 1	HEX-WC-FIX.KIT GAL./W 6X70	e 25
8674 6 70	HEX-WC-FIX.KIT GAL. 6X70	e 25
8674 6 80 1	HEX-WC-FIX.KIT GAL./W 6X80	e 25
8674 6 80	HEX-WC-FIX.KIT GAL. 6X80	e 25

### Kit contains 2 each of:

- Nylon expansion plugs F8
- WC rosettes, white
- Wood screws, hexagonal head DIN 571, galvanised
- WC cover caps, white; the galvanised fastening kit additionally has chrome WC cover caps



## Bracket Fixtures Galvanized Steel

Article No.	Article Description	QTY
8679 8 60	BRACKET FIXTURES GAL. 8X60	e 25
8679 10 70	BRACKET FIXTURES GAL. 10X70	e 25

### Contents of kit, 2 pieces each:

- Nylon expansion anchors
- Wooden screws hexagon DIN 571 galvanised
- Washers DIN 125 galvanised



## Water-Closet Fixing Covering Caps

- Outer Ø 20 mm
- Inner Ø 18 mm
- Height 8 mm

Article No.	Article Description	QTY
8680 2	WATER-CL. COV. CAPS CHR.-PL.D	100
8680 1	WATER-CL. COV. CAPS WHITE	100



## Wash Stand Fixing Kits

Article No.	Article Description	QTY
8675 10 120	WASH ST. FIX.KIT F GAL.10X120	e 25
8675 10 120 1	WASH ST. FIX.KIT GAL.10X120	e 25
8675 10 140	WASH ST. FIX.KIT F GAL.10X140	e 25
8675 10 140 1	WASH ST. FIX.KIT GAL.10X140	e 25
8675 10 160	WASH ST. FIX.KIT F GAL.10X160	e 25
8675 10 160 1	WASH ST. FIX.KIT GAL.10X160	e 25

### Contents of kit, 2 pieces each:

- Universal dowel GX Premium, for fixing kit F incl. nylon expansion anchors
- Water-closet collars white for M 10 (36)
- Stair bolts galvanized
- Washers DIN 125 galvanized for M10
- Hexagon nuts 934-8 galvanized 10



## Interim Plugs with Brass Thread

- With brass thread and high quality neoprene sealing
- Made of stable plastic material - robust
- fulfilling DIN requirements

Article No.	Article Description	QTY
<b>8692 12</b>	INT. PLUG 1/2" BRASS THR. BLUE	40
<b>8692 12 1</b>	INT. PLUG 1/2" BRASS THR. RED	40
<b>8692 34</b>	INT. PLUG 3/4" BRASS THR. BLUE	k 60
<b>8692 34 1</b>	INT. PLUG 3/4" BRASS THR. RED	k 60

(Connection thread inch")



## Interim Plugs with Plastic Thread

- With plastic thread and high quality neoprene sealing
- Made of stable plastic material – robust

Article No.	Article Description	QTY
<b>8693 12</b>	INT. PLUG 1/2" PLAST. THR. BLUE	80
<b>8693 12 1</b>	INT. PLUG 1/2" PLAST. THR. RED	80

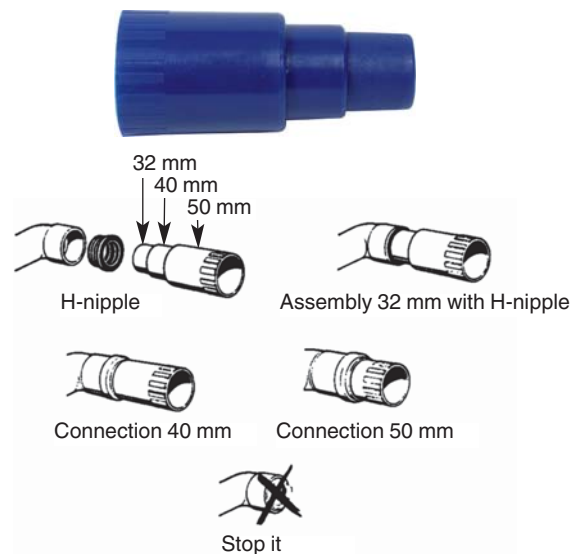
(Connection thread inch")



## Interim Plugs Universal

- Universally applicable for discharge pipes NS 32, 40 or 50
- High-quality warp-proof plastic material – gas-tight closure
- No risk of plugging
- Compact type – free space for the assembly of the H nipple without drilling holes

Article No.	Article Description	QTY
<b>8693 1</b>	UNIV. INT. PLUG NS 50/40/32	15



## Flexible Ventilation Hose

- **100 % flexible outlet vent connection, hence suitable for all plastic outlet vent models**
- Connection bushing and 100/70 mm reducer made from PVC – impact resistant and break-proof
- Flexible PVC hose with welded-in stainless steel helix – trouble-free production of a double bend
- 100/70 mm reducer – enables all connection variants
- Connection bushing provided with a high quality hose clamp – ensures a secure hold at the outlet vent
- Temperature-resistant from -35 °C to +90 °C
- Waterproof
- Ideal for ventilation and extraction in the air conditioning, sanitary and environmental technology of users such as sanitary and heating fitters, roofers and metal workers
- Length 600 mm
- Extends from 180 to 360 mm

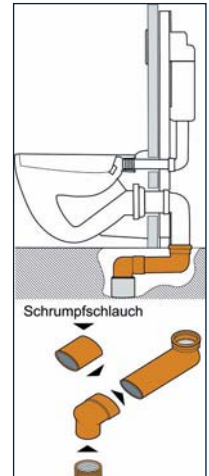
Article No.	Article Description	QTY
<b>8613 180 360</b>	FLEX. VENTILATION HOSE 0,6M	e 8



## WC Offset Bend DN 90/110

- For the transition from a floor-standing WC to an on-the-wall installation
- Neat connection between the existing waste water connection and the WC connecting bend of the new wall-mounted WC
- Best for fast modernisation
- Low height of 85 mm – with heat shrink tubing for additional sealing
- With PVC adhesive
- Flexible length – can be set from 15 – 35 cm directly on the building site
- Nap structure for optimum adhesive distribution
- Especially secure hold due to extra deep insertion of 48 mm

Article No.	Article Description	QTY
8705 90 110	WC OFFSET BEND DN 90/110	1



## Easy-Fix Pipe Connection System

- Solution for retrospective connection of a waste water pipe to a downpipe
- Can be completely assembled without gluing
- No chiselling and no separating of the downpipe
- Simple installation in just 3 steps
- Also suitable for difficult-to-access assembly locations
- Suitable for PP, PE, PE-HD, cast iron, steel, stainless steel and fibre cement
- For all pipe types up to approx. 5 mm wall thickness
- 57 mm diameter cut-out required
- **Application areas:** Garages, laundries, utility rooms, basements

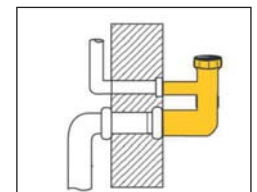
Article No.	Article Description	QTY
8705 90 40	EASY-FIX 90-40	1
8705 90 50	EASY-FIX 90-50	1
8705 100 40	EASY-FIX 110-40	1
8705 100 50	EASY-FIX 110-50	1
8705 125 40	EASY-FIX 125-40	1
8705 125 50	EASY-FIX 125-50	1

(Ø waste water pipe – Ø Easy-Fix connection)



## Prüffix Waste Water Testing System

- Multi-function tool for checking the sealing of on-the-wall systems in accordance with DIN 1986-3
- The Prüffix allows a connection to be made between the cistern outlet pipe and the waste water pipe. The flushing procedure can be initiated through this connection and the sealing of the system can be checked
- A funnel can be placed on the connected Prüffix to discharge the site water and the dirty water
- The distance between the cistern pipe and the waste water pipe can be fixed
- Can be used as a template if there is plasterboard cladding

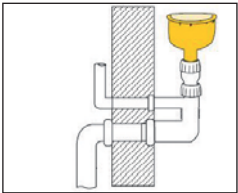


Article No.	Article Description	QTY
8705 1 1	WASTE WATER TEST.SYS. PRÜFFIX	1

# Funnel Attachment for Prüffix

- Can be used in conjunction with Prüffix Art. No. 8705 1 1 for drainage purposes, e.g., of site water or dirty water
- With plastic wedge ring

Article No.	Article Description	QTY
8705 1 2	FUNNEL ATTACHMENT FOR PRÜFFIX	1





# Strap Vario

- Patented hole system, 3 differently shaped holes
  - Applicable for any pipe system
  - Appropriate for all installation plates with 40 mm offset
- Universally applicable for all applications, e.g. rails to be mounted at the front of the wall, suspension rails, etc. to mount pairs of pipes one beneath another or canted as a console as well as to mount heating circuit distributors, etc.
  - Cost-efficient, safe, easy, rapid
  - Independent and adaptable on-site without expensive special tools
- Hot-dip galvanized – improved corrosion protection

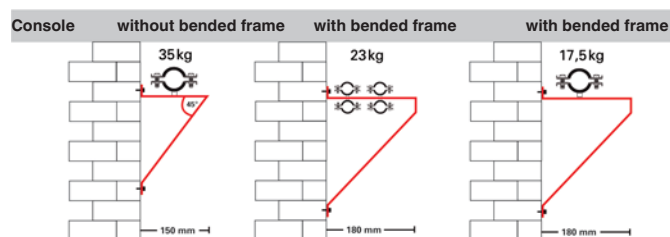


## Example of load:

Ceiling mount l = 250 mm of different load distribution



Ceiling mount l = 300 mm of different load distribution



The displayed loads are only exemplary. Due to the universal mounting options deviating dimensions and canting angles are resulting which inevitably lead to other loads.



Article No.	Article Description	QTY
8695 50 3	MTR. STRAP 2000X50X3	w 100

(length x width x thickness in mm)

## Installation Basic Equipment

- Complete installation kit – mobile applicable
- In a handy case

Article No.	Article Description	QTY
8695 4	INSTALLATION BASIC EQUIPMENT	1

### Delivery volume:

- 1x Metal case
- 1x Bending tongs for rails
- 1x Fixing plate
- 1x Noise separator
- 1x Basic assortment of screws



## Sound-Shield

- Sound insulation of ceiling and connection angles on the installation rail or for direct mounting – considerable noise reduction with only one system part
- Tested and approved by the Fraunhofer-Institut für Bauphysik (Fraunhofer Institute for Building physics)

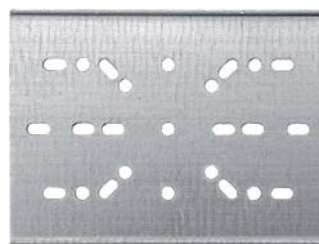
Article No.	Article Description	QTY
8695 3	SOUND-SHIELD	20



## Backing Plate

- Fixture of installation plates and fittings of all pipe systems – efficient, torsion-free and centered fixture on the installation strap
- Hot-dip galvanized – improved corrosion protection

Article No.	Article Description	QTY
8695 1	BACKING PL. HOT-DIP GAL.	50



## Bending Tongs for Rails

- High-quality bending tongs for rails – manufacturing of any installation rail construction

Article No.	Article Description	QTY
8695 2	BENDING TONGS FOR RAILS	1



## Protection and Sound-Cap

- The protection and sound-cap is appropriate for all 1/2" connections, which can be centrally mounted on the sound-shield
- No need to spend time filling gaps

Article No.	Article Description	QTY
8695 5	PROTECTION AND SOUND-CAP	20



# Single Rosette, White

- For pipe penetrations in walls, floors and ceilings
- Quick and easy to fit thanks to the safety clip fastener
- **Material:** Polypropylene
- **Colour:** White RAL 9016



Article No.	Article Description	QTY
8681 1 12	SINGLE ROSETTE WHITE 12MM	100
8681 1 15	SINGLE ROSETTE WHITE 15MM	100
8681 1 16	SINGLE ROSETTE WHITE 16MM	100
8681 1 18	SINGLE ROSETTE WHITE 18MM	100
8681 1 22	SINGLE ROSETTE WHITE 22MM	100
8681 1 28	SINGLE ROSETTE WHITE 28MM	50
8681 1 35	SINGLE ROSETTE WHITE 35MM	50

## Technical Data

Art. No.	External Ø mm	Height mm
8681 1 12	40	11
8681 1 15	49	11
8681 1 16	49	11
8681 1 18	49	11
8681 1 22	55	11
8681 1 28	65	11
8681 1 35	70	11

# Double Rosette, White

- For pipe penetrations for Ventil Compact radiators in walls, floors and ceilings
- Quick and easy to fit thanks to the safety clip fastener
- **Material:** Polypropylene
- **Colour:** White RAL 9016



Article No.	Article Description	QTY
8681 2 12	DOUBLE ROSETTE WHITE 12MM	50
8681 2 15	DOUBLE ROSETTE WHITE 15MM	50
8681 2 16	DOUBLE ROSETTE WHITE 16MM	50
8681 2 18	DOUBLE ROSETTE WHITE 18MM	50
8681 2 21	DOUBLE ROSETTE WHITE 21.3MM	50

## Technical Data

Art. No.	Length mm	Width mm	Height mm	Pipe spacing mm
8681 2 12	95	50	7	50
8681 2 15	95	50	7	50
8681 2 16	95	50	7	50
8681 2 18	95	50	7	50
8681 2 21	95	50	7	50

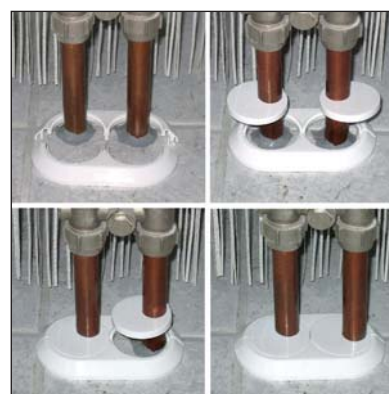
# Double Rosette Vario

- Variable double rosette with pipe spacing adjustable from 20–70 mm (centre/centre)
- 2-part for retrospective fitting
- **Material:** Polypropylene
- **Colour:** White RAL 9016

## Technical Data

Art. No.	Length mm	Width mm	Height mm
8681 3 15	113	69	12
8681 3 18	113	69	12
8681 3 22	113	69	12

Article No.	Article Description	QTY
8681 3 15	DOUBLE ROSETTE VARIO WHITE 15MM	50
8681 3 18	DOUBLE ROSETTE VARIO WHITE 18MM	50
8681 3 22	DOUBLE ROSETTE VARIO WHITE 22MM	50



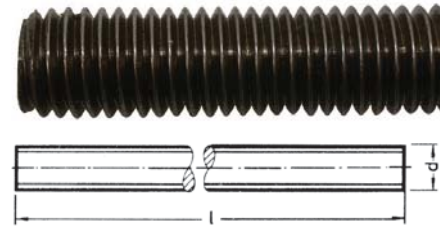
## Threaded Rods DIN 976 4.8, Plain Steel, 1m

- Strength class 4.8
- Length 1 m
- Plain steel

Article No.	Dimension	QTY
1820 2	M 2	20
1820 3	M 3	20
1820 4	M 4	1
1820 5	M 5	1
1820 6	M 6	1
1820 7	M 7	10
1820 8	M 8	1
1820 10	M 10	1
1820 12	M 12	1
1820 14	M 14	1
1820 16	M 16	1
1820 18	M 18	1
1820 20	M 20	1
1820 22	M 22	1
1820 24	M 24	1
1820 27	M 27	1

(d Thread Dia. mm)

Article No.	Dimension	QTY
1820 30	M 30	1 ü
1820 33	M 33	2
1820 36	M 36	2
1820 39	M 39	2
1820 42	M 42	2
1820 45	M 45	2
1820 48	M 48	2
1820 52	M 52	1
1820 56	M 56	1
1820 60	M 60	1
1820 64	M 64	1
1820 68	M 68	1
1820 72	M 72	1
1820 76	M 76	1
1820 80	M 80	1



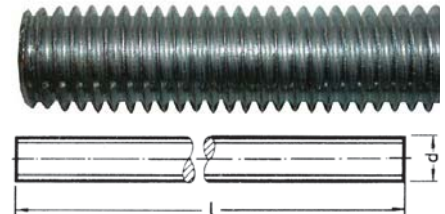
## Threaded Rods DIN 976 4.8, Galvanized, 1 m

- Strength class 4.8
- Length 1 m
- Galvanized steel

Article No.	Dimension	QTY
1821 3	M 3	1 H
1821 4	M 4	1 H
1821 5	M 5	1 H
1821 6	M 6	1 H
1821 7	M 7	10
1821 8	M 8	1 f
1821 10	M 10	1 g
1821 12	M 12	1 w
1821 14	M 14	1
1821 16	M 16	1 z

(d Thread Dia. mm)

Article No.	Dimension	QTY
1821 18	M 18	1 z
1821 20	M 20	1 ü
1821 22	M 22	1 ü
1821 24	M 24	1
1821 27	M 27	1
1821 30	M 30	1
1821 33	M 33	2
1821 36	M 36	1
1821 39	M 39	2



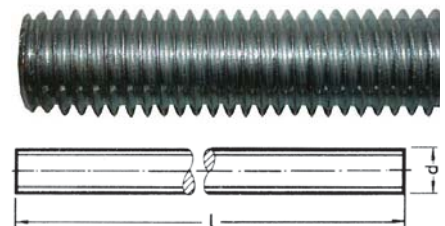
## Threaded Rods DIN 976 4.8, Galvanized, 2 m

- Strength class 4.8
- Length 2 m
- Galvanized steel

Article No.	Dimension	QTY
1822 5	M 5	10
1822 6	M 6	1 f
1822 8	M 8	1 g
1822 10	M 10	1 g

(d Thread Dia. mm)

Article No.	Dimension	QTY
1822 12	M 12	1 w
1822 16	M 16	1
1822 20	M 20	1
1822 24	M 24	2



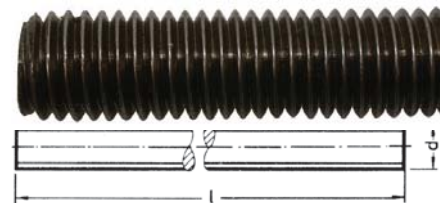
## Threaded Rods DIN 976 8.8, Plain Steel, 1 m

- Strength class 8.8
- Length 1 m
- Plain Steel

Article No.	Dimension	QTY
1823 5	M 5	10
1823 6	M 6	1
1823 8	M 8	1
1823 10	M 10	1
1823 12	M 12	1
1823 14	M 14	1
1823 16	M 16	1
1823 18	M 18	1
1823 20	M 20	1
1823 22	M 22	3
1823 24	M 24	1 ü
1823 27	M 27	2

(d Thread Dia. mm)

Article No.	Dimension	QTY
1823 30	M 30	1
1823 33	M 33	2
1823 36	M 36	2
1823 39	M 39	1
1823 42	M 42	1
1823 45	M 45	1
1823 48	M 48	1
1823 52	M 52	1
1823 56	M 56	1
1823 60	M 60	1
1823 64	M 64	1





# Hex Head Self Tapping Screws DIN7504 K, Galvanized

- Galvanized steel

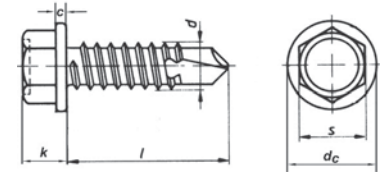
Item no.	Dimension	QTY
1350 35 13	3,5 x 13	HRF 1000
1350 42 13	4,2 x 13	HRF 1000
1350 42 16	4,2 x 16	HRF 1000
1350 42 19	4,2 x 19	HRF 1000
1350 42 22	4,2 x 22	HRF 1000
1350 42 25	4,2 x 25	HRF 1000
1350 42 32	4,2 x 32	HRF 1000
1350 42 38	4,2 x 38	HRF 1000
1350 48 13	4,8 x 13	HRF 1000
1350 48 16	4,8 x 16	HRF 1000
1350 48 19	4,8 x 19	HRF 1000
1350 48 22	4,8 x 22	HRF 1000
1350 48 25	4,8 x 25	HRF 1000
1350 48 32	4,8 x 32	HRF 1000
1350 48 38	4,8 x 38	HRF 1000
1350 48 45	4,8 x 45	HR 500
1350 48 50	4,8 x 50	HRF 1000
1350 55 16	5,5 x 16	HRF 1000

(d thread dia. x length mm)

Item no.	Dimension	QTY
1350 55 19	5,5 x 19	HRF 1000
1350 55 22	5,5 x 22	HRF 1000
1350 55 25	5,5 x 25	HRF 1000
1350 55 32	5,5 x 32	HRF 1000
1350 55 38	5,5 x 38	HRF 1000
1350 55 50	5,5 x 50	HRF 1000
1350 63 16	6,3 x 16	HRF 1000
1350 63 19	6,3 x 19	HRF 1000
1350 63 22	6,3 x 22	HRF 1000
1350 63 25	6,3 x 25	HRF 1000
1350 63 32	6,3 x 32	HRF 1000
1350 63 38	6,3 x 38	HRF 1000
1350 63 45	6,3 x 45	HRF 1000
1350 63 50	6,3 x 50	HRF 1000
1350 63 60	6,3 x 60	100
1350 63 70	6,3 x 70	100
1350 63 80	6,3 x 80	100



## Specifications



Thread Dia. mm	dc max. mm	k max. mm	Thread size mm	Sheet-metal thickness
3.5	8.3	3.45	3.5	0.70 - 2.25
4.2	8.8	4.4	7	1.75 - 3.00
4.8	40.5	4.3	8	1.75 - 4.40
5.5	11.0	5.4	8	1.75 - 5.25
6.3	13.5	5.9	10	2.00 - 6.00

# Oval Head Self-Tapp. Screws DIN7504 M, Galvanized

- With Phillips head
- Galvanized steel

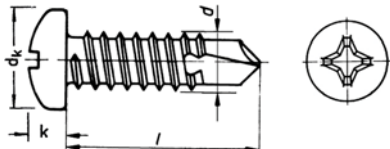
Item no.	Dimension	QTY
1351 29 13	2,9 x 13	HRF 1000
1351 29 16	2,9 x 16	HRF 1000
1351 29 19	2,9 x 19	HRF 1000
1351 35 95	3,5 x 9,5	HRF 1000
1351 35 13	3,5 x 13	HRF 1000
1351 35 16	3,5 x 16	HRF 1000
1351 35 19	3,5 x 19	HRF 1000
1351 35 22	3,5 x 22	HRF 1000
1351 35 25	3,5 x 25	HRF 1000
1351 39 13	3,9 x 13	HRF 1000
1351 39 16	3,9 x 16	HRF 1000
1351 39 19	3,9 x 19	HRF 1000
1351 39 22	3,9 x 22	HRF 1000
1351 39 25	3,9 x 25	HRF 1000
1351 39 32	3,9 x 32	HRF 1000
1351 39 38	3,9 x 38	HRF 1000
1351 42 13	4,2 x 13	HRF 1000
1351 42 16	4,2 x 16	HRF 1000

(d thread dia. x length mm)

Item no.	Dimension	QTY
1351 42 19	4,2 x 19	HRF 1000
1351 42 22	4,2 x 22	HRF 1000
1351 42 25	4,2 x 25	HRF 1000
1351 42 32	4,2 x 32	HRF 1000
1351 42 38	4,2 x 38	HRF 1000
1351 48 13	4,8 x 13	HRF 1000
1351 48 16	4,8 x 16	HRF 1000
1351 48 19	4,8 x 19	HRF 1000
1351 48 22	4,8 x 22	RF 1000
1351 48 25	4,8 x 25	HRF 1000
1351 48 32	4,8 x 32	HRF 1000
1351 48 38	4,8 x 38	HRF 1000
1351 48 45	4,8 x 45	HRF 1000
1351 48 50	4,8 x 50	HRF 1000
1351 55 19	5,5 x 19	HRF 1000
1351 55 22	5,5 x 22	HRF 1000
1351 55 25	5,5 x 25	HRF 1000
1351 55 32	5,5 x 32	HRF 1000



## Specifications



Thread Dia. mm	dk max. mm	k max. mm	PH Drive mm	Sheet-metal thickness
2.9	5.6	2.20	1	0.70 - 1.90
3.5	6.9	2.60	2	0.70 - 2.25
3.9	7.5	2.80	2	0.70 - 2.40
4.2	8.2	3.05	2	1.75 - 3.00
4.8	9.5	3.55	2	1.75 - 4.40
5.5	10.8	3.95	3	1.75 - 5.25

# Self-Tapp. Screws DIN7504 M, Galvanized, Assortm.

- 3.5x9.5 - 4.8x19 = 1,050 pieces

Item no.	Item description	QTY
9000 1351	ASS.PH SELF-TAPP.SCR.7504 M GA	1
9000R 1351	TRAY PH SELF-TAP.SCR.7504 M GA	1



# Self-Tapping Screws with CSK Head DIN7504 O, Galv.

- With Phillips head
- Galvanized steel

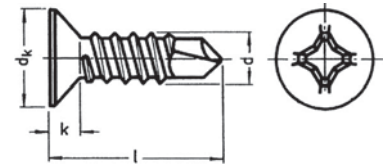


Item no.	Dimension	QTY
1352 29 13	2,9 x 13	HRF 1000
1352 35 13	3,5 x 13	HRF 1000
1352 35 16	3,5 x 16	HRF 1000
1352 35 19	3,5 x 19	HRF 1000
1352 35 22	3,5 x 22	HRF 1000
1352 35 25	3,5 x 25	HRF 1000
1352 39 13	3,9 x 13	HRF 1000
1352 39 16	3,9 x 16	HRF 1000
1352 39 19	3,9 x 19	HRF 1000
1352 39 22	3,9 x 22	HRF 1000
1352 39 25	3,9 x 25	HRF 1000
1352 39 32	3,9 x 32	HRF 1000
1352 39 38	3,9 x 38	HRF 1000
1352 42 13	4,2 x 13	HRF 1000
1352 42 16	4,2 x 16	HRF 1000
1352 42 19	4,2 x 19	HRF 1000
1352 42 22	4,2 x 22	HRF 1000
1352 42 25	4,2 x 25	HRF 1000
1352 42 32	4,2 x 32	HRF 1000
1352 42 38	4,2 x 38	HRF 1000
1352 48 16	4,8 x 16	HRF 1000

(d thread dia. x length mm)

Item no.	Dimension	QTY
1352 48 19	4,8 x 19	HRF 1000
1352 48 22	4,8 x 22	HRF 1000
1352 48 25	4,8 x 25	HRF 1000
1352 48 32	4,8 x 32	HRF 1000
1352 48 38	4,8 x 38	HRF 1000
1352 48 45	4,8 x 45	HRF 1000
1352 48 50	4,8 x 50	HRF 1000
1352 55 25	5,5 x 25	HRF 1000
1352 55 32	5,5 x 32	HRF 1000
1352 55 38	5,5 x 38	HRF 1000
1352 55 45	5,5 x 45	HRF 1000
1352 55 50	5,5 x 50	HRF 1000
1352 63 25	6,3 x 25	HRF 1000
1352 63 32	6,3 x 32	HRF 1000
1352 63 38	6,3 x 38	HRF 1000
1352 63 45	6,3 x 45	HRF 1000
1352 63 50	6,3 x 50	HRF 1000
1352 63 60	6,3 x 60	HRF 1000
1352 63 70	6,3 x 70	HRF 1000
1352 63 80	6,3 x 80	100
1352 63 90	6,3 x 90	100

## Specifications



Thread Dia. mm	dk max. mm	k mm	PH Drive mm	Sheet-metal thickness
2.9	5.5	1.7	1	0.70 - 1.90
3.5	6.8	2.1	2	0.70 - 2.25
3.9	7.5	2.3	2	0.70 - 2.40
4.2	8.1	2.5	2	1.75 - 3.00
4.8	9.5	3.0	2	1.75 - 4.40
5.5	10.8	3.4	2	1.75 - 5.25
6.3	12.2	5.3	3	2.00 - 6.00

# Wing-Type Self-Tap. Screws PH Coarse Thread, Galv.

- Galvanized steel
- Drive: 4.2 - 4.8 PH 2 / 5.5 PH3
- Wing-type self-tapping screws for fastening hard and soft wood to metal sub-constructions without pilot hole
- Cutting tip with wings - no pilot hole required
- Wings ream out hole in (wooden) part to be fastened, preventing it from being pulled down by the thread.
- Wings break off when they hit against the metal sub-construction
- No thread cutting required - fast and economical
- Cutting-type countersunk head sinks completely into particularly hard wood

## Use:

- Attaching wood coverings such as balcony planks etc. on metal sub-constructions
- Fastening vehicle body parts etc.



## Specifications



Item no.	Dimension	QTY
1721 42 25	4,2 x 25	1000
1721 48 32	4,8 x 32	500
1721 48 38	4,8 x 38	500
1721 48 45	4,8 x 45	500
1721 48 50	4,8 x 50	450
1721 55 55	5,5 x 55	350
1721 55 60	5,5 x 60	300
1721 55 85	5,5 x 85	150
1721 55 109	5,5 x 109	150

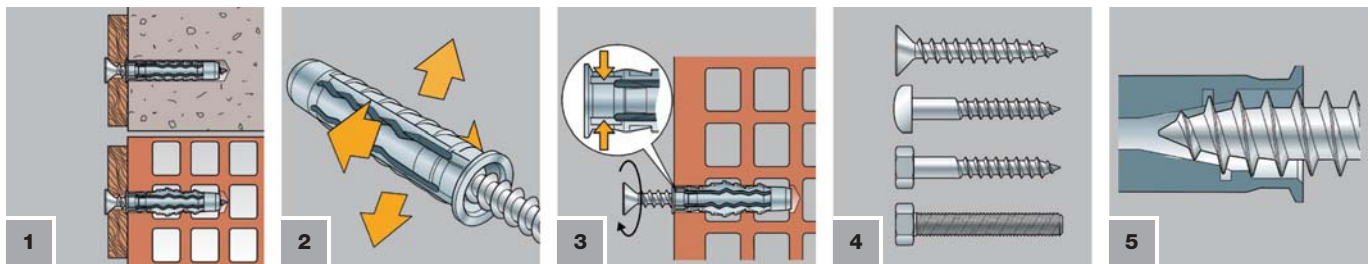
(d thread dia. x length mm)

Product no.	Thickness of subconstruction min./max mm	Clamping-length max. mm
1721 42 25	1.0 / 2.5	10
1721 48 32	1.0 / 3.5	15
1721 48 38	1.0 / 3.5	20
1721 48 45	1.0 / 3.5	30
1721 48 50	1.0 / 3.5	35
1721 55 55	1.8 / 5.0	35
1721 55 60	1.8 / 5.0	40
1721 55 85	1.8 / 5.0	65
1721 55 109	1.8 / 5.0	85



# Universal Plug GX Premium

- Innovative multipurpose/multi plug made of nylon of premium quality
- Quadruple expansion guarantees highest retaining values (pictures 1+2) in concrete and all brickwork materials
- A flexible plug flange avoids slipping in deep bore holes; however, if necessary it allows penetration (safety and push-through assembly, picture 3)
- Applicable for all existing types of screws such as wood screws, chipboard screws, tapping screws as well as screws with metric thread (picture 4)
- Screw-in centering ensures the expansion function (picture 5)



Article No.	Dimension		Article No.	Qty
8108 5	5x25mm	HF	8108P 5	1000
8108 6	6x30mm	HF	8108P 6	1000
8108 8	8x40mm	HW	8108P 8	500
8108 10	10x50mm	fH	8108P 10	250
8108 12	12x60mm	gf	8108P 12	200
8108 14	14x70mm	w	8108P 14	100

Technical Data		Recommended load in kN			
Designation	Screw Ø mm	Concrete	Solid bricks	Vertically perfor. bricks	Lightw. concrete
GX 5	3.0 – 4.0	1.20	1.00	0,80	0.30
GX 6	4.0 – 5.0	1.80	1.00	0,80	0.40
GX 8	4.5 – 6.0	2.50	2.00	1,50	0.90
GX 10	6.0 – 8.0	8.00	4.00	3,00	1.10
GX 12	8.0 – 10.0	12.00	4.60	3,30	1.30
GX 14	10.0 – 12.0	24.00	5.10	3,60	2.00

## Universal Plug GX Premium Packed in System Box

- Several small packs per dimension, sorted in a high-quality system plastic case

Article No.	Article Description	QTY
8108S 5	SB<40.0>UNI.PLUG PREMIUM GX 5	1
8108S 6	SB<40.0>UNI.PLUG PREMIUM GX 6	1
8108S 8	SB<16.0>UNI.PLUG PREMIUM GX 8	1
8108S 10	SB<8.0>UNI.PLUG PREMIUM GX 10	1
8108S 12	SB<5.0>UNI.PLUG PREMIUM GX 12	1
8108S 14	SB<3.2>UNI.PLUG PREMIUM GX 14	1

### Contents:

- Art. No. 8108S 5: 40 packaging unit à 100 pieces
- Art. No. 8108S 6: 40 packaging unit à 100 pieces
- Art. No. 8108S 8: 16 packaging unit à 100 pieces
- Art. No. 8108S 10: 16 packaging unit à 50 pieces
- Art. No. 8108S 12: 20 packaging unit à 25 pieces
- Art. No. 8108S 14: 16 packaging unit à 20 pieces

## System Box Empty

- Dimensions LxWxH: 40 x 30 x 22 mm

Article No.	Article Description	QTY
9027 403022	SYSTEM BOX - SMALL PARTS	1



# TRI All-Purpose Anchors

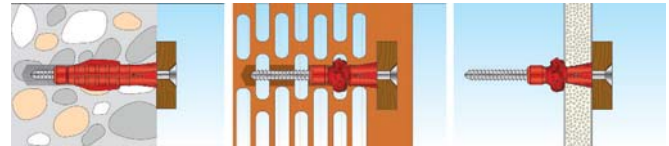
- All-purpose anchors for almost all building materials
- Secure knotting of the anchor into hollow frames
- Anti-rotation features on the anchor neck and rotary wings on the anchor body prevent it from turning in the construction material
- For push-through and pre-positioned installation

## Application:

- Fastening into concrete, full brick, perforated brick, aerated concrete, plasterboard
- For the fastening of, e.g. hanging cupboards, shelves, TV equipment, pictures, lamps, handtowel holders, etc.



Article No.	Dimension		Article No.	Qty
8112 5	5x31	F	8112P 5	1000
8112 6	6x36	HF	8112P 6	1000
8112 6 51	6x51	HV	8112P 6 51	600
8112 8	8x51	W	8112P 8	500
8112 10	10x61	H	8112P 10	250
8112 12	12x71	f	8112P 12	200
8112 14	14x75	g	8112P 14	100



Technical Data		Min.drill hole depth mm	Concrete C20 / 25*	Full brick MZ12*	Very perfor. bricks ≥Hlz 12*	Hollow block ricks stone ≥ Hbl 2*	Perfor. bricks Concrete PB2, PP2*	Gypsum bricks plate 12.5 mm*	Gypsum fi-breb.bricks plate 2.5mm*
Art.-No.	Screw-Ø mm								
8112 5	3.0 - 4.0	40	0.25	0.15	0.15	0.10		0.10	0.15
8112 6	4.0 - 5.0	45	0.50	0.35	0.25	0.15		0.10	0.20
8112 6 51	4.0 - 5.0	60	0.60	0.40	0.25	0.20	0.10	0.10	0.25
8112 8	5.0 - 6.0	60	1.00	0.80	0.30	0.25	0.15	0.10	0.30
8112 10	6.0 - 8.0	70	1.50	1.00	0.35	0.28	0.20	0.10	0.30
8112 12	8.0 - 10.0	80	1.60	1.20	0.40	0.30	0.25	0.10	
8112 14	10.0 - 12.0	85	2.00	1.40	0.40	0.35	0.25	0.10	

# TRIKA All-Purpose Anchors

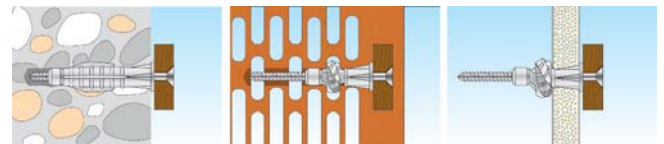
- All-purpose anchors for almost all building materials
- Anchor caps (collars) prevent the anchor from slipping deeper into the drill hole and protect the surface
- Secure knotting of the anchor into hollow frames
- Anti-rotation features on the anchor neck and rotary wings on the anchor body prevent it from turning in the construction material
- For pre-positioned installation

## Application:

- Fastening into concrete, full brick, perforated brick, aerated concrete, plasterboard
- For the fastening of, e.g. hanging cupboards, shelves, TV equipment, pictures, lamps, handtowel holders, etc.



Article No.	Dimension		Article No.	Qty
8113 5	5x31	F	8113P 5	1000
8113 6	6x36	HF	8113P 6	1000
8113 6 51	6x51	HV	8113P 6 51	500
8113 8	8x51	W	8113P 8	450
8113 10	10x61	H	8113P 10	250
8113 12	12x71	f	8113P 12	150
8113 14	14x75	g	8113P 14	100



Technical Data		Min.drill hole bricks depth mm	Concrete C20 / 25*	Full brick MZ12*	Very perfor. bricks ≥Hlz 12*	Hollow block bricks tone ≥ Hbl 2*	Perfor. bricks concrete PB2, PP2*	Gypsum bricks plate 12.5 mm*	Gypsum fi-breb.bricks plate 2.5mm*
Art.-No.	Screw-Ø mm								
8113 5	3.0 - 4.0	40	0.25	0.15	0.15	0.10		0.10	0.15
8113 6	4.0 - 5.0	45	0.50	0.35	0.25	0.15		0.10	0.20
8113 6 51	4.0 - 5.0	60	0.60	0.40	0.25	0.20	0.10	0.10	0.25
8113 8	5.0 - 6.0	60	1.00	0.80	0.30	0.25	0.15	0.10	0.30
8113 10	6.0 - 8.0	70	1.50	1.00	0.35	0.28	0.20	0.10	0.30
8113 12	8.0 - 10.0	80	1.60	1.20	0.40	0.30	0.25	0.10	
8113 14	10.0 - 12.0	85	2.00	1.40	0.40	0.35	0.25	0.10	

# Nail Plug with Countersunk Head

- Drive PZ 2
- Pre-assembled
- 100% nylon/polyamide -Rot-proof, resistant against concrete silicid acid -Best possible pull-out values, resistant against chemical influences



Article No.	Dimension	Article No.	Qty
8020 5 30	5 × 30 W		
8020 5 35	5 × 35 W		
8020 5 50	5 × 50 W		
8020 6 35	6 × 35 W	8020P 6 35	1000
8020 6 40	6 × 40 W	8020P 6 40	1000
8020 6 60	6 × 60 W	8020P 6 60	1000
8020 6 80	6 × 80 W	8020P 6 80	1000
8020 8 60	8 × 60 H		
8020 8 80	8 × 80 H		
8020 8 100	8 × 100 H		
8020 8 120	8 × 120 f		
8020 8 140	8 × 140 f		
8020 8 160	8 × 160 f		

Technical Data		*Recommended load in kN Concrete*
Min. anch. depth mm	Max. useful length mm	
20	10	0,20
25	15	0,15
25	30	0,15
35	10	0,15
30	15	0,25
30	35	0,25
30	45	0,25
40	20	0,35
40	40	0,35
40	60	0,35
40	80	0,35
40	100	0,35
40	120	0,35

# Nail Plug with Flat Head

- Drive PZ 2
- Pre-assembled
- 100% nylon/polyamide, rot-proof, resistant against concrete silicid acid - Best possible pull-out values, resistant against chemical influences
- Type with flat/cylinder head, plane abut for profile and channel fixture and this way highest fixing safety

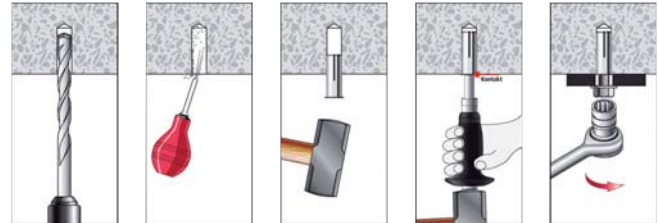


Article No.	Article Description	QTY
8021 5 30	NAIL PLUG PZ FLAT HEAD 5X30	200
8021 5 50	NAIL PLUG PZ FLAT HEAD 5X50	200
8021 6 40	NAIL PLUG PZ FLAT HEAD 6X40	200
8021 6 60	NAIL PLUG PZ FLAT HEAD 6X60	200
8021 6 80	NAIL PLUG PZ FLAT HEAD 6X80	200
8021 8 60	NAIL PLUG PZ FLAT HEAD 8X60	100
8021 8 80	NAIL PLUG PZ FLAT HEAD 8X80	100
8021 8 100	NAIL PLUG PZ FLAT HEAD 8X100	100
8021 8 120	NAIL PLUG PZ FLAT HEAD 8X120	50

Technical Data		*Recommended load in kN Concrete*
Min. anch. depth mm	Max. useful length mm	
25	10	0,15
25	30	0,15
30	15	0,25
30	35	0,25
30	45	0,25
40	20	0,35
40	40	0,35
40	60	0,35
40	80	0,35

# R-DCL-K drop-in anchor, galvanised steel

- Easy-to-place anchor with ETA approval, option 7 for concrete without cracks and part 6 for cracked concrete
- Galvanised internally threaded expansion anchor for mounting threaded rods or bolts
- Fire resistance class F120
- Quick mounting due the special cone geometry
- Attachment using hammer and setting tool
- Extra shallow setting depth for M6 × 25
- Special red plastic disc stabilises the cone during transport
- Ideal for the secure attachment of mechanical components, cable troughs, electrical platforms, drain covers, suspended ceilings, etc.
- Securing of equipment which needs to be removed and reattached



Article No.	Article Description	QTY
8209 1 6	DROP-IN ANCHOR R-DCL-M 6 K GV	100
8209 1 8	DROP-IN ANCHOR R-DCL-M 8 K GV	100
8209 1 10	DROP-IN ANCHOR R-DCL-M10 K GV	50
8209 1 12	DROP-IN ANCHOR R-DCL-M12 K GV	50
8209 1 16	DROP-IN ANCHOR R-DCL-M16 K GV	25

## Technical Data

Thread length mm	Recommended max. tightening torque Nm
11	4,5
13	11
15	22
20	38
25	98

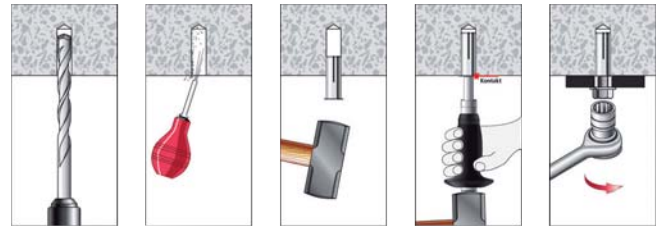
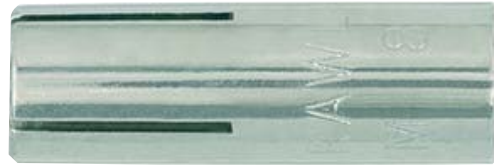
# Expansion tool R-DCA-ST for drop-in anchor

Article No.	Article Description	QTY
8213 6 2	EXPANSION TOOLR-DCA-ST M 6	1
8213 8 2	EXPANSION TOOLR-DCA-ST M 8	1
8213 10 2	EXPANSION TOOLR-DCA-ST M 10	1
8213 12 2	EXPANSION TOOLR-DCA-ST M 12	1
8213 16 2	EXPANSION TOOLR-DCA-ST M 16	1
8213 20 2	EXPANSION TOOLR-DCA-ST M 20	1



## R-DCA drop-in anchor , galvanised steel

- Easy-to-place anchor with ETA approval, option 7 for concrete without cracks and part 6 for cracked concrete
- Galvanised internally threaded expansion anchor for mounting threaded rods or bolts
- Fire resistance class F120
- Quick mounting due the special cone geometry
- Attachment using hammer and setting tool
- Extra shallow setting depth for M6 × 25
- Special red plastic disc stabilises the cone during transport
- Ideal for the secure attachment of mechanical components, cable troughs, electrical platforms, drain covers, suspended ceilings, etc.
- Securing of equipment which needs to be removed and reattached



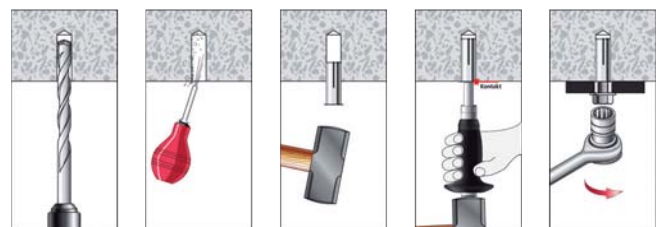
Article No.	Article Description	QTY
8209 2 6	DROP-IN ANCHOR R-DCA-M 6 GV	100
8209 2 8	DROP-IN ANCHOR R-DCA-M 8 GV	100
8209 2 10	DROP-IN ANCHOR R-DCA-M10 GV	50
8209 2 12	DROP-IN ANCHOR R-DCA-M12 GV	50
8209 2 16	DROP-IN ANCHOR R-DCA-M16 GV	25
8209 2 20	DROP-IN ANCHOR R-DCA-M20 GV	15

### Technical Data

Thread length mm	recomm.max. tightening torque Nm
11	4,5
13	11
15	22
20	38
25	98
35	130

## R-DCA drop-in anchor, A4 stainless steel

- Easy-to-place anchor with ETA approval, option 7 for concrete without cracks and part 6 for cracked concrete
- A4 stainless-steel internally threaded expansion anchor for mounting threaded rods or bolts
- Fire resistance class F120
- Quick mounting due the special cone geometry
- Attachment using hammer and setting tool
- Extra shallow setting depth for M6 × 25
- Special red plastic disc stabilises the cone during transport
- Ideal for the secure attachment of mechanical components, cable troughs, electrical platforms, drain covers, suspended ceilings, etc.
- Securing of equipment which needs to be removed and reattached



Article No.	Article Description	QTY
8209 3 6	DROP-IN ANCHOR R-DCA-M 6 A4	100
8209 3 8	DROP-IN ANCHOR R-DCA-M 8 A4	100
8209 3 10	DROP-IN ANCHOR R-DCA-M10 A4	50
8209 3 12	DROP-IN ANCHOR R-DCA-M12 A4	50
8209 3 16	DROP-IN ANCHOR R-DCA-M16 A4	25

### Technical Data

Thread length mm	Recomm.max tightening torque Nm
11	4,5
13	11
15	22
20	38
25	98



# Wedge Anchor M2-U, Galvanized Steel

- Wedge anchor M2-U with ETA approval, option 7 appropriate for time-saving push-through assembly in non-cracked concrete, heavy-duty type
- With extra large washer, DIN 9021 especially for woodwork
- Cost-efficient push-through assembly to fix metal constructions, metal profiles, base plates, consoles, handrails, facades, windows, fences, piping, machines, wooden constructions, beams, purlins, supports
- Concrete quality: C20/25 - C50/60



Mounting:



Article No.	Article Description	QTY
8165 1 12 90	WEDGE ANCHOR M2-U GAL 12/ 90	25
8165 1 12 105	WEDGE ANCHOR M2-U GAL 12/105	25
8165 1 12 125	WEDGE ANCHOR M2-U GAL 12/125	20
8165 1 12 145	WEDGE ANCHOR M2-U GAL 12/145	20
8165 1 12 165	WEDGE ANCHOR M2-U GAL 12/165	20
8165 1 12 205	WEDGE ANCHOR M2-U GAL 12/205	15
8165 1 12 265	WEDGE ANCHOR M2-U GAL 12/265	15
8165 1 16 105	WEDGE ANCHOR M2-U GAL 16/105	10
8165 1 16 145	WEDGE ANCHOR M2-U GAL 16/145	10
8165 1 16 185	WEDGE ANCHOR M2-U GAL 16/185	5
8165 1 16 215	WEDGE ANCHOR M2-U GAL 16/215	5

## Technical Data

Drilling Ø mm	Anchor length mm	Minimum drilling hole depth mm
12	185	90
12	200	90
12	220	90
12	240	90
12	260	90
12	300	90
12	360	90
16	220	110
16	260	110
16	300	110
16	330	110

## Data bolt-anchor M2-U, galvanized steel

				M12	M16
Recomm.load concrete <sup>1)</sup>	C20/25	N <sub>Emp</sub>	[kN]	9,9	11,9
Recomm. shear load		V <sub>Emp</sub>	[kN]	8,4	15,7
Recomm. bending torque		M <sub>EMP</sub>	[Nm]	46,8	118,6
Edge clearance nominal		c	[mm]	102	120
Axial spacing nominal		s	[mm]	204	240
Minimum component thickness		h <sub>min</sub>	[mm]	140	160
Effective anchoring depth		h <sub>ef</sub>	[mm]	68	80
Wrench size		sw	[mm]	19	24
Anchoring torque		T <sub>inst</sub>	[Nm]	50	100
Drilled hole depth		h <sub>1</sub>	[mm]	90	110
Drill hole diameter in build.material		d <sub>o</sub>	[mm]	12	16
Hole diameter in the mounted part		d <sub>f</sub>	[mm]	14	18
U-disc		d <sub>μ</sub>	[mm]	37	50
Thread length		l <sub>G</sub>	[mm]	120	120
Outer Ø anchor		d <sub>nom</sub>	[mm]	12	16
Usable mounting length		t <sub>fix</sub>	[mm]	90 105 125 145 165 205 265	105 145 185 215

<sup>1)</sup> Reduced anchoring depth (note reduced loads)



# Bolt anchor R-HPTII, A4 stainless steel

- Bolt anchor R-HPTII with ETA approval, option 1 for concrete with and without cracks
- Approval for use when exposed to fire (R30 – R120)
- Suitable for push-through installation
- Concrete quality: C20/25 – C50/60



## Montage:



## Your Advantage / Benefit

- A4 stainless-steel anchor
- Marking of the setting depths for correct attachment
- Two anchoring depths: Standard and reduced for greater flexibility
- Cold forming of the dowel for permanent dimensional stability and precision
- Optimal conical angle for controlled expansion

## Application

- Supports, steel girders, railing attachments, wall boundaries, curtain façades, balustrades, barriers, handrails, shelves, elevators, bollards, etc.



Article No.	Article Description	QTY
8226 8 0 10	BOLT ANCH.R-HPTII A4 8/ 0- 10	100
8226 8 10 25	BOLT ANCH.R-HPTII A4 8/10- 25	100
8226 8 20 35	BOLT ANCH.R-HPTII A4 8/20- 35	100
8226 8 30 45	BOLT ANCH.R-HPTII A4 8/30- 45	100
8226 8 40 55	BOLT ANCH.R-HPTII A4 8/40- 55	50
8226 8 50 65	BOLT ANCH.R-HPTII A4 8/50- 65	100
8226 10 0 5	BOLT ANCH.R-HPTII A4 10/ 0- 5	50
8226 10 0 20	BOLT ANCH.R-HPTII A4 10/ 0- 20	50
8226 10 15 35	BOLT ANCH.R-HPTII A4 10/15- 35	50
8226 10 35 55	BOLT ANCH.R-HPTII A4 10/35- 55	50
8226 10 50 70	BOLT ANCH.R-HPTII A4 10/50- 70	50
8226 10 60 80	BOLT ANCH.R-HPTII A4 10/60- 80	50
8226 12 0 5	BOLT ANCH.R-HPTII A4 12/ 0- 5	50
8226 12 5 25	BOLT ANCH.R-HPTII A4 12/ 5- 25	50
8226 12 30 50	BOLT ANCH.R-HPTII A4 12/30- 50	50
8226 12 55 75	BOLT ANCH.R-HPTII A4 12/55- 75	50
8226 12 85 105	BOLT ANCH.R-HPTII A4 12/85-105	50
8226 16 5 25	BOLT ANCH.R-HPTII A4 16/ 5- 25	25
8226 16 20 40	BOLT ANCH.R-HPTII A4 16/20- 40	25
8226 16 30 50	BOLT ANCH.R-HPTII A4 16/30- 50	25
8226 16 60 80	BOLT ANCH.R-HPTII A4 16/60- 80	25

## Technical Data

Drill-Ø mm	Anchor length mm	Clamping thickness S mm	Clamping thickness R mm
8	60	0	10
8	75	10	25
8	85	20	35
8	95	30	45
8	105	40	55
8	115	50	65
10	65	0	5
10	80	0	20
10	95	15	35
10	115	35	55
10	130	50	70
10	140	60	80
12	80	0	5
12	100	5	25
12	125	30	50
12	150	55	75
12	180	85	105
16	125	5	25
16	140	20	40
16	150	30	50
16	180	60	80

S = Standard insertion depth / R = Reduced insertion depth

# Screw anchor with pressed-on washer, galvanised

- MMS-plus screw anchor for anchoring in cracked and uncracked concrete
- ETA permit 15/0784, Option 1
- Fire resistance class F120
- Suitable for the installation of sprinkler systems
- **M10 and M12** approved for use under seismic impact C1
- Hexagonal head with pressed-on washer and stamped head
- **Concrete thread:** Reduced core diameter and larger outer diameter for greater effective surface area
- **Functional highlights:** Larger outer diameter and stronger toothing for less wear
- Anchor-less approved fastening in concrete in interior areas
- Installation of railings, metal structures, pipes in the sanitary and ventilation fields, wood structures, beams, stringers, sills, etc.
- Wrench sizes Ø 6.0 = AF 8, Ø 7.5 = AF 10, Ø 10.0 = AF 13, Ø 12.0 = AF 15, Ø 14.0 = AF 21, Ø 16.0 = AF 21



Article No.	Article Description	QTY
8171 60 40	SCREW ANCH. HEX GV 6,0X 40	100
8171 60 50	SCREW ANCH. HEX GV 6,0X 50	100
8171 60 60	SCREW ANCH. HEX GV 6,0X 60	100
8171 60 70	SCREW ANCH. HEX GV 6,0X 70	100
8171 60 80	SCREW ANCH. HEX GV 6,0X 80	50
8171 75 35	SCREW ANCH. HEX GV 7,5X 35	100
8171 75 40	SCREW ANCH. HEX GV 7,5X 40	100
8171 75 50	SCREW ANCH. HEX GV 7,5X 50	50
8171 75 60	SCREW ANCH. HEX GV 7,5X 60	50
8171 75 70	SCREW ANCH. HEX GV 7,5X 70	50
8171 75 80	SCREW ANCH. HEX GV 7,5X 80	50
8171 75 100	SCREW ANCH. HEX GV 7,5X100	50
8171 75 120	SCREW ANCH. HEX GV 7,5X120	50
8171 75 140	SCREW ANCH. HEX GV 7,5X140	50
8171 100 60	SCREW ANCH. HEX GV 10,0X 60	25
8171 100 70	SCREW ANCH. HEX GV 10,0X 70	25
8171 100 80	SCREW ANCH. HEX GV 10,0X 80	25
8171 100 90	SCREW ANCH. HEX GV 10,0X 90	25
8171 100 100	SCREW ANCH. HEX GV 10,0X100	25
8171 100 120	SCREW ANCH. HEX GV 10,0X120	25
8171 100 140	SCREW ANCH. HEX GV 10,0X140	25
8171 100 160	SCREW ANCH. HEX GV 10,0X160	25
8171 120 80	SCREW ANCH. HEX GV 12,0X 80	25
8171 120 90	SCREW ANCH. HEX GV 12,0X 90	25
8171 120 100	SCREW ANCH. HEX GV 12,0X100	25
8171 120 120	SCREW ANCH. HEX GV 12,0X120	25
8171 120 140	SCREW ANCH. HEX GV 12,0X140	25
8171 120 160	SCREW ANCH. HEX GV 12,0X160	25

Technical Data					
Pilot hole Ø mm	Disk Ø mm	Clamping thickness mm	Anchoring depth mm	Larg.perm. tens.load of cracked concr. C 20/25 in kN	Larg.perm. tens.load of un-cracked concr.C 20/25 in kN
5	11	5	35 – 45	0.5 – 0.7	2.0 – 3.0
5	11	5 – 15	35 – 45	0.5 – 0.7	2.0 – 3.0
5	11	15 – 25	35 – 45	0.5 – 0.7	2.0 – 3.0
5	11	25 – 35	35 – 45	0.5 – 0.7	2.0 – 3.0
5	11	35 – 45	35 – 45	0.5 – 0.7	2.0 – 3.0
6	14	1	35 – 55	1.0 – 2.0	2.0 – 4.4
6	14	5	35 – 55	1.0 – 2.0	2.0 – 4.4
6	14	15	35 – 55	1.0 – 2.0	2.0 – 4.4
6	14	5 – 25	35 – 55	1.0 – 2.0	2.0 – 4.4
6	14	15 – 35	35 – 55	1.0 – 2.0	2.0 – 4.4
6	14	25 – 45	35 – 55	1.0 – 2.0	2.0 – 4.4
6	14	45 – 65	35 – 55	1.0 – 2.0	2.0 – 4.4
6	14	65 – 85	35 – 55	1.0 – 2.0	2.0 – 4.4
6	14	85 – 105	35 – 55	1.0 – 2.0	2.0 – 4.4
8	19	10	50 – 65	3.0 – 4.4	5.9 – 7.9
8	19	5 – 20	50 – 65	3.0 – 4.4	5.9 – 7.9
8	19	15 – 30	50 – 65	3.0 – 4.4	5.9 – 7.9
8	19	25 – 40	50 – 65	3.0 – 4.4	5.9 – 7.9
8	19	35 – 50	50 – 65	3.0 – 4.4	5.9 – 7.9
8	19	55 – 70	50 – 65	3.0 – 4.4	5.9 – 7.9
8	19	75 – 90	50 – 65	3.0 – 4.4	5.9 – 7.9
8	19	95 – 110	50 – 65	3.0 – 4.4	5.9 – 7.9
10	22	5	75 – 90	5.9 – 7.9	9.9 – 12.3
10	22	1 – 15	75 – 90	5.9 – 7.9	9.9 – 12.3
10	22	10 – 25	75 – 90	5.9 – 7.9	9.9 – 12.3
10	22	30 – 45	75 – 90	5.9 – 7.9	9.9 – 12.3
10	22	50 – 65	75 – 90	5.9 – 7.9	9.9 – 12.3
10	22	70 – 85	75 – 90	5.9 – 7.9	9.9 – 12.3

## Test sleeve for screw anchor

- Measuring sleeve for checking the thread diameter for multiple use of Multi-Monti plus with Ø 10 – Ø 20 mm

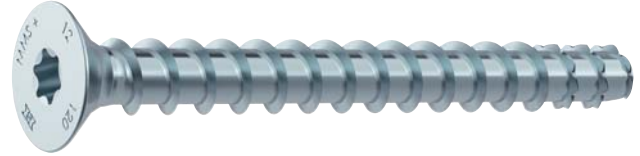
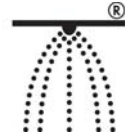


Article No.	Article Description	QTY
8171 10	TEST SLEEVE F.SCREW ANCHOR 10	1
8171 12	TEST SLEEVE F.SCREW ANCHOR 12	1
8171 16	TEST SLEEVE F.SCREW ANCHOR 16	1
8171 20	TEST SLEEVE F.SCREW ANCHOR 20	1

Technical Data	
Sleeve Ø mm	Sleeve length in mm
9.5	24
11.5	32
15.5	36
19.5	58

# Countersunk head scr.anch. galvanised

- MMS plus screw anchor for anchoring in cracked and uncracked concrete
- ETA permit 15/0784, Option 1
- Fire resistance class F120
- Suitable for the installation of sprinkler systems
- **M10 and M12** approved for use under seismic impact C1
- **Concrete thread:** Reduced core diameter and larger outer diameter for greater effective surface area
- **Functional highlights:** Larger outer diameter and stronger toothing for less wear
- Anchor-less approved fastening in concrete in interior areas
- Flat, countersunk head, 90°, for flush mounting, e.g. hand rails, railings, metal structures, fire protection panels, wood structures, etc.
- Drive: Ø 6.0 mm TX 30
- Drive: Ø 7.5 mm TX 40
- Drive: Ø 10.0 mm TX 45
- Drive: Ø 12.0 mm TX 50



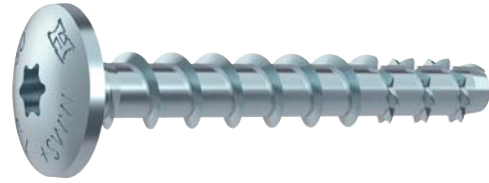
## Technical Data

Article No.	Article Description	QTY
8171 6 60 40	COUNTERS.HEAD SCR GV 6,0X 40	100
8171 6 60 50	COUNTERS.HEAD SCR GV 6,0X 50	100
8171 6 60 60	COUNTERS.HEAD SCR GV 6,0X 60	100
8171 6 60 70	COUNTERS.HEAD SCR GV 6,0X 70	100
8171 6 60 80	COUNTERS.HEAD SCR GV 6,0X 80	50
8171 6 60 100	COUNTERS.HEAD SCR GV 6,0X100	50
8171 6 60 120	COUNTERS.HEAD SCR GV 6,0X120	50
8171 6 60 140	COUNTERS.HEAD SCR GV 6,0X140	50
8171 6 75 45	COUNTERS.HEAD SCR GV 7,5X 45	100
8171 6 75 50	COUNTERS.HEAD SCR GV 7,5X 50	100
8171 6 75 60	COUNTERS.HEAD SCR GV 7,5X 60	50
8171 6 75 70	COUNTERS.HEAD SCR GV 7,5X 70	50
8171 6 75 80	COUNTERS.HEAD SCR GV 7,5X 80	50
8171 6 75 100	COUNTERS.HEAD SCR GV 7,5X100	50
8171 6 75 120	COUNTERS.HEAD SCR GV 7,5X120	50
8171 6 75 140	COUNTERS.HEAD SCR GV 7,5X140	50
8171 6 75 160	COUNTERS.HEAD SCR GV 7,5X160	50
8171 6 100 60	COUNTERS.HEAD SCR GV 10,0X 60	25
8171 6 100 70	COUNTERS.HEAD SCR GV 10,0X 70	25
8171 6 100 80	COUNTERS.HEAD SCR GV 10,0X 80	25
8171 6 120 90	COUNTERS.HEAD SCR GV 12,0X 90	25
8171 6 120 100	COUNTERS.HEAD SCR GV 12,0X100	25
8171 6 120 120	COUNTERS.HEAD SCR GV 12,0X120	25

Drill- Ø mm	Head - Ø mm	Clam- ping- thick- ness mm	Ancho- ring depth mm	Larg.perm. tens.load in cracked concrete C 20/25 in kN	Larg.perm. tens.load in uncracked concrete C 20/25 in kN
5	11,5	5	35 - 45	0,5 - 0,7	2,0 - 3,0
5	11,5	5 - 15	35 - 45	0,5 - 0,7	2,0 - 3,0
5	11,5	15 - 25	35 - 45	0,5 - 0,7	2,0 - 3,0
5	11,5	25 - 35	35 - 45	0,5 - 0,7	2,0 - 3,0
5	11,5	35 - 45	35 - 45	0,5 - 0,7	2,0 - 3,0
5	11,5	55 - 65	35 - 45	0,5 - 0,7	2,0 - 3,0
5	11,5	75 - 85	35 - 45	0,5 - 0,7	2,0 - 3,0
5	11,5	95 - 100	35 - 45	0,5 - 0,7	2,0 - 3,0
6	15,5	10	35 - 55	1,0 - 2,0	2,0 - 4,4
6	15,5	15	35 - 55	1,0 - 2,0	2,0 - 4,4
6	15,5	5 - 25	35 - 55	1,0 - 2,0	2,0 - 4,4
6	15,5	15 - 35	35 - 55	1,0 - 2,0	2,0 - 4,4
6	15,5	25 - 45	35 - 55	1,0 - 2,0	2,0 - 4,4
6	15,5	45 - 65	35 - 55	1,0 - 2,0	2,0 - 4,4
6	15,5	65 - 85	35 - 55	1,0 - 2,0	2,0 - 4,4
6	15,5	85 - 105	35 - 55	1,0 - 2,0	2,0 - 4,4
6	15,5	105 - 125	35 - 55	1,0 - 2,0	2,0 - 4,4
8	19,5	10	50 - 65	3,0 - 4,4	5,9 - 7,9
8	19,5	5 - 20	50 - 65	3,0 - 4,4	5,9 - 7,9
8	19,5	15 - 30	50 - 65	3,0 - 4,4	5,9 - 7,9
10	24,0	5 - 15	75 - 90	5,9 - 7,9	9,9 - 12,3
10	24,0	10 - 25	75 - 90	5,9 - 7,9	9,9 - 12,3
10	24,0	30 - 45	75 - 90	5,9 - 7,9	9,9 - 12,3

# Rail anchor with flat round head, galvanised

- MMS-plus screw anchor for anchoring in cracked and uncracked concrete
- ETA permit 15/0784, Option 1
- Fire resistance class F120
- Suitable for the installation of sprinkler systems
- **Concrete thread:** Reduced core diameter and larger outer diameter for greater effective surface area
- **Functional highlights:** Larger outer diameter and stronger toothing for less wear
- Anchor-less approved fastening in concrete in interior areas
- Installation of railings, metal structures, pipes in the sanitary and ventilation fields



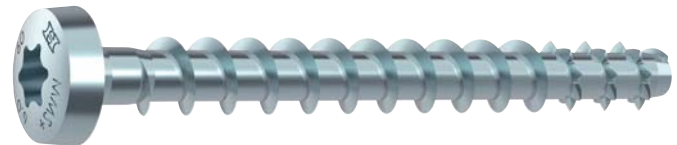
## Technical Data

Article No.	Article Description	QTY
8171 2 75 35	RAIL ANCHOR RH GV 7.5X 35	100
8171 2 75 40	RAIL ANCHOR RH GV 7.5X 40	100
8171 2 75 45	RAIL ANCHOR RH GV 7.5X 45	100
8171 2 75 50	RAIL ANCHOR RH GV 7.5X 50	100

Drill- Ø mm	Head- Ø mm	Clamping- thickness mm	Anchoring depth mm	Larg.perm. tens. load of cracked concrete C 20/25 in kN	Larg.perm. tens.load of uncracked concrete C 20/25 in kN
6	17	1	35	1,0	2,0
6	17	5	35	1,0	2,0
6	17	10	35	1,0	2,0
6	17	15	35	1,0	2,0

# Screw anchor with pan head round head, galvanised

- MMS-plus screw anchor for anchoring in cracked and uncracked concrete
- ETA permi 15/0784, Option 1
- Fire resistance class F120
- Suitable for the installation of sprinkler systems
- Anchor-less approved fastening in concrete in interior areas
- **Drive: TX-30**



## Technical Data

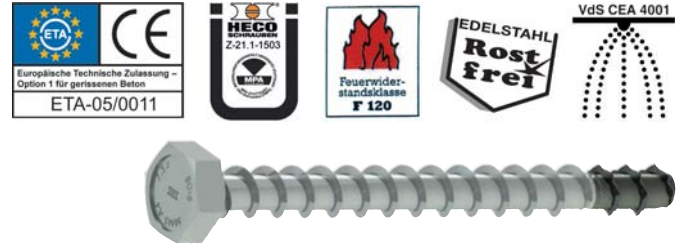
Article No.	Article Description	QTY
8171 4 75 50	RAIL ANCH.PANHEAD GV 7.5X 50	100
8171 4 75 60	RAIL ANCH.PANHEAD GV 7.5X 60	50

Drill- Ø mm	Head- Ø mm	Clamping thickness mm	Anchoring- depth mm	Larg.perm. tens. load in cracked concrete C 20/25 in kN	Larg.perm. tens. load in uncracked concrete C 20/25 in kN
6	14,5	15	35	1,0	2,0
6	14,5	5 – 25	35 – 55	1,0 – 2,0	2,0 – 4,4



## Screw Anchor, Stainless Steel A4

- ETA approval ETA 05/0011 for anchoring in cracked and uncracked concrete
- approved for fastening in concrete without dowels
- for installing railings, metal structures, piping and ventilation in sanitary and HVAC, wooden constructions, beams, purlins, sills, etc
- width across flats: Ø 7,5 = WAF 13, Ø 10,0 = WAF 16, Ø 12,0 = WAF 18
- high pull-out values at low setting depths



Article No..	Article Description	QTY
8170 1 75 65	HEX. SCREW ANCH. A4 7.5X50/ 65	50
8170 1 75 75	HEX. SCREW ANCH. A4 7.5X60/ 75	50
8170 1 100 85	HEX. SCREW ANCH. A4 10.0X70/85	25
8170 1 100 95	HEX. SCREW ANCH. A4 10.0X95	25
8170 1 120 100	HEX. SCR. ANCH. A4 12.0X100/120	25
8170 1 120 120	HEX. SCREW ANCH. A4 12.0X120	25

Technical Data		*Recommended loads in kN		
Drill- Ø	Anchor depth	Clamp.- thickn.	Tensile load in crack.concr. C20/25	Tensile load in uncr.concr. C20/25
mm	mm	mm		
6	40	10	0,5 <sup>1</sup>	2,0 <sup>1</sup>
6	65	10	1,8	2,6
8	75	10	3,7	4,9
8	75	20	3,7	4,9
10	90	10	4,9	6,5
10	90	30	4,9	6,5

<sup>1</sup> according to DIBT approval Z-21.1-1697

\* not part of the ETA-approval

## Screw anchors, countersunk head, stainl.steel A5

- With ETA approval 05 / 0011 for attachment in cracked and non-cracked concrete
- Stainless steel A5, Material No. 1.4571, functional nibs phosphated
- 90° flat countersunk head for flush mounting of, e.g., handrails, guardrails, metal structures, etc., in wet rooms or outside



Article No.	Article Description	QTY
8170 7 75 75	SCR.ANCH.CH TX30 A5 7.5X75/ 10	50
8170 7 75 85	SCR.ANCH.CH TX30 A5 7.5X85/ 20	50
8170 7 75 95	SCR.ANCH.CH TX30 A5 7.5X95/ 30	50
8170 7 75 115	SCR.ANCH.CH TX30 A5 7.5X115/50	50

Technical Data		*Recommended loads in kN		
Pilot hole- Ø mm	Anch. depth mm	Clamp. thickn. mm	Tensile load in cracked concr. C20/25	Tensile load in ncrack.concr. C20/25
6	65	10	1.8	2.6
6	65	20	1.8	2.6
6	65	30	1.8	2.6
6	65	50	1.8	2.6



# Injection Mortar FIT Z-B SF

- Styrene-free injection mortar with ETA-approval Option 7 for non-cracked concrete
- Licensed in connection with threaded rods, zinc-plated from class 5.8 as well as threaded rods made of stainless steel A4 M8-M24 or composite anchor rods AGR 8161/ 8162
- Tested for interior and exterior use
- Side by Side cartridge with a contents of 345 ml
- Styrene-free vinyl premium resin, odor-free
- Suitable for dry and wet concrete
- Minimum axial and edge distances at highest loads up to 367 kN



8150 345 5

8150 300 5

## Technical Data

Ambient temperature	Processing time	Cure time for dry concrete	Cure time for wet concrete
≥ -10 °C	90 min	24 hrs	48 hrs
≥ -5 °C	90 min	14 hrs	48 hrs
≥ 0 °C	45 min	7 hrs	14 hrs
≥ +5 °C	25 min	2 hrs	4 hrs
≥ +10 °C	15 min	80 min	160 min
≥ +20 °C	6 min	45 min	90 min
≥ +30 °C	4 min	25 min	50 min
≥ +35 °C	2 min	20 min	40 min
≥ +40 °C	1.5 min	15 min	30 min

Article No.	Article Description	QTY
<b>8150 345 5</b>	INJECTION MORTAR FIT Z-B 345SF	e 12
<b>8150P 345 5</b>	HP(20)INJECT.MORTAR Z-B 345SF	1
<b>8150 300 5</b>	INJECT.MORT.FIT EASY Z-B 300SF	e 12
<b>8150P 300 5</b>	HP(20)INJ.MO.FIT EASY Z-B300SF	1

\*not part of the ETA approval 13/0912

# Lightweight Concrete Anchor

- For expansion-free fixtures in lightweight concrete and gypsum
- 100% nylon – rot-proof, high pull-out values
- Screws with metric or wooden thread can be screwed in
- Including appropriate screwing-in tool of HP



Article No.	Dimension		Article No.	Qty
8130 6	6 X 50	H	8130P 6	200
8130 8	8 X 60	f	8130P 8	120
8130 10	10 X 70	b	8130P 10	70

Technical Data						*Recommended loads in kN	
Drilling Ø mm							
Item No	Lightweight concrete	Air concrete	Hexagon drive AF	Screw Ø wood	Screw Ø M	Lightweight concrete P1-P2*	Lightweight concrete P3-P4*
8130 6	10	8	10	5,0 - 6,0	6	1,1	2,6
8130 8	12	10	12	7,0 - 8,0	8	1,7	3,8
8130 10	14	12	14	9,0 - 10,0	10	2,3	5,5

# Lightweight Concrete Dowel Pin

- special anchors with excellent holding values in aerated concrete
- suitable for fixations in aerated concrete using wood screws
- after inserting the screw, the spreading is optimally transmitted over three edges due to the dowel pin forming a kind of undercut

## Installation tip

- in aerated concrete P4 all lightweight concrete dowel pins can also be hammered into a smaller size borehole
- in aerated concrete P2 the dowel pins can be driven by impact without hammer pre-drilling
- the screw length is calculated from the thickness of the fixture +dowel pin length + 10 mm

## Suitable materials:

- aerated concrete
- gypsum wallboards

Article No.	Article Description	QTY
8130 1 10	AAC DOWEL PIN GB 10X55	25
8130 1 12	AAC DOWEL PIN GB 12X60	20
8130 1 14	AAC DOWEL PIN GB 14X75	10



8130 1 10

8130 1 12

8130 1 14

Technical Data						
Art.-No.	Drill-Ø mm	Depth of drill hole mm	Anchorage depth mm	Screw-Ø mm	Lightweight concrete P2	Lightweight concrete P4
8130 1 10	10	65	55	4,5 - 6	1.5	3.3
8130 1 12	12	70	60	7 - 8	2.0	4.0
8130 1 14	14	90	75	10	3.0	6.7

# Cellular Concrete Screw

- Galvanised steel
- Quick and secure assembly with or without pre-drilling
- High service loads
- Force transfer via the undercut in the surface
- Material:
- With hexagonal head and force-locked washer
- With sunken head and multi-gear drive

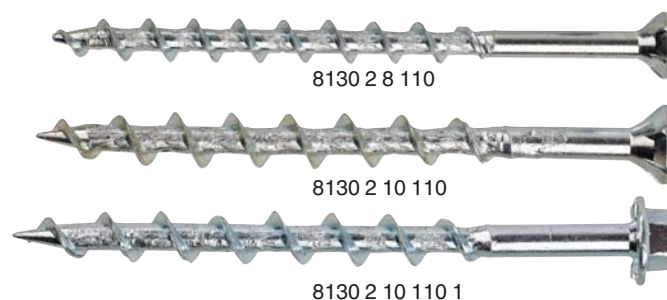
## Direct assembly:

- During direct assembly, the screw is inserted via the fixture

## Assembly with pre-drilling:

- Drill the hole
- Insert screw (without percussion)
- The head of the screw must be in full contact with the fixture

Article No.	Article Description	QTY
8130 2 8 110	CELL.CONCR.SCREW GV 8X110	100
8130 2 10 110	CELL.CONCR.SCREW GV 10X110	100
8130 2 10 110 1	CELL.CONCR.HEX SCREW GV 10X110	100



## Technical Data

Drill-Ø mm	Drill hole- depth mm	Anchoring- depth mm	Offset torque in Nm
0/4	40	80	8
0/4	50	100	10 – 12
0/4	50	100	10 – 12

## Welding Rod Autogenic G I

- Welding rod for joint-welding of sheets and pipes
- Coppered, light-bodied welding
- Rod length: 1000 mm

### Fields of application:

- Exhaust pipes, railings, steel frames etc.
- EN 12536: O I, DIN 8554: G I
- W-No. 1.0324, AWS A5.2: R45-G
- Tensile strength: 340-380 N/mm<sup>2</sup>

### Technical Data

#### Standards:

DIN EN 12536 :	OI
DIN 8554 :	Gi
AWS A 5.2:	R45-G
W-no.:	1.0324

#### Mechanical properties:

Yield strength $R_{p0.2}$ :	>260 MPa
Tensile strength $R_m$ :	≥380 MPa
Elongation at break, $A_5$ :	>20%
Impact strength, $A_v$ :	>30 J (20°C)



Article No.	Article Description	QTY
5455 10	KG-WELDING ROD G-1 1.0MM	e 5
5455 15	KG-WELDING ROD G-1 1.5MM	e 5
5455 20	KG-WELDING ROD G-1 2.0MM	5
5455 30	KG-WELDING ROD G-1 3.0MM	e 5
5455 40	KG-WELDING ROD G-1 4.0MM	5

## Welding Rod Autogenic G III

- Welding rod for joint-welding with high demands
- Recommended for seal welding
- Coppered, heavy-bodied welding
- Rod length: 1000 mm

### Fields of application:

- Container and pipeline construction
- EN 12536: O III, DIN 8554: G III
- W-No. 1.6215, AWS A5.2: R60
- Tensile strength: 400-450 N/mm<sup>2</sup>

### Technical Data

#### Standards:

DIN EN 12536 :	OIII
DIN 8554 :	GIII
AWS A 5.2:	R60
W-no.:	1.6215
Approvals:	TÜV, DB

#### Mechanical properties:

Yield strength $R_{p0.2}$ :	>310 MPa
Tensile strength $R_m$ :	≥400 MPa
Elongation at break, $A_5$ :	≥22%
Impact strength, $A_v$ :	>50 J (20°C)



Article No.	Article Description	QTY
5455 20 6	KG-WELDING ROD G-3 2.0MM	5
5455 24 6	KG-WELDING ROD G-3 2.4MM	5
5455 30 6	KG-WELDING ROD G-3 3.0MM	5

## Fitting Solder No.3

- 97/3 L-SN Cu 3
- 97 % tin, 3 % copper according to DIN EN 29453
- Monitored with the RAL quality sign of the German Quality Association for copper pipe (Gütegemeinschaft Kupferrohr) Lead-free – for all cold and hot water installations of copper pipes as drinking water and heating pipes
- Coil Ø 44 mm

Article No.	Article Description	QTY
8696 27	FITTING SOLDER NO 3 2.7MM 250G	z 50



## Fitting Solder Paste

- Lot L-Sn 97 Cu 3 DIN 1707 / DIN EN 29453 (part 60 weight %)
- Flux agents / DIN 8511 F-SW 21 DIN EN 29454 3.1.1.C
- DVGW tested DVGW FI 058 GW7 – for the cold and hot water installation of copper pipes as drinking water and heating pipes
- Monitored with the RAL quality sign of the German Quality Association for copper pipe (Gütegemeinschaft Kupferrohr)e.V., RAL-RG 641/3
- Flux agent residues are soluble in cold and hot water

Article No.	Article Description	QTY
8696 250	FITTING SOLDER PASTE 250G	e 12

### Scope of delivery:

- 1x brush holder
- 1x brush



## Cleaning Fleece

- Nylon fiber with silicon carbide mit - grain 320
- For trouble-free cleaning of pipe ends
- Free from metal
- Solvent-resistant
- Can be used several times
- Kind of container: 10 pieces in a plastic bag
- Dimensions WxL: 60 x 130 mm

Article No.	Article Description	QTY
8694 60 130	BAG(10) CLEANING FLEECE 60X130	1





# Soldering Gun Powerjet

- The professional and light-weighted soldering lamp for hard-, soft soldering and warming up works
- For the usage with gas cartridges for Powerjet
- Stepless gas regulation
- With piezo ignition
- Can be also used in combination with Sievert Powergas

## Technical Data

<b>Working pressure:</b>	2 bar
<b>Torch diameter:</b>	14 mm
<b>Weight:</b>	1,005 g



Article No.	Article Description	QTY
5483 7	POWERJET F.GAS CARTRIDGE 2205	1

## Contents:

- 1x PowerJet Ultra burner head
- 1x Art.-No. 5483 7 1: PowerJet cyclone burner
- 1x Art.-No. 5483 7 210: gas cartridge Ultragas

# Cyclone Torch for Powerjet

- For hard and soft soldering
- Powerful whirling flame enables the pipe to be evenly warmed by soldering
- Quick and effective heating of the pipe is guaranteed

## Technical Data

<b>Burner Ø:</b>	14 mm
<b>Gas consumption at 2 bar:</b>	170 g/h
<b>Power:</b>	2.2 kW
<b>Soft soldering at 2 bar:</b>	Ø 40 mm
<b>Hard soldering at 2 bar:</b>	Ø 18 mm



Article No.	Article Description	QTY
5483 7 1	CYCLONE TORCH FOR POWERJET	1

# Heat-Shrink Burner for Powerjet

- Wind-resistant torch
- Special shrinking torch for small shrinking hoses
- Can also be used as soft soldering torch

## Technical Data

<b>Burner Ø:</b>	24 mm
<b>Gas consumption at 2 bar:</b>	230 g/h
<b>Power:</b>	Ø 3.5 kW
<b>Soft soldering at 2 bar:</b>	Ø 22 mm



Article No.	Article Description	QTY
5483 7 2	HEAT-SHRINK BURNER F.POWERJET	1

# Disposable Gas Cartridge for Powerjet

- Flame temperature approx. 2100°C
- Disposable gas cartridge with self-closing vent
- Powerful gas mixture of propane, propene, butane and acetone
- Flame is quiet and does not flicker, highly stable

Technical Data	
Weight:	337 g
Contents:	210 g
Contents:	380 ml

Article No.	Article Description	QTY
5483 7 210	GAS CARTRIDGE F.POWERJET 210G	e 20



## Cartridge Welding Iron with Piezo Ignition

- Integrated piezo ignition
- Highly mobile due to use of cartridges
- Ergonomically shaped handle
- Particularly wind-resistant due to special design of the torch and housing
- Low weight due to use of titanium and aluminium and therefore reduced signs of fatigue
- No flicker effect - possible to use the soldering iron in all positions (360°)
- Supplied without copper piece and cartridge



Article No.	Article Description	QTY
5483 6	CARTR.WELD.IRON (NO COP.PIECE)	1

## Copper for Cartridge Welding Iron

### Technical Data

Art.-No.:	5483 6 250	5483 6 250 1
Copper piece.:	conical	hammer shape
Weight:	250 g	250 g

Article No.	Article Description	QTY
5483 6 250	POINTED COPPER PIECE 250G	1
5483 6 250 1	HAMMER SHAP.COPPER PIECE 250G	1



## Gas Cartridges for Cartridge Welding Iron

- Special gas mixture consisting of propane, butane, acetone and propene
- Flame temperature approx. 2100°C

### Technical Data

Connection:	EU
Weight:	110 g
Contents:	60 g
Contents:	210 ml

Article No.	Article Description	QTY
5483 6 60	GAS CARTR.F.CARTR.WELD.IRON60G	e 12



## Soft Soldering Set Titanium with Copper Piece

- Complete set incl. soldering iron, bent and hammer-shaped copper piece 350 g, pressure regulator, gas bottle and high pressure hose
- **Warning! Gas bottle is delivered empty**

### Technical Data

Hose length:	2 m
Connection:	3/8" li
Weight:	2.400 g

Article No.	Article Description	QTY
5483 5 8	SOFT SOLD.SET HAMMER SHAPE350G	1



## Soft Soldering Set Titanium w.Conical Copper Piece

- Complete set incl. soldering iron, bent and conical copper piece 350 g, pressure regulator, gas bottle and high pressure hose
- **Warning! Gas bottle is delivered empty**

### Technical Data

Hose length:	2 m
Connection:	3/8" le
Weight:	2.400 g

Article No.	Article Description	QTY
5483 5 9	SOFT SOLD.SET POINT. SHAPE350G	1



## Cartridge Soldering Iron Set

### Technical Data

Gas consumption at 2 bar:	75 g/h
Power, kW:	945 W
Length:	230 mm
Handle Ø:	50 mm
Weight:	810 g

Article No.	Article Description	QTY
5483 6 1	CARTRIDGE SOLDERING IRON SET	1

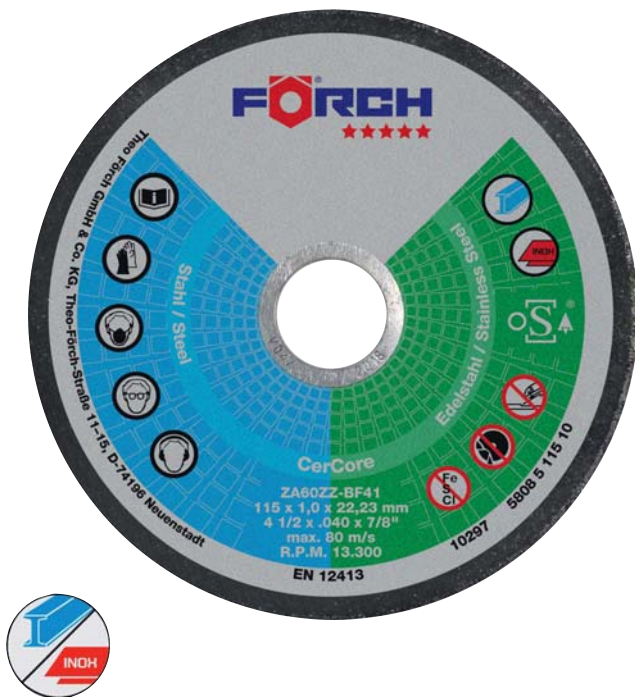
### Contents:

- 1x Art.-No. 5483 6: Cartridge soldering iron
- 1x Metal transport case
- 2x Art.-No. 5483 6 60: Gas cartridges
- 1x Art.-No. 5483 5483 6 250 1: Copper piece (250 g)
- 2x Replacement gas nozzles



# Cutting Disc steel/Inox CERCORE **FÖRCH**\*\*\*\*\*

- Fe-, S-, Cl-free(≤0,1 %)
- Meets the safety requirements according to EN 12413, ANSI B.7.1, BGV D12 + OSA



## Your Advantage / Benefit

- Synthetic resin/ceramic bonded, glass fibre reinforced high-performance disc with highest cutting performance and service life
- Virtually no burrs after cutting profiles, tubes and sheets
- Precise, safe and dimensionally accurate work thanks to high lateral stability
- Stable, crimped design with dimensions 115/125 x 0.8 mm and 230 x 1.9 mm

## Application

- Especially suited for the cutting of stainless steel through ceramic bond
- Ideal for machining sheets and profiles up to 10 mm thickness
- Circumferential speed max. 80 m/s



Article No.	Article Description	QTY
5808 5 115 08 1	CUTT.DI.ST/SS CERCORE115/08 5*	g 50
5808 5 115 10 1	CUTT.DI.ST/SS CERCORE115/10 5*	g 50
5808 5 115 16 1	CUTT.DI.ST/SS CERCORE115/16 5*	g 50
5808 5 115 25 1	CUTT.DI.ST/SS CERCORE115/25 5*	g 50
5808 5 125 08 1	CUTT.DI.ST/SS CERCORE125/08 5*	g 50
5808 5 125 10 1	CUTT.DI.ST/SS CERCORE125/10 5*	g 50
5808 5 125 16 1	CUTT.DI.ST/SS CERCORE125/16 5*	g 50
5808 5 125 25 1	CUTT.DI.ST/SS CERCORE125/25 5*	g 50
5808 5 150 16 1	CUTT.DI.ST/SS CERCORE150/16 5*	25
5808 5 150 19 1	CUTT.DI.ST/SS CERCORE150/19 5*	25
5808 5 178 16 1	CUTT.DI.ST/SS CERCORE178/16 5*	25
5808 5 178 25 1	CUTT.DI.ST/SS CERCORE178/25 5*	25
5808 5 230 19 1	CUTT.DI.ST/SS CERCORE230/19 5*	25
5808 5 230 25 1	CUTT.DI.ST/SS CERCORE230/25 5*	25

## Related Products

- Angle Grinder D28135  
Art. No 5326 125 2



- Ear defenders  
Art. No 5402 8



- Fine Dust Mask  
Art. No 5403 4000





# Professional Cutting Disc - Steel

- Resin-bonded, fibre reinforced high-performance cutting disc
- Fe, S, Cl free ( $\leq 0.1\%$ )
- Complies with the safety requirements EN 12413, ANSI B.7.1, BGVD12 + 05A
- Max. circumferential speed 80 m/s

Article No.	Article Description	QTY
5809 50 12	PROF.CUTTING DISC 50X1.0/6	g 50
5809 50 20	PROF.CUTTING DISC 50X2.0/6	g 50
5809 70 20	PROF.CUTTING DISC 70X2.0/10	g 50
5809 75 10	PROF.CUTTING DISC 75X1.0/6	g 50
5809 75 10 10	PROF.CUTTING DISC 75X1.0/10	g 50
5809 75 15 10	PROF.CUTTING DISC 75X1.5/10	g 50
5809 75 20 10	PROF.CUTTING DISC 75X2.0/10	g 50
5809 75 30 10	PROF.CUTTING DISC 75X3.0/10	g 50
5809 115 075	CUTTING DISC DEPR.115X0.75	g 50
5809 115 10	PROF.CUTTING DISC 115X1.0	g 50
5809 115 16	PROF.CUTTING DISC 115X1.6	g 50
5809 115 25	PROF.CUTT.DISC DEPR.115X2.5	g 50
5809 125 075	CUTTING DISC DEPR.125X0.75	g 50
5809 125 10	PROF.CUTTING DISC 125X1.0	g 50
5809 125 16	PROF.CUTTING DISC 125X1.6	g 50
5809 125 25	PROF.CUTT.DISC DEPR.125X2.5	g 50
5809 150 30	PROF.CUTTING DISC 150X3.0	25
5809 178 20	PROF.CUTTING DISC 178X2.0	25
5809 178 30	PROF.CUTTING DISC 178X3.0	25
5809 230 20	PROF.CUTTING DISC 230X2.0	25
5809 230 30	PROF.CUTTING DISC 230X3.0	25
5809 230 30 1	PROF.CUTT.DISC DEPR.230X3.0	25

(DEPR. = depr. / outside-Ø x strength x inside-Ø)



# Grinding Discs Steel/Inox FORCH\*\*\*\*\*

- Resin-bonded, fiber-reinforced high-performance grinding disc
- For professional use with maximum requirements
- Very good grinding performance
- Outstanding tool life
- Increased use of material due to extra thick design, 7mm height
- P 30 premium corundum grain
- free of Fe+Si+Ci (<0,1 %)
- Max. circumferential speed 80 m/s
- Recommended use with high-performance grinder, power rating: 1,000 W

## Applications:

- Grinding edges and surfaces
- Work on weld seams, beveling, fillet weld grinding
- Rough grinding on metal surfaces

Article No.	Article Description	QTY
5814 5 115 70	GRIND.DISC STE/INOX 115X7.0 5*	10
5814 5 125 70	GRIND.DISC STE/INOX 125X7.0 5*	10
5814 5 178 80	GRIND.DISC STE/INOX 178X8.0 5*	10
5814 5 230 80	GRIND.DISC STE/INOX 230X8.0 5*	10



## Professional Grinding Disc - Metal

- Extremely long service life due to high temperature of corundum
- Maximum peripheral speed 80m/s

Article No.	Article Description	QTY
5809 50 60	GRIND.DISC PROF.MET. 50X6.0/6	10
5809 70 60	GRIND.DISC PROF. 70X6.0/10	10
5809 115 60	GRIND.DISC.PRO.MET.DEPR.115X6.0	10
5809 125 60	GRIND.DISC.PRO.MET.DEPR.125X6.0	10
5809 150 60	GRINDING DISC PROF.MET.150X6.0	10
5809 178 80	GRIND.DISC.PRO.MET.DEPR.178X8.0	10
5809 230 80	GRIND.DISC.PRO.MET.DEPR.230X8.0	10

(DEPR. = depressed / outside-Ø x strength mm)



## Professional Grinding Disc - Stainless Steel

- Depressed grinding disc
- Maximum peripheral speed 80m/s
- Fe-, S-, Cl-free

Article No.	Article Description	QTY
5802 115 60	GRIN.DIS.PRO.INOX DEPR.115X6.0	10
5802 125 60	GRIN.DIS.PRO.INOX DEPR.125X6.0	10

(DEPR. = depressed / outside-Ø x strength mm)



## Professional Cutting Disc - Aluminium

- For all lubricating non-ferrous metals e.g. aluminium, aluminium alloy etc...
- Maximum peripheral speed 80 m/s
- Fe-, S-, Cl-free

Article No.	Article Description	QTY
5803 115 12	PROF.CUTTING DISC ALU 115X1.2	25
5803 115 16	PROF.CUTTING DISC ALU 115X1.6	25
5803 125 12	PROF.CUTTING DISC ALU 125X1.2	25
5803 125 16	PROF.CUTTING DISC ALU 125X1.6	25
5803 125 30	PROF.CUT.DISC ALU DEPR.125X3.0	25
5803 230 30	PROF.CUTTING DISC ALU 230X3.0	25

(DEPR. = depressed / outside-Ø x strength mm)



## Professional Cutting Disc - Stone

- Fast, long-lasting, highly resilient
- Maximum peripheral speed 80m/s

Article No.	Article Description	QTY
5810 115 30	PRO.CUT.DIS.STONE DEPR.115X3.0	25
5810 125 30	PRO.CUT.DIS.STONE DEPR.125X3.0	25
5810 230 30	PROF.CUTT.DISC STONE 230X3.0	25

(DEPR. = depressed / outside-Ø x strength mm)



## Two in One - Cutting/Grinding Disc - Steel/INOX

- Cutting and light grinding work in one work step
- Fast cutting thanks to minimised disc thickness of 1.9 mm
- Excellent cutting speed thanks to aggressive grinding medium
- Excellent abrasion thanks to high side stability
- Saves time thanks to minimised tooling effort
- Cutting/grinding disc corresponds to the specifications of EN 12413: 2007
- Fe, S, Cl-free ( $\leq 0.1\%$ )
- Max. circumferential speed 80 m/s

Article No.	Article Description	QTY
5811 125 19	CUT.+GRIND. DISC 2IN1 125X1.9	25

(Outside Ø x thickness mm)

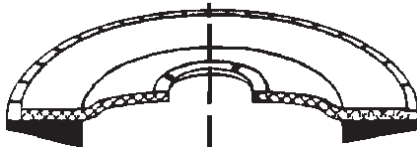




# Lamellar Discs Efficient, Inclined **FORCH**\*\*\*\*\*

High performance serrated washer with innovative support plate and optimised abrasive for long-lasting, quick and efficient grinding

- Type of grit: Zirconium corundum
- Bond: Synthetic resin
- **Total removal rate:**
  - Steel: 4600 g
  - Stainless steel: 2300 g
- Recommended minimum power consumption: 1100W



Article No.	Article Description	QTY
5949 5 115 40	LAM. D. EFFICIENT 115 P40 5*	10
5949 5 115 60	LAM. D. EFFICIENT 115 P60 5*	10
5949 5 115 80	LAM. D. EFFICIENT 115 P80 5*	10
5949 5 115 120	LAM. D. EFFICIENT 115 P120 5*	10
5949 5 125 40	LAM. D. EFFICIENT 125 P40 5*	10
5949 5 125 60	LAM. D. EFFICIENT 125 P60 5*	10
5949 5 125 80	LAM. D. EFFICIENT 125 P80 5*	10
5949 5 125 120	LAM. D. EFFICIENT 125 P120 5*	10

(Ø mm/S = incline/P = grit)

## Your Advantage / Benefit

- for cooler cutting and greater removal due to consistent grinding aggressiveness until the last abrasive grit thanks to the new abrasive formulation
- high efficiency due to plastic support plates that can be cut and trimmed

## Application

- grinding and deburring of edges and surfaces
- removal and levelling of weld seams
- coarse and intermediate grinding of all metallic surfaces
- universally compatible with steel, stainless steel, cast iron and non-ferrous metal
- abrasive, segments carrier - type and shape may be used with powerful drives
- max. circumferential speed: 80m/s



## Related Products

- Full Vision Goggle  
Art. No 5400 8



- Mechanics Gloves - Nappa Leather soft  
Art. No 5405 125 7-11



- Earmuff Pocket  
Art. No 5402 8



- Angle grinder DWE4237  
Art. No 5328 4237 1



## Multi-purpose hole saw

- For rotary use
- High performance quality is economical due to longer shelf life
- Special hard soldering high performance teeth (more than 1,100°C) on big soldering surface reduces breaking out of high performance teeth
- Big spaces between shavings- improved removal of shavings and better makes sawing easier
- Open and continuous shaving space simplifies core removal
- Thin-walled sawing body leads to considerably lower torque stressing
- Universally usable in tiles, Eternit, porcelain bricks, clinker bricks, gas concrete, Haraklith-plates, plasterboards, solid bricks, wood, chipboards
- Max. drilling depth: 60 mm (total length = 72 mm)
- Necessary machine performance: < Ø 50 mm: min. 400 W > Ø 50 mm: min. 600 W

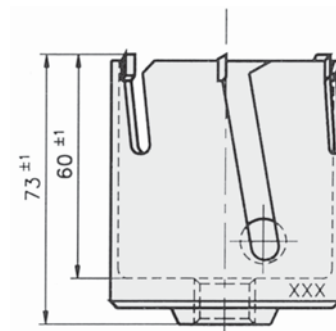
### Security advices:

- Firm clamping of tools is necessary
- Only use machines with safety clutch and extra handle
- Wear protective goggles in case of blistering materials

Article No.	Article Description	QTY
5644 35	MULTI PURPOSE HOLE SAW 35	1
5644 50	MULTI PURPOSE HOLE SAW 50	1
5644 68	MULTI PURPOSE HOLE SAW 68	1
5644 80	MULTI PURPOSE HOLE SAW 80	1

### Scope of delivery:

- Without shank, centering bit and countersink



## Holding fixtures for multi-purpose hole saw

- Screw-in thread M16
- Without centre drill bit

Article No.	Article Description	QTY
5645 105	ADAPTER SDS-PLUS M16 105MM	1 ü
5645 220	ADAPTER SDS-PLUS M16 220MM	1
5645 70 2	ADAPTER HEXAGON SW11 M16 70MM	1

(Total length mm)



## Centre drill bit for multi-purpose hole saw

### Art.-No. 5645 72:

- Total length 105 mm (for wood)

### Art.-No. 5647 8:

- Total length: 120 mm (for stone)

Article No.	Article Description	QTY
5645 72	CENTRE DRILL BIT HSS 7.2	1
5647 8	HM-CENTERING DRILL 8X120	1 z





# Chisel with SDS plus shank

- For light hammer and impact drills with SDS plus shank
- Suitable for renovations and restorations
- High-quality special steel, shot-blasted and extremely hard surface, with tough core for optimum service life and enhanced shatter-resistance

## Main users:

- Plumbing, electrical trade, workshops, plastering

## Pointed chisel:

- Suitable for tough materials
- Force effect focussed on one point
- 30 % increase in product life
- 15 % increase in removal rate

## Flat chisel:

- Suitable for medium-hard materials
- Additional crack edges
- 30 % longer product life
- 15 % increase in removal rate

## Spade chisel:

- Suitable for removing plaster from walls and masonry, loosening soil, screed and bitumen
- Self-sharpening
- 30 % increase in removal rate
- 100 % increase in product life

## Tile chisel:

- Suitable for removing tiles and may be used with light masonry
- Contoured and self-sharpening
- 30 % increase in removal rate



## Your Advantage / Benefit

- Self-sharpening for longer product life
- 15 – 30 % higher removal rate
- No sharpening, reforging or rehardening necessary
- Consistently high removal rate

## Application



Article No.	Article Description	QTY
5654 250 5	SDS-PLUS POINTED CHISEL 250 5*	1 g
5654 20 250 5	SDS-PLUS FLAT CHISEL 20X250 5*	1 g
5654 40 250 5	SDS-PLUS SPADE CHISEL 40X250 5*	1 w
5654 40 260 5	SDS-PLUS TILE CHISEL 40X260 5*	1 w

# Chisel with SDS-Max shank

- For hammer and impact drills with SDS max shank
- Suitable for renovations, restorations, breakthroughs, chiselling and demolition work
- High-quality special steel, shot-blasted and extremely hard surface, with tough core for optimum service life and enhanced shatter-resistance
- Self-sharpening chiselling technique using special cutting geometry for a long-term high removal rate and long product life
- 15 – 30 % higher removal rate

## Main users:

- Road builders, plumbing, electrical trade, workshops, building yards, building construction, civil engineering, plastering

## Pointed chisel:

- Suitable for tough materials
- Increased snap twist due to radial cuts
- With a technology that converts kickback power into impact power and therefore looks after both operators and the machine

## Flat chisel:

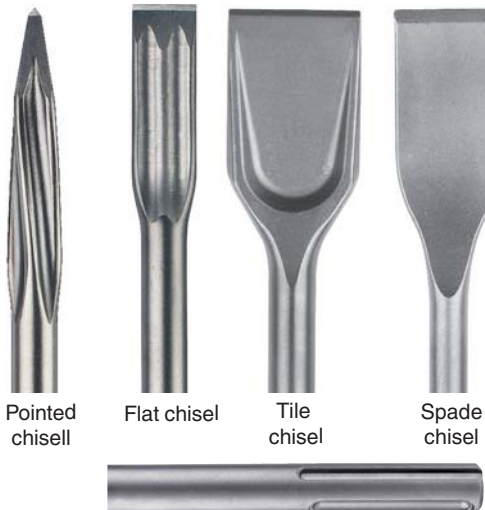
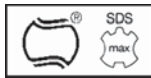
- Suitable for medium-hard materials
- Increased snap twist due to snap ribs
- With a technology that converts kickback power into impact power and therefore looks after both the people and the machine
- 100 % increase in product life due to longer blade length

## Spade chisel:

- Suitable for removing plaster from walls and masonry, loosening soil, screed and bitumen
- 100 % increase in product life due to longer blade length

## Tile chisel:

- Suitable for removing tiles and may be used with light masonry
- 100 % increase in product life due to longer blade



## Your Advantage / Benefit

- Self-sharpening for longer product life
- 15 – 30 % higher removal rate
- No sharpening, reforging or rehardening necessary
- Consistently high removal rate

## Application



Article No.	Article Description	QTY
5650 400 5	SDS-MAX POINTED CHISEL 400 5*	e 10
5650 25 400 5	SDS-MAX FLAT CHISEL 25X400 5*	1 z
5650 50 350 5	SDS-MAX SPADE CHISEL 50X350 5*	1 z
5650 50 300 5	SDS-MAX TILE CHISEL 50X300 5*	1 z

Diamond blades **PREMIUM**     for dry-/wet cutting

## PREMIUM TILES

- Segment height of 5 mm
- **Thin-wall technology**
- Hands-free dry cutting
- Extremely thin
- Very fine cuts
- Hole 22.23 mm

### Applications:

- Tiles, ceramics, thin granite, hard artificial stone, marble slabs



Article No.	Article Description	QTY
5835 115	DTS PREMIUM TILES 115	1
5835 125	DTS PREMIUM TILES 125	1
5835 180	DTS PREMIUM TILES 180	1
5835 230	DTS PREMIUM TILES 230	1

### Technical Data

#### Segment height

5 mm  
5 mm  
5 mm  
5 mm



## PREMIUM TILES WET

- Segment height of 8 mm
- Bronze bond
- Very free-cutting
- Wet cutting for machines
- Closed cutting edge
- Hole 25.4 mm

### Applications:

- Tiles, ceramics, thin granite, hard artificial stone, marble slabs



Article No.	Article Description	QTY
5835 1 180	DTS PREMIUM TILES WET 180	1
5835 1 200	DTS PREMIUM TILES WET 200	1
5835 1 230	DTS PREMIUM TILES WET 230	1
5835 1 250	DTS PREMIUM TILES WET 250	1
5835 1 300	DTS PREMIUM TILES WET 300	1
5835 1 350	DTS PREMIUM TILES WET 350	1

### Technical Data

#### Segment width

1.75 mm  
1.70 mm  
1.65 mm  
1.60 mm  
2.00 mm  
2.05 mm



Diamond blades **PREMIUM** for special uses

# DIAMOND BLADES UNIVERSAL

- Galvanized diamond cutting disc
- **Ideal for use when materials change often**
- Extremely fast and versatile
- Suitable for all construction site material mixes
- Perfect for those wanting to cut quickly and flexibly

**Applications:**

- Concrete, brick, wood, PVC, steel, cast pipes

Article No.	Article Description	QTY
5830 2 115	DIA.BLADES UNIVERSAL 115MM	1
5830 2 125	DIA.BLADES UNIVERSAL 125MM	1
5830 2 230	DIA.BLADES UNIVERSAL 230MM	1
5830 2 350 20	DIA.BLADES UNIVER.350MM BO20	1
5830 2 350 254	DIA.BLADES UNIVER.350MM BO25.4	1



# Cutting and Chamfering Disc KG / HT

- Galvanized cutting edge
- Diamond-coated chamfering edges
- Cut depth stop
- Cutting and chamfering in one pass
- Time and cost savings
- Extremely long service life
- Bore: 22.23 mm

**Applications:**

- For chamfering GFRP pipes, underground plastic drain pipes and high temperature waste pipes

Article No.	Article Description	QTY
5830 1 125	CUTT./CHAMFERING DI.KG/HT 125	1



# Waterpump Pliers Quattro-Grip FÖRCH\*\*\*\*\*

- Easy adaption due to innovative grid adjustment without touch of a button for rapide setting directly at the working piece
- Double toothed gripping jaws and inductively hardened

Article No.	Article Description	QTY
4650 250 5	WAPU-PLIE.QUATTRO GRIP 250MM5*	1 s
4650 320 5	WAPU-PLIE.QUATTRO GRIP 320MM5*	1 s
4650 400 5	WAPU-PLIE.QUATTRO GRIP 400MM5*	1 s



# Waterpump Pliers Set Quattro-Grip FÖRCH\*\*\*\*\*

- In VAROsoft system tray Art. No. 9026 67 1

**Contents Art.-No. 4652V 035:**

Art.-No.	Article Description	Quantity
4650 250 5	WAPU-PLIE.QUATTRO GRIP 250MM5*	1
9894 32	'FÖRCH'FOLDING METRE STICK 2M	1
4720 5 400	ENGINEER HAMMER DIN 400G 5*	1

Article No.	Article Description	QTY
4652V 03 5	VS-PLIERS/HAMMER SET 3-PCS.5*	1





## Knipex Cobra QS water pump pliers

- QS = Quick Set
- Open fully, push, grip!
- Additional quick adjustment on the workpiece by pushing
- Combines the proven, secure locking of the joint pin with an additional shift function, which facilitates working in very narrow and inaccessible work areas
- Adjustment can be carried out directly on the workpiece simply by pushing
- Safe locking of the joint pin when pressure is first applied; the grip width of the pliers is then fixed and can only be adjusted by pressing the button
- To activate the shift function again, the joint pin is pushed out by pressing a button and the pliers are opened once to their full extent
- Chrome vanadium electric steel, forged, oil-hardened



Article No.	Article Description	QTY
4650 251 5	WAT.PU.KNIPEX COBRA QS250MM 5*	1 s
4650 301 5	WAT.PU.KNIPEX COBRA QS300MM 5*	1 s

Technical Data				
Maximum pipe	Maximum pipe	Maximum width across flats	Length	Weight
2 inches	50 mm	46 mm	250 mm	335 g
2 3/4 inches	70 mm	60 mm	300 mm	530 g

## Knipex Alligator water pump pliers **FÖRCH**\*\*\*\*\*

- Better performance and comfort compared to conventional water pump pliers of the same length: 9-notch adjustment positioning for 30 % more gripping capacity
- Good access to the workpiece due to slim size of head and joint area
- Self-locking on pipes and nuts: no slipping on the workpiece as well as low handforce requirement
- Gripping surfaces with special hardened teeth, tooth hardness approx. 61 HRC: low wear ensures long-term secure gripping
- Box-joint design: high stability due to double guide
- Robust construction, insensitive to dirt; particularly suitable for outdoor work
- Guard prevents pinch injuries
- Chrome vanadium electric steel, forged, oil-hardened



Article No.	Article Description	QTY
4651 175 5	WATER PUMP PL.KNIPEX 180MM 5*	1 s
4651 240 5	WATER PUMP PL.KNIPEX 250MM 5*	1 s
4651 300 5	WATER PUMP PL.KNIPEX 300MM 5*	1 s

Technical Data				
Maximum pipe Ø	Maximum pipe Ø	Maximum width across flats	Length	Weight
1 1/2 inches	42 mm	36 mm	180 mm	180 g
2 inches	50 mm	46 mm	250 mm	319 g
2 3/4 inches	70 mm	60 mm	300 mm	511 g

## Knip.Cobra Waterpump Pliers 'Extra Slim'

- Easy access to the workpiece due to its long and pointed jaws and slim construction
- Self-clamping design
- 19-fold adjustable via push of a button, up to max. SW 42



Article No.	Article Description	QTY
4650 250 2	KNIPEX-COBRA WAPU "ES"250MM 5*	1 s

# Water Pump Pliers Knipex Cobra

- Adjustment by button directly on the work piece
- Fine adjustment for optimal adaptation to different work piece sizes and ergonomic handle position
- Self-locking on pipes and nuts: no slipping on the work-piece, low hand force requirement
- Gripping surfaces with special hardened teeth, tooth hardness approx. 61 HRC: low wear ensures long-term secure gripping
- Box-joint design: high stability due to double guide
- Pivot bolt latches safely: no unintentional misalignment
- Guard prevents pinch injuries
- Chrome-vanadium electric steel, forged, oil-hardened

Article No.	Article Description	QTY
4650 125	KNIP.COPRA WAPO PLIERS125MM 5*	1 s
4650 150	KNIP.COPRA WAPO PLIERS150MM 5*	1 s
4650 180	KNIP.COBRA WAPO.PLIERS180MM 5*	1 s
4650 250	KNIP.COBRA WAPO.PLIERS250MM 5*	1 s
4650 300	KNIP.COBRA WAPO.PLIERS300MM 5*	1 s
4650 400	KNIP.COBRA WAPO.PLIERS400MM 5*	1
4650 560	KNIP.COBRA WAPO.PLIERS560MM 5*	1



## Waterpump Pliers Set Knipex Cobra FÖRCH\*\*\*\*\*

### Art. No. 4652V 02:

- In VAROsoft tool deposit Art. No. 9026 620

### Art. No. 4652V 03:

- In VAROsoft tool deposit Art. No. 9026 67 1

#### Contents Art.-No. 4652V 02:

Art.-No.	Article Description	Quantity
4650 180	KNIP.COBRA WAPU.PLIERS180MM 5*	1
4650 300	KNIP.COBRA WAPU.PLIERS300MM 5*	1
		1

#### Contents Art.-No. 4652V 03:

Art.-No.	Article Description	Quantity
4650 250	KNIP.COBRA WAPO.PLIERS250MM 5*	1
4720 5 400	ENGINEER HAMMER DIN 400G 5*	1
9894 32	'FÖRCH' FOLDING METRE STICK 2M	1

Article No.	Article Description	QTY
4652V 02	VS-COBRA PLIERS SET 2-PART 5*	1
4652V 03	VS-COBRA/HAMMER-SET 3-PART 5*	1



4652V 02



4652V 03

## Knipex Waterpump Pliers ‘Smart Grip’

- Automatic adjustment at the workpiece due to self-clamping jaws
- Locking lever for safe and space-saving transport
- Max. pipe-Ø: 1 1/4" or SW 36 mm

Article No.	Article Description	QTY
4650 250 1	KNIPEX-SMART GRIP-WAPU250MM 5*	1 s



## Waterpump Pliers ‘Standard’

- Multi-adjustable
- Ground jaws

Article No.	Article Description	QTY
4651 175	WATERPUMP PLIERS 175MM	1
4651 240	WATERPUMP PLIERS 250MM	1
4651 300	WATERPUMP PLIERS 300MM	1



## Corner Pipe Wrench 45° SUPER S

- Chrome-vanadium, red painted
- All-steel forged, powerful double-T-profile handle
- S-formed opening makes safe grasping at any range possible and enables more retention force at the same time



Article No.	Article Description	QTY
4660 12	CORNER PIPE WRENCH 45° S 1/2"	1
4660 1	CORNER PIPE WRENCH 45° S 1"	1
4660 1 12	CORNER PIPE WRENCH 45° S 1 1/2"	1
4660 2	CORNER PIPE WRENCH 45° S 2"	1
4660 3	CORNER PIPE WRENCH 45° S 3"	1

### Technical Data

Art. No.	Clamp. range inch	Clamp. range mm	Length mm
466012	1/2"	33	240
46601	1"	48	320
4660112	1 1/2"	56	420
46602	2"	71	550
46603	3"	94	600

## Pipe Wrench, One-Hand Aluminium

- Made of light alloy
- High pulling strength
- Hardened jaws HRC 53

### Technical Data

Art. No.	Clamp. range inch	Length mm
4662 2	2"	350
4662 25	2 1/2"	450
4662 3	3"	600

Article No.	Article Description	QTY
4662 2	ONEHAND PIPEWRENCH ALU 2"	1
4662 2 5	ONEHAND PIPEWRENCH ALU 2 1/2"	1
4662 3	ONEHAND PIPEWRENCH ALU 3"	1



## Basin Cock Wrench

- Wrench size: 10 - 32 mm
- Length: 275 mm

Article No.	Article Description	QTY
4666 3 10 32	BASIN COCK WRENCH 10X32MM	1



## Pipe Gripping Pliers

- Coated handle
- With adjustable joint

Article No.	Article Description	QTY
4666 3 225	PIPE GRIPPING PLIERS 225MM	1



## Fitting Pliers

- 90° - 1"
- Changeable jaws

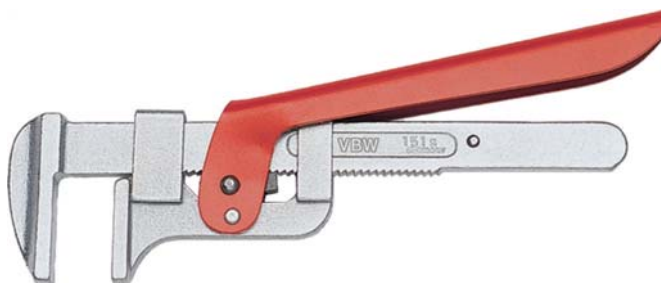
Article No.	Article Description	QTY
4663 315	FITTING PLIERS 90° 1" 315MM	1
4663 315 1	REPL.JAWS F. FITTING PLIERS	1



## Quick-Action Fitting Wrench

- Smooth jaws
- Quick and easy adjustment
- Clamping wings made of sheet steel
- Chrome-vanadium-steel, forged
- Total length: 260 mm
- Range: 75 mm

Article No.	Article Description	QTY
4663 260	QUICK-ACTION FITT.WRENCH 260MM	1



# Knipex Locking Pliers

- Self-clamping pliers for nuts and screws from 10 to 32 mm
- Skid-resistant, less expenditure of force, quick working
- Also suitable for metric or inch hexagon screws, no rounding of screw heads
- Even rusty and overpainted screws can be easily grasped
- Ideal for countering
- 15-fold adjustable via push of a button

Article No.	Article Description	QTY
4652 250 1	KNIPEX LOCKING PLIERS 250MM 5*	1 s



# Knipex Pliers

- Parallel and flat jaws
- 18-fold adjustable via push of a button
- For screws and nuts up to 35/46/60
- Universally usable, ideal for screw protecting mounting of fittings

Article No.	Article Description	QTY
4652 150	KNIPEX PLIERS 150MM WS27 5*	1
4652 180	KNIPEX PLIERS 180MM WS35 5*	1
4652 250	KNIPEX PLIERS 250MM WS46 5*	1
4652 300	KNIPEX PLIERS 300MM WS60 5*	1
4652 400	KNIPEX PLIERS 400MM WS85 5*	1





## Sanitary Wrench Universal

- The multifunctional wrench for quick and individual water closet seat fixing
- Universally processed and usable with both ends:
  - **End A:** wrench fitting more than 11 different wing nuts
  - **End B:** hex nut with 13 mm wrench size
- Rational and time-saving work
- With stable coupling - ideal for „corner solutions“ and every water closet shape

Article No.	Article Description	QTY
8680 10	UNIVERSAL SANITARY WRENCH	1



## Control Cabinet Wrench

- Universal key made of zinc diecasting
- With chain, adapter and bit
- For locking systems of the gas, water and electrical supply
- Also for climate and ventilation technology and many others
- Also for common slot and recessed head screws

Article No.	Article Description	QTY
8680 30	CONTROL CAB./DEAERATING WRENCH	1



## 10-Way Universal Wrench

- Multi-functional wrench for operating closures in the fields of Building Services (heating and sanitary, air-conditioning and ventilation technology, electrics), gas and water supply and shut-off systems
- 8-arm version: 2 cross keys connected together by means of magnets to save space
- Reversible bit: Slotted 1.0 x 7 mm and Philips PH 2
- Wrench and reversible bit are joined by a sturdy stainless steel wire cable
- High quality surface coating
- Weight-optimised die-cast zinc construction

Article No.	Article Description	QTY
8680 10 1	UNIVERSAL 10-FOLD WRENCH	1



## Bitting Gauges Universal

- Zinc diecasting
- Universal measuring gauge for versatile fields of application
- Square drive: 6, 7 and 8 mm
- Indicator scale for profile cylinder
- Hexagon head: 3 mm
- External square conical: 7 to 10 mm

Article No.	Article Description	QTY
8680 20	BITTING GAUGE UNIVERSAL	1



## Four-Way Socket Wrench

- 7 functions
- 4x external hexagon for stop-cock extensions: 3/8", 1/2", 3/4" and 1" for fitting and removing of radiator valves and return flow fittings
- 3x internal threads for hanger bolts M8, M10 and M12 e.g. wash stand fixings
- powder coated
- special steel

Article No.	Article Description	QTY
4666 3 200 200	FOUR-WAY SOCK.WRENCH 200X200MM	1



## Special Plumbing Wrench

- ideally suited for areas that are hard to reach
- for use in sanitary fittings installation
- rapid installation of wash stand fixings and angle valves
- including mount for screwing in hanger bolts M10 with centre section
- extended lever arm as a result of adjustable mount in the centre section
- Special steel

Article No.	Article Description	QTY
4666 3 17 19	SPECIAL PLUMBING WRENCH 17X19	1



## Screwdriver

- with external hexagon drive in accordance with DIN 3126 / ISO 1173-C6.3
- for hand actuation and electric screwdrivers
- for screwing in hanger bolts without causing damage
- ideally suited for screwed fittings in craft use and industry
- sand-blasted
- special steel

Article No.	Article Description	QTY
4666 3 8	SCREWDRIVER BIT M8	1
4666 3 10	SCREWDRIVER BIT M10	1
4666 3 12	SCREWDRIVER BIT M12	1



## Screwdriver with Bit Intake

- magnetic hanger bolt screwdriver with 1/4" bit mount for battery drivers
- for screwing hanger bolts in and out without damage
- Special steel

Article No.	Article Description	QTY
4666 3 14 8	1/4"SCREWDRIVER BIT M8	1
4666 3 14 10	1/4"SCREWDRIVER BIT M10	1



## Pipe-cutting Machine DISC 100

- Compact, lightweight and robust pipe-cutting machine for all common pipe materials
- Rectangular cutting and deburring with a machine; ideal for dealing with press fitting systems
- Cutting without surface burr due to a special cutting wheel
- Dry cutting means no lubricant damage to the 'O' rings
- Rapid cutting due to optimum speed; no degradation of pipe material through overheating
- Chip-free cutting means no chips in the piping system
- Easy to use; no tools required
- Easy to transport and use anywhere due to its light weight of 16.8 kg



Article No.	Article Description	QTY
8951 100 100	PIPE CUTT.MACHINE DISC 100	1
8951 100 101	SPECIAL CUTT.WHEEL CU/INOX	1

## Accessory pack for pipe-cutting machine DISC 100

Ideal supplement to the DISC 100 pipe cutting machine for user-friendly work; comprises:

- Base for DISC 100 pipe cutting machine
- Material support with ball-bearing guide; adjustable height

The accessories pack permits user-friendly work, even with long pipes, due to individually adaptable material support. The base provides a secure stand for the pipe cutting machine.



Article No.	Article Description	QTY
8951 100 110	ACCESSORY PACK DISC 100	1

## Inner and Outer Deburrer Premium

**Solid and robust inner and outer deburrer for manual operation and electric drive**

- Especially hardened and ground blades for easy and effortless deburring
- Robust metal design for tough use e.g. construction site
- Anti-skid casing for optimum grip, also at difficult conditions
- For all commercially available cordless screwdrivers (speed up to 300 1/min)
- Mount - effortless deburring - ready
- Suitable for Pipe Cutting Machine Disc 100 Art. No. 8951 100 100



Article No.	Article Description	QTY
4941 10 54 1	PREM.INNER+OUTER DEBURRER10-54	1



## Pipe Cutter Compact 3- 16 mm

- For thin-walled steel pipes with a max. wall thickness of 2 mm
- Body, slide and rotary knob made from high-quality zinc die-cast material
- Spindle carried in steel bearings for optimal slide glide
- ICS system provides rapid replacement of the cutting wheel without the need for tools
- Ergonomic rotary knob for improved power transmission
- Extremely compact design
- For thin-walled metal pipes (up to 2 mm) AL, CU, STAINLESS STEEL

### Replacement parts:

- Art.-No. 4941 3 1: Replacement cutting wheel
- Art.-No. 4941 3 10: Replacement cutting axle ICS

Article No.	Article Description	QTY
4941 3 16	COMPACT PIPE CUTTER 3-16 MM	1
4941 3 1	SPARE CU.WH.19X6,2ALU,CU,INOX	1
4941 3 10	SPARE CUTTING WH.SPINDLE 6,2MM	1



## Pipe Cutter Compact 3 - 30 mm

- For thin-walled steel pipes with a max. wall thickness of 2 mm
- Body, slide and rotary knob made from high-quality zinc die-cast material
- Spindle carried in steel bearings for optimal slide glide
- ICS system provides rapid replacement of the cutting wheel without the need for tools
- Ergonomic rotary knob for improved power transmission
- Replacement cutting wheel in the rotary knob
- Extremely compact design
- For Thin-walled metal pipes (up to 2 mm) AL, CU, STAINLESS STEEL

### Replacement parts:

- Art.-No. 4941 3 1: Replacement cutting wheel AL, CU, STAINLESS STEEL
- Art.-No. 4941 3 10: Replacement cutting axle ICS

Article No.	Article Description	QTY
4941 3 30	COMPACT PIPE CUTTER 3-30 MM	1
4941 3 1	SPARE CU.WH.19X6,2ALU,CU,INOX	1
4941 3 10	SPARE CUTTING WH.SPINDLE 6,2MM	1



## Pipe Cutter 3 - 35 mm

- Body made from magnesium die-cast material, providing reduced weight and high stability
- ICS system provides rapid replacement of the cutting wheel without the need for tools
- Longer rotary knob in conical shape and replacement cutting wheel in the cap on the rotary knob
- With 4 guide rollers for optimal holding of the pipe
- With completely removable deburring blade for left-hand and right-hand use
- Spindle carried in steel bearings for improved sliding and rapid adjustment of the working area

### Replacement parts:

- Art.-No. 4941 3 1: Replacement cutting wheel AL, CU, STAINLESS STEEL
- Art.-No. 4941 3 10: Replacement cutting wheel axle ICS
- Art.-No. 4941 3 20: Pipe deburrer, removable

Article No.	Article Description	QTY
4941 3 35	PIPE CUTTER 3-35 MM	1
4941 3 1	SPARE CU.WH.19X6,2ALU,CU,INOX	1
4941 3 10	SPARE CUTTING WH.SPINDLE 6,2MM	1
4941 3 20	SPARE REMOVABLE REAMER 35/45M	1





# Pipe Cutter 6-76 INOX **FÖRCH**\*\*\*\*\*

- cutting wheel and cutting rollers carried in needle bearings, resulting in particularly smooth cutting of stainless steel pipes
- body made from magnesium die-cast material, providing reduced weight and high stability
- ICS system provides rapid replacement of the cutting wheel without the need for tools
- longer rotary knob in conical shape and replacement cutting wheel carried in needle bearings in the cap on the rotary knob
- with 4 guide rollers carried in needle bearings for optimal holding of the pipe
- with completely removable deburring blade for left-hand and right-hand use
- spindle carried in steel bearings for improved sliding and rapid adjustment of the working area

## Replacement parts:

- Art.-No. 4941 3 2: Replacement stainless steel cutting wheel carried in needle bearings
- Art.-No. 4941 3 10: Replacement ICS cutting wheel axle
- Art.-No. 4941 3 21: Pipe deburrer, removable



## Your Advantage / Benefit

- smooth cutting as a result of the use of needle bearings
- sturdy top quality
- replacement of cutting wheel without the need for tools

## Application



Article No.	Article Description	QTY
4941 3 76 2	PIPE CUTTER 6-76MM INOX 5*	1
4941 3 2	SPARE WHEEL 19X6,20 INOX 5*	1
4941 3 10	SPARE CUTTING WH.SPINDLE 6,2MM	1
4941 3 21	REMOVABLE REAMER 76/127/170MM	1

## Related Products

- Pipe deburrer  
10 - 56 mm  
Art.-No. 4941 10 56



- Multipress Mini ACC  
Art.-No. 4946 300





## Pipe Cutter - Ratchet

### Art. No. 4941 285:

- For copper pipes 8-28,5 mm (5/16" - 1 1/8")

### Art. No. 4941 35 and 4941 67:

- For the use in automobile and building services
- For steel, inox, copper, aluminium < 3 mm material thickness
- Cutting range 12 - 35 mm (4941 35), 28 - 67 mm (4941 67)
- Special cutting wheel for plastic pipes as accessory

### Art. No. 4941 35:

- Plastic replacement cutting wheel included in delivery

Article No.	Article Description	QTY
4941 285	RATCHET PIPE CUTTER 8-28.5	1
4941 285 1	CUT.WHEEL CU F.RAT.PIPE CUTTER	1
4941 285 2	CUT.WHEEL V2A F.RAT.PIPE CUTTER	1
4941 35	RATCHET-PIPE CUTTER 12-35MM	1
4941 67	RATCHET-PIPE CUTTER 28-67MM	1
4941 67 1	CUT.WHEEL PLS.F.PIPE CUT.35+67	1
4941 67 2	CUT.WHEEL MET.F.PIPE CUT.35+67	1



4941 285

4941 35  
4941 67

## Deburring Tool for Pipes In-/Outside

- For deburring of steel pipes, aluminium and copper pipes, and such made of plastic material
- Ideal for use in the processing of automotive brake lines
- Retractable inside deburring element
- For inside diameters: 3-12 mm
- For outside diameters: 4-14 mm
- Length: 125 mm
- Material: HSS

Article No.	Article Description	QTY
4941 125	DEBUR.TOOL F.PIPES IN-/OUTSIDE	1
4941 125 1	REPL.BLADE OUTER FOR 125	1
4941 125 2	REPL.BLADE INNER FOR 125	1



4941 125 2



4941 125 1



## Pipe Cutter Compact 3-30mm INOX

- Cutting wheel and cutting rollers carried in needle bearings, resulting in particularly smooth cutting of stainless steel pipes
- for thin-walled steel pipes with a max. wall thickness of 2 mm
- body, slide and rotary knob made from high-quality zinc die-cast material
- spindle carried in steel bearings for optimal slide glide
- ICS system provides rapid replacement of the cutting wheel without the need for tools
- ergonomic rotary knob for improved power transmission
- Replacement cutting wheel carried in needle bearings in the rotary knob
- extremely compact design
- cutting wheel with special geometry for stainless steel pipes

### Replacement parts:

- Art.-No. 4941 3 2: Replacement stainless steel cutting wheel carried in needle bearings
- Art.-No. 4941 3 10: Replacement cutting axle ICS



Article No.	Article Description	QTY
4941 3 30 2	COMPACT PIPE CUTTER 3-30 5*	1
4941 3 2	SPARE WHEEL 19X6,20 INOX 5*	1
4941 3 10	SPARE CUTTING WH.SPINDLE 6,2MM	1

## Pipe Cutter 3-35 mm INOX

- cutting wheel and cutting rollers carried in needle bearings, resulting in particularly smooth cutting of stainless steel pipes
- body made from magnesium die-cast material, providing reduced weight and high stability
- ICS system provides rapid replacement of the cutting wheel without the need for tools
- longer rotary knob in conical shape and replacement cutting wheel carried in needle bearings in the cap on the rotary knob
- with 4 guide rollers carried in needle bearings for optimal holding of the pipe
- with completely removable deburring blade for left-hand and right-hand use
- spindle carried in steel bearings for improved sliding and rapid adjustment of the working area

### Replacement parts:

- Art.-No. 4941 3 2: Replacement stainless steel cutting wheel carried in needle bearings
- Art.-No. 4941 3 10: Replacement cutting axle ICS
- Art.-No. 4941 3 20: Pipe deburrer, removable



Article No.	Article Description	QTY
4941 3 35 2	PIPE CUTTER 3-35 MM INOX 5*	1
4941 3 2	SPARE WHEEL 19X6,20 INOX 5*	1
4941 3 10	SPARE CUTTING WH.SPINDLE 6,2MM	1
4941 3 20	SPARE REMOVABLE REAMER 35/45M	1

## Pipe Cutter 3-45 mm INOX

- cutting wheel and cutting rollers carried in needle bearings, resulting in particularly smooth cutting of stainless steel pipes
- body made from magnesium die-cast material, providing reduced weight and high stability
- ICS system provides rapid replacement of the cutting wheel without the need for tools
- longer rotary knob in conical shape and replacement cutting wheel carried in needle bearings in the cap on the rotary knob
- with 4 guide rollers carried in needle bearings for optimal holding of the pipe
- with completely removable deburring blade for left-hand and right-hand use
- Spindle carried in steel bearings for improved sliding and rapid adjustment of the working area

### Replacement parts:

- Art.-No. 4941 3 2: Replacement stainless steel cutting wheel carried in needle bearings
- Art.-No. 4941 3 10: Replacement cutting axle ICS
- Art.-No. 4941 3 20: Pipe deburrer, removable



Article No.	Article Description	QTY
4941 3 45 2	PIPE CUTTER 3-45MM INOX 5*	1
4941 3 2	SPARE WHEEL 19X6,20 INOX 5*	1
4941 3 10	SPARE CUTTING WH.SPINDLE 6,2MM	1
4941 3 20	SPARE REMOVABLE REAMER 35/45M	1

## Pipe Cutter 3 - 45 mm

- Body made from magnesium die-cast material, providing reduced weight and high stability
- ICS system provides rapid replacement of the cutting wheel without the need for tools
- longer rotary knob in conical shape and replacement cutting wheel in the cap on the rotary knob
- with 4 guide rollers for optimal holding of the pipe
- with completely removable deburring blade for left-hand and right-hand use
- Spindle carried in steel bearings for improved sliding and rapid adjustment of the working area

Replacement parts:

- Art.-No.. 4941 3 1: Replacement cutting wheel AL, CU, STAINLESS STEEL
- Art.-No.. 4941 3 10: Replacement cutting axle ICS
- Art.-No. 4941 3 20: Pipe deburrer, removable



Article No.	Article Description	QTY
4941 3 45	PIPE CUTTER 3-45 MM	1
4941 3 1	SPARE CU.WH.19X6,2ALU,CU,INOX	1
4941 3 10	SPARE CUTTING WH.SPINDLE 6,2MM	1
4941 3 20	SPARE REMOVABLE REAMER 35/45M	1

## Pipe Cutter Steel 10 - 60 mm

- forged steel body, slide made from zinc die-cast material
- improved pressure distribution as a result of optimised cutting body geometry
- improved cut and service life of the cutting wheel as a result of the spring hold-down system
- ICS system provides rapid replacement of the cutting wheel without the need for Tools

Replacement parts:

- Art.-No. 4941 3 3: Replacement cutting wheel steel
- Art.-No. 4941 3 13: Replacement cutting axle ICS



Article No.	Article Description	QTY
4941 3 60 3	PIPE CUTTER FOR STEEL 10-60 MM	1
4941 3 3	SPARE WHEEL 31X19MM F.STEEL	1
4941 3 13	SPINDLE F.CUTT.WHEEL 19MM ST	1

## Pipe Cutter Steel 60 - 114 mm

- forged steel body, slide made from zinc die-cast material
- improved pressure distribution as a result of optimised cutting body geometry
- improved cut and service life of the cutting wheel as a result of the spring hold-down system
- ICS system provides rapid replacement of the cutting wheel without the need for tools
- with additional lever for optimal power distribution

Replacement parts:

- Art.-No. 4941 3 3: Replacement cutting wheel steel
- Art.-No. 4941 3 14: Replacement cutting axle ICS

Article No.	Article Description	QTY
4941 3 114 3	PIPE CUTTER F.STEEL 60-114 MM	1
4941 3 4	SPARE WHEEL 41X28MM F.STEEL	1
4941 3 14	SPINDLE F.CUTT.WHEEL 28MM ST	1



## Pipe Cutter Plastic-/PE-X-Pipe 6-76 mm

- for cutting of plastic and composite pipes up to a wall thickness of 8.6 mm
- by inserting the cutting wheel, Art.-No. 4941 3 1 is also suitable for thin-walled metal pipes
- body made from aluminium die-cast material, slide and rotary knob made from zinc die-cast material
- ICS system provides rapid replacement of the cutting wheel without the need for tools
- longer rotary knob in conical shape and replacement cutting wheel in the cap on the rotary knob
- with 4 guide rollers for optimal holding of the pipe
- with completely removable deburring blade for left-hand and right-hand use
- with fast feed system for rapid setting of the working range

### Replacement parts:

- Art.-No. 4941 3 1: Replacement cutting wheel AL, CU, STAINLESS STEEL
- Art.-No. 4941 3 22: Replacement cutting wheel plastic / composite pipe
- Art.-No. 4941 3 10: Replacement cutting axle ICS
- Art.-No. 4941 3 21: Pipe deburrer, removable



Article No.	Article Description	QTY
4941 3 76 4	PIPE CUTTER KST 6-76 MM	1
4941 3 1	SPARE CU.WH.19X6,2ALU,CU,INOX	1
4941 3 22	SPARE WHEEL30X6,2KST U.PE-X	1
4941 3 10	SPARE CUTTING WH.SPINDLE 6,2MM	1
4941 3 21	REMOVABLE REAMER 76/127/170MM	1

## Pipe Cutter Plastic /PE-X-pipe 50-127 mm

- for cutting plastic and compose pipes up to a wall thickness of 19.8 mm (can be adapted using various cutting wheels, see below)
  - body made from aluminium die-cast material, slide and rotary knob made from zinc die-cast material
  - ICS system provides rapid replacement of the cutting wheel without the need for tools
  - Cutting wheel with PTFE coating
  - a third guide roller, which can be set to two positions (110 mm and 127 mm), provides optimal guiding of the pipe during cutting
- Position 110 mm for cutting pipes up to 110 mm  
Position 127 mm for cutting pipes from 110 mm to 127 mm
- with completely removable deburring blade for left-hand and right-hand use
  - with fast feed system for rapid setting of the working range
  - fitting the cutting wheel Art.-No. 4941 3 8 means that metal pipes up to a wall thickness of 6 mm can be cut

### Replacement parts

- Art.-No. 4941 3 6: Replacement cutting wheel plastic / composite pipe up to 11.8 mm wall thickness
- Art.-No. 4941 3 9: Replacement cutting wheel plastic / composite pipe up to 19.8 mm wall thickness
- Art.-No. 4941 3 7: Replacement cutting wheel plastic / composite pipe up to 27.8 mm wall thickness
- Art.-No. 4941 3 23: Replacement cutting wheel AL, CU, STAINLESS STEEL
- Art.-No. 4941 3 11: Replacement cutting axle ICS
- Art.-No. 4941 3 21: Pipe deburrer, removable



Article No.	Article Description	QTY
4941 3 127 4	PIPE CUTTER KST 50-127 MM	1
4941 3 6	SPARE WHEEL35X11MM KST U. PE-X	1
4941 3 9	SPARE WHEEL51X11MM KST U. PE-X	1
4941 3 7	SPARE WHEEL67X11MM KST U. PE-X	1
4941 3 23	SPARE WHEEL25X11MM ALU,CU,INOX	1
4941 3 11	SPINDLE F.CUTTING WHEEL 11MM	1
4941 3 21	REMOVABLE REAMER 76/127/170MM	1

## Pipe Cutter Plastic / PE-X-Pipe 100-170 mm

- for cutting plastic and composite pipes up to a wall thickness of 19.8 mm (can be adapted using various different cutting wheels, see below)
- body made from aluminium die-cast material, slide and rotary knob made from zinc die-cast material
- ICS system provides rapid replacement of the cutting wheel without the need for tools
- Cutting wheel with PTFE coating
- a third guide roller, which can be set to two positions (160 mm and 170 mm), provides optimal guiding of the pipe during cutting
- position 160 mm: for cutting pipes up to 160 mm
- position 170 mm: for cutting pipes from 160 mm - 170 mm
- with completely removable deburring blade for left-hand and right-hand use
- with fast feed system for rapid setting of the working range
- fitting the cutting wheel, Art.-No. 4941 3 8, means that metal pipes up to a wall thickness of 6 mm can be cut

### Replacement parts:

- Art.-No. 4941 3 6: Replacement cutting wheel plastic / composite pipe up to 11.8 mm wall thickness
- Art.-No. 4941 3 9: Replacement cutting wheel plastic / composite pipe up to 19.8 mm wall thickness
- Art.-No. 4941 3 7: Replacement cutting wheel plastic / composite pipe up to 27.8 mm wall thickness
- Art.-No. 4941 3 23: Replacement cutting wheel AL, CU, STAINLESS STEEL
- Art.-No. 4941 3 11: Replacement cutting axle ICS
- Art.-No. 4941 3 21: Pipe deburrer, removable



Article No.	Article Description	QTY
4941 3 170 4	PIPE CUTTER KST 100-170 MM	1
4941 3 6	SPARE WHEEL35X11MM KST U. PE-X	1
4941 3 9	SPARE WHEEL51X11MM KST U. PE-X	1
4941 3 7	SPARE WHEEL67X11MM KST U. PE-X	1
4941 3 23	SPARE WHEEL25X11MM ALU,CU,INOX	1
4941 3 11	SPINDLE F.CUTTING WHEEL 11MM	1
4941 3 21	REMOVABLE REAMER 76/127/170MM	1

## Plastic Pipe Cutter 35 mm

- Body and handle made from sturdy magnesium die-cast material, very light and sturdy
- easier, faster and more precise one-hand cutting of plastic and composite pipes as a result of the optimal power transmission
- ICS system provides simple blade replacement without the need for tools
- Stainless steel blade of highest quality and service life with optimal cutting geometry and non-stick coating
- Automatic blade retraction

### Replacement parts:

- Art.-No. 4941 5 1: Blade for plastic cutter 35 mm
- Art.-No. 4941 5 10: blade axle for plastic pipe cutter ICS



Article No.	Article Description	QTY
4941 5 35	PLASTIC PIPE CUTTER 35 MM	1
4941 5 1	SPARE BLADE F.PLST.CUTTER 35MM	1
4941 5 10	BLADE SPINDLE F.PLST.CUTTER	1



# Plastic Pipe Cutter 42 mm

- Body and handle made from sturdy magnesium die-cast material, very light and sturdy
- easier, faster and more precise one-hand cutting of plastic and composite pipes as a result of progressive geared guiding of the blade feed
- blade protected in the body to prevent injury and protect the blade
- ICS system provides simple blade replacement without the need for tools
- Stainless steel blade of highest quality and service life with optimal cutting geometry and non-stick coating
- One-hand rapid retraction of the blade
- ergonomic two-component handle, rests safely and comfortably in the hand

## Replacement parts:

- Art.-No. 4941 5 2: Blade for plastic cutter 42 mm
- Art.-No. 4941 5 10: Blade axle for plastic pipe cutter



## Your Advantage / Benefit

- smooth cutting as a result of optimal power transmission
- sturdy top quality
- replacement of blade without the need for tools

## Application



Article No.	Article Description	QTY
4941 5 42	PLASTIC PIPE CUTTER 42MM	1
4941 5 2	SPARE BLADE F.PLAST.CUTT.42MM	1
4941 5 10	BLADE SPINDLE F.PLST.CUTTER	1

## Related Products

- Pipe Deburrer  
10 – 56 mm  
Art.-No. 4941 10 56



- Fine Knitting Gloves  
Duo-Grip  
Art.-No. 5405 5 117 9



- Ratchet-Bending\_set  
Art.-No. 4942 7



## Plastic Pipe Cutter 63 mm

- Body and handle made from sturdy magnesium die-cast material, very light and sturdy
- easier, faster and more precise one-hand cutting of plastic and composite pipes as a result of progressive geared guiding of the blade feed
- with pipe approach system which can be set in 2 positions:
  - for pipes from 50 mm to 63 mm
  - for pipes up to and including 50 mm
- Blade protected in the body to prevent injury and protect the blade
- ICS system provides simple blade replacement without the need for tools
- Stainless steel blade of highest quality and service life with optimal cutting geometry and non-stick coating
- One-hand rapid retraction of the blade
- ergonomic two-component handle, rests safely and comfortably in the hand

Replacement parts: • Art.-No. 4941 5 3: Blade for plastic cutter 63 mm

- Art.-No. 4941 5 10: blade axle for plastic pipe cutter ICS



Article No.	Article Description	QTY
4941 5 63	PLASTIC PIPE CUTTER 63 MM	1
4941 5 3	SPARE BLADE F.PLAST.CUTT.63 MM	1
4941 5 10	BLADE SPINDLE F.PLST.CUTTER	1

## Poly-Cut cutting off and chamfering device

- Pipe cutting and chamfering device made of metal for right-angled cutting off and chamfering plastic pipes made of ABS, PB, PE, PE-HD, PE-X, PVC, PVDF
- Cutting and chamfering plastic pipes in one operation
- Infinitely adjustable to compensate for and adapt to pipe tolerances
- Clamp inserts which are easy to change for central clamping of the pipes
- Cutting and chamfering tool made of hardened steel with optimum cutting geometry and long service life
- For pipe diameters 50 – 110 mm

Article No.	Article Description	QTY
4941 50 110	P.C.CUTT.OFF/CHAMF.DEVICE CUT	1

### Scope of delivery:

- Quick-clamping device Ø 110 mm
- 2x clamp inserts Ø 50 mm
- 2x clamp inserts Ø 75 mm
- Cutting and chamfering tool
- Storage case



# Sheet Metal Punch Set for Sanitary Sector

**Special selection for punching out the holes for stainless steel sink units**

- Makes fast, easy, clean and burr-free punching of thin-walled materials possible
- Improved support due to 3 cutting tips thus minor deformation of the material to be punched, no damage of the tension bolt
- Before applying the screw hole punch, it is essential to grease the tension bolt with the drilling and cutting oil (Art. No. 6580 5800)
- The metric tension bolts of the screw hole punches have the highest quality class and are designed for extreme pressure - in case of loss the commercially available metric fine thread screw can also be used

**Guide values for the application of sheet metal punches:**

## Technical Data

Tension bolt mm	Steel sheets mm	St. steel sheets mm	Non-ferrous and light metals mm	Plastics mm
MF 8 x 1.0	2.0	1.0	4.0	4.0
MF 10 x 1.0	2.0	1.0	4.0	4.0
MF 12 x 1.5	3.0	2.0	4.0	4.0
MF 16 x 1.5	3.0	2.0	4.0	4.0

Article No.	Article Description	QTY
4944 100	SH.MET.PUNCH SET SANITARY	1

**Included in delivery:**

- Punch diameter 28.3 mm (PG21)
- Punch diameter 32.0 mm
- Punch diameter 35.0 mm
- Tension bolt MF 12 x 1.5 mm
- HSS tube and sheet drill 3-14 mm
- Plastic transport case



## Sheet Metal Single-hole Punch

- Punch thin materials quickly and effortlessly, cleanly and free of burrs
- Improved seating due to 3-point cut means less deformation of the punched parts, thus preventing damage to the draw bolt
- Before using the hole punch, it is essential to lubricate the draw bolt with drilling and cutting oil (art.no. 6580 5800)
- The metric draw bolts of the hole punch are always of the highest grade and are thus designed for extreme loads - if lost, they can also be replaced for short-term use with commercial metric fine-thread bolts
- Available in diameters of 18 mm, 20 mm, 22,5 mm, 24 mm, 26 mm, 32 mm, 35 mm, 40 mm, 50 mm
- MF 10 draw bolt for hole punches 18 mm, 20 mm, 22,5 mm, 24 mm, 26 mm
- MF 12 draw bolt for punches 32 mm, 35 mm, 40 mm, 50 mm

Article No.	Article Description	QTY
4944 18	SHEET MET.SING.HOLE P.18MM	1
4944 19	SHEET MET.SING.HOLE P.19MM	1
4944 20	SHEET MET.SING.HOLE P.20MM	1
4944 225	SHEET MET.SING.HOLE P.22.5MM	1
4944 24	SHEET MET.SING.HOLE P.24MM	1
4944 26	SHEET MET.SING.HOLE P.26MM	1
4944 29	SHEET MET.SING.HOLE P.29MM	1
4944 32	SHEET MET.SING.HOLE P.32MM	1
4944 35	SHEET MET.SING.HOLE P.35MM	1
4944 40	SHEET MET.SING.HOLE P.40MM	1
4944 50	SHEET MET.SING.HOLE P.50MM	1



## Internal / External Milling Cutter

- 3 ground and hardened cutting edges
- For fast and vibration-free deburring
- Pipe-Ø 4 - 36 mm



Article No.	Article Description	QTY
4941 100	INTERNAL/EXTERNAL CUTTER	1

## Pipe Deburrer inner/outer 8-35 mm

- Pipe deburrer for inner and outer for pipes with a diameter of 8-35 mm or 10-56 mm
- For all metal and plastic pipes
- Grip made of aluminium with profiling for good grip
- Deburrer made of high-quality, hardened steel



Article No.	Article Description	QTY
4941 8 35	PIPE DEBURRER 8-35MM	1
4941 10 56	PIPE DEBURRER 10-56MM	1

## Copper Pipe - External Brush

- For copper and MS pipes etc
- Robust plastic housing



Article No.	Article Description	QTY
4941 22 12	COPPER PIPE-EXTERN.BRUSH 12MM	1
4941 22 15	COPPER PIPE-EXTERN.BRUSH 15MM	1
4941 22 18	COPPER PIPE-EXTERN.BRUSH 18MM	1
4941 22 22	COPPER PIPE-EXTERN.BRUSH 22MM	1
4941 22 28	COPPER PIPE-EXTERN.BRUSH 28MM	1

## Copper Pipe - Internal Brush

Article No.	Article Description	QTY
4941 12 8	COPPER PIPE-INTERN.BRUSH 8MM	1
4941 12 10	COPPER PIPE-INTERN.BRUSH 10MM	1
4941 12 12	COPPER PIPE-INTERN.BRUSH 12MM	1
4941 12 15	COPPER PIPE-INTERN.BRUSH 15MM	1
4941 12 16	COPPER PIPE-INTERN.BRUSH 16MM	1
4941 12 18	COPPER PIPE-INTERN.BRUSH 18MM	1
4941 12 22	COPPER PIPE-INTERN.BRUSH 22MM	1
4941 12 28	COPPER PIPE-INTERN.BRUSH 28MM	1
4941 12 35	COPPER PIPE-INTERN.BRUSH 35MM	1





## Washstand Assembly Set

- 6-part
- Universally applicable tool for professional assembly
- Ideal operation also at tight spaces
- Well-arranged specific tools which enable assembly and disassembly of most common water tap mixing batteries of various manufacturers
- Makes protective works possible
- Due to a specific nut the eccentrics can be screwed in and screwed off at tightest spaces
- The driving tool is appropriate for the intake of the special wrenches and enables the screwing in and off of stud screws M8 and M10

Article No.	Article Description	QTY
4666 2 6	WASHSTAND ASSEMBLY SET 6-PART	1

### Included in set:

- 1x Driving tool with universal intake
- 1x Special wrench for mixing batteries SW 9
- 1x Special wrench for mixing batteries SW 10
- 1x Special wrench for mixing batteries SW 13
- 1x Counter-support for disassembly and assembly of fittings
- 1x Special nut for 3/4" connection eccentric to mixing batteries



## S-Connection Assembly Tool

- For universal driving tools
- No damage of S-connection threads

Article No.	Article Description	QTY
4666 2 3	S-CONNECTION-ASSEMBLY TOOL	1



## Stud Screw Wrench - Universal Driving Tool

- Pivoted double-end wrench for stud screws M8 and M10
- Several rollers in the body of the wrench get jammed towards tightening and loosening direction in order to actuate the driving process
- No time-consuming countering of two nuts with the bolt and no damages of the threads caused by driving with pliers

Article No.	Article Description	QTY
4666 2 8 10	DRIVING TOOL M8/M10	1



## Fitting Wrench

- Extra long, for the use with universal driving tools

Article No.	Article Description	QTY
4666 2 9	FITTING WRENCH LONG SW 9	1
4666 2 10	FITTING WRENCH LONG SW 10	1
4666 2 11	FITTING WRENCH LONG SW 11	1
4666 2 12	FITTING WRENCH LONG SW 12	1
4666 2 13	FITTING WRENCH LONG SW 13	1



## Assembly Tool for Drain Valves

- For the use with universal driving tools

Article No.	Article Description	QTY
4666 2 2	ASSEMBLY TOOL F. DRAIN VALVES	1





# Water Tap - Milling Cutter Set

- Metal box with 6 storing trays for spare seals

Article No.	Article Description	QTY
4666 5 141	WAT.TAP MILL.SET 1/4"-1", 6-PA	1

Included in set:

- 1x Water tap milling cutter, cylindric form
- 1x Milling cutter 1/4" x 12 mm AD
- 1x Milling cutter 3/8" x 14 mm AD
- 1x Milling cutter 1/2" x 17 mm AD
- 1x Milling cutter 3/4" x 24 mm AD
- 1x Milling cutter 1" x 28 mm AD



## Milling Cutter Tools

- For precise finish cutting of valve seats at untight water taps
- Adjustable cutting pressure by spring and adjusting screws
- Suitable for all fittings due to cylindrically stepped thread
- Replaceable milling cutter



Article No.	Article Description	QTY
4666 5	WATER TAP MILLING TOOL	1

## Milling Cutter

Article No.	Article Description	QTY
4666 5 1	MILLING CUTTER 1" X 28MM A.D.	1
4666 5 12	MILLING CUTTER 1/2"X17MM A.D.	1
4666 5 14	MILLING CUTTER 1/4"X12MM A.D.	1
4666 5 34	MILLING CUTTER 3/4"X24MM A.D.	1
4666 5 38	MILLING CUTTER 3/8"X14MM A.D.	1



## Junior Hacksaw

- Twist-free die cast aluminium, with soft handle
- Replacement and tensioning of saw blade by nut at handle side

Article No.	Article Description	QTY
5701 145 2	JUNIOR HACKSAW	1

**Scope of delivery:**

- 1x original PUK saw blade, 145mm, 32 tpi



## Hacksaw Frame - Light

- Ergonomically formed metal hacksaw, twist-free die cast aluminium
- Non-slipping two-component safety soft handle
- For 13mm width saw blades

Article No.	Article Description	QTY
5701 300 2	HACKSAW LIGHT	1

**Scope of delivery:**

- HSS bi-metal saw blade, 300mm, 24 tpi



## Professional Hacksaw Frame

- Heavy, ergonomical, professional metal hacksaw, twist-free die cast aluminium
- Non-slipping two-component safety soft handle
- Quick release fixture with spring tension
- High blade tension possible at 0 and 55 degrees
- For 13mm width saw blades

Article No.	Article Description	QTY
5701 300 3	HACKSAW PROFESSIONAL	1

**Scope of delivery:**

- HSS bi-metal saw blade, 300mm, 24 tpi



## Traditional - Hacksaw Frame with Wooden Handle

- Traditional version
- For 13/25mm width saw blades

Article No.	Article Description	QTY
5701 300	HACKSAW WOOD HANDLE 300MM	1

**Scope of delivery:**

- HSS bi-metal saw blade, 300mm, 24 tpi



## HSS - Bi Metal Hacksaw Blades



- Hand saw blade HSS Bi-Metal
- Professional quality
- High performance bi-metal version hand saw blade
- High cutting performance and long service life, resistant to breakage
- Available in 24 teeth per inch or 32 tpi
- Width: 13 mm
- Length: 300 mm



Article No.	Article Description	QTY
5700 300	HSS BI-MET.HACKS.BL.24TPI300MM	10 H
5700 300 12	HSS BI MET.HACK.BL.32TPI 300MM	10 H
5700P 1	(50)SAW BL.HSS-BI-M.300MM24TPI	1

## HSS Hacksaw Blade, Double-cutting Edge

- High-performance hand saw blade made of reliable high-speed cutting steel
- High cutting performance and long service life
- Width: 25mm
- Length: 300 mm



Article No.	Article Description	QTY
5700 300 10	HSS DOUBLE-CUT.EDGE 24TPI300MM	10 f

## HCS Hacksaw Blade, Double-cutted Edge

- Inductively hardened teeth
- 24 tpi
- Width: 25mm
- Length: 300 mm



Article No.	Article Description	QTY
5700 300 11	HCS DOUBLE-CUT.EDGE 24TPI300MM	10 f

## Junior Saw Blade - Metal

- Original PUK version
- 32 teeth per inch
- Width: 7 mm
- Length: 145 mm



Article No.	Article Description	QTY
5700 145	PUK JUN.HACK.SAW BL.32TPI145MM	12

## Tyre Marker

- For marking tyres concerning vehicle details, tyre allocation, tyre damages etc.
- Waterproof rubber marker, also usable for many application fields
- Suitable for dry and wet tyres, metals and alloys, plastics, acrylic glass, wood, cork, glass, porcelain, ceramics, earthenware, terra cotta, concrete, masonry, brick, stone cartons as well as further smooth and rough surfaces

**Art. No. 3595 10 and 3595 11:**

- Ø x L: 10 x 90 mm

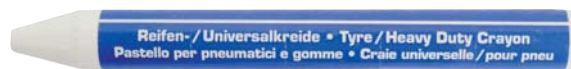
**Art. No. 3595 30 and 3595 31:**

- Ø x L: 18 x 90 mm

Article No.	Article Description	QTY
3595 1	UNIV.TYRE MARKER HOLDER 10MM	1 z
3595 10	UNIV.TYRE MARKER WHITE 10MM	12
3595 11	UNIV.TYRE MARKER YELLOW 10MM	12
3595 30	UNIV.TYRE MARKER WHITE 18MM	12
3595 31	UNIV.TYRE MARKER YELLOW 18MM	12



3595 1



3595 10



3595 11



3595 30



3595 31

## Universal marker set

- very stable design, completely made from anodised metal, with practical clip
- all-purpose lead to mark almost every material, whether dry or wet: car paint tiles, brick, wet or dry wood, glass, rubber, tyres, ceramic, concrete, metal, plastic to name a few
- graphite lead to mark wood, paper and cardboard
- with sharpener in the cap for the graphite lead

**scope of delivery:**

- 2x universal marker
- 5x graphite leads
- 5x yellow all purpose leads
- 5x red all purpose leads

Article No.	Article Description	QTY
4713 17 1	UNIVERSAL MARKER SET	1 d
4713 17 2	P(5)PENCIL LEAD F.UNI.MARK.RED	1
4713 17 3	P(5)PENCIL LEAD F.UNI.MARK.YEL	1
4713 17 4	P(5)PENCIL LEAD F.UNI.MARK.GRA	1
4713 17 5	REPLACEMENT UNIVERS.MARKER	1
4713 17 6	P(5)PENCIL LEAD UNI-M.SOAPSTON	1





## Light-Metal Magnet Spirit Level

- Same design as the light-metal spirit level but with strong magnet
- Accuracy at standard measurement: 0.057° corresponds to 1.0 mm/m

Article No.	Article Description	QTY
4717 40 2	LM-MAGNET SPIRIT LEVEL 40CM	1
4717 60 2	LM-MAGNET-SPIRIT LEVEL 60CM	1
4717 80 2	LM-MAGNET-SPIRIT LEVEL 80CM	1
4717 100 2	LM-MAGNET-SPIRIT LEVEL 100CM	1
4717 120 2	LM-MAGNET-SPIRIT LEVEL 120CM	1
4717 150 2	LM-MAGNET-SPIRIT LEVEL 150CM	1
4717 180 2	LM-MAGNET-SPIRIT LEVEL 180CM	1
4717 200 2	LM-MAGNET-SPIRIT LEVEL 200CM	1



## Light Metal-Precision-Spirit Level

- Precision-version such as light metal-spirit level but with milled measuring surface (up to 120 cm)
  - Accuracy at standard measurements: 0.029° corresponds to 0.5 mm/m
  - Suitable for overarm and turnover measurements: 0.043° corresponds to 0.75 mm/m
  - From a length of 150 cm with 2 vertical-vials for ideal read off and high degree of accuracy
- The spirit level for the cabinet maker, interior fittings and where low tolerance is necessary

Article No.	Article Description	QTY
4717 40	LM-PRECISION-SPIRIT LEVEL 40CM	1
4717 60	LM-PRECISION-SPIRIT LEVEL 60CM	1
4717 80	LM-PRECISION-SPIRIT LEVEL 80CM	1
4717 100	LM-PRECISION-SPIRIT LEVEL 100CM	1
4717 120	LM-PRECISION-SPIRIT LEVEL 120CM	1
4717 150	LM-PRECISION-SPIRIT LEVEL 150CM	1
4717 180	LM-PRECISION-SPIRIT LEVEL 180CM	1
4717 200	LM-PRECISION-SPIRIT LEVEL 200CM	1



## Electrician's Spirit Level

- Strong rectangle profile with flat side surfaces made of corrosion resistant light-metal alloy
- Powder-coated surfaces
- Unbreakable vials made of block-acrylic glass
- Accuracy of measurement: 0.029° = 0.5 mm/m in standard position

**Art.-No. 4717 43 50 and 4717 120 50:**

- With integrated plastic sleeves for marking the drilling holes of multiple sockets
- Patented blocks help to keep the spirit level on the wall

Article No.	Article Description	QTY
4717 22 50	ELECTR.SPIRIT LEVEL 22CM	1
4717 43 50	ELECTR.SPIRIT LEVEL 43CM	1





## Mini Ortem manual pipe cleaning device

- For pipes from Ø 20 – 50 mm
- For easy manual work using a user-friendly crank or for drill / screwdriver drill drive (speed of rotation ≤ 300 rpm)
- Ideal for odour traps and tight bends in pipes, the coil fits through strainers in washbasins and sinks
- Handy, compact and light at just 2.9 kg
- The coil is easy to lock into place with a quick release chuck
- Coil drum made of impact-resistant, fibreglass reinforced plastic
- Hot-dip galvanized, highly flexible and specially hardened coil with a macerator head, providing easy feed and a long service life

Article No.	Article Description	QTY
8955 20 50	PIPE CLEANING MACH.MINI-ORTEM	1

### Scope of delivery:

- Mini-Ortem pipe cleaning device with coil Ø 8 mm, 7.5 m long with macerator head



## Hand tools

## Uni ACC radial press

### universal electronic radial press with automatic forced return

- for radial press connections from Ø 10-108 mm
- presses safely and in seconds
- sturdy and compact design for one-handed operation (4.7 kg)
- automatic return after completed pressing
- swivelling crimping pliers (over 360°) due to housing that rotates
- crimping pliers sit securely due to automatic locking
- high performance universal motor (230V, 50-60Hz, 450W) for consistent and safe crimping
- electro-hydraulic drive with eccentric piston pump, sturdy planetary gear and compact high performance hydraulic system
- tested safety - certified by independent testers
- liability acceptance agreements with the ZVSHK, BHKS and B.S.H.L.
- Liability acceptance agreements apply irrespective of which press fitting system is pressed with the tools

Article No.	Article Description	QTY
4946 100	UNI ACC RADIAL PR.BASIC PACK	1

### scope of delivery:

- drive motor with forced return
- metal case



# Battery radial press multi ACC 14.4 V

## tough and compact battery driven radial press with automatic forced return

- for radial press connections from Ø 10-108 mm
- presses safely and in seconds
- sturdy and compact design for one-handed operation (4.3 kg)
- automatic return after completed pressing
- swivelling crimping pliers (over 360°) due to housing that rotates
- crimping pliers sit securely due to automatic locking
- powerful battery motor 14.4 V, 380W) for consistent and safe crimping
- electro-hydraulic drive with eccentric piston pump, sturdy planetary gear and compact high performance hydraulic system
- electronic charge level control with deep discharge protection and charge level display
- tested safety - certified by independent testers
- liability acceptance agreements with the ZVSHK, BHKS and B.S.H.L.
- Liability acceptance agreements apply irrespective of which press fitting system is pressed with the tools



4946 201

4946 202



4946 203

Article No.	Article Description	QTY
4946 200	BATT.PRESS ACC BASIC-PACK LI	1
4946 201	REPL.BATT.LI-ION 14.4V 3.2AH	1
4946 202	QUICK CHARGER LI-ION 230 V	1
4946 203	POWER SUPPLY LI-ION 230 V	1

### Scope of delivery:

- Drive motor 14.4 V, 380V with forced return
- 1 x battery Li-Ion 14.4 V, 3.2Ah
- Quick charger Li-Ion / Ni-Cd
- Metal case

### Accessories:

- Art.-No. 4946 201: replacement battery Li-Ion 14,4V 3,2AH
- Art.-No. 4946 202: quick charger Li-Ion 230V
- Art.-No. 4946 203: power supply Li-Ion 230 V; the battery radial press can also be used as a power supply with this adapter



## Crimping pliers

### System-specific crimping pliers for all common press-fitting systems

- suitable for radial pressing units Uni ACC and Multi ACC and for radial pressing units from other manufacturers, such as REMS, Rothenberger, Ridgid, Novopress, etc.
- precisely fitted and exactly rounded-off, system-specific pressing contours in accordance with the individual press-fitting systems for perfect and system-compliant secure pressing
- drop-forged for the highest quality and long service life
- TÜV tested quality "Made in Germany"
- SHK assumption of liability agreement and suitability confirmation
- Traceability in accordance with EN 1775:2007 - the crimping pliers M, V and UP have a specific marking which leaves an imprint in the pressed fitting. This allows the user, after the crimping process, to check whether suitable crimping pliers have been used.



Drinkable water

Gas



## Crimping pliers M

- suitable for grouting the following press fitting systems:
  - **Geberit Mapress:** C-steel, stainless steel, copper, stainless steel gas (15-35mm), copper gas (15-35mm)
  - **+GF+:** press-fit (12-35mm)
  - **Jäger:** Niropress type M
  - **SANHA:** press fittings (12-35mm), Niro-San press system (12-35mm), Niro-San press system gas (12-35mm)

Article No.	Article Description	QTY
4946 2 12	CRIMPING PLIERS M 12	1
4946 2 15	CRIMPING PLIERS M 15	1
4946 2 18	CRIMPING PLIERS M 18	1
4946 2 22	CRIMPING PLIERS M 22	1
4946 2 28	CRIMPING PLIERS M 28	1
4946 2 35	CRIMPING PLIERS M 35	1
4946 2 42	CRIMPING PLIERS M 42	1
4946 2 54	CRIMPING PLIERS M 54	1



## Crimping pliers V

- suitable for grouting the following press fitting systems:
  - **Viega:** press tabo, professional press, professional press G, professional press THERM, sanpress, sanpress stainless steel, sanpress stainless steel G
  - **+GF+:** Press-Fit
  - **IBP:** >B-Press, >B-Press gas, >B-Press stainless steel, >B-Press solar
  - **SANHA:** press fittings, Niro-San press system, Niro-San press system Gas

Article No.	Article Description	QTY
4946 3 12	CRIMPING PLIERS V 12	1
4946 3 15	CRIMPING PLIERS V 15	1
4946 3 18	CRIMPING PLIERS V 18	1
4946 3 22	CRIMPING PLIERS V 22	1
4946 3 28	CRIMPING PLIERS V 28	1
4946 3 35	CRIMPING PLIERS V 35	1
4946 3 42	CRIMPING PLIERS V 42	1
4946 3 54	CRIMPING PLIERS V 54	1



## Crimping pliers G

- suitable for grouting the following press fitting systems: - **Geberit:** Mepla

Article No.	Article Description	QTY
4946 4 16	CRIMPING PLIERS G 16	1
4946 4 20	CRIMPING PLIERS G 20	1
4946 4 26	CRIMPING PLIERS G 26	1
4946 4 32	CRIMPING PLIERS G 32	1
4946 4 40	CRIMPING PLIERS G 40	1
4946 4 50	CRIMPING PLIERS G 50	1
4946 4 63	CRIMPING PLIERS G 63	1



## Crimping pliers UP

- suitable for grouting the following press fitting systems:
  - **UPONOR:** MLC (14-32mm), MLC-D (16-32mm), MLC-G (20-32mm)

Article No.	Article Description	QTY
4946 5 14	CRIMPING PLIERS UP 14	1
4946 5 16	CRIMPING PLIERS UP 16	1
4946 5 18	CRIMPING PLIERS UP 18	1
4946 5 20	CRIMPING PLIERS UP 20	1
4946 5 25	CRIMPING PLIERS UP 25	1
4946 5 32	CRIMPING PLIERS UP 32	1



## Crimping pliers U

- suitable for grouting the following press fitting systems:
  - **UPONOR:** Unipipe, Airpipe
  - **Wavin:** K1, Future K2, Tigris, Tigris Alupex, Tigris Blue, Tigris PEX (16-50mm)
  - **Frankish:** alpex F50 professional (16-32mm)
  - **Conel:** CONNECT MULTI 16, 20, 25 (NW 26), 32

Article No.	Article Description	QTY
4946 6 14	CRIMPING PLIERS U 14	1
4946 6 16	CRIMPING PLIERS U 16	1
4946 6 18	CRIMPING PLIERS U 18	1
4946 6 20	CRIMPING PLIERS U 20	1
4946 6 25	CRIMPING PLIERS U 25	1
4946 6 32	CRIMPING PLIERS U 32	1
4946 6 40	CRIMPING PLIERS U 40	1
4946 6 50	CRIMPING PLIERS U 50	1
4946 6 63	CRIMPING PLIERS U 63	1





## Crimping pliers TH

- suitable for grouting the following press fitting systems:
  - **DiaNorm:** HKS Sitec Press
  - **Gabo system technology**
  - **Haka Gerodur:** HAKASAN 16, 20, 26, 32, 40 mm
  - **Heima-press:** 16, 20, 26, 32, 40 mm
  - **Henco:** 14, 16, 18, 20, 26 mm
  - **IPA:** Ipana-Press
  - **KME:** Q-Tec 14, 16, 20 mm
  - **PURMO:** HKS Sitec Press
  - **Zewotherm:** 16, 20, 26, 32, 40 mm
  - **Frankish:** alpex F50 Profi 16, 20, 25, 32 mm
  - **Conel:** CONNECT MULTI 16, 20, 25 (NW 26), 32

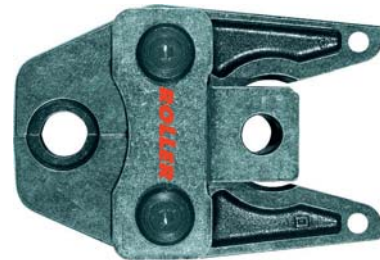
Article No.	Article Description	QTY
4946 7 14	CRIMPING PLIERS TH 14	1
4946 7 16	CRIMPING PLIERS TH 16	1
4946 7 17	CRIMPING PLIERS TH 17	1
4946 7 18	CRIMPING PLIERS TH 18	1
4946 7 20	CRIMPING PLIERS TH 20	1
4946 7 26	CRIMPING PLIERS TH 26	1
4946 7 32	CRIMPING PLIERS TH 32	1
4946 7 40	CRIMPING PLIERS TH 40	1
4946 7 50	CRIMPING PLIERS TH 50	1
4946 7 63	CRIMPING PLIERS TH 63	1



## Crimping pliers VP

- suitable for grouting the following press fitting systems:
  - **Viega:** sanfix Fosta, sanfix P, sanfix Plus, Viegatherm P
  - **Frankish:** alpex F50 Profi 16, 20, 25, 32 mm
  - **Conel:** CONNECT MULTI 16, 20, 25 (NW 26), 32

Article No.	Article Description	QTY
4946 8 16	CRIMPING PLIERS VP 16	1
4946 8 20	CRIMPING PLIERS VP 20	1
4946 8 25	CRIMPING PLIERS VP 25	1
4946 8 32	CRIMPING PLIERS VP 32	1



## Cropping tongs

- sturdy cropping tongs for burr-free separation of threaded rods made from steel and stainless steel up to grade 4.8
- precise separation in seconds
- suitable for Uni ACC and Multi ACC radial presses as well as devices from other manufacturers such as REMS, Rothenberger, Ridgid, Novopress etc.
- partitions can be used for double durability
- drop forged for highest quality
- TÜV tested quality

Article No.	Article Description	QTY
4946 1 6	CROPPING TONGS M 6	1
4946 1 8	CROPPING TONGS M 8	1
4946 1 10	CROPPING TONGS M 10	1
4946 1 12	CROPPING TONGS M 12	1





# Multi-Press Mini ACC radial press

- For the quick and safe crimping of all common pipe systems
- Small, compact design with optimum weight distribution and a low total weight of only 2.4 kg with battery
- Extremely easy to handle with a low overall length of just 34 cm including the crimping tongs
- Especially lightweight mini crimping tongs due to a special arrangement of the crimping tong attachment
- With forced operation, charge status indicator and automatic return once the crimping operation is complete
- Robust, powerful electrohydraulic drive with robust planetary gear
- Reliable, powerful 14.4V battery motor, 420 W output
- Electronic charging status indicator with deep discharge protection and 2-colour LED charging status indicator



Article No.	Article Description	QTY
4946 300	RADIAL PRESS MINI ACC BASIC LI	1
4946 201	REPL.BATT.LI-ION 14.4V 3.2AH	1
4946 202	QUICK CHARGER LI-ION 230 V	1
4946 203	POWER SUPPLY LI-ION 230 V	1

## Scope of delivery:

- Drive motor 14.4V, 380W with forced return
- 1 x Li-ion battery 14.4V, 1.6 Ah
- High-speed charger Li-ion/Ni-Cd
- Metal case

## Accessories:

- Art.-No. 4946 201: Replacement Li-ion battery 14.4V 1.6 Ah
- Art.-No. 4946 202: high-speed charger Li-ion 230V
- Art.-No. 4946 203: Li-ion 230V power supply, cordless radial press can therefore also be used with mains power supply



## Crimping pliers Mini

System-specific crimping pliers for all common press-fitting systems

- suitable for Multi ACC radial presses
- precisely fitted and exactly rounded-off, system-specific pressing contours in accordance with the individual press-fitting systems for perfect and system-compliant secure pressing
- drop-forged for the highest quality and long service life
- TÜV tested quality "Made in Germany"
- SHK assumption of liability agreement and suitability confirmation
- Traceability in accordance with EN 1775:2007 – the crimping pliers M, V and UP have a specific marking that leaves an impression in the pressed fitting. This allows the user, after the crimping process, to check whether suitable crimping pliers have been used



Drinkable water

Gas



## Crimping pliers Mini M

- Suitable for compression with the following press fitting systems:
- **Geberit Mapress:** C-steel, stainless steel, copper, stainless steel gas (15 - 35 mm), copper gas (15 - 35 mm)
- **+GF+:** Press-Fit (12 - 35 mm)
- **Jäger:** Niropress Type M
- **SANHA:** Press fittings (12 - 35 mm), Niro-San Press System (12 - 35 mm), Niro-San Press System Gas (12 - 35 mm)

Article No.	Article Description	QTY
4946 9 12	CRIMPING PLIERS MINI M12	1
4946 9 15	CRIMPING PLIERS MINI M15	1
4946 9 18	CRIMPING PLIERS MINI M18	1
4946 9 22	CRIMPING PLIERS MINI M22	1
4946 9 28	CRIMPING PLIERS MINI M28	1
4946 9 35	CRIMPING PLIERS MINI M35	1



## Crimping pliers Mini V

- Suitable for compressing of the following press fitting systems:
- **Viega:** Presstabo, Profipress, Profipress G, Profipress THERM, Sanpress, Sanpress Inox, Sanpress Inox G
- **+GF+:** Press-Fit
- **IBP:** Press, Press Gas, Press Inox, Press Solar
- **SANHA:** Press fittings, Niro-San Press System, Niro-San Press System Gas

Article No.	Article Description	QTY
4946 10 12	CRIMPING PLIERS MINI V12	1
4946 10 15	CRIMPING PLIERS MINI V15	1
4946 10 18	CRIMPING PLIERS MINI V18	1
4946 10 22	CRIMPING PLIERS MINI V22	1
4946 10 28	CRIMPING PLIERS MINI V28	1
4946 10 35	CRIMPING PLIERS MINI V35	1



## Crimping pliers Mini G

- Suitable for the compression of the following press-fitting systems:
- Geberit: Mepla

Article No.	Article Description	QTY
4946 11 16	CRIMPING PLIERS MINI G16	1
4946 11 20	CRIMPING PLIERS MINI G20	1
4946 11 26	CRIMPING PLIERS MINI G26	1
4946 11 32	CRIMPING PLIERS MINI G32	1
4946 11 40	CRIMPING PLIERS MINI G40	1



## Crimping pliers Mini UP

- Suitable for compression with the following press fitting systems:
- **UPONOR:** MLC (14 - 32 mm), MLC-D (16 - 32 mm), MLC-G (20 - 32 mm)

Article No.	Article Description	QTY
4946 12 14	CRIMPING PLIERS MINI UP14	1
4946 12 16	CRIMPING PLIERS MINI UP16	1
4946 12 18	CRIMPING PLIERS MINI UP18	1
4946 12 20	CRIMPING PLIERS MINI UP20	1
4946 12 25	CRIMPING PLIERS MINI UP25	1
4946 12 32	CRIMPING PLIERS MINI UP32	1



## Crimping pliers Mini U

- Suitable for compression with the following press fitting systems:
- **UPONOR:** Unipipe, Airpipe
- **Wavin:** K1, Future K2, Tigris, Tigris Alupex, Tigris Blue, Tigris PEX (16 - 50 mm)
- **Fränkische:** Alpex F50 Professional (16 - 32 mm)
- **Conel:** CONNECT MULTI 16, 20, 25 (NW 26), 32

Article No.	Article Description	QTY
4946 13 14	CRIMPING PLIERS MINI U14	1
4946 13 16	CRIMPING PLIERS MINI U16	1
4946 13 18	CRIMPING PLIERS MINI U18	1
4946 13 20	CRIMPING PLIERS MINI U20	1
4946 13 25	CRIMPING PLIERS MINI U25	1
4946 13 32	CRIMPING PLIERS MINI U32	1
4946 13 40	CRIMPING PLIERS MINI U40	1



## Crimping pliers Mini TH

- Suitable for compression with the following press fitting systems:
- **DiaNorm:** HKS Sitec Press
- **Gabo Systemtechnik**
- **Haka Gerodur:** HAKASAN 16, 20, 26, 32, 40 mm
- **Heima-press:** 16, 20, 26, 32, 40 mm
- **Henco:** 14, 16, 18, 20, 26 mm
- **IPA:** Ipana-Press
- **KME:** Q-Tec 14, 16, 20 mm
- **PURMO:** HKS Sitec Press
- **Zewotherm:** 16, 20, 26, 32, 40 mm
- **Fränkische:** Alpex F50 Professional 16, 20, 25, 32 mm
- **Conel:** CONNECT MULTI 16, 20, 25 (NW 26), 32

Article No.	Article Description	QTY
4946 14 14	CRIMPING PLIERS MINI TH14	1
4946 14 16	CRIMPING PLIERS MINI TH16	1
4946 14 17	CRIMPING PLIERS MINI TH17	1
4946 14 18	CRIMPING PLIERS MINI TH18	1
4946 14 20	CRIMPING PLIERS MINI TH20	1
4946 14 26	CRIMPING PLIERS MINI TH26	1
4946 14 32	CRIMPING PLIERS MINI TH32	1
4946 14 40	CRIMPING PLIERS MINI TH40	1



## Pipe Thread Seals - low strength

# Pipe thr.seal.PTFE low-strength-WH K178 FORCH\*\*\*\*\*

- for locking and sealing of pipe threads against gas, water, hydrocarbon, oil, LPG and many chemicals
- replaces hemp, PTFE and solid seal
- low strength, easy disassembly with tools
- no classification necessary acc. to EU-guideline (GefStoffV)
- with NSF-registration (NSF/ANSI Standard 61)
- DVGW-controlled (DIN EN 751-1), not approved for gas in-house installations acc. to DVGW-TRGI 2008
- with **turnable dosing cap system**
  - convenient turnable cap for practical one-hand use
  - continuously adjustable dosing system for optimized application, low-consumption and thus cost-reducing dosing
  - self-cleaning locking system, no clogging of the dispensing nozzle

**Technical Data**

Viscosity (25°C) [mPas]:	180.000-3.300.000
Density (25°C) [g/cm³]:	1.11
Temperature resistance:	from -55 °C to +150 °C
Max. gap filling [mm]:	0.5
Breakaway torque [Nm]:	4-8
Shear strength (DIN 54452) [N/mm²]:	2-6
Touchable consistency [Min.]:	10-20
Functional consistency [h]:	1-3
Final consistency [h]:	24
Max. thread [metr/zoll]:	M80 / 3"



Article No.	Article Description
6420 4012	TB(50G)PI.THRE.SEAL.NF K178 5*

## Pipe thread seal, medium-strength

# Pipe thread seal medium strength yell. K177 FORCH\*\*\*\*\*

- To protect and seal screw threads against gas, water, hydrocarbon, oil, liquid gas and many chemicals
- replaces hemp, PTFE as well as solid seals
- medium strength, removable using a tool
- non-hazardous according to German Ordinance on Hazardous Substances
- with NSF registration (NSF / ANSI standard 61)
- DVGW tested (DIN EN 751-1), not approved for gas indoor installation according to DVGW-TRGI 2008
- with dosage turn-lock fastener system - practical turn-lock for effective use with one hand
  - continuous dosage system for a user-optimised, economical and cost effective dosage
  - self-cleaning turn-lock system, no plug required for the dosage nozzle

**Technical Data**

Viscosity (25°C) [mPas]:	18,000-30,000
Density (25°C) [g/cm³]:	1.05
Temperature resistance:	-55 °C to +150 °C
Max. gap filling viscosity [mm]:	0.5
Breakaway torque[Nm]:	10-20
Shear strength (DIN 54452) [N/mm²]:	6-13
Fixture time [min.]:	15-30
Functional strength [h]:	1-3
Final strength [h]:	3-6
Max. thread [metric/inch]:	M80 / 3"



Article No.	Article Description
6420 4010	TB(50G)PI.THRE.SEAL.MF K177 5*



## Plastic Fermit White

- White permanently elastic sealing agent on the basis of plastic material
- Highly elastic and of high adhesive force, without soiling the hands
- Temperature-resistant up to more than 100°C
- Perfect to insert the fittings into wash stands and bath tubs for cold and hot water
- Not appropriate for marble and other natural stones

Article No.	Article Description	QTY
8694 500	TIN(500G)PLASTIC FERMIT WHITE	e 12



## Boiler Luting, Fire-Proof

- Permanently elastic sealing cement, fire-proof against open fire up to 1,000 °C
- Free of asbestos
- Good adhesion on metal
- Completely smoke- and gas-tightening for boilers, ovens and stoves

Article No.	Article Description	QTY
8694 1000 1	TIN(1000G)FIRE-PR. BOILER LUT.	1
8694 500 1	TIN(500G)FIRE-PR. BOILER LUT.	1
8694 320	C(310ML)FIRE-PR. BOILER LUTING	1 d



## Lubricant, Green, 250 g and 500 g

- Gel-like, water-soluble lubricant with excellent lubrication properties for all plug-in PE and PVC pipes, particularly suitable also in the drinking water sector
- Reduces the friction resistance to an absolute minimum and at the same time protects the pipe during assembly
- Tested by the Hygiene Institute
- Evaporates to a colourless film
- Biologically degradable, toxicologically and physiologically harmless

Article No.	Article Description	QTY
8694 250 2	BT(250G)GREEN LUBRICANT	e 24
8694 500 2	BT(500G)GREEN LUBRICANT	e 20



8694 250 2    8694 500 2

## Antifriction Paste for Plug-In Sleeves

- Facilitates the mounting and pulling over of plug-in sleeves on plastic pipes
- Tested and approved by the DVGW research center at Karlsruhe – approved for all plastic pipes and drinking water pipes
- Free from greases, oils or solvents – sealings do not get rough and will not be destroyed
- Soluble in water, toxically and physiologically harmless, biodegradable and neutral to skin– fulfills the values of the Bundesgesundheitsamt für Kunststoff-Trinkwasser-Empfehlungen (TKW) (Federal Health Authority for Plastic Drinking Water Recommendations)

Article No.	Article Description	QTY
8694 250 1	ANT.F.PAS.F.PL-IN SL.WHITE250G	e 5





# Thread Sealing Paste

- DIN-DVGW / ÖVGW / SVGW tested
- Approved for all gas and drinking water pipes, as well as for heating systems in domestic installations
- Can be used in conjunction with hemp for metallic threaded connections
- Can also be used with plastic pipes

## Fields of application:

- **Gas:** permanently temperature resistant from -20 °C to +70 °C at max. 5 bar
- **Drinking water:** permanently temperature resistant up to +23 °C at max. 16 bar
- **Hot water:** permanently temperature resistant up to +130 °C at max. 7 bar

Article No.	Article Description	QTY
6885 130	TB(130G)THREAD SEALING PASTE	e 15
6885 250	TB(250G)THREAD SEALING PASTE	e 15
6885 400	DS(400G)THREAD SEALING PASTE	e 18



6885 130

6885 250

6885 400

# Hemp

- To seal up thread connections

Article No.	Article Description	QTY
8694 220	TRESS(220G) HEMP	e 10
8694 80	REEL(80G) HEMP	e 10



# Hemp Reel Retainer

- Ideal to unroll hemp reels 80g

Article No.	Article Description	QTY
8694 80 1	HEMP REEL RETAINER	1



# PTFE-Sealing Tape Sanitary Field

- To seal pipe connections, to be used instead of hemp
- Resistant against all aggressive media
- Permanently temperature resistance
- Avoids jamming of threads
- Oxygen-resistant
- For threads DIN 2999-1
- Art. No. 8694 12 1 is tested according to DIN DVGW and BAW

**Art. No. 8694 12 1:**

- White spool, yellow ring

**Art. No. 8694 12 2:**

- Yellow spool, yellow ring



Technical Data				
Art. No.	Pipe	Temp. range	Pres.	Nom. size
8694 12 1	Gas	-20 – 125 °C	5 bars	< DN 10 (3/8“) 1)
	Drink. water	-20 – 95 °C	16 bars	
	Hot water	-20 – 125 °C	7 bars	
8694 12 2	Gas	-20 – 125 °C	5 bars	DN 10 (3/8“) – DN 50 (2“)
	Drink. water	-20 – 95 °C	16 bars	
	Hot water	-20 – 125 °C	7 bars	
1) This strip can also be used for other nominal sizes, if the number of threads is $\geq 7,5\text{cm}^2$				

Article No.	Article Description	QTY
8694 12 1	REEL(12M)PTFE. S. TAPE FG 12MM	e 10
8694 12 2	REEL(12M)PTFE. S. TAPE GG 12MM	e 10

# Thread Sealing Yarn

- The non-hardening coated multifilament yarn is an alternative for pastes, hemp and sealing tapes
- For metal and plastic threads up to 6" diameter made of cast iron, steel, brass, copper, chrome
- For nickel-plated and galvanized surfaces, stainless steel and plastic material
- Connections can be turned back for adjustment – no leakages, the connection remains tight
- The white, waterproofed yarn is directly applied from a handy container. The integrated cutting blade eases to cut the sealing yarn to length – convenient working, no dirt
- Do not wind the yarn directly into the thread pitches
- Wind up with tension - recommendation: Roughen the thread before winding up the yarn
- The container of thread-sealing yarn (150m) is sufficient for: Thread size 1/2" – up to max. 385 connections Thread size 3/4" – up to max. 260 connections Thread size 1" – up to max. 180 connections

**Approved for:**

- **Drinking water:** Loctite 55 fulfills the requirements of the KTW recommendation for cold and hot water and is appropriate for drinking water up to 85°C according to BS 6920
- **Gas and water:** Loctite 55 disposes of the DVDW approval, Reg No DV-5142AUO 166, tested according to EN 751-2 (class ARp) and DIN 30660

Article No.	Article Description	QTY
8694 55	TIN(150M) THREAD-SEALING YARN	e 48



# Silicone MC

## Characteristics:

- Neutral, oxime cross-bonded silicone sealant with best processing features and very good adhesion on most common construction substrates
- With fungicide
- Very good UV-resistance
- Compatible with marble and natural stones
- High thermal resistance up to 220 °C
- Very good to be smoothed and modeled
- Non-corrosive to metals
- Light-resistant, moisture-proof
- Permanently elastic and highly resistant to weathering

## Complies with the requirements of the following standards:

- DIN 18545 group D
- ISO 11600 G – 25 HM
- Suitable for cleanrooms (Hygiene-Institut Gelsenkirchen)
- VDI 6022 (requirements for RLT-facilities)
- ISO 846 part A, B, C (Hygiene-Institut Gelsenkirchen)
- Suitable for VSG- glass<sup>1</sup> (IFT Rosenheim)

## Fields of application:

- Due to its very high quality features this material is nearly suitable for all professional applications, e.g. in the field of sanitary facilities, loft conversions, window sealing, kitchen, industrial use, metal trade, mirror joint sealing etc.
- Can also be used for the sealing of marble and natural stones, as well as for bonding of mirrors<sup>2</sup>;
- For building interstices and expansions joints acc. to DIN 18540 for high-building joints up to 15 % expansion stress
- Very good adhesion on e.g. glass, tiles, ceramic, varnished tiles, enamel, many metals, (e.g. aluminium, steel, zinc, copper), on painted, glazed or impregnated wood and many plastic materials.
- For inside and outside use
- Not suitable for aquarium construction and underwater joint sealings

## Processing:

- Please take into consideration our overview „General processing advice for sealants“ (page 2/100 and 2/101)



## Technical Data




<b>Basis:</b>	Neutral silicone, oxime cross-bonded
<b>Movement absorbability:</b>	25 %
<b>Skin formation time<sup>3</sup>:</b>	approx. 8 – 15 min
<b>Hardening speed<sup>3</sup>:</b>	approx. 1 mm pro Tag
<b>Processing temperature:</b>	+5 °C to +45 °C
<b>Temperature resistance:</b>	-60 °C to +180 °C (220 °C, temporary up to max. 3 h)
<b>Density:</b>	approx. 1,03 ± 0,01 g/ml (transparent) approx. 1,10 ± 0,05 g/ml (coloured)
<b>Water vapour diffusion resistance factor:</b>	
<b>Overpaintability:</b>	approx. 265 µ
<b>fungicide-equipped:</b>	no
<b>Building material class:</b>	yes
<b>Storage stability:</b>	B2 12 months

<sup>1</sup> Applies only for certain brands. The IFT test certificate must be strictly observed!

<sup>2</sup> Please refer to the technical data sheet!

<sup>3</sup> Measured at 20 °C / 60 % RLF. Values depending on temperature and humidity.

Article No.	Article Description	QTY
6830 8200	K(300ML)SILICONE MC TRANSP. 5*	25
6830 8201	K(300ML)SILICONE MC WHITE 5*	25
6830 8202	K(300ML)SILIC.MC LIGHT GREY 5*	25
6830 8203	K(300ML)SILICONE MC MID-GREY5*	25
6830 8204	K(300ML)SILIC.MC ANTHRACITE 5*	25

Colour name	Colour display*
light grey	
middle grey	
anthracite	

\*Colour reproduction not binding

# Sanitary silicone

- High-quality, acetate cross-linking, tin-free silicone sealant with excellent adhesion on most substrates typically used in construction
- Specially for use in sanitary facilities, wet rooms and kitchens
- With fungicide
- Weather-resistant, light-fast and UV-resistant
- Can be easily smoothed and shaped
- Permanently elastic in accordance with DIN EN 26927

## Meets the requirements of the following standards:

- EN 15651-3 Sanitary joints: XS1
- EN 15651-1 Fa&#231;ade elements: INT/EXT 25LM CC
- EN 15651-2 Glass: 25LM CC

## Areas of application:

- For sealing and expansion joints in the following areas: Sanitary facilities and wet rooms, kitchens, interior fittings, windows and glass, AC systems/ventilation systems, high temperature applications
- For indoor and outdoor use
- Not suitable for aquarium construction, underwater jointing, and natural stone (e.g. marble)






## Usage:

- Please consult our overview „General Usage Instructions for Sealants“ (Pages 2/100 and 2/101).

### Technical Data

<b>Basis:</b>	Acetate cross-linking
<b>Ability to absorb movement:</b>	25 %
<b>Skin formation time*:</b>	approx. 5 – 10 min
<b>Hardening speed*:</b>	approx. 1 – 2 mm per day
<b>Working temperature:</b>	+5 °C to +45 °C
<b>Temperature resistance:</b>	-60 °C to +180 °C (220 °C, briefly up to 3 hrs)
<b>Paintable:</b>	No
<b>With fungicide:</b>	Yes
<b>Fire behaviour:</b>	Class E
<b>Storage stability:</b>	12 months (at temperatures between +5 °C and +30 °C)

Article No.	Article Description	QTY
6820 310 1	SANITARY SILIC.TRANSF.310ML	e 20
6820 310 2	SANITARY SILIC.WHITE 310ML	e 20
6820 310 3	SANITARY SILIC.MANH.310ML	e 20
6820 310 4	SANITARY SILIC.SILV-GREY 310ML	e 20
6820 310 5	SANITARY SILIC.SAN.GREY310ML	e 20
6820 310 6	SANITARY SILIC.ANTHR.310ML	e 20
6820 310 7	SANITARY SILIC.BAHAMAB.310ML	e 20

Colour name	Colour display*
manhattan	
silver grey	
santitary grey	
anthracite	
bahama beige	

\*Colour reproduction not binding





# High Temperature Silicone

- Elastic joint sealant, specifically for high thermic stresses up to +280 °C
- Resistant to a range of chemicals such as fuel, oil, grease, anti-freeze etc.
- Can be used to seal boilers, air conditioners, kitchen appliances, pumps, motors as well as for washing machine and dryer construction

## Processing instructions:

- Adhesive surfaces have to be clean, dry, dust- and grease-free
- In case of doubt, make a contact test
- Use silicone primer (Art-No. 6830 8299) beforehand for delicate surfaces such as aluminium, copper, chrome

## Technical Data

<b>Raw material base:</b>	silicone polymer low modulus acetate
<b>Max. permanent movement absorption</b>	20 %
<b>Skin formation time:</b>	after approx. 7 mins
<b>Temperature resistant:</b>	-60°C to + 280°C
<b>Processing temperature:</b>	+5°C to + 35°C
<b>Colour:</b>	rust red
<b>Shelf life:</b>	12 months (at temp. betw. +5°C and +25°C)

Article No.	Article Description	QTY
6990 1 310	C(310ML)HIGH-TEMPERAT.SILICONE	25



# Air Duct Sealant

- Ideal for sealing purposes in air duct construction
- Corresponds to VDI 6022/1 (hygienic requirements for ventilation units)
- Antifungal and antibacterial
- Overpaintable
- Silicone-free
- Not corrosive

## Applications:

- Specifically suitable to seal air ducts, air shafts, air conditioning units and ventilation units

## Processing instructions:

- Joints have to be free from dust, oil and grease.
- The joint has to be protected from rain, dirt and heavy mechanical stresses for as long as it takes to form a solid surface skin.
- The joint may only be cleaned with neutral, lightly lubricating media. Never use aggressive or abrasive cleaners.
- Adherence to DIN and VDI regulations is inevitable to ensure professional processing.

## Technical Data

<b>Raw material base:</b>	acrylate-dispersion
<b>Skin formation:</b>	approx. 5 min
<b>Hardening:</b>	approx. 2 mm per 24 h
<b>Shore A-hardness:</b>	30
<b>Processing temperature:</b>	+5 °C to + 40 °C
<b>Temperature resistance:</b>	-20 °C to + 75 °C
<b>Shelf life:</b>	18 months if stored in a cold, frost-free condition
<b>Colour:</b>	silver grey

Article No.	Article Description	QTY
6880 10 310	C(310ML)AIR DUCT SEALANT	25



# Leak Detector

- DVGW-tested
- Enables quick and easy checking and locating of leaks in gas canisters, pipes, hoses, valves, etc.
- High detection sensitivity
- Suitable for use from 0 °C to + 50 °C

## Application:

- Spray into pressurised systems from a distance of 30 to 50 cm
- Formation of bubbles identifies leaks
- Rinse any remaining leak locating fluid with clean water after use

Article No.	Article Description
6730 0800	LEAK DETECTOR 400ML
6730 0805	LEAK DETECTOR 5L

## Suitable spout:

- 5 l: 6000 0020



6730 0800



6730 0805

# Humid Leak Detector

- White powder spray for quick locating of wind, moisture and dust leaks
- Determines the leak exactly
- Allows the detection of oil, water and fuel leaks at vehicle bodies, radiators, engine blocks, gearboxes, power steering, fuel lines, pipes, pumps, and door, window and trunk seals, etc.
- Easy to clean away after application
- Safe use on rubber and vinyl

## Application:

- Spray Humid Leak Detector on the possible leak and let dry for a few minutes. Testing area must be clean and dry.
- Water, oil and fuel leave clearly visible traces in the powder
- When used for rubber seals as e.g. at doors, trunk lids spray to the opposite side.  
After ventilating, close the door, trunk lid etc. carefully. After re-opening the door, trunk lid you can see possible leaks by the lacking powder marks on the seals.
- In case of leaks in the vehicle underbody or trunk spray Humid Leak Detector to eventually open seams, cracks or openings.  
The powder ingresses through smallest cracks or holes to the inside.



Article No.	Article Description
6730 0810	HUMID LEAK DETECTOR 400ML

# Leakage Finder Frost-Proof

- For maintenance and control of gas and compressed air systems in the area of production, refinery, heating technique, hospital technique, refrigeration engineering etc.
- Suitable for cryogenic gases
- Even the smallest leaks are indicated reliably by bubble formation
- Allows punctual spraying by controlled actuation of the spray head
- DVGW tested
- Non-inflammable propellant, non-corrosive, pH-neutral
- Suitable up to -15 °C

Article No.	Article Description
6890 500	LEAK.FIND.FROST-PROOF 400ML 5*



# Pipe and Drain Cleaner

- Highly alkaline cleaner for effective removal of stubborn pipe blockages
- Easily dissolves away hair, cotton, wool, scraps of paper, soap residues, food residues, grease blockages etc.
- The cleaner spreads evenly in the pipe and outlet, dissolves residues completely while eliminating unpleasant odours
- Basic ingredient: Potassium hydroxide
- PH value: 13

## Application instructions:

- Pour about 200 ml of undiluted pipe and drain cleaner into the sink outlet
- The effect is multiplied by immediately adding approx 200 ml of hot water
- Allow to act for approx 1/2 hours and rinse with warm water
- When stubborn increase the dosage eventually
- For prevention and odour elimination pour approx. 40 - 50 ml weekly into the outlet and let take effect
- **Attention: Not to be mixed with other acidic products!**



## Your Advantage / Benefit

- Reliably removes organic blockages
- Pipes and seals are left undamaged
- Due to its high density, the cleaner is heavier than water and penetrates easily as far as the blockage

## Application



Article No.	Article Description
6890 1 101	BT(1L)PIPE AND DRAIN CLEANER

# Sanitary Power Cleaner

- Highly acidic cleaning concentrate for effective, fast removal of stubborn, clinging dirt and for diluted use on routine cleaning in sanitary areas
- Removes lime deposits, gray stains, rust, soap and dirt residues from all acid-resistant surfaces
- Basic ingredient: Phosphoric acid
- PH value : 1

**Application instructions:**

- Stir or shake well before use and test material for compatibility
- Depending on the area and degree of dirt, dilute with water at ratio of 1:5 to 1:25 and spray on the surface to be treated: allow to act briefly, if necessary rub and then rinse thoroughly with water



6890 1 201

6890 1 210

Article No.	Article Description
6890 1 201	BT(1L)SANITARY POWER CLEANER
6890 1 210	CAN(10L)SANITARY POWER CLEANER

## Your Advantage / Benefit

- Leaves hygienic cleanliness and shiny finish
- Liquid: red with pleasant orange scent

## Application

- On all washroom surfaces
- For tile (except for natural stone), wash basins, fittings, toilet, shower, bath and whirlpool tubs, glass and plastic surfaces, etc.
- Also suitable for fully biological sewage treatments plants





# Moist cleaning cloths

- Moist cleaning cloths for cleaning skin, textiles, plastics, rubber, metal, paint, tar etc.
- Contents: 50 moist cleaning cloths, 27 x 27 cm



Article No.	Article Description
6130 9100	C(70)DP MOIST CLEAN.TISS.20X30

## Your Advantage / Benefit

- Can be used without water and other cleaning additives
- Dermatologically tested
- Cleans quickly and thoroughly
- Kind to skin

## Application



## Related Products

- **Derma Plus Barrier Hand Foam**  
Art. No 6180 90 50



- **Skin Care Cream Bee**  
Art. No 6180 9062





# Disinfectant Cleaning Tissues

- Practical dispenser
  - Cleans and sterilizes effortlessly and quickly
  - Reaction time 15 secondes
  - Does not re-grease
  - Can be used without water, soap and brush
  - Can be applied to skin, textiles, plastic, rubber, metal etc.
  - Contents: 70 tissues á 20 x 30 cm
  - Anti H1N1-Virus
- Use biocides safely. Always read the lable and product Information before use.

Article No.	Article Description
6130 9106	C(70)DISINFECT.TISSUES 20X30CM



# Cleaning Cloth for Glasses

- For a gentle cleaning of all glasses and eyepieces
- 100 pcs. in convenient dispenser box
- Streak-free, fast and thorough cleaning by active fat solvent
- Quick drying
- Silicone-free

Article No.	Article Description
6130 9108	BX(100)CLEAN.TISSUES F.GLASSES



# Boiler Cleaner Oil

- For problemfree, fast cleaning of oil-powered boilers
- Cleans even stubborn, non-combustible coatings such as sulphate
- Lessens the corrosion sensitivity and the creation of new coatings
- Improves the heat transfer and so saves energy

**Usage instructions / general information:**

- Slightly foaming
- Do not spray on burner and electrical components
- Ensure sufficient chimney draught during use
- Store frostfree

**Application:**

1. Switch off burner and open boiler room
2. Spray the dirty inner surfaces of the boiler with **FÖRCH Oil Boiler Cleaner** and allow to react for a short time. Then heat the boiler well. This process will have removed the most stubborn soot and sulphate coatings.
3. Once the boiler cooled down, open the boiler room again and Hoover the remaining residue

Article No.	Article Description	QTY
6890 410	BOILER-CLEANER OIL 500ML	e 12
6620 6091	AEROSOL-ADAPTER 60CM	1



# Boiler Cleaner Gas

- For problemfree, fast cleaning of gas-powered boilers
- Cleans even stubborn, non-combustible coatings such as sulphate
- Lessens the corrosion sensitivity and the creation of new coatings
- Improves the heat transfer and so saves energy

**Usage instructions / general information:**

- Slightly foaming
- Do not spray on burner and electrical components
- Ensure sufficient chimney draught during use
- Store frostfree

**Application:**

1. Switch off burner and open boiler room
2. Spray the dirty inner surfaces of the boiler with **FÖRCH Oil Boiler Cleaner** and allow to react for a short time. Then heat the boiler well. This process will have removed the most stubborn soot and sulphate coatings.
3. Once the boiler cooled down, open the boiler room again and Hoover the remaining residue.

Article No.	Article Description	QTY
6890 610	BOILER-CLEANER GAS 500ML	e 12
6620 6091	AEROSOL-ADAPTER 60CM	1



## Burner Cleaner

- To clean heavily soiled burner parts residue-free, e.g. pressure plates, burner nozzles, fan wheels and ignition electrodes, burner and boiler casing
- Removes oil, fat and wax from all bare metal surfaces
- Due to cleaning with FOERCH burner cleaner it also works as corrosion protection

### Usage instructions / general information:

- Slightly foaming
- Spraying of conducting parts has to be avoided

### Application:

- Switch off burner and boiler at main switch.
- Spray on burner components which require cleaning and leave to rest for a moment.
- Dry with an absorbing cloth, e.g. Art. No 5413 10 3-ply blue to remove residue.



Article No.	Article Description	QTY
6890 400	BURNER-CLEANER 500ML	e 12

## Connection Adapter For Tank Filling Gas

- Adapter to connect the expansion tank filling gas can to the diaphragma type expansion tank (DTET)
- Hose length: 50 cm
- Pressure: max. 4 bar

Article No.	Article Description	QTY
6890 4010	CONNECTION ADAPTER F.TANK FILL	1



# Foam Handheld 1K-PU

- Moisture-hardening one-component-polyurethane foam to fill and insulate window joints, window sill joints, pipe feedthroughs, wall joints, wall breakthroughs and hollow spaces
- General building authority approval
- CFC-free

## Processing instruction:

- Shake can well before use (approx. 20x)
- Moistening/spraying of surfaces improves the adhesion on and hardening as well as the cell structure
- Adhesion on concrete, stone, metal and wood. No adhesion on polyethylene, silicone, PTFE and grease.
- Use primer if surface is porous or priming
- Contact tests are recommended

## Technical Data

<b>Build.mat.class acc. to DIN 4102, part 1:</b>	B2
<b>Max. foam volume:</b>	approx. 40 l
<b>Foam up:</b>	approx. 150 %
<b>Non-adhesive*:</b>	after approx. 10 min
<b>Can be cut*:</b>	after approx. 40 min
<b>Processing temperature for tin, environment and surface</b>	+5 °C to +25 °C
<b>Temperature resistance (hardened)</b>	-40 °C to +90 °C
<b>Shelf life:</b>	12 months

\* at 20 °C and 60 % relative humidity

Article No.	Article Description	QTY
6800 8105	1K-PU FOAM HANDHELD 750ML	12



# Well Foam 1K-PU

- To seal and connect wells or concrete well casings
  - Saves time-consuming mortar setting
  - Faster, time-efficient working
- Resistant against fuel, oil, water and bacteria and acids found in soil
  - individual range of use
- CFC-free
  - Environmentally-friendly
- Test certificate for water tightness

## Processing instructions:

- May not be used for construction above ground

## Technical Data

<b>Fire class acc. to DIN 4102, part 1:</b>	B3
<b>Foam yield:</b>	approx. 40 l of foam
<b>Non-adhesive:</b>	after approx. 10 min
<b>Can be cut:</b>	after approx. 40 min
<b>Processing temperature for tin, Environment and surface:</b>	+5 °C to +25 °C
<b>Temperature resistance (hardened):</b>	-40 °C to +90 °C (+120 °C max. 1 h)
<b>Shelf life:</b>	12 months

Article No.	Article Description	QTY
6800 8132	1K-PU WELL FOAM G.A. 750ML	12
6800 8133	1K-PU WELL FOAM - PIPE 750ML	12



# Quick Cement

- Free from chloride - no corrosion with the used materials – universally applicable
- Setting time 3 – 5 minutes – fast assembly with fast resilience – saves time
- Mineral compound quickcement - ready mixed formulation
- Suitable to cement and fix of:  
door frames, ornament and security grills, radiators, awnings, shutters, toilet and bidet pedestals, garage doors, letterboxes, banisters and supports, outdoor lights, fences, fuel pumps, drains both interior and exterior, intercom, pipes, lines, chimney surrounds etc.

## Storage:

- Quick cement when stored dry can keep up to 12 months in original unopened packaging.

## Usage instructions:

- Wet the surface sufficiently. Mix the quickcement with clean water to a plastic compound. Once mixture hardens stop adding water.

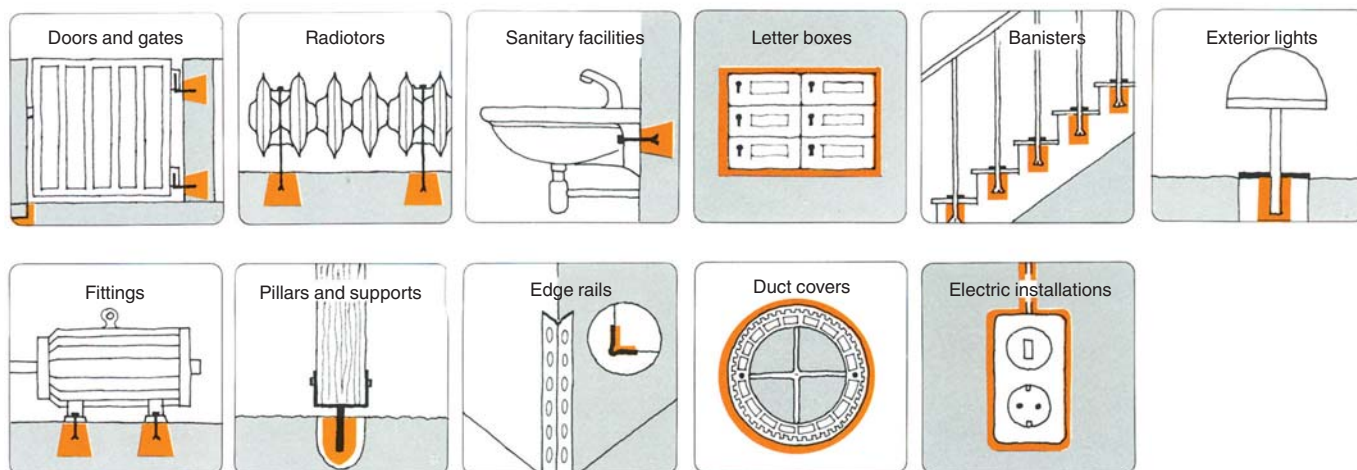
## Technical Data

<b>Drip-time:</b>	1 – 2 minutes
<b>Setting period:</b>	approx. 3 minutes
<b>Handling temperature:</b>	not below 5°C do not use if ground frost is expected
<b>Water requirement:</b>	approx. 0.3 l/kg = 1/3 water and 2/3 quickcement



Colour sample

## Applications



Article No.	Article Description	QTY
6880 5	KG<5>QUICKCEMENT IN BUCKET	5
6880 15	KG<15>QUICKCEMENT IN BUCKET	15
6880 5 1	KG<5>QUICKCEMENT BUCKET 5X1KG	5