2026

Krammer Products

made for generations.

Krammer

Welcome
... to the world of Hawle

A traditional family-owned company looking ahead to the future.

Hawle, a purely family-owned company founded in 1948, is the worldwide leader in the production of an extensive product range of valves, fittings and connecting pieces. Hawle is a leading innovator in the development of high-quality valve solutions. The company produces durable, high-performance quality valves and fittings for the construction and operation of water pipes, as well as the required accessories and equipment. During manufacture, Hawle adheres to European standards and related regulations.

Since 2014 we are manufacturing our Krammer brand products at the Hawle production sites.

An excellent understanding of the manufacturing process and the production requirements, extensive knowledge in gas and water supply, years of experience and a broad service program enables us to produce optimum products for pipe connections in all areas of international gas and water supply.
Our leading position in terms of both innovation and quality is proven by the **10-year quality guarantee** provided for Hawle products in the drinking water sector.

The employees of our company, which has its registered office in Vöcklabruck (Austria), apply all their service and expert knowledge to research, design, development as well as the production process.
Hawle products are exclusively manufactured in Europe in the most up-to-date production facilities. More than 98% of the raw materials used in the products come from Europe. Hawle products are manufactured by well-trained specialists, thus guaranteeing careful monitoring of the quality in each phase of the production process. The majority of Hawle components are also produced by Hawle themselves. So the functionality and the quality is assured and guaranteed in each production step.

Hawle stands by the high quality, efficiency and durability of their products. Which is why customers all around the world have relied on us for generations.

For more details, visit **hawle.com**

Hawle - the best solution
a reliable partner

100 % Hawle 100 % tested quality

We are constantly striving for improvements together with our partner companies all over the world. In order to achieve this we focus on the requirements of our customers, invest in the most up-to-date technology and offer professional service and technical support.
Hawle has an excellent network of partners, which ensures an efficient and competent distribution of all our products. Our central warehouse in Frankenmarkt, Austria, supplies this network with numerous finished products, which are stored in over 10,000 pallet spaces.

The pipe connections which our technicians develop today will be used tomorrow for your secured water supply.

Hawle offers a competent, round-the-clock service. As soon as we receive your call we immediately put all our efforts into finding a solution to your problem

made for generations.

Vöcklabruck plant
Austria

Frankenmarkt plant
Austria

Notes

Above ground hydrant
rigid

Construction characteristics

- Working pressure: max. 16 bar (PN 16)
- The valve plug ensures the pressure water protection and the tightness in the NIRO sealing seat ring by its vulcanized sealing profile made of elastomer with the opening stroke of the valve plug (50 mm) the function of the drain with pressure water protection is positively controlled
- The head with the outlets can be rotated by 360° by loosening the 4 stainless steel bolts
- Complete drainage – residual water zero (RW 0)
- All internal parts are made of corrosion-resistant material and can be removed from above without excavating the hydrant
- Flange sized and drilled according to EN 1092-2 | PN 16

Material | Technical features

Hydrant head:	made of ductile iron, epoxy powder-coated on all sides + external powder-coating on polyester base (UV-resistant) in RAL 5003 (sapphire blue)
Stand pipe:	**SGG made of steel**, hot-dip galvanised on all sides + external 2-component PU coating **NGG from stainless steel**, polished
Hydrant base:	made of ductile iron, epoxy powder-coated on all sides; Sealing seat ring of stainless steel
Operating pipe:	made of stainless steel
Valve plug:	made of brass / elastomer
Spindle:	made of Duplex stainless steel
Rate of flow: Kv[m³/h]	Q (m³/h) at a differential pressure of 1 bar is higher than requested by EN 14384
Standard:	**ÖNORM (Austrian standard) F 2010 - EN 14384, EN 1074-6**
Max. working pressure:	16 bar (PN 16)
Standard pipe cover depth:	1,50 m (optionally 1,25 m and 1,0 m possible)
Residual water:	< EN 1074-6

Suitable accessories

Drainage pipe:	No. 5067
Flange duck foot bend:	No. 5045, No. 5049
Hydrant shut-off key:	No. 3460, No. 3461
Flat gasket:	No. 3390
Bolts:	No. 8810, No. 8830, No. 8840
Theft indicator cap:	No. 5417
Protection cap:	No. KRE300PC
Adapter for protection cap:	No. KR281.1
Snow pole adapter:	No. 5429EURO
Snow pole:	No. 5011407

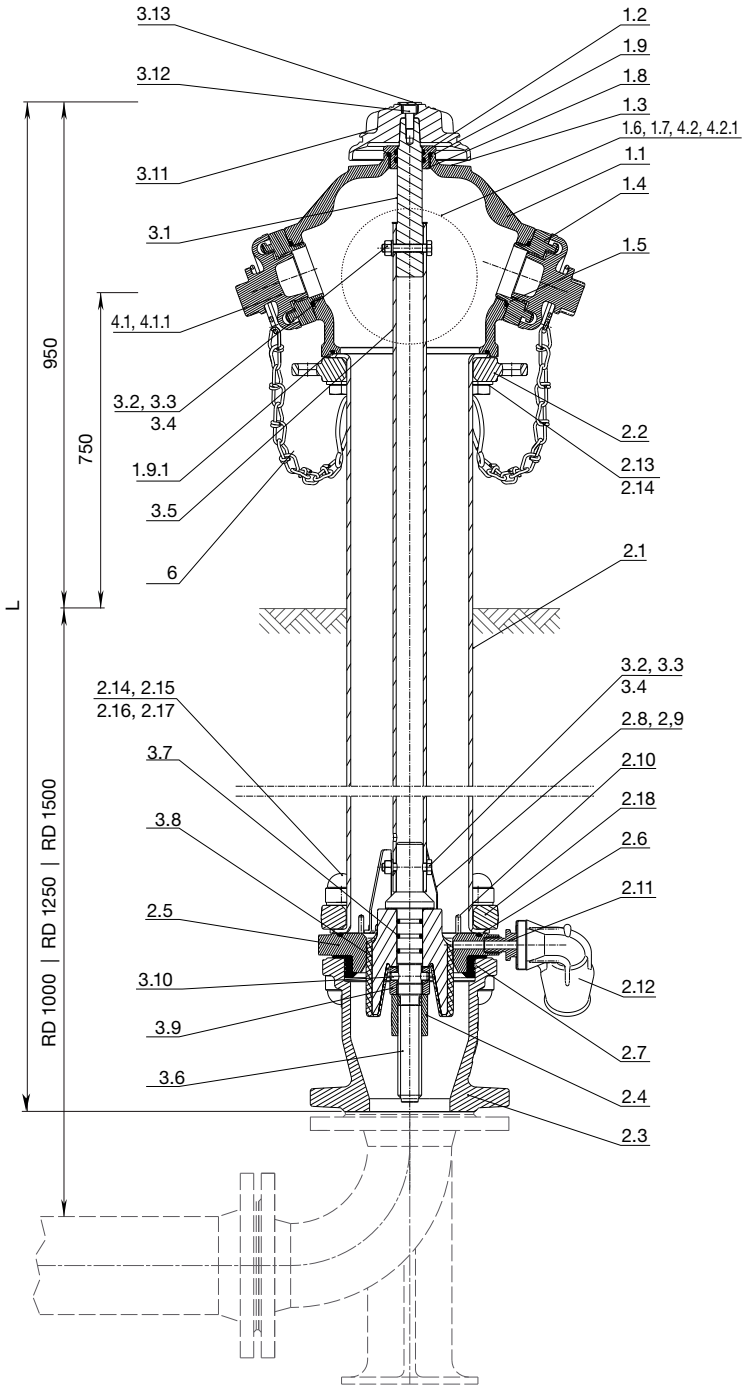
EURO-SV
rigid design, SGG, NGG

No. KR250

krammer

Fig.: NGG version

Order no.	DN	Outlet A	Outlet B	Outlet C	Version SGG	Version NGG
KR250	80		1	2		
			2			
	100	1	2			
			2			
	150	1	2			



DN	Pipe cover depth (RD) m	Outlets A	Outlets B	Outlets C	L	Connector flange sized and drilled according to EN 1092-2 D	k	Bolts	Qty.	Weight
80	1,00		1	2	1820	200	160	M 16	8	47,0
			2							
	1,25		1	2	2070					51,0
			2							50,0
	1,50		1	2	2320					55,0
			2							54,0
100	1,00	1	2		1820	220	180			71,0
	1,25	1	2		2070					75,0
	1,50	1	2		2320					80,0
150	1,50	1	2		2320	285	240	M 20	8	83,0

	Parts	Material
1.1	Hydrant head	Ductile iron
1.2	O-ring 25x3,5	Elastomer
1.3	Air valve	POM
1.4	DN 80 coupling DIN14317-C1 52 mm DN 80 / DN 100 / DN 150 coupling DIN 14318-B1 75mm	Al
1.5	DN 80 O-ring 60x5 DN 100 / DN 150 O-ring 76x5	Elastomer
1.6	DN 80 coupling DIN 14318-B1 75 mm DN 100 coupling DIN 14319-A1 110 mm DN 150 coupling DIN 14319-A1 110 mm	Al
1.7	DN 80 O-ring 76x5 DN 100 / DN 150 O-ring 116x4	Elastomer
1.8	O-ring bush	Brass
1.9	O-ring 38x4	Elastomer
1.9.1	DN 80 O-ring 152x4 DN 100 O-ring 175x4	Elastomer
2.1	Stand pipe SGG Stand pipe NGG	Stainless steel, galvanised Stainless steel
2.2	Flange pair top DN 80, DN 100	Ductile iron
2.3	Base DN 80, DN 100	Ductile iron
2.4	Stem nut	Brass
2.5	Sealing seat ring	Stainless steel
2.6	O-ring 135x5	Elastomer
2.7	Sealing ring	Elastomer
2.8	Guide bracket	Stainless steel
2.9	Allen screw M5x10	Stainless steel
2.10	Dowel pin 5x27	Stainless steel
2.11	Drain nipple	Brass
2.12	Drain fitting	POM
2.13	Hexagonal bolt M16x45	Stainless steel
2.14	Washer M16	Stainless steel
2.15	Hexagonal nut M16	Stainless steel
2.16	Hexagonal bolt M16x90	Stainless steel
2.17	Cap	Elastomer
2.18	Flange pair bottom DN 80, DN 100	Ductile iron
3.1	Square connection	Brass
3.2	Hexagonal bolt M8x45	Stainless steel
3.3	Lock nut	Stainless steel
3.4	Serrated lock washer	Stainless steel
3.5	Operating pipe	Stainless steel
3.6	Spindle	Duplex Stainless steel
3.7	O-ring 20,2x3,5	Elastomer
3.8	Valve plug DN 80, DN 100	Brass, Elastomer
3.9	Circlip	Brass
3.10	Securing pin	Brass
3.11	Cap	Al
3.12	Allen screw M8x16	Stainless steel
3.13	Sealing plug	PE
4.1	DN 80 cap DIN 14318-C4 DN 80 / DN 100 cap DIN 14319-B4	Al
4.1.1	DN 80 gasket DIN 14318-B4 DN 100 gasket DIN 14319-B3	Elastomer
4.2	DN 80 cap DIN 14318-B4 DN 100 / DN 150 cap DIN 14319-A3	Al
4.2.1	DN 80 gasket DIN 14318-B3 DN 100 / DN 150 gasket DIN 14319-A3	Elastomer
6	Chain	Stainless steel

Above ground hydrant
Above ground break away design

Construction characteristics

- Working pressure: max. 16 bar (PN 16)
- The valve plug ensures under-pressure protection and tightness in the brass seal seating ring through its vulcanised elastomer sealing profile; with the opening stroke of the valve plug (50 mm) the function of the drainage with the under pressure protection is positively-controlled
- The heads with the outlets can be rotated by 360° by loosening the 4 stainless steel bolts
- Complete drainage – residual water zero (RW 0)
- All internal parts are made of corrosion-resistant material and can be removed from above without excavating the hydrant
- The hydrant type KR260 (above ground hydrant break away) has a split hydrant stand pipe with separating flange and break-off bolts;
  In the separating area, the operating pipe has a length adjustment and a coupling piece to separate the upper and lower part
- When driving against the hydrant, the lower part is not damaged, and by replacing the break-off bolts the functionality
  can be quickly restored;
  Water escape is excluded by the hydrant design
- Flange sized and drilled according to EN 1092-2 | PN 16

Material | Technical features

Hydrant head: made of ductile iron, epoxy powder-coated on all sides + external powder-coating on polyester base (UV-resistant) in RAL 5003 (sapphire blue)

Stand pipe: **SGG made of steel**, hot-dip galvanised on all sides + external 2-component PU-coating
NGG from stainless steel, polished

Hydrant base: made of ductile iron, epoxy powder-coated on all sides; sealing seat ring of stainless steel

Operating pipe: made of stainless steel

Valve plug: made of brass / elastomer

Spindle: made of Duplex stainless steel

Rate of flow: Kv[m³/h] Q (m³/h) at a differential pressure of 1 bar is higher than requested by EN14384

Standard: **ÖNORM (Austrian standard) F 2010 - EN 14384, EN 1074-6**

Max. working pressure: 16 bar (PN 16)

Standard pipe cover depth: 1,50 m (optionally 1,25 m and 1,00 m possible)

Residual water: < EN 1074-6

EURO-SV
above ground break away design, SGG, NGG

No. KR260

krammer

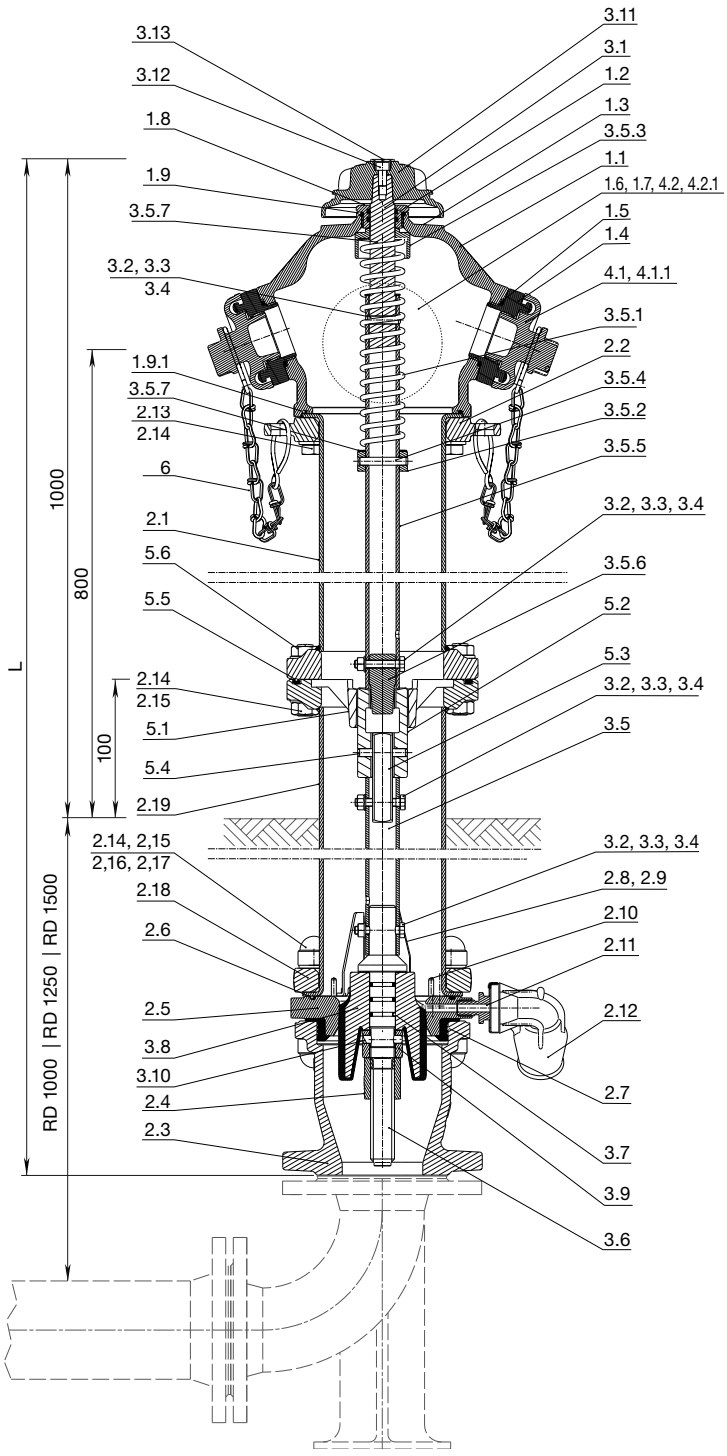
ÖVGW GEPRÜFT

Fig.: SGG version

Order no.	DN	Outlet A	Outlet B	Outlet C	Version SGG	Version NGG
KR260	80		1	2		
			2			
	100	1	2			
			2			
	150	1	2			
			2			

Suitable accessories

Drainage pipe:	No. 5067
Flange duck foot bend:	No. 5045, No. 5049
Hydrant shut-off key:	No. 3460, No. 3461
Flat gasket:	No. 3390
Bolts:	No. 8810, No. 8830, No. 8840
Theft indicator cap:	No. 5417
Protection cap:	No. KRE300PC
Adapter for protection cap:	No. KR281.1
Length extension for Euro hydrants:	No. KR285
Snow pole adapter:	No. 5429EURO
Snow pole:	No. 5011407



DN	Pipe cover depth (RD) m	Outlets A	B	C	L	Connector flange sized and drilled according to EN 1092-2 D	k	Bolts	Qty.	Weight
80	1,25		1	2	2070	200	160	M 16	8	66,0
			2							
	1,50		1	2	2320					70,0
			2							
100	1,25	1	2		2070	220	180			84,0
	1,50	1	2		2320					88,0
150	1,50	1	2		2320	285	240	M 20	8	91,0

	Parts	Material
1.1	Hydrant head	Ductile iron
1.2	O-ring 25x3,5	Elastomer
1.3	Air valve	POM
1.4	DN 80 coupling DIN14317-C1 52 mm DN 80 / DN 100 / DN 150 coupling DIN 14318-B1 75 mm	Al
1.5	DN 80 O-ring 60x5 DN 100 O-ring 76x5	Elastomer
1.6	DN 80 coupling DIN 14318-B1 75 mm DN 100 coupling DIN 14319-A1 110 mm DN 150 coupling DIN 14319-A1 110 mm	Al
1.7	DN 80 O-ring 76x5 DN 100 / DN 150 O-ring 116x4	Elastomer
1.8	O-ring bush	Brass
1.9	O-ring 38x4	Elastomer
1.9.1	DN 80 O-ring 152x4 DN 100 O-ring 175x4	Elastomer
2.1	Stand pipe SGG Stand pipe NGG	Stainless steel, galvanised Stainless steel
2.2	Flange pair top DN 80, DN 100	Ductile iron
2.3	Base DN 80, DN 100	Ductile iron
2.4	Stem nut	Brass
2.5	Sealing seat ring	Stainless steel
2.6	O-ring 135x5	Elastomer
2.7	Sealing ring	Elastomer
2.8	Guide bracket	Stainless steel
2.9	Allen screw M5x10	Stainless steel
2.10	Dowel pin 5x27	Stainless steel
2.11	Drain nipple	Brass
2.12	Drain fitting	POM
2.13	Hexagonal bolt M16x45	Stainless steel
2.14	Washer M16	Stainless steel
2.15	Hexagonal nut M16	Stainless steel
2.16	Hexagonal bolt M16x90	Stainless steel
2.17	Cap	Elastomer
2.18	Flange pair bottom DN 80, DN 100	Ductile iron
2.19	Stand pipe - lower part SGG Stand pipe - lower part NGG	Stainless steel, galvanised Stainless steel
3.1	Square connection	Brass
3.2	Hexagonal bolt M8x45	Stainless steel
3.3	Lock nut	Stainless steel
3.4	Serrated lock washer	Stainless steel
3.5	Operating pipe	Stainless steel
3.5.1	Pressure spring	Stainless steel
3.5.2	Retaining ring	Brass
3.5.3	Spring bracket	Brass
3.5.4	Brace 8x50	Stainless steel
3.5.5	Pipe spindle extension	Stainless steel
3.5.6	Spindle break away	Brass
3.5.7	Sliding washer	Brass
3.6	Spindle	Duplex stainless steel
3.7	O-ring 20,2x3,5	Elastomer
3.8	Valve plug DN 80, DN 100	Brass, Elastomer
3.9	Circlip	Brass
3.10	Securing pin	Brass
3.11	Cap	Al
3.12	Allen screw M8x16	Stainless steel
3.13	Sealing plug	PE
4.1	DN 80 cap DIN 14318-C4 DN 80 / DN 100 cap DIN 14319-B4	Al
4.1.1	DN 80 gasket DIN 14318-B4 DN 100 gasket DIN 14319-B3	Elastomer
4.2	DN 80 cap DIN 14318-B4 DN 100 / DN 150 cap DIN 14319-A3	Al
4.2.1	DN 80 gasket DIN 14318-B3 DN 100 / DN 150 gasket DIN 14319-A3	Elastomer
5.1	Bar guide (dumper star)	Brass
5.2	Bypass nut (dumper nut)	Brass
5.3	Bypass square cap	Brass
5.4	Brace 8x50	Stainless steel
5.5	O-ring 170x6	Elastomer
5.6	Break-off screw M16x60	Stainless steel
6	Chain	Stainless steel

Above ground hydrant
rigid

Construction characteristics

- Working pressure: max. 16 bar (PN 16)
- Complete drainage - residual water zero (RW 0)
- All internal parts are made of corrosion-resistant material and can be removed without excavating the hydrant
- With ball double shut-off (optionally without ball double shut-off)
- Loose flange with integrated flange gasket enables the continuous 360° rotation of the hydrant for optimal installation
- Flange sized and drilled according to EN 1092-2 | PN 16

Material | Technical features

Hydrant head:	made of ductile iron, epoxy powder-coated on all sides + external pow-der- coating on polyester base (UV-resi-stant) in RAL 3000 (fire red)
Stand pipe:	**made of steel**, hot-dip galvanised on all sides + external 2 components PU coating
Hydrant base:	made of ductile iron, epoxy powder-coated on all sides
Operating pipe:	made of stainless steel
Valve plug:	made of ductile iron / elastomer
Spindle:	made of stainless steel
Rate of flow: Kv[m³/h]	Q (m³/h) at a differential pressure of 1 bar is higher than requested by EN14384
Standard:	**ÖNORM (Austrian standard)** **F 2010 - EN 14384, EN 1074-6**
Max. working pressure:	16 bar (PN 16)
Standard pipe cover depth:	1,50 m (optionally 1,25 m and 1,00 m possible)
Residual water:	< EN 1074-6

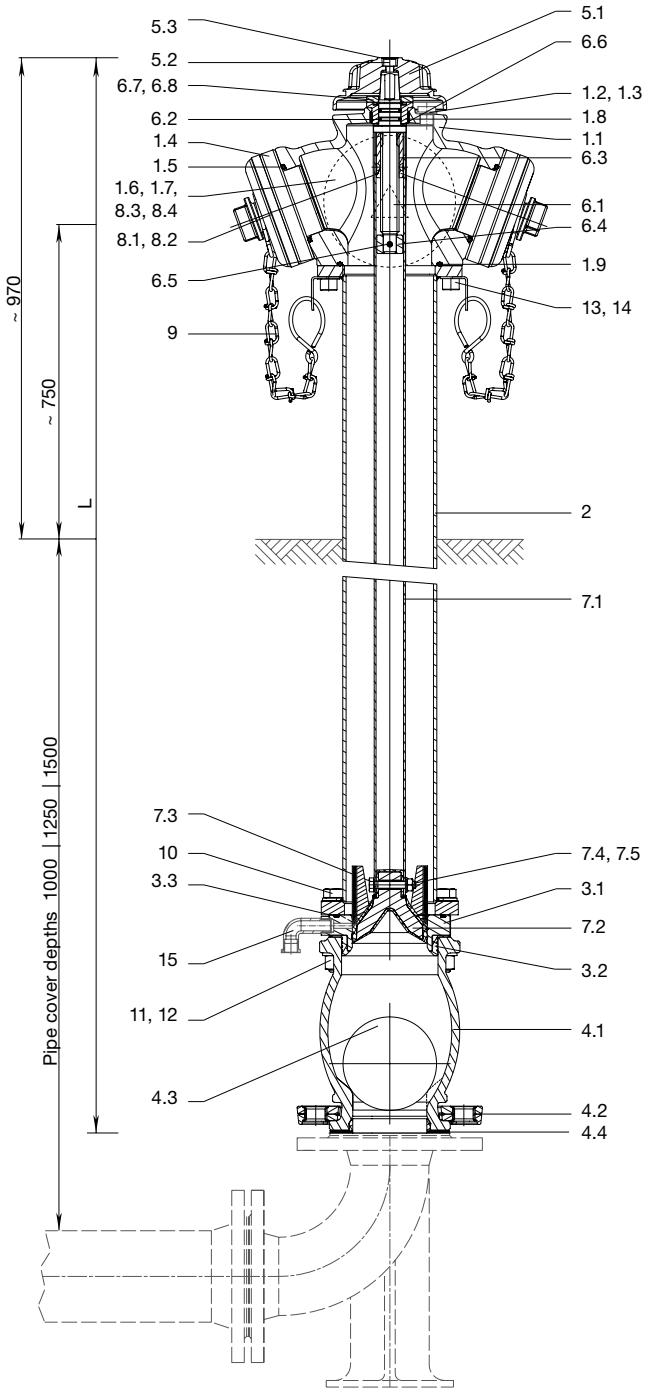
DUO
rigid design, SGG
No. KR220

krammer

ÖVGW GEPRÜFT

Order no.	DN	Outlet A	Outlet B	Outlet C	
KR220	80		2		
			1	2	
	100	1	2		
			2		

Suitable accessories see page 6



DN	Pipe cover depth m	Outlets A	Outlets B	Outlets C	L	Connector flange sized and drilled according to EN 1092-2 D	k	Bolts	Quantity	Weight
80	1,00		1 2	2	1850	200	160	M 16	8	37,0
	1,25		1 2	2	2100					39,0
	1,50		1 2	2	2350					41,0
100	1,00	1	2 2		1850	220	180			63,0
	1,25	1	2 2		2100					65,0
	1,50	1	2 2		2350					67,0

	Series	Material
1.1	Hydrant head	Ductile iron
1.2	O-ring	Elastomer
1.3	Air valve	Brass
1.4	DN 80 coupling DIN 14317 - C1 52 mm DN 100 coupling DIN 14318 - B1 75 mm	Al
1.5	DN 80 O-ring 60x5 DN 100 O-ring 76x5	Elastomer
1.6	DN 80 coupling DIN 14318 - B1 75 mm DN 100 coupling DIN 14319 - A1 110 mm	Al
1.7	DN 80 O-ring 76x5 DN 100 O-ring 116x4	Elastomer
1.8	O-ring bush	Brass
1.9	O-ring	Elastomer
2	Stand pipe	Steel galvanised
3.1	Sealing seat ring	Stainless steel
3.2	Sealing seat ring seal	Elastomer
3.3	O-ring	Elastomer
4.1	Base	Ductile iron
4.2	Loose flange	Ductile iron
4.3	Ball	PP
4.4	Flat gasket	Elastomer
5.1	Operating cap	Al
5.2	Hex. socket head bolt M8x16	Stainless steel
5.3	Isolating cap	PE
6.1	Spindle	Stainless steel
6.2	O-ring	Elastomer
6.3	Spindle nut	Brass
6.4	Nut	Brass
6.5	Pin	Stainless steel
6.6	Friction washer	POM
6.7	Fixing ring	Stainless steel
6.8	Distance ring	Brass
7.1	Operating pipe	Stainless steel
7.2	Valve plug	Ductile iron/elastomer
7.3	Hexagonal bolt M8x45	Stainless steel
7.4	Lock nut M8	Stainless steel
7.5	Serrated lock washer	Stainless steel
8.1	DN 80 cap DIN 14318-C4 DN 100 cap DIN 14319-B4	Al
8.2	DN 80 gasket DIN 14318-C3 DN 100 gasket DIN 14319-B3	Elastomer
8.3	DN 80 cap DIN 14318-B4 DN 100 cap DIN 14319-A4	Al
8.4	DN 80 gasket DIN 14318-B3 DN 100 gasket DIN 14319-A3	Elastomer
9	Chain	Stainless steel
10	Hexagonal bolt M16x80	Stainless steel
11	Hexagonal nut M16	Stainless steel
12	Washer M16	Stainless steel
13	Hex. socket head bolt M12x30	Stainless steel
14	Washer M12	Stainless steel
15	Drainage bend	Brass

Above ground hydrant
Above ground break away design

Construction characteristics

- Working pressure: max. 16 bar (PN 16)
- Complete drainage - residual water zero (RW 0)
- All internal parts are made of corrosion-resistant material and can be removed without excavating the hydrant.
- With ball double shut-off (optionally without ball double shut-off)
- Simple assembly by loose flange and integrated flange gasket
- The hydrant type KR230 (above ground hydrant break away) has a split hydrant stand pipe with separating flange and break-off bolts
- Loose flange with integrated flange gasket enables continuous 360° rotation of the hydrant for optimal installation
- Flange sized and drilled according to EN 1092-2 | PN 16

Material | Technical features

Hydrant head:	made of ductile iron, epoxy powder-coated on all sides + external powder-coating on polyester base (UV-resistant) in RAL 3000 (fire red)
Stand pipe:	**made of steel**, hot-dip galvanised on all sides + external 2-component PU-coating
Hydrant base:	made of ductile iron, epoxy powder-coated on all sides
Operating pipe:	from stainless steel
Valve plug:	made of ductile iron / elastomer
Spindle:	made of stainless steel
Rate of flow: Kv[m³/h]	Q (m³/h) at a differential pressure of 1 bar is higher than requested by EN14384
Standard:	**ÖNORM (Austrian standard) F 2010 - EN 14384, EN 1074-6**
Max. working pressure:	16 bar (PN 16)
Standard pipe cover depth:	1,50 m (optionally 1,25 m and 1,00 m possible)
Residual water:	< EN 1074-6

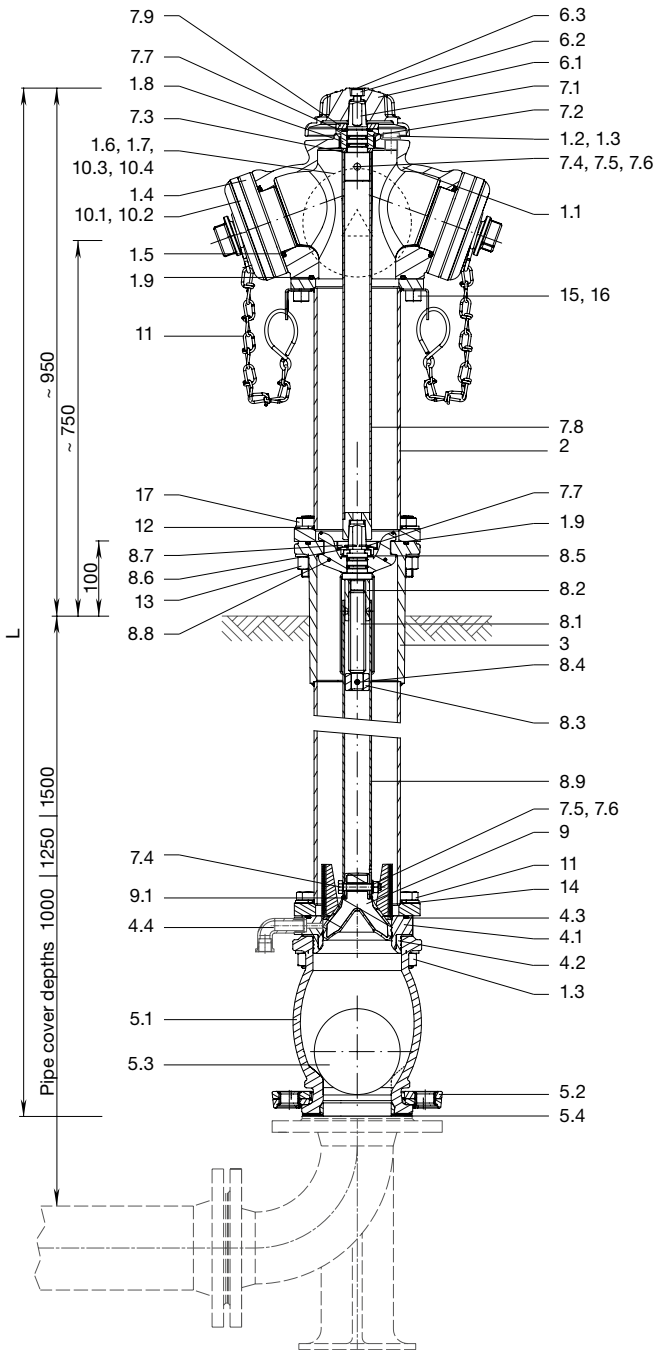
DUO
above ground break away design, SGG
No. KR230

krammer

ÖVGW GEPRÜFT

Order no.	DN	Outlet A	Outlet B	Outlet C	SGG
KR230	80		2		
			1	2	
	100	1	2		
			2		

Suitable accessories see page 6



DN	Pipe cover depth m	Outlets A	Outlets B	Outlets C	L	Connector flange sized and drilled according to EN 1092-2 D	k	Bolts	Quantity	Weight
80	1,00		1 2	2	1850	200	160	M 16	8	37,0
	1,25		1 2	2	2100					38,5
	1,50		1 2	2	2350					41,0
100	1,00	1	2 2		1850	220	180			46,0
	1,25	1	2 2		2100					48,0
	1,50	1	2 2		2350					50,0

	Series	Material
1.1	Hydrant head	Ductile iron
1.2	O-ring	Elastomer
1.3	Air valve	Brass
1.4	DN 80 coupling DIN 14317 - C1 52 mm DN 100 coupling DIN 14318 - B1 75 mm	Al
1.5	DN 8 0 O-ring 60x5 DN 100 O-ring 76x5	Elastomer
1.6	DN 80 coupling DIN 14318 - B1 75 mm DN 100 coupling DIN 14319 - A1 110 mm	Al
1.7	DN 80 O-ring 76x5 DN 100 O-ring 116x4	Elastomer
1.8	O-ring bush	Brass
1.9	O-ring	Elastomer
2	Stand pipe	Galvanised steel
3	Stand pipe	Galvanised steel
4.1	Sealing seat ring	Stainless steel
4.2	Sealing seat ring seal	Elastomer
4.3	O-ring	Elastomer
4.4	Drainage bend	Brass
5.1	Base	Ductile iron
5.2	Loose flange	Ductile iron
5.3	Ball	PP
5.4	Flat gasket	Elastomer
6.1	Operating cap	Al
6.2	Hex. socket head bolt M8x16	Stainless steel
6.3	Isolating cap	PE
7.1	Square cap connection	Stainless steel
7.2	O-ring	Elastomer
7.3	Friction washer	Brass
7.4	Hexagonal bolt M8x45	Stainless steel
7.5	Lock nut M8	Stainless steel
7.6	Serrated lock washer	Stainless steel
7.7	Fixing ring	Stainless steel
7.8	Operating pipe	Stainless steel
7.9	Fixing ring	Stainless steel
8.1	Spindle	Stainless steel
8.2	Spindle nut	Brass
8.3	Nut	Brass
8.4	Pin	Stainless steel
8.5	Friction washer	Brass
8.6	Half shell	Stainless steel
8.7	Sleeve for the half shell	Brass
8.8	Dumper body	Brass
8.9	Operating pipe	Stainless steel
9	Valve plug	Ductile iron/ elastomer
9.1	Distance ring	Brass
10.1	DN 80 cap DIN 14318-C4 DN 100 cap DIN 14319-B4	Al
10.2	DN 80 gasket DIN 14318-C3 DN 100 gasket DIN 14319-B3	Elastomer
10.3	DN 80 cap DIN 14318-B4 DN 100 cap DIN 14319-A4	Al
10.4	DN 80 gasket DIN 14318-B3 DN 100 gasket DIN 14319-A3	Elastomer
11	Chain	Stainless steel
12	Hexagonal bolt M16x80	Stainless steel
13	Hexagonal nut M16	Stainless steel
14	M 16 Washer	Stainless steel
15	Hex. socket head bolt M12x30	Stainless steel
16	M 12 Washer	Stainless steel
17	Break-off bolt	Stainless steel

Above ground hydrant
rigid

Construction characteristics

- Working pressure: max. 16 bar (PN 16)
- Complete drainage - residual water zero (RW 0)
- All internal parts are made of corrosion-resistant material and can be removed without excavating the hydrant
- Minimal operating torque
- Easy installation
- Flange sized and drilled according to EN 1092-2 | PN 16

Material | Technical features

Hydrant head:	made of ductile iron, epoxy powder-coated on all sides + external powder coating on polyester base (UV-resistant) in RAL 3000 (fire red)
Stand pipe:	**made of steel**, hot-dip galvanised on all sides + external 2 components PU coating
Hydrant base:	made of ductile iron, epoxy powder-coated on all sides
Operating pipe:	made of stainless steel
Valve plug:	made of ductile iron / elastomer
Spindle:	made of stainless steel
Rate of flow: Kv[m³/h]	Q (m³/h) at a differential pressure of 1 bar is higher than requested by EN14384
Standard:	**ÖNORM (Austrian standard) F 2010 - EN 14384, EN 1074-6**
Max. working pressure:	16 bar (PN 16)
Standard pipe cover depth:	1,50 m (optionally 1,25 m and 1,00 m possible)
Residual water:	< EN 1074-6

Suitable accessories

Drainage pipe:	No. 5067
Flange duck foot bend:	No. 5045, No. 5049
Hydrant shut-off key:	No. 3460, No. 3461
Flat gasket:	No. 3390
Bolts:	No. 8810, No. 8830, No. 8840

UNO
rigid design, SGG
No. KR221

krammer

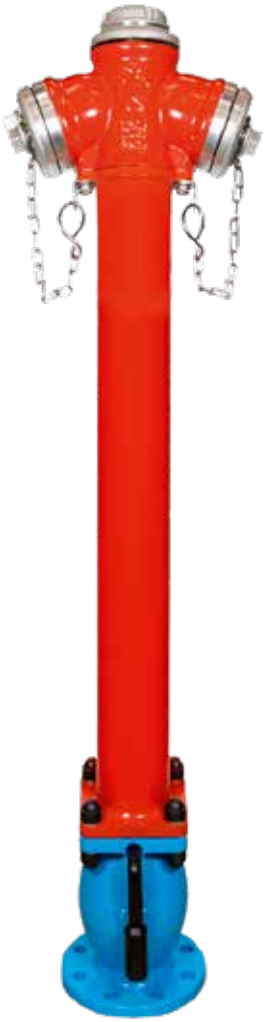
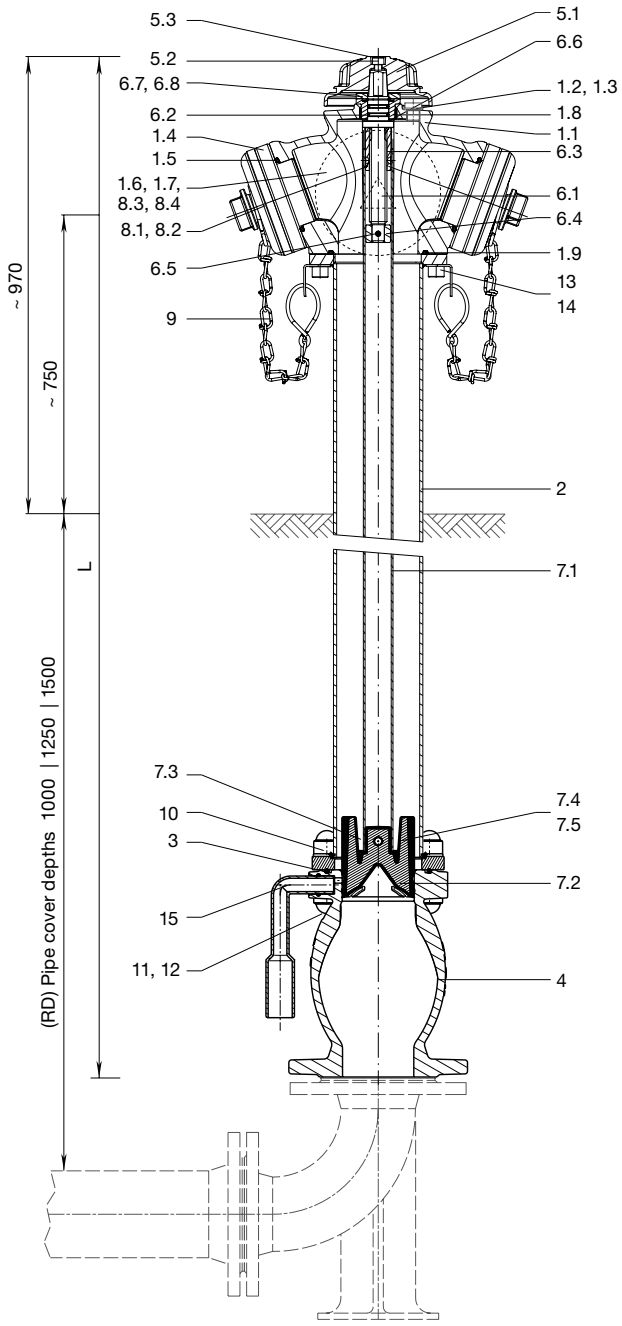


Fig.: DN 80

Order no.	DN	Outlet		Pipe cover depth m	Weight	
		A	B			
KR221	80		2	1,00	37,0	
			2	1,25	39,0	
			2	1,50	41,0	
	100	1	2	1,00	60,0	
		1	2	1,25	63,5	
		1	2	1,50	67,0	

Suitable accessories see page 6



DN	Pipe cover depth (RD) m	Outlets		L	Connector flange sized and drilled according to EN 1092-2			
		A	B		D	k	Bolts	Quantity
80	1,00		2	1850	200	160	M16	8
	1,25			2100				
	1,50			2350				
100	1,00	1	2	1850	220	180		
	1,25			2100				
	1,50			2350				

	Series	Material
1.1	Hydrant head	Ductile iron
1.2	O-ring	Elastomer
1.3	Air valve	Brass
1.4	Coupling DIN 14318 - B1 75 mm	Al
1.5	O-ring 60x5	Elastomer
1.6	DN 100 coupling DIN 14319 - A1 110 mm	Al
1.7	DN 100 O-ring 116x4	Elastomer
1.8	O-ring bush	Brass
1.9	O-ring	Elastomer
2	Stand pipe	Steel galvanised
3	O-ring	Elastomer
4	Base	Ductile iron
5.1	Operating cap	Al
5.2	Hex. socket head bolt M8x16	Stainless steel
5.3	Isolating cap	PE
6.1	Spindle	Stainless steel
6.2	O-ring	Elastomer
6.3	Spindle nut	Brass
6.4	Nut	Brass
6.5	Pin	Stainless steel
6.6	Friction washer	POM
6.7	Fixing ring	Stainless steel
6.8	Distance ring	Brass
7.1	Operating pipe	Stainless steel
7.2	Valve plug	Ductile iron/elastomer
7.3	Hexagonal bolt M8x45	Stainless steel
7.4	Lock nut M8	Stainless steel
7.5	Serrated lock washer	Stainless steel
8.1	Cap DIN 14319-B4	Al
8.2	Gasket DIN 14319-B3	Elastomer
8.3	DN 100 cap DIN 14319-A4	Al
8.4	DN 100 gasket DIN 14319-A3	Elastomer
9	Chain	Stainless steel
10	Hexagonal bolt M16x80	Stainless steel
11	Hexagonal nut M16	Stainless steel
12	Washer M16	Stainless steel
13	Hex. socket head bolt M12x30	Stainless steel
14	Washer M12	Stainless steel
15	Drainage bend	PE

Above ground hydrant
Above ground break away design

Construction characteristics

- Working pressure: max. 16 bar (PN 16)
- Complete drainage - residual water zero (RW 0)
- All internal parts are made of corrosion-resistant material and can be removed without excavating the hydrant.
- The hydrant type KR231 (above ground hydrant break away) has a split hydrant stand pipe with separating flange and break-off bolts
- Minimal operating torque
- Easy installation
- Flange sized and drilled according to EN 1092-2 | PN 16

Material | Technical features

Hydrant head:	made of ductile iron, epoxy powder-coated on all sides + external powder-coating on polyester base (UV-resistant) in RAL 3000 (fire red)
Stand pipe:	**made of steel**, hot-dip galvanised on all sides + external 2-component PU-coating
Hydrant base:	made of ductile iron, epoxy powder-coated on all sides
Operating pipe:	from stainless steel
Valve plug:	made of ductile iron / elastomer
Spindle:	made of stainless steel

Rate of flow: Kv[m³/h]	Q (m³/h) at a differential pressure of 1 bar is higher than requested by EN14384
Standard:	**EN 14384, EN 1074-6**
Max. working pressure:	16 bar (PN 16)
Standard pipe cover depth:	1,50 m (optionally 1,25 m and 1,00 m possible)
Residual water:	“zero” < EN 1074-6

All other parts made of corrosion-resistant materials

Suitable accessories

Drainage pipe: No. 5067
Flange duck foot bend: No. 5045, No. 5049
Hydrant shut-off key: No. 3460, No. 3461
Flat gasket: No. 3390
Bolts: No. 8810, No. 8830, No. 8840

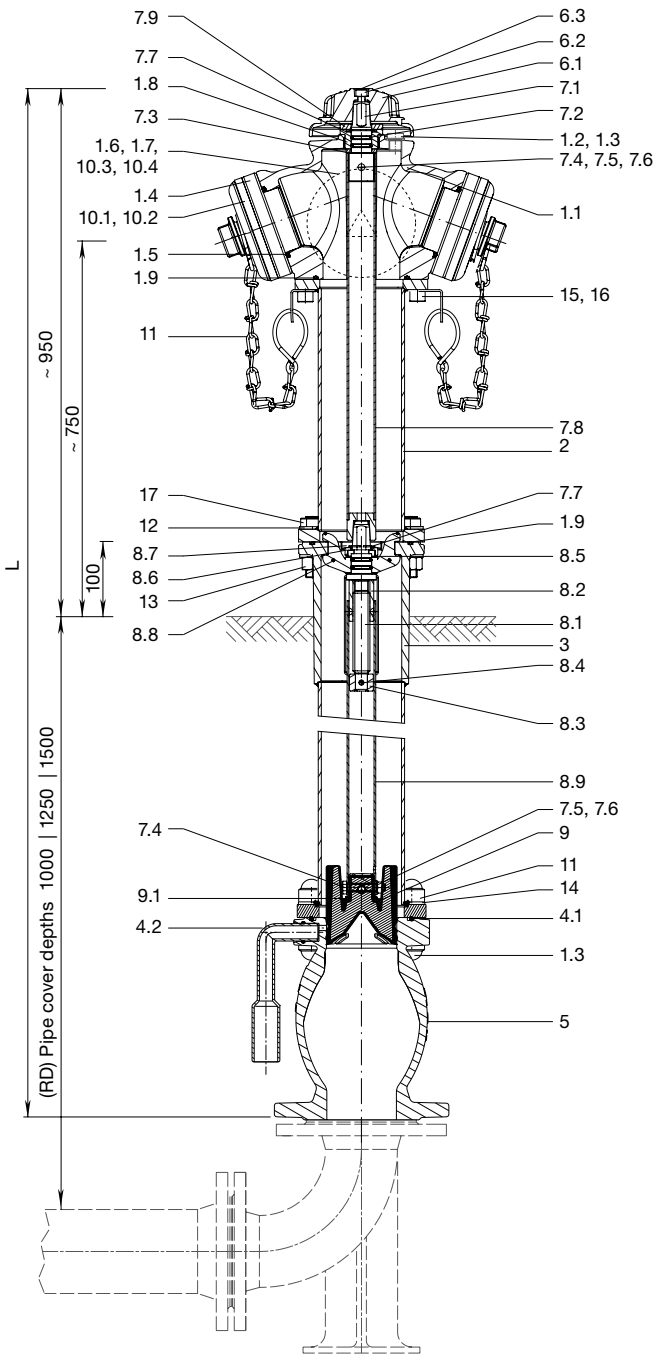
UNO
above ground break away design, SGG
No. KR231

krammer

Fig.: DN 80

Order no.	DN	Pipe cover depth (RD) m	Outlet A	Outlet B	Weight	
KR231	80	1,00		2	37,0	
		1,25		2	38,5	
		1,50		2	41,0	
	100	1,00	1	2	65,0	
		1,25	1	2	68,5	
		1,50	1	2	72,0	

Suitable accessories see page 6



DN	Pipe cover depth (RD) m	Outlets		L	Connector flange sized and drilled according to EN 1092-2			
		A	B		D	k	Bolts	Quantity
80	1,00		2	1850	200	160	M16	8
	1,25			2100				
	1,50			2350				
100	1,00	1	2	1850	220	180		
	1,25			2100				
	1,50			2350				

	Series	Material
1.1	Hydrant head	Ductile iron
1.2	O-ring	Elastomer
1.3	Air valve	Brass
1.4	Coupling DIN 14318 - B1 75 mm	Al
1.5	O-ring 76x5	Elastomer
1.6	DN 100 coupling DIN 14319 - A1 110 mm	Al
1.7	DN 100 O-ring 116x4	Elastomer
1.8	O-ring bush	Brass
1.9	O-ring	Elastomer
2	Stand pipe	Galvanised steel
3	Stand pipe	Galvanised steel
4.1	Sealing seat ring	Stainless steel
4.2	Drainage bend	PE
5	Base	Ductile iron
6.1	Operating cap	Al
6.2	Hex. socket head bolt M8x16	Stainless steel
6.3	Isolating cap	PE
7.1	Square cap connection	Stainless steel
7.2	O-ring	Elastomer
7.3	Friction washer	Brass
7.4	Hexagonal bolt M8x45	Stainless steel
7.5	Lock nut M8	Stainless steel
7.6	Serrated lock washer	Stainless steel
7.7	Fixing ring	Stainless steel
7.8	Operating pipe	Stainless steel
7.9	Fixing ring	Stainless steel
8.1	Spindle	Stainless steel
8.2	Spindle nut	Brass
8.3	Nut	Brass
8.4	Pin	Stainless steel
8.5	Friction washer	Brass
8.6	Half shell	Stainless steel
8.7	Sleeve for the half shell	Brass
8.8	Dumper body	Brass
8.9	Operating pipe	Stainless steel
9	Valve plug	Ductile iron/elastomer
9.1	Distance ring	Brass
10.1	Cap DIN 14319-B4	Al
10.2	Gasket DIN 14319-B3	Elastomer
10.3	DN 100 cap DIN 14319-A4	Al
10.4	DN 100 gasket DIN 14319-A3	Elastomer
11	Chain	Stainless steel
12	Hexagonal bolt M16x80	Stainless steel
13	Hexagonal nut M16	Stainless steel
14	Washer M16	Stainless steel
15	Hex. socket head bolt M12x30	Stainless steel
16	Washer M12	Stainless steel
17	Break-off bolt	Stainless steel

Tunnel hydrant
Portal hydrant

Construction characteristics

- Working pressure: max. 16 bar (PN 16)
- Complete drainage - residual water zero (RW 0)
- All internal parts made of corrosion-resistant material and can be removed upwards without excavating the hydrant
- Through their vulcanised elastomer sealing profile, the valve plug ensure under pressure protection and tightness in the brass seal seating ring; with the opening stroke of the valve plug (50 mm), the function of the drainage with under pressure protection is positively-controlled
- The head with the outlets can be rotated 360° by loosening the 4 stainless steel bolts
- Flange sized and drilled according to EN 1092-2 | PN 16

Material | Technical features

Hydrant head:	made of ductile iron, epoxy powder-coated on all sides + external powder-coating on polyester base (UV-resistant) in RAL 5003 (sapphire blue)
Stand pipe:	**SGG made of steel,** hot-dip galvanised on all sides + external zinc pigment coating **NGG from stainless steel,** polished
Hydrant base:	made of ductile iron, epoxy powder-coated on all sides
Operating pipe:	made of stainless steel
Valve plug:	made of brass / elastomer
Spindle:	made of stainless steel
Rate of flow: Kv[m³/h]	Q (m³/h) at a differential pressure of 1 bar is higher than requested by EN14384
Standard:	**ÖNORM (Austrian standard) F 2010 - EN 14384, EN 1074-6**
Max. working pressure:	16 bar (PN 16)
Standard pipe cover depth:	1,50 m
Residual water:	< EN 1074-6

EURO-SV
SGG, NGG
No. KR270

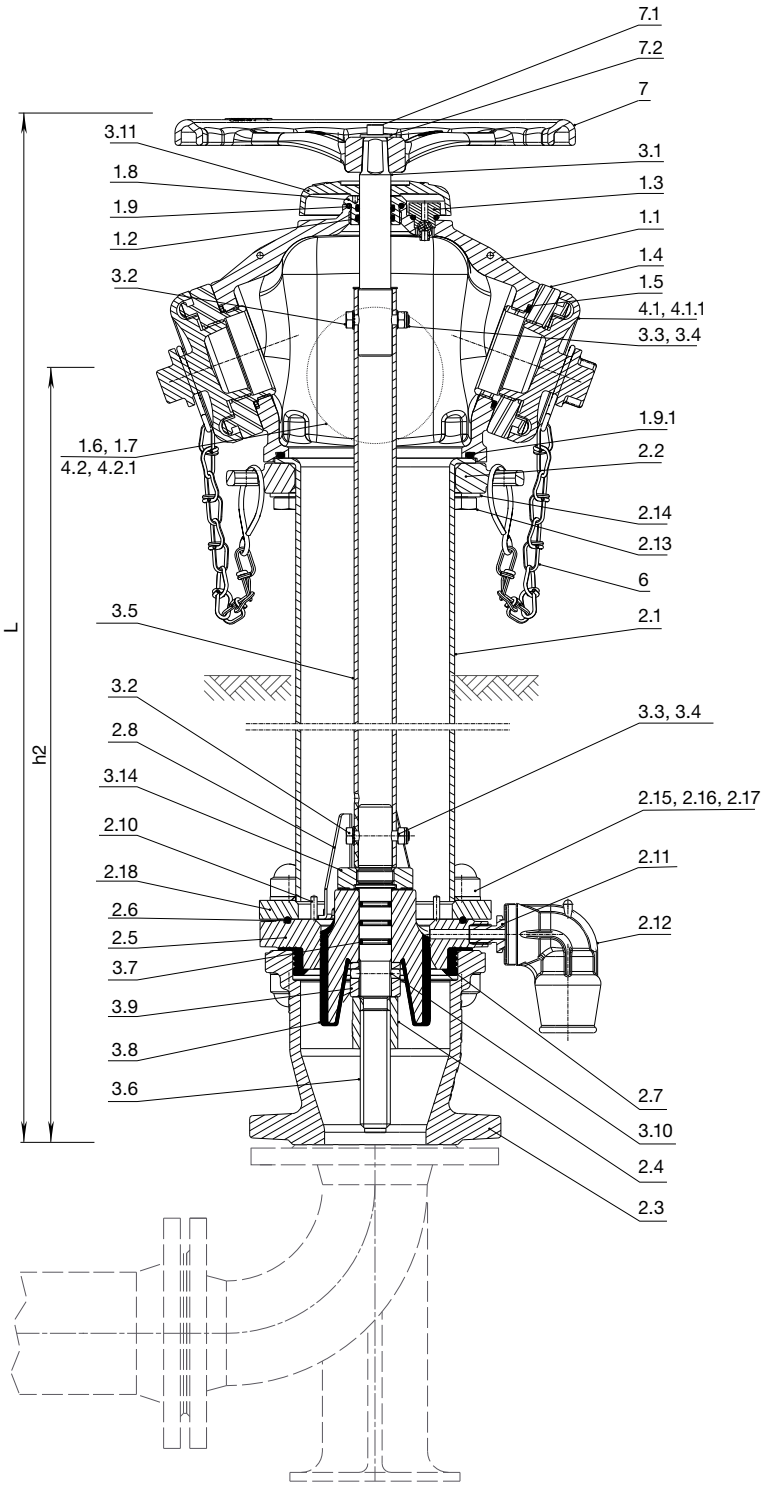
krammer

Fig.: SGG version

Order no.	DN	Outlet A	Outlet B	Outlet C	Version SGG	Version NGG
KR270	80		1	2		
			2			
	100	1	2			
			2			

Suitable accessories see page 6

All outlets can also be supplied with fire cocks!



Design: 2xC, 1xB
2xB, 1xA
2xB

DN	L	h2	Weight SGG	Weight NGG
80	815	645	51,0	
100	815	610	67,0	

Other heights on request!

	Parts	Material
1.1	Hydrant head	Ductile iron
1.2	O-ring 25x3,5	Elastomer
1.3	Air valve	POM
1.4	DN 80 coupling DIN 14317 - C1 52 mm DN 100 coupling DIN 14318 - B1 75 mm	Al
1.5	DN 80 O-ring 60x5 DN 100 O-ring 76x5	Elastomer
1.6	DN 80 coupling DIN 14318 - B1 75 mm DN 100 coupling DIN 14319 - A1 110 mm	Al
1.7	DN 80 O-ring 76x5 DN 100 O-ring 116x4	Elastomer
1.8	O-ring bush	Brass
1.9	O-ring 38x4	Elastomer
1.9.1	DN 80 O-ring 152x4 DN 100 O-ring 175x4	Elastomer
2.1	Stand pipe SGG Stand pipe NGG	Stainless steel, galvanised Stainless steel
2.2	Flange pair top DN 80, DN 100	Ductile iron
2.3	Base DN 80, DN 100	Ductile iron
2.4	Stem nut	Brass
2.5	Sealing seat ring	Stainless steel
2.6	O-ring 135x5	Elastomer
2.7	Sealing ring	Elastomer
2.8	Guide bracket	Stainless steel
2.9	Allen screw M5x10	Stainless steel
2.10	Dowel pin 5x27	Stainless steel
2.11	Drain nipple	Brass
2.12	Drain fitting	POM
2.13	Hexagonal bolt M16x45	Stainless steel
2.14	Washer M16	Stainless steel
2.15	Hexagonal nut M16	Stainless steel
2.16	Hexagonal bolt M16x90	Stainless steel
2.17	Cap	Elastomer
2.18	Flange pair bottom DN 80, DN 100	Ductile iron
3.1	Square connection	Brass
3.2	Hexagonal bolt M8x45	Stainless steel
3.3	Lock nut	Stainless steel
3.4	Serrated lock washer	Stainless steel
3.5	Operating pipe	Stainless steel
3.6	Spindle	Stainless steel
3.7	O-ring 20,2x3,5	Elastomer
3.8	Valve plug DN 80, DN 100	Brass, Elastomer
3.9	Circlip	Brass
3.10	Securing pin	Brass
3.11	Cap	Al
3.12	Allen screw M8x16	Stainless steel
3.14	Piston nut	Brass
4.1	DN 80 cap DIN 14318-C4 DN 80 / DN 100 cap DIN 14319-B4	Al
4.1.1	DN 80 gasket DIN 14318-B4 DN 100 gasket DIN 14319-B3	Elastomer
4.2	DN 80 cap DIN 14318-B4 DN 100 / DN 150 cap DIN 14319-A3	Al
4.2.1	DN 80 gasket DIN 14318-B3 DN 100 / DN 150 gasket DIN 14319-A3	Elastomer
6	Chain	Stainless steel
7	Hand wheel	Al
7.1	Hex. socket head bolt M8x16	Stainless steel
7.2	Washer M8	Stainless steel

Tunnel hydrant
with 2 outlets on top of each other

Construction characteristics

- Working pressure: max. 16 bar (PN 16)
- Complete drainage - residual water zero (RW 0)
- All internal parts made of corrosion-resistant material and can be removed upwards without excavating the hydrant
- Through their vulcanised elastomer sealing profile, the valve plug ensure under pressure protection and tightness in the brass seal seating ring; with the opening stroke of the valve plug (50 mm), the function of the drainage with under pressure protection is positively-controlled
- The head with the outlets can be rotated 360° by loosening the 4 stainless steel bolts
- Flange sized and drilled according to EN 1092-2 | PN 16

Material | Technical features

Head and hand wheel: made of ductile iron, epoxy powder-coated on all sides + external powder-coating on polyester base (UV-resistant) in RAL 3000 (fire red)

Stand pipe: **SGG made of steel,** hot-dip galvanised on all sides + external zinc pigment coating

NGG from stainless steel, polished

Hydrant base: made of ductile iron, epoxy powder-coated on all sides

Operating pipe: made of stainless steel

Valve plug: made of brass / elastomer

Spindle: made of stainless steel

Rate of flow: Kv[m³/h] Q (m³/h) at a differential pressure of 1 bar is higher than requested by EN14384

Standard: **ÖNORM (Austrian standard) F 2010 - EN 14384, EN 1074-6**

Max. working pressure: 16 bar (PN 16)

Residual water: < EN 1074-6

EURO-SV
SGG, NGG
No. KR275

krammer

Fig.: NGG version

Order no.	DN	Outlet B	Outlet C	Version SGG	Version NGG
KR275	80	2			
		1	1		
			2		

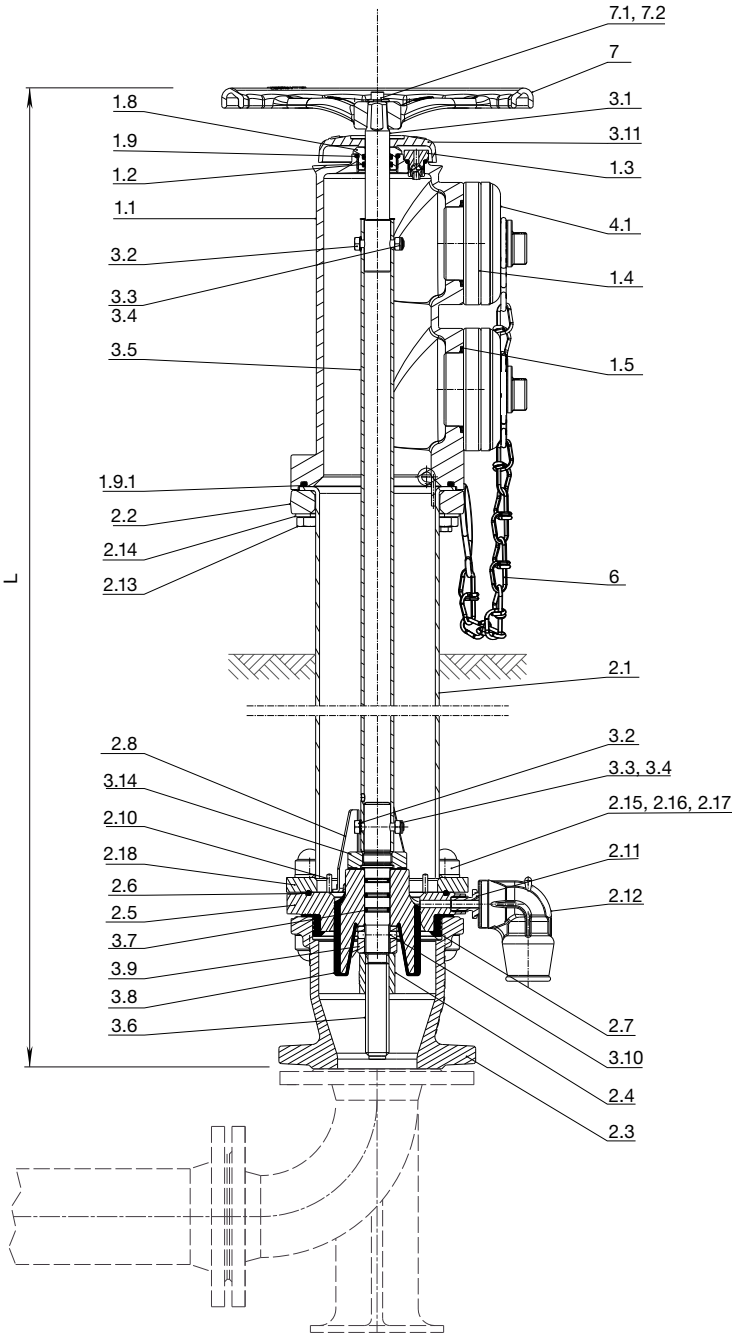
Outlet **B** = System Storz 2½"
Outlet **C** = System Storz 2"

Suitable accessories see page 6

Optional:

- Intermediate piece for additional outlet 2½"
- Other couplings of different national standards on request
- All outlets can be provided with fire cocks

Fig.: SGG version



	Parts	Material
1.1	Hydrant head	Ductile iron
1.2	O-ring 25x3,5	Elastomer
1.3	Air valve	POM
1.4	Coupling DIN 14317 - C1 52 mm	Al
1.5	O-ring 60x5	Elastomer
1.8	O-ring bush	Brass
1.9	O-ring 38x4	Elastomer
1.9.1	O-ring 152x4	Elastomer
2.1	Stand pipe SGG Stand pipe NGG	Stainless steel, galvanised Stainless steel
2.2	Flange pair top	Ductile iron
2.3	Base	Ductile iron
2.4	Stem nut	Brass
2.5	Sealing seat ring	Stainless steel
2.6	O-ring 135x5	Elastomer
2.7	Sealing ring	Elastomer
2.8	Guide bracket	Stainless steel
2.10	Dowel pin 5x27	Stainless steel
2.11	Drain nipple	Brass
2.12	Drain fitting	POM
2.13	Hexagonal bolt M16x45	Stainless steel
2.14	Washer M16	Stainless steel
2.15	Hexagonal nut M16	Stainless steel
2.16	Hexagonal bolt M16x90	Stainless steel
2.17	Cap	Elastomer
2.18	Flange pair bottom	Ductile iron
3.1	Square connection	Brass
3.2	Hexagonal bolt M8x45	Stainless steel
3.3	Lock nut	Stainless steel
3.4	Serrated lock washer	Stainless steel
3.5	Operating pipe	Stainless steel
3.6	Spindle	Stainless steel
3.7	O-ring 20,2x3,5	Elastomer
3.8	Valve plug	Brass, Elastomer
3.9	Circlip	Brass
3.10	Securing pin	Brass
3.11	Cap	Al
3.14	Piston nut	Brass
4.1	Cap DIN 14318-C4 Cap DIN 14319-B4	Al
6	Chain	Stainless steel
7	Hand wheel	Al
7.1	Hex. socket head bolt M8x16	Stainless steel
7.2	Washer M8	Stainless steel

On order, every height from L min. to max. 3000 can be delivered.

DN	L min
80	700

Tunnel hydrant
with 4 outlets

Construction characteristics

- Working pressure: max. 16 bar (PN 16)
- Complete drainage - residual water zero (RW 0)
- All internal parts made of corrosion-resistant material and can be removed upwards without excavating the hydrant
- Through their vulcanised elastomer sealing profile, the valve plug ensure under pressure protection and tightness in the brass seal seating ring; with the opening stroke of the valve plug (50 mm), the function of the drainage with under pressure protection is positively-controlled
- The head with the outlets can be rotated 360° by loosening the 4 stainless steel bolts
- Flange sized and drilled according to EN 1092-2 | PN 16

Material | Technical features

Head and hand wheel: made of ductile iron, epoxy powder-coated on all sides + external powder-coating on polyester base (UV-resistant) in RAL 3000 (fire red)

Stand pipe: **SGG made of steel,** hot-dip galvanised on all sides + external zinc pigment coating,
NGG from stainless steel, polished

Hydrant base: made of ductile iron, epoxy powder-coated on all sides

Operating pipe: made of stainless steel

Valve plug: made of brass / elastomer

Spindle: made of stainless steel

Rate of flow: Kv[m³/h] Q (m³/h) at a differential pressure of 1 bar is higher than requested by EN14384

Standard: **ÖNORM (Austrian standard) F 2010 - EN 14384, EN 1074-6**

Max. working pressure: 16 bar (PN 16)

Residual water: < EN 1074-6

EURO-SV
SGG, NGG
No. KR276

krammer

Fig.: NGG version

Order no.	DN	Outlet		Version	
		B	C	SGG	NGG
KR276	80	4			
		2	2		
			4		

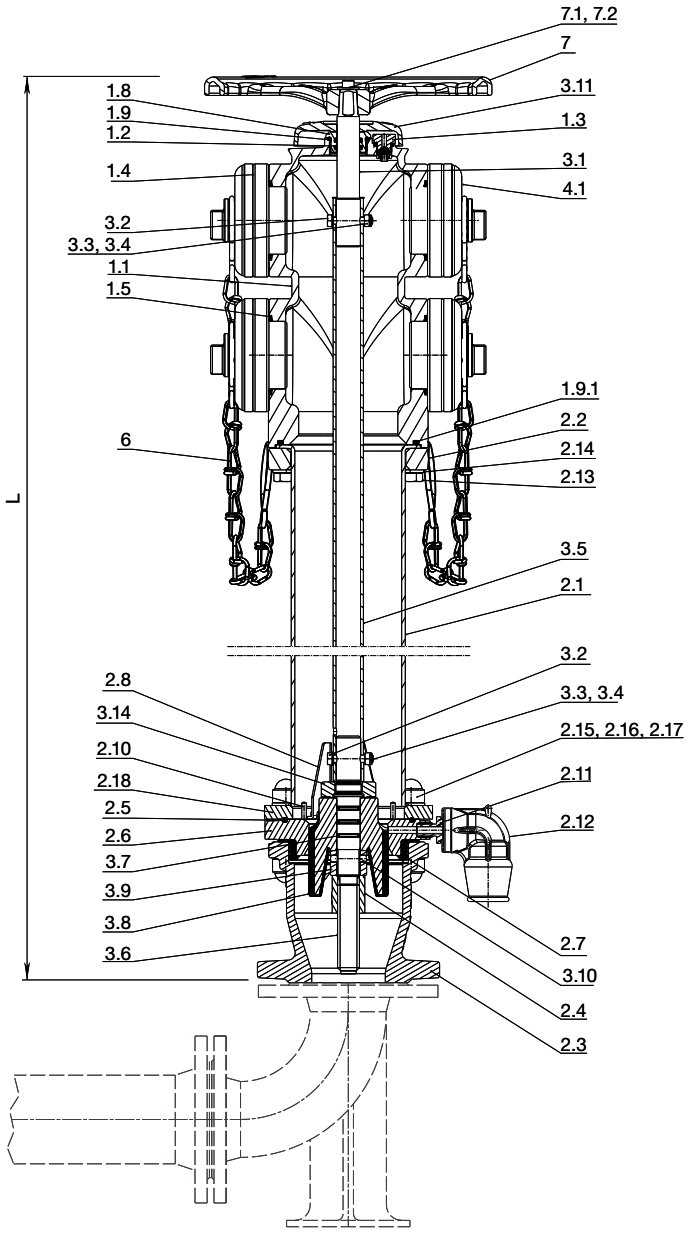
Outlet **B** = System Storz 2½"
Outlet **C** = System Storz 2"

Suitable accessories see page 6

Optional:

- Intermediate piece for additional outlet 2½"
- Other couplings of different national standards on request
- All outlets can be provided with fire cocks

Fig.: SGG version



	Parts	Material
1.1	Hydrant head	Ductile iron
1.2	O-ring 25x3,5	Elastomer
1.3	Air valve	POM
1.4	Coupling DIN 14318 - B1 75 mm Coupling DIN 14317 - C1 52 mm	Al
1.5	O-ring 60x5	Elastomer
1.8	O-ring bush	Brass
1.9	O-ring 38x4	Elastomer
1.9.1	O-ring 152x4	Elastomer
2.1	Stand pipe SGG Stand pipe NGG	Stainless steel, galvanised Stainless steel
2.2	Flange pair top	Ductile iron
2.3	Base	Ductile iron
2.4	Stem nut	Brass
2.5	Sealing seat ring	Stainless steel
2.6	O-ring 135x5	Elastomer
2.7	Sealing ring	Elastomer
2.8	Guide bracket	Stainless steel
2.10	Dowel pin 5x27	Stainless steel
2.11	Drain nipple	Brass
2.12	Drain fitting	POM
2.13	Hexagonal bolt M16x45	Stainless steel
2.14	Washer M16	Stainless steel
2.15	Hexagonal nut M16	Stainless steel
2.16	Hexagonal bolt M16x90	Stainless steel
2.17	Cap	Elastomer
2.18	Flange pair bottom	Ductile iron
3.1	Square connection	Brass
3.2	Hexagonal bolt M8x45	Stainless steel
3.3	Lock nut	Stainless steel
3.4	Serrated lock washer	Stainless steel
3.5	Operating pipe	Stainless steel
3.6	Spindle	Stainless steel
3.7	O-ring 20,2x3,5	Elastomer
3.8	Valve plug	Brass, Elastomer
3.9	Circlip	Brass
3.10	Securing pin	Brass
3.11	Cap	Al
3.14	Piston nut	Brass
4.1	DN 80 cap DIN 14318-C4 DN 80 / DN 100 cap DIN 14319-B4	Al
6	Chain	Stainless steel
7	Hand wheel	Al
7.1	Hex. socket head bolt M8x16	Stainless steel
7.2	Washer M8	Stainless steel

On order, every height from L min. to max. 3000 can be delivered.

DN	L min
80	700

Tunnel hydrant
with 2 outlets, 120° offset

Construction characteristics

- Working pressure: max. 16 bar (PN 16)
- Automatic drainage system with pressure control.
- The head with the outlets can be rotated 360° by loosening the 4 stainless steel bolts
- Complete drainage - residual water zero (RW 0)
- All internal parts made of corrosion-resistant material and can be removed upwards without excavating the hydrant
- Noticeable stop at the limits when opening and closing
- Rugged design with optimised weight
- Constructive engineering – easy to maintain
- Flange sized and drilled according to EN 1092-2 | PN 16

Material | Technical features

Head and hand wheel: made of ductile iron, epoxy powder-coated on all sides + external powder-coating on polyester base (UV-resistant) in RAL 3000 (fire red, standard)

Stand pipe: **SGG made of steel**, hot-dip galvanised on all sides + external zinc pigment coating

NGG from stainless steel, polished

Hydrant base: made of ductile iron, epoxy powder-coated on all sides

Operating pipe: made of stainless steel

Valve plug: made of brass / elastomer

Spindle: made of stainless steel

Rate of flow: Kv[m³/h] Q (m³/h) at a differential pressure of 1 bar is higher than requested by EN14384

Standard: **ÖNORM (Austrian standard) F 2010 - EN 14384, EN 1074-6**

Max. working pressure: 16 bar (PN 16)

Residual water: < EN 1074-6

Suitable accessories

Drainage pipe:	No. 5067
Flange duck foot bend:	No. 5045, No. 5049
Hydrant shut-off key:	No. 3460, No. 3461
Flat gasket:	No. 3390
Bolts:	No. 8810, No. 8830, No. 8840
Intermediate piece:	No. 5030562

EURO-SV
SGG, NGG
No. KR277

krammer

Fig.: SGG version

Order no.	DN	Outlet B	Outlet C	Version SGG	Version NGG
KR277	80	2			
			2		
		1	1		
	100	2			
		1	1		

Outlet **B** = System Storz 2½"
Outlet **C** = System Storz 2"

Suitable accessories see page 6

Optional:

- Intermediate piece for additional outlet 2½" for DN 80 hydrant.
- All outlets can be provided with fire cocks
- other couplings of different national standards on request

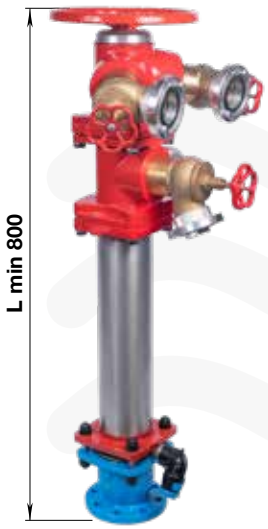
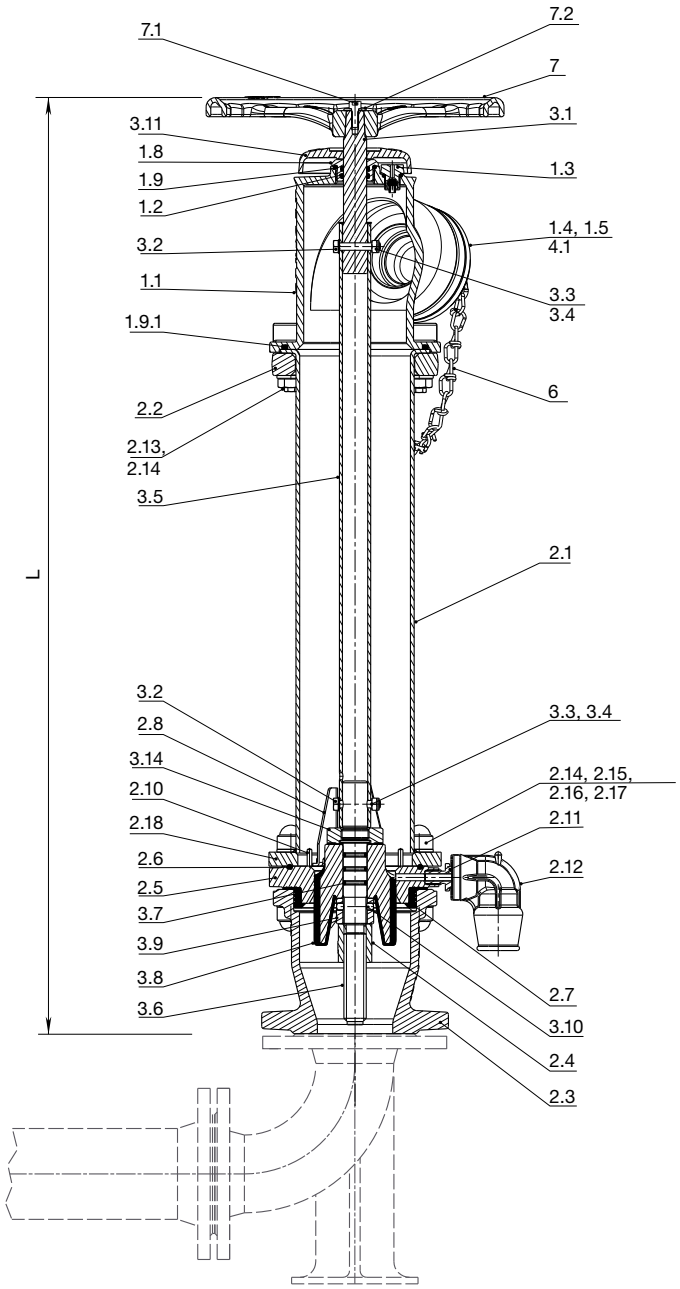


Fig.: NGG versions



	Parts	Material
1.1	Hydrant head	Ductile iron
1.2	O-ring 25x3,5	Elastomer
1.3	Air valve	POM
1.4	DN 80 coupling DIN 14317 - C1 52 mm DN 100 coupling DIN 14318 - B1 75 mm	Al
1.5	DN 80 O-ring 60x5 DN 100 O-ring 76x5	Elastomer
1.8	O-ring bush	Brass
1.9	O-ring 38x4	Elastomer
1.9.1	DN 80 O-ring 152x4 DN 100 O-ring 175x4	Elastomer
2.1	Stand pipe SGG Stand pipe NGG	Stainless steel, galvanised Stainless steel
2.2	Flange pair top DN 80, DN 100	Ductile iron
2.3	Base DN 80, DN 100	Ductile iron
2.4	Stem nut	Brass
2.5	Sealing seat ring	Stainless steel
2.6	O-ring 135x5	Elastomer
2.7	Sealing ring	Elastomer
2.8	Guide bracket	Stainless steel
2.10	Dowel pin 5x27	Stainless steel
2.11	Drain nipple	Brass
2.12	Drain fitting	POM
2.13	Hexagonal bolt M16x45	Stainless steel
2.14	Washer M16	Stainless steel
2.15	Hexagonal nut M16	Stainless steel
2.16	Hexagonal bolt M16x90	Stainless steel
2.17	Cap	Elastomer
2.18	Flange pair bottom DN 80, DN 100	Ductile iron
3.1	Square connection	Brass
3.2	Hexagonal bolt M8x45	Stainless steel
3.3	Lock nut	Stainless steel
3.4	Serrated lock washer	Stainless steel
3.5	Operating pipe	Stainless steel
3.6	Spindle	Stainless steel
3.7	O-ring 20,2x3,5	Elastomer
3.8	Valve plug DN 80, DN 100	Brass, Elastomer
3.9	Circlip	Brass
3.10	Securing pin	Brass
3.11	Cap	Al
3.12	Allen screw M8x16	Stainless steel
3.14	Piston nut	Brass
4.1	Cap DIN 14318-C4	Al
6	Chain	Stainless steel
7	Hand wheel	Al
7.1	Hex. socket head bolt M8x16	Stainless steel
7.2	Washer M8	Stainless steel

On order, every height from L min. to max. 3000 can be delivered.

DN	L min
80	600
100	600

Underground hydrant
DUO

Construction characteristics

- Working pressure: max. 16 bar (PN 16)
- complete drainage - residual water zero (RW 0)
- All internal parts are made of corrosion-resistant material and can be removed without excavating the hydrant, apart from ball.
- With ball double-locking (optionally without ball double shut-off)
- Easy assembly with loose flange and integrated flange seal
- operation takes place via valve key on 27/32 square cap via the rod and the stainless steel spindle that lies above
- Flange sized and drilled according to EN 1092-2 | PN 16

DUO
No. KR240

krammer

OVGW GEPRÜFT

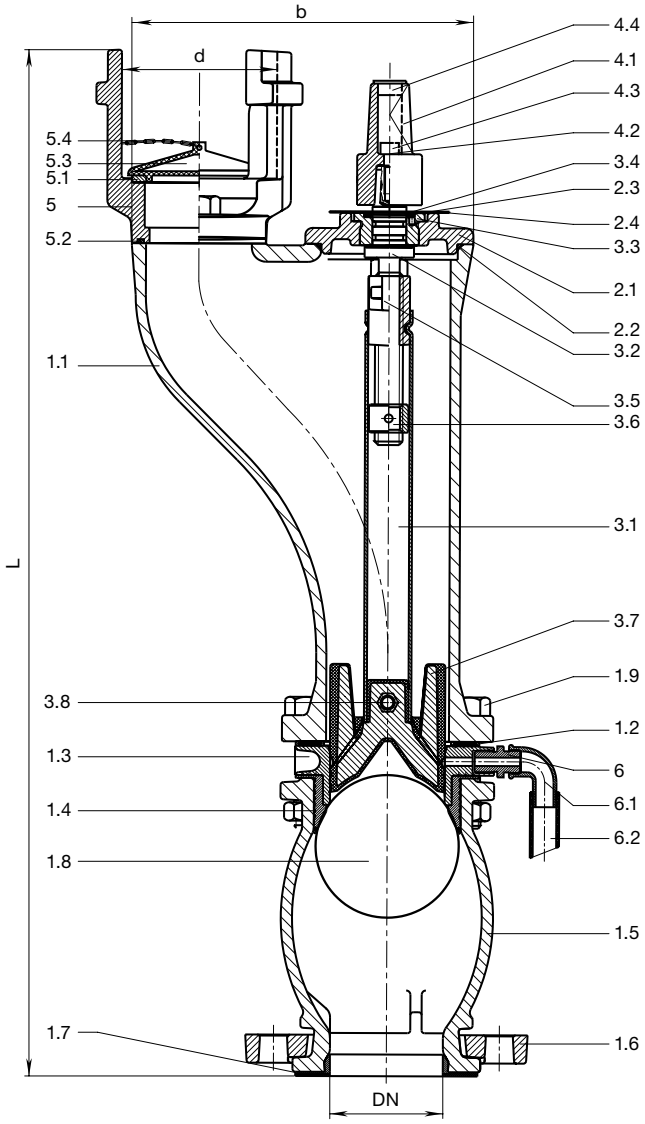
Order no.	DN	Stand pipe connection
KR240	80	DN 80
	100	DN 100

Material | Technical features

Stand pipe:	made of ductile iron, epoxy powder-coated
Hydrant base:	made of ductile iron, epoxy powder-coated
Jaw coupling and Operating cap:	made of ductile iron, hot-dip galvanised
Operating pipe:	made of stainless steel
Valve plug:	made of ductile iron / elastomer
Spindle:	made of stainless steel
Rate of flow: Kv[m³/h]	Q (m³/h) for differential pressure of 1 bar higher than requested by EN14339
Standard:	**ÖNORM (Austrian standard) F 2010 - EN 14339, EN 1074-6**
Max. working pressure:	16 bar (PN 16)
Standard pipe cover depth:	1,50 m (optionally 1,25 m and 1,00 m possible)
Residual water:	< EN 1074-6

Suitable accessories

Flange duck foot bend:		No. 5045, No. 5049
Hydrant shut-off key for underground hydrants:		No. 3420
Flat gasket:		No. 3390
Bolts:		No. 8810, No. 8830, No. 8840
Surface boxes:	DN 80:	No. 1950, No. 1950K, No. 1950E
	DN 100:	No. 1951



	Parts	Material
1.1	Stand pipe	Ductile iron
1.2	Flat gasket	Elastomer
1.3	Sealing seat ring	Stainless steel
1.4	Sealing seat seal	Elastomer
1.5	Base	Ductile iron
1.6	Loose flange	Ductile iron
1.7	Base gasket	Elastomer
1.8	Ball	PP
1.9	Hexagonal bolt	Stainless steel
2.1	Head plate	Ductile iron
2.2	O-ring	Elastomer
2.3	Friction washer	POM
2.4	Badge	PVC
3.1	Operating pipe	Stainless steel
3.2	Spindle	Stainless steel
3.3	O-ring bush	Brass
3.4	Fixing ring	Stainless steel
3.5	Spindle nut	Brass
3.6	Stop nut	Brass
3.7	Valve plug	Ductile iron / elastomer
3.8	Hexagonal bolt	Stainless steel
3.9	Nut M8	Stainless steel
4.1	Operating cap	Ductile iron
4.2	Spring washer	Stainless steel
4.3	Bolt	Stainless steel
4.4	Isolating cap	PE
5	Jaw coupling	Ductile iron
5.1	Seat ring	Brass
5.2	Gasket	Elastomer
5.3	Connection cover	PE
5.4	Chain	Stainless steel
6	Drain outlet	Brass
6.1	Drainage bend	Brass
6.2	Outlet pipe (not inkluded)	PE

DN	Pipe cover depth m	L	b	d	Weight
80	1,50	1230	242	110	39,5
	1,25	980	242	110	35,5
	1,00	730	242	110	31,5
100	1,50	1250	310	145	62,0
	1,25	1000	310	145	55,5
	1,00	750	310	145	49,0

Underground hydrant
UNO, PN 16

Construction characteristics

- Working pressure: max. 16 bar (PN 16)
- Complete drainage - residual water zero (RW 0)
- All internal parts are made of corrosion-resistant material and can be removed without excavating the hydrant
- Operation takes place via valve key on 27/32 square cap via the rod and the stainless steel spindle that lies above
- Flange sized and drilled according to EN 1092-2 | PN 16

UNO
SGG
No. KR241

krammer

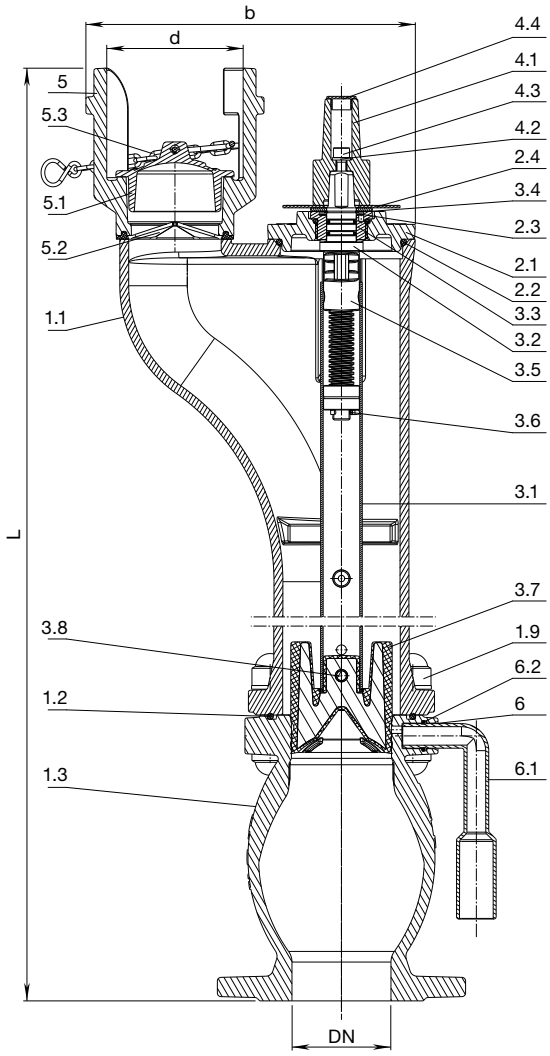
Material | Technical features

Stand pipe, claw coupling, base:	made of ductile iron, epoxy powder coated on all sides
Operating pipe:	made of stainless steel
Valve plug:	made of ductile iron, coated with elastomer
Spindle:	made of stainless steel
Rate of flow: Kv[m^3/h]	83m^3/h for differential pressure of 1 bar higher than requested by EN14384
Max. working pressure:	16 bar (PN 16)
Standard pipe cover depth (RD):	1,50 m (optionally 1,25 m and 1,00 m possible)
Residual water:	< EN 1074-6

Suitable accessories:

Flange duck foot bend:	No. 5045, No. 5049
Hydrant shut-off key for underground hydrants:	No. 3420, No. 3461
Flat gasket:	No. 3390
Bolts:	No. 8810, No. 8830, No. 8840
Surface boxes:	No. 1950, No. 1950K, No. 1950E

Order no.	DN	Pipe cover depth m RD	Weight	
KR241	80	1,00	32,0	
		1,25	36,0	
		1,50	40,0	



	Parts	Material
1.1	Stand pipe SGG	Ductile iron
1.2	Flat gasket	Elastomer
1.3	Base	Ductile iron
1.9	Hexagon bolt	Stainless steel
2.1	Head plate	Ductile iron
2.2	O-ring type plate seal	Elastomer
2.3	Friction washer	POM
2.4	Badge	PVC
3.1	Operating pipe	Stainless steel
3.2	Spindle	Stainless steel
3.3	O-ring bush	Brass
3.4	Fixing ring	Stainless steel
3.5	Spindle nut	Brass
3.6	Stop nut	Brass
3.7	Valve plug	elastomer
3.8	Hexagon Bolt	Stainless steel
4.1	Operating nut	Ductile iron
4.2	Spring washer	Stainless steel
4.3	Bolt	Stainless steel
4.4	Isolating cap	PE
5	Jaw coupling	Ductile iron
5.1	Connection cover	PE
5.2	Gasket	Elastomer
5.3	Chain	Stainless steel
6	Drainage outlet	Brass
6.1	Drainage bend	PE
6.2	O-ring	Elastomer

DN	Pipe cover depth m RD	Connection flange dimensioned and drilled acc. to EN 1092-2				L	b	d
		D	K	Screws	Qty.			
80	1,00	200	160	M16	8	730	242	110
	1,25					980		
	1,50					1230		

Underground hydrant
DUO GOST

Construction characteristics

- Working pressure: max. 16 bar (PN 16)
- All internal parts made of corrosion-resistant material and can be removed without excavating the hydrant
- With ball double shut-off
- Simple assembling by loose flange and integrated flange gasket
- Loose flange enables continous 360° rotation of the hydrant for optimal installation
- Complete drainage - residual water zero (RW 0)
- DN 100 flange sized and drilled according to EN 1092-2 | PN 16 or GOST standard

DUO GOST
No. 5035

krammer

Material | Technical features

Stand pipe:	made of steel, hot-dip galvanised + additional external 2-component PU coating
Base:	made of ductile iron, epoxy powder-coated
Thread outlet:	made of ductile iron, hot-dip galvanised
Operating pipe:	made of stainless steel
Valve plug:	made of ductile iron, elastomer
Spindle:	made of stainless steel
Outlet:	DN 100: connection for GOST Stand pipe 6" thread
Flange:	DN 100 (EN 1092-2) or DN 175 (GOST)

Suitable accessories

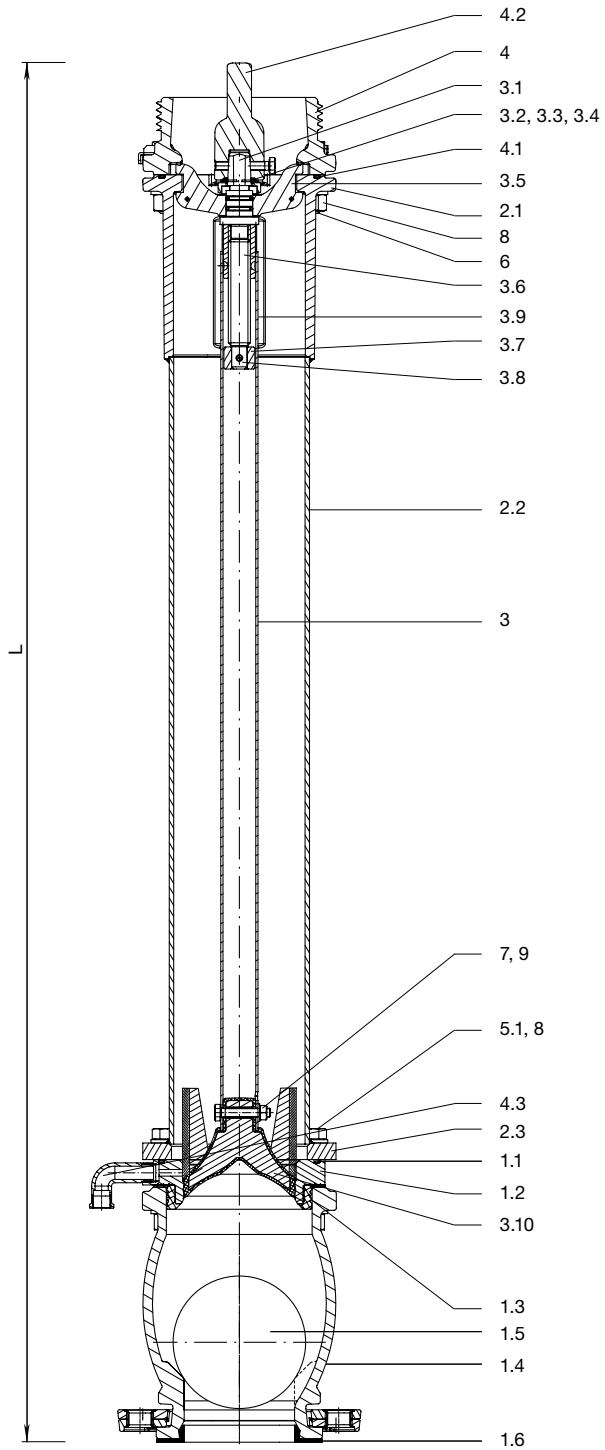
Surface boxes:	rigid	No. 1950
Flanged duck foot bend:		No. 5049
Base plate for surface box:		No. 3482

Fig.: DN 100 (EN 1092-2)

used for GOST Stand pipe:

Fig.: DN 175 (GOST)

Order no.	MOP (PN)	Version	Pipe cover depth m												
			1,00	1,25	1,50	1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00
5035	16	Flange connection DN 100 (EN 1092-2)													
		DN 175 (GOST)													



	Series	Material
1	Base	
1.1	O-ring diameter 135x5	Elastomer
1.2	Sealing seat ring	Stainless steel
1.3	Sealing seat - seal	Elastomer
1.4	Base	Ductile iron
1.5	Sealing ball	PP
1.6	Flange gasket	Elastomer
2	Stand pipe	
2.1	Dumper flange	Cast steel
2.2	Steel pipe diameter 127x4	Steel
2.3	Base flange	Cast steel
3	Operating pipe	Stainless steel
3.1	Spindle	Stainless steel
3.2	Fixing ring	Stainless steel
3.3	Spindle safety strap	Stainless steel / brass
3.4	Friction washer	Brass
3.5	Dumper body	Brass
3.6	Spindle nut	Brass
3.7	Stop nut (= DN 80)	Brass
3.8	Cylinder pin diameter 5x32	Stainless steel
3.9	Operating pipe	Stainless steel
3.10	Valve plug	Ductile iron / elastomer
4	GOST DUO coupling	Ductile iron
4.1	O-ring diameter135x5	Elastomer
4.2	GOST operating cap	Ductile iron / galvanised
4.3	Drain bend	Brass
5.1	Hexagonal bolt M16x75	Stainless steel
6	Hexagonal bolt M16x55	Stainless steel
7	Hexagonal bolt M8x40	Stainless steel
8	Nut M16	Stainless steel
9	Nut M8	Stainless steel

DN	Pipe cover depth m	L	Weight
100	1,00	730	40,0
	1,25	980	45,0
	1,50	1230	50,0
	1,75	1480	55,0
	2,00	1730	60,0
	2,25	1980	65,0
	2,50	2230	70,0
	2,75	2480	75,0
	3,00	2730	80,0
	3,25	2980	85,0
	3,50	3230	90,0
	3,75	3480	95,0
	4,00	3730	100,0

Underground hydrant
BS 750

Construction characteristics

- Working pressure: max. 16 bar (PN 16)
- Meets requirements of British Standard BS 750
- With round thread connection BSRT 2½"
- All internal parts are made of corrosion-resistant material
- Operation takes place via valve key on 29/35 square cap
- Through its vulcanised sealing profile made of elastomer the valve plug ensures optimum tightness in the body
- All internal parts can be removed without excavating the hydrant
- Flange sized and drilled according to EN 1092-2 | PN 16

Material | Technical features

Body, head plate: made of ductile iron, inside and outside, epoxy powder-coated

Round thread connection: made of stainless steel

Valve plug: made of brass, with vulcanised on elastomer

Spindle: made of stainless steel

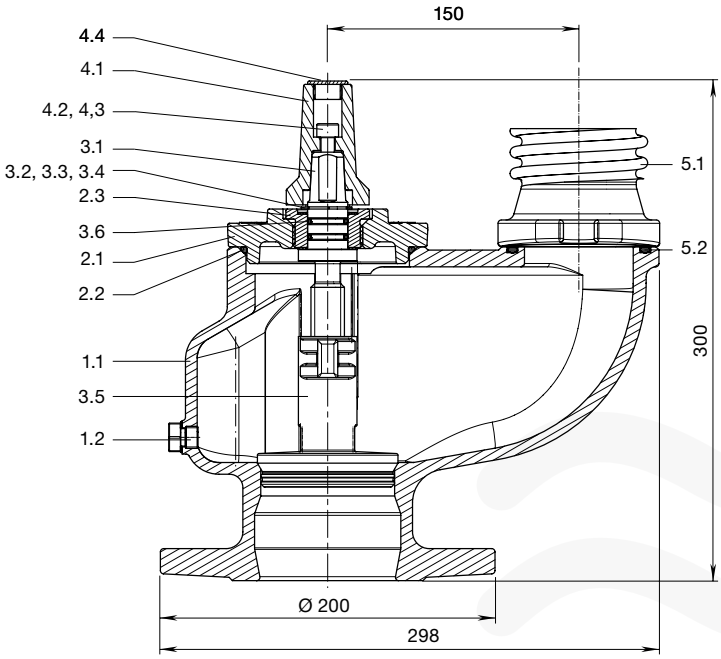
BS 750
No. 5031

krammer

Order no.	MOP (PN)	DN	Version	Weight	
5031	16	80	BS 750	17,0	

Suitable accessories see page 24

	Series	Material
1.1	Body	Ductile iron
1.2	Drainage (optional)	Stainless steel
2.1	Head plate	Ductile iron
2.2	O-ring	Elastomer
2.3	O-ring bush	Brass
2.4	Hexagonal bolts M16x30	Stainless steel
3.1	Spindle	Stainless steel
3.2	Fixing ring	Stainless steel
3.3	Washer	POM
3.4	Washer	Brass
3.5	Valve plug	Brass/elastomer
3.6	O-ring	Elastomer
4.1	Operating cap	Ductile iron
4.2	Spring washer	Stainless steel
4.3	Hex. socket head bolt M8	Stainless steel
4.4	Sealing cap	PE
5.1	Round thread connection	Stainless steel
5.2	O-ring	Elastomer



Underground hydrant
BS 750 double pillar, Type „Valencia“

Construction characteristics

- Working pressure: max. 16 bar (PN 16)
- Meets requirements of British Standard BS 750
- With claw or variaous national outlets available
- With manual drainage
- All internal parts are made of corrosion-resistant material
- Operation takes place via valve key on 29/35 square cap
- Through its vulcanised sealing profile made of elastomer the valve plug ensures optimum tightness in the body
- All internal parts can be removed without excavating the hydrant
- Flange sized and drilled according to EN 1092-2 | PN 16

Special versions: for seawater on request

Outlets = nominal size of outlets depending on coupling system, Spain standard 70 mm, BS 336 2½", Claw DN 80

BS 750
No. 5032

Material | Technical features

Body, head plate: made of ductile iron, inside and outside, epoxy powder-coated

Outlets: made of stainless steel

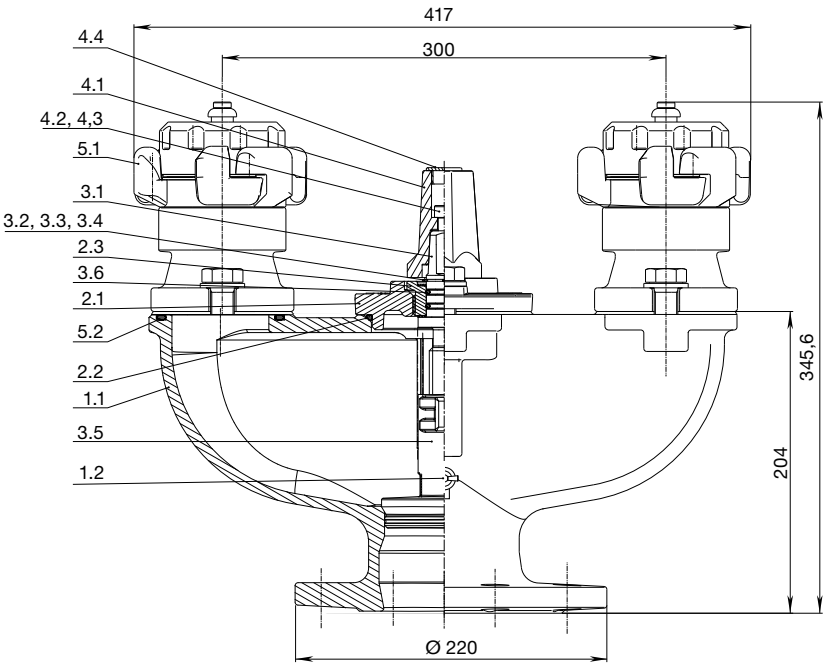
Valve plug: made of brass, with vulcanised on elastomer

Spindle: made of stainless steel

Order no.	MOP (PN)	DN	Version	Weight	
5032	16	100	BS 750	40,0	

Suitable accessories see page 24

	Series	Material
1.1	Body	Ductile iron
1.2	Drainage ¼"	Brass
2.1	Head plate	Ductile iron
2.2	O-ring	Elastomer
2.3	O-ring bush	Brass
2.4	Hexagonal bolts M16x30	Stainless steel
3.1	Spindle	Stainless steel
3.2	Fixing ring	Stainless steel
3.3	Washer	POM
3.4	Washer	Brass
3.5	Valve plug	Brass/elastomer
3.6	O-ring	Elastomer
4.1	Operating cap	Ductile iron
4.2	Spring washer	Stainless steel
4.3	Hex. socket head bolt M8	Stainless steel
4.4	Sealing cap	PE
5.1	Outlets DN 70, BS 336 2½", Claw DN 80	Stainless steel
5.2	O-ring	Elastomer



Service valve
with internal thread on both sides

Construction characteristics

- Resilient seated gate valve with smooth straight through bore with internal threads on both sides
- For pipe assembly, the body key surfaces should not be damaged with the pipe wrench
- The body has internal threads on both sides for the connection of steel pipes with conical external threads
- All surfaces that come into contact with drinking water correspond to the Hygiene requirements according to ÖNORM B 5014/Part 1 (KTW guidelines). The valve plug is drained; there is no valve bag, the internal surfaces allow no deposits

Material | Technical features

1/2 **Body** (1)**, bonnet** (2)
DN 20 - DN 25 made of forged brass

3 **Valve plug** made of brass, with vulcanised elastomer

4 **Stainless steel spindle** with rolled thread guided in brass O-ring bush and triple sealed with O-rings

5 **O-rings** made of elastomer

6 **O-ring bush** made of brass

7 **Wiper ring** made of elastomer

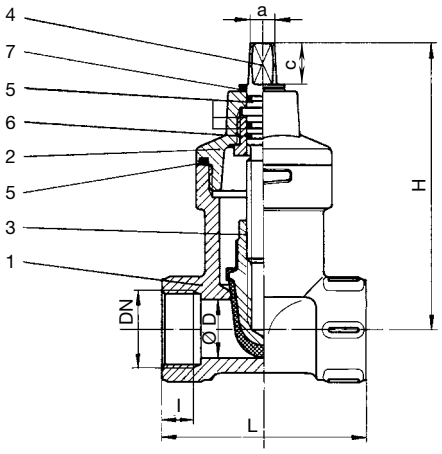
Suitable accessories

Extension spindles: rigid No. KR380
telescopic No. KR385

No. KR351

krammer

Order no.	Version	MOP (PN)	Dimensions / DN	
			¾"	1"
KR351	internal thread on both sides	16		



DN	Valve			Spindle		Weight
	L	H	l	a	c	
¾"	90	125	12	10,3	20	1,65
1"			14			1,55

Spindle turns for service valves

Valve stroke

- Spindle turns for closing torque of Krammer service valves
- Upper stop – lower stop

Krammer service valve No. KR351- KR355	DN	
	20	25
Spindle turns	9	9

Service valve
Pre-meter valve with hand wheel

Construction characteristics

- Resilient seated gate valve with smooth straight through bore with internal threads on both sides
- Not suitable for underground installation
- Housed between the body and bonnet lies the bonnet seal
- All surfaces in contact with drinking water correspond to the hygiene requirements acc. to ÖNORM B 5014/Part 1 (KTW guidelines); the valve plug is drained; there is no valve bag, the internal surfaces allow no deposits

Material | Technical features

1/2 **Body** (1)**, bonnet** (2)
DN 20 – DN 25 made of forged brass

3 **Valve plug** made of brass, with vulcanised elastomer

4 **Stainless steel spindle** with rolled thread guided in brass
O-ring bush and triple sealed with O-rings

5 **O-rings** made of elastomer

6 **O-ring bush** made of brass

7 **Hand wheel** made of plastic (optional of aluminium)

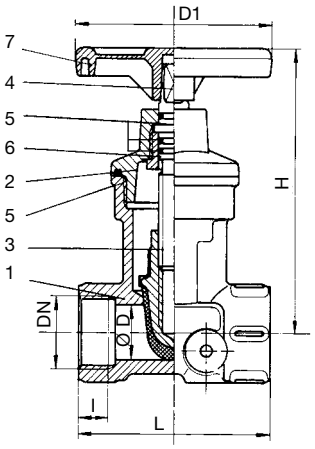
Suitable accessories

Installation bracket: No. KR331

No. KR352

ÖVGW GEPRÜFT

Order no.	Version	MOP (PN)	Dimensions / DN	
			¾"	1"
KR352	internal thread on both sides	16		



DN	Valve				Weight
	L	H	D1	I	
¾"	90	125	90	12	1,65
1"				14	1,55

Service valve
Post-meter valve with hand wheel and drainage plug

Construction characteristics

- Resilient seated gate valve with smooth straight through bore with internal threads on both sides
- The bonnet seal lies housed between the body and bonnet
- The drain plug has a G ¼" thread and is closed with brass plug and seal
- All surfaces in contact with drinking water correspond to hygiene requirements acc. to ÖNORM B 5014/Part 1 (KTW guidelines); the valve round plug is drained; there is no valve bag, the internal surfaces allow no deposits

Material | Technical features

1/2 **Body** (1)**, bonnet** (2)
DN 20 – 25 made of forged brass

3 **Valve round plug** made of brass, with vulcanised elastomer

4 **Stainless steel spindle** with rolled thread guided in brass
O-ring bush and triple sealed with O-rings

5 **O-rings** made of elastomer

6 **O-ring bush** made of brass

7 **Hand wheel** made of plastic (optional aluminium)

Suitable accessories

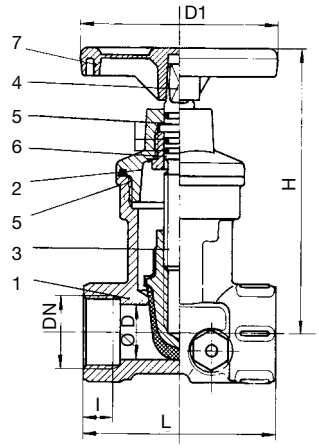
Installation bracket: No. KR331

No. KR353

krammer

ÖVGW GEPRÜFT

Order no.	Version	MOP (PN)	Dimensions / DN	
			¾"	1"
KR353	internal thread on both sides	16		



DN	Valve				Weight
	L	H	D1	l	
¾"	90	125	90	12	1,65
1"				14	1,55

Service valve
with push-on ISO socket on both sides for PE pipes

Construction characteristics

- Resilient seated gate valve with smooth straight through bore with push-on ISO socket on both sides for PE pipes acc. to DIN 8074/8075 (ÖNORM B 5172)
- Housed between the body and bonnet lies the bonnet seal
- All surfaces in contact with drinking water correspond to the Hygiene requirements according to ÖNORM B 5014/ Part 1 (KTW guidelines). The valve round plug is drained; there is no valve bag, the internal surfaces allow no deposits

Material | Technical features

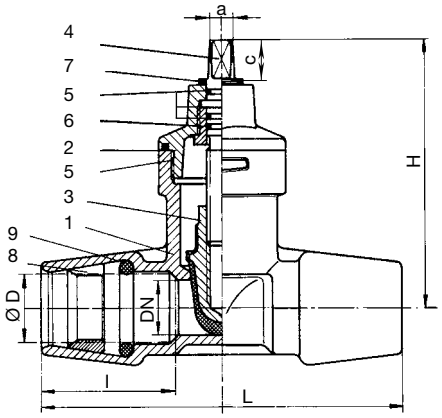
1/2 **Body** (1)**, bonnet** (2) made of forged brass
3 **Valve round plug** made of brass, with vulcanised elastomer
4 **Stainless steel spindle** with rolled thread guided in brass
O-ring bush and triple sealed with O-rings
5 **O-rings** made of elastomer
6 **O-ring bush** made of brass
7 **Wiper ring** made of elastomer
8 **Grip ring** made of POM
9 **O-ring** made of elastomer

Suitable accessories

Extension spindles: rigid No. KR380
telescopic No. KR385

No. KR354

Order no.	Version	MOP (PN)	Dimensions / DN 25
KR354	with push-on ISO socket on both sides for PE pipes	16	



DN	Valve				Spindle		Weight
	L	H	R	l	a	c	
25	164	125	32	58	10,3	20	2,20

Service valve
with internal and external threads

Construction characteristics

- Resilient seated gate valve with smooth straight through bore with one internal and one external thread
- Made of hot-pressed brass
- All surfaces in contact with drinking water correspond to the Hygiene requirements acc. to ÖNORM B 5014/Part 1 (KTW guidelines); the valve round plug is drained; there is no valve bag, the internal surfaces allow no deposits

Material | Technical features

1/2 **Body** (1)**, bonnet** (2) made of forged brass

3 **Valve round plug** made of brass, with vulcanised elastomer

4 **Stainless steel spindle** with rolled thread guided in brass
O-ring bush and triple sealed with O-rings

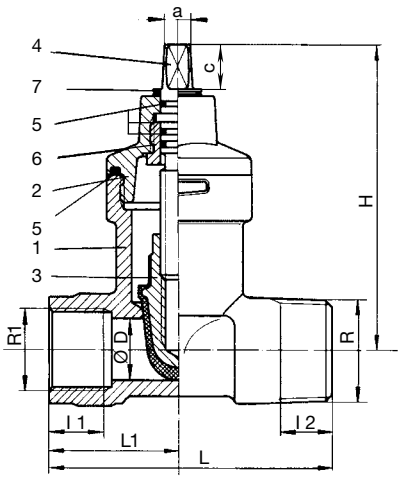
5 **O-rings** made of elastomer

6 **O-ring bush** made of brass

7 **Wiper ring** made of elastomer

Suitable accessories

Extension spindles: rigid No. KR380
telescopic No. KR385



DN	Valve							Spindle		Weight
	L	L1	H	R	R1	l1	l2	a	c	
25	103	53	125	1"	1¼"	21	19	10,3	20	1,70

No. KR355

Order no.	Version	MOP (PN)	Dimensions / DN 25/1"
KR355	with internal and external threads	16	

Water meter installation brackets

Installation bracket for cold water meter

Construction characteristics

- Optionally closed or open bracket with connection threads and single-sided piece for easy installation of the water meter (water meter is not supplied)
- G 1" connection thread according to ÖNORM EN ISO 228
- No ring or counter nut required for sealing the valve compensation piece
- Safe electrical bridging
- The pipe external thread is located outside the bracket
- Union nut is provided for infeed side plumbing

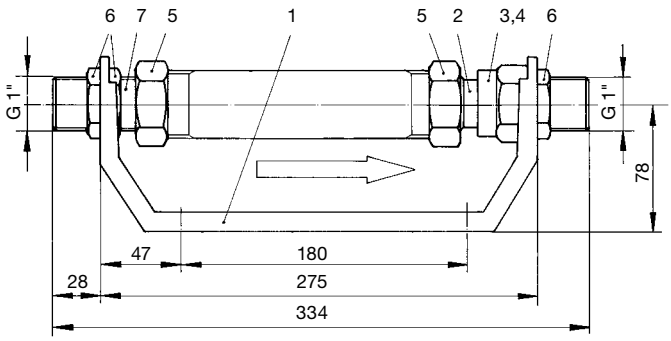
Material | Technical features

1 **Installation bracket** made of ductile iron, hot-dip galvanised
2 **Compensation piece** made of brass
3 **Connecting threads** made of brass
4 **O-ring** made of elastomer
5 **Union nut** made of brass
6 **Nut** made of brass
7 **Fixed screw connection** made of brass

Suitable accessories

Back flow preventer stainless steel: No. KR368
Back flow preventer POM: No. KR369
Pre-meter valve: No. KR352
Post-meter valve: No. KR353
Base plate: No. KR341

No. KR331



Order no.	MOP (PN)	DN	Valve connector	for cold water meter acc. to ÖNORM B 2535	
KR331	16	1"	2 external threads G 1" acc. to ÖNORM EN ISO 228	3 (5) m³/h - / 7 (10) m³/h	

Water meter installation brackets

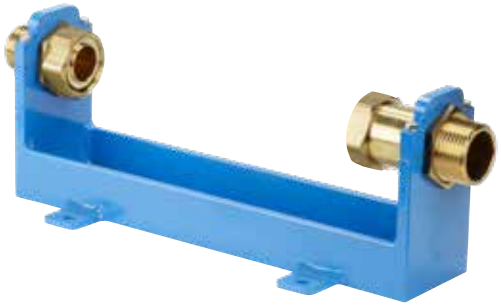
Installation bracket for cold water meter

Construction characteristics

- With connecting screw connections and single-sided compensation piece for easy installation of the water meter (water meter is not supplied)
- Connection thread G 1½" or 2" according to ÖNORM EN ISO 228
- Easy installation and disassembly of the water meter through length compensation (water meter is not supplied)
- No ring or counter nut required for sealing the valve spout
- Safe electrical bridging
- The pipe external thread is located outside the bracket
- Union nut is provided for infeed side plumbing
- If using reduction sockets 2" - 1½", valves of nominal diameter DN 40 can be used as pre- and post-meter valves

No. KR332

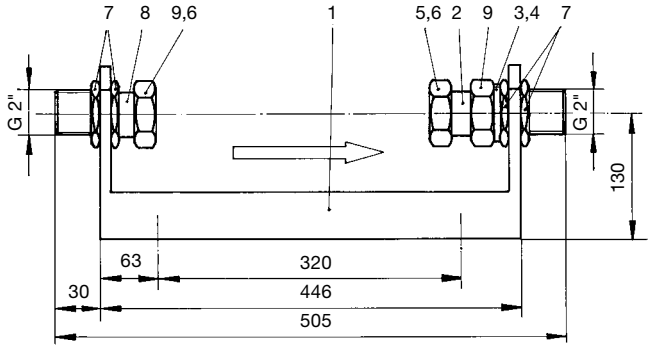
krammer



ÖVGW GEPRÜFT

Material | Technical features

1 **Installation bracket** made of profile steel, welded, epoxy powder-coated
2 **Compensation piece** made of brass
3 **Connecting threads** made of brass
4 **O-ring** made of elastomer
5 **Union nut** made of brass
6 **Sealing ring** made of polyamide
7 **Nut** made of brass
8 **Fixed screw connection** made of brass
9 **Union nut** made of brass



Order no.	MOP (PN)	DN	Valve connector	for cold water meter acc. to ÖNORM B 2535	
KR332	16	1½"	2 external threads G 1½" acc. to ÖNORM EN ISO 228	20 (30) m^3/h	
		2"	2 external threads G 2" acc. to ÖNORM EN ISO 228		

Water meter installation sets

Installation bracket and valve

Construction characteristics

- Optionally closed or open bracket with connection bolts and single-sided dilation option
- Pre-meter valve No. KR352 DN 20 – DN 32 (with smooth straight through bore - resilient seated) loosely screwed on
- Post-meter valve No. KR353 DN 20 – DN 32 (with smooth straight through bore - resilient seated) loosely screwed on with drain plug and closing bolts

Material | Technical features

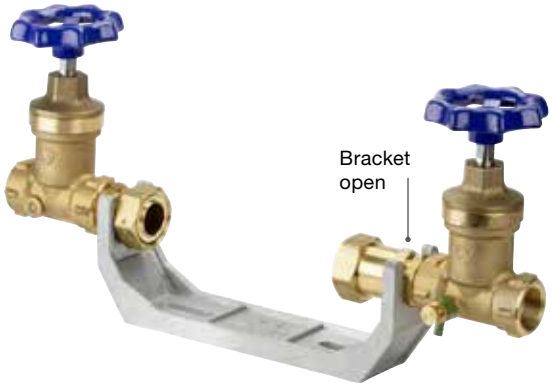
1 **Installation bracket** made of ductile iron, galvanised
2 **Pre-meter valve** made of brass
3 **Post-meter valve** made of brass

- **Screw connection parts** from turned brass
- **O-ring seal** made of elastomer
- **Closing screw** made of brass

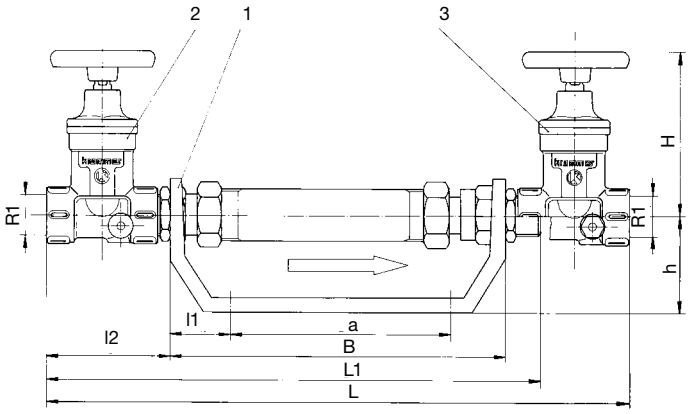
Suitable accessories

Back flow preventer: No. KR368

No. KR358



Order no.	Version	MOP (PN)	Dimensions / DN ¾"	Dimensions / DN 1"
KR358	with pre- and post-meter valve	16		



DN	MOP (PN)	R1 thread	l2	l1	a	B	L	L1	h	H	for water meter	Weight ¾"	Weight 1"
20	16	¾"	110	42	180	272	492	410	78	130	3 (5) m³/h - / 7 (10) m³/h	5,80	3,95
25		1"	110				492	410		130		5,20	3,65
32		1¼"	135				542	435		140		6,20	4,15

Iso pipe fitting
Fittings for PE pipes

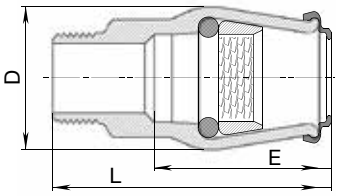
Construction characteristics

- With external thread according to EN 10221-1
- Made of brass
- O-ring made of elastomer
- Grip ring made of POM

Order no.	Pipe Ø	Thread	MOP (PN)	L	E	D Ø	Weight	
6140	32	1"	16	98	60	54	0,35	

Fitting with external thread
No. 6140

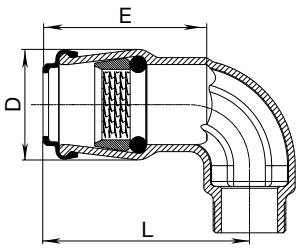
krammer



Order no.	Pipe Ø	Thread	MOP (PN)	L	E	D Ø	Weight	
6419	32	1"	16	89	59	53	0,61	
	50	1½"		122	91	76	1,61	
	63	2"		156	121	91	2,65	

Bend 90° with external thread
No. 6419

krammer



Krammer accessories

Order No.	DN	L	Weight
KR285	80 100	100	7,2
		150	9,0
		200	11,7
		250	10,0
		300	16,2

Length extension for Euro-SV break away hydrants
No. KR285

Order No. 5417

Theft indicator cap
No. 5417

- For above ground hydrants
- Since September 1998, all Krammer above ground hydrants have been supplied in a form that can accept theft indicator caps

Construction characteristics

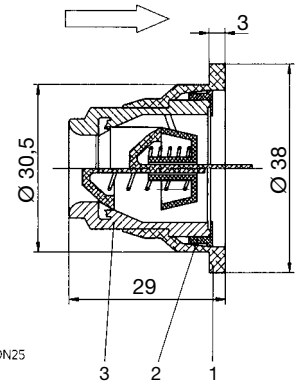
- Low pressure loss
- Opening pressure only 10 cm water column
- No water hammer
- Noiseless operation
- Suitable for any installation condition
- Nominal pressure up to 16 bar
- Temperature up to 100 °C
- Back-flow preventer (RV) use: DIN-DVGW (German Association for Gas and Water) approved

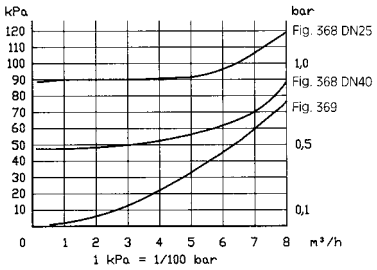
Material | Technical features

1 **Body** made of POM
2 **Ring** made of PA
3 **RV use** from OCEAN back flow preventer
- **Valve** made of POM
- **Torpedo** made of POM
- **Seal** made of SBR
- **Spring** made of stainless steel

Plug-in back flow preventer (RV)
for installation in all domestic water meters

No. KR369





Krammer accessories

Rigid extension spindle
for service valves

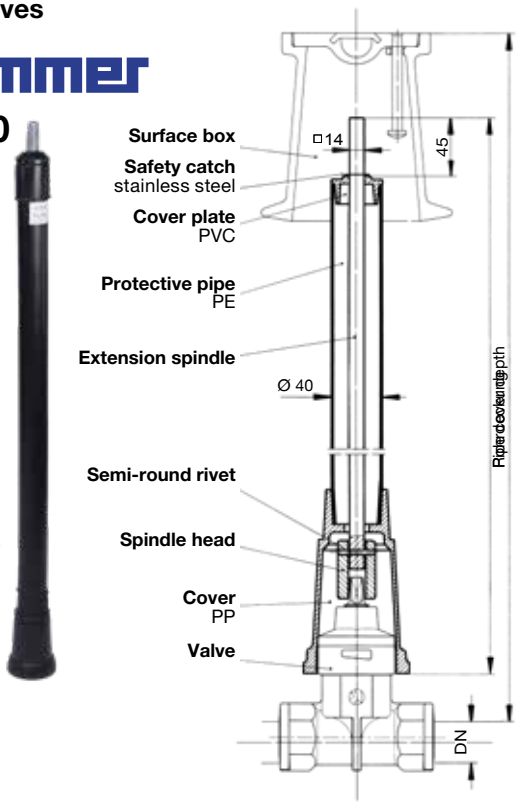
krammer

No. KR380

Construction characteristics

- The length of the rigid addtional extension spindle can be adjusted for shorter pipe cover depths by shortening the key rod and the PE protection pipe
- Please specify pipe cover depth when ordering

Order no.	Version	Pipe cover depth	L	Weight	Dimensions DN 20 – 50
KR380	rigid	1,00 m	850	1,00	
		1,25 m	1050	1,30	
		1,50 m	1300	1,70	
		1,75 m	1550	2,00	
		2,25 m	2050	2,50	



Telescopic extension spindle
for service valves

krammer

No. KR385

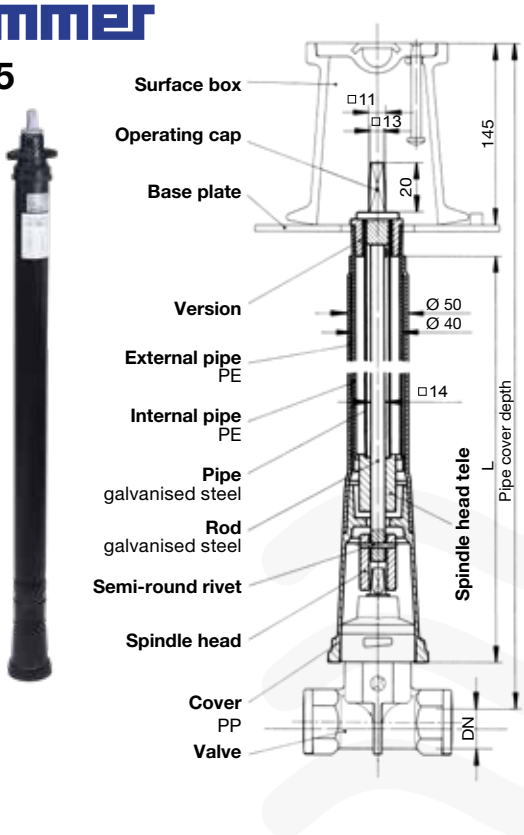
Construction characteristics

- The telescope addtional extension spindle allows a continuous adjustment to the street level
- All vertically acting forces are absorbed by the telescope effect, preventing damage to the pipe and the valve
- Please specify pipe cover depth when ordering

Order no.	Version	Pipe cover depth	L	Weight	Dimensions DN 20 – 50
KR385	telescopic	1,25 – 1,85 m	990	3,65	
		1,75 – 3,11 m	1620	5,90	

Suitable accessories

Service valve: No. KR351, No. KR354, No. KR355



Krammer accessories

Hydrant stand pipes
for Unterground hydrants DIN 3221

No. KR287

Construction characteristics

- Hydrant stand pipes for underground hydrants DIN 3221 lockable.

Order no.	DN	Outlet B	Outlet C	Version
KR287	80		1	
			2	
		2		

DN 80
CC

DN 80
BB

Protection cap
for Hawle above ground hydrants

No. KRE300PC
Opening of the hydrant is only possible with adapter and Hawle shut-off key No. KR281.1

Construction characteristics

- The effective protection against unauthorized access
- For all Krammer above-ground hydrants from 1998 onwards

Order No.	Coupling	Weight	
KRE300PC	for A-Coupling	3,70	
	for B-Coupling	2,20	
	for C-Coupling	1,70	

Adapter
suitable for protection cap No. KRE300PC

No. KR281.1

Construction characteristics

- made of stainless steel

Order No.	Coupling	Weight	Version
KR281.1	A+B+C	1,25	

Notes

Krammer accessories

Order No.	L	Weight	
5011407	1m	0,90	

Snow pole
No. 5011407

- Suitable for snow pole adapter No. 5429EURO

Order No.	DN	Weight	
5429EURO	80	0,80	
	100/150	0,85	

Snow pole adapter
No. 5429EURO

- For Krammer EURO above ground hydrants

Terms and Conditions of Delivery of E. Hawle Armaturenwerke GmbH

Hawle Terms and Conditions of Delivery 2026

Last updated: January 2026 / valid as of 1 January 2026

1 General

1.1 All offers, sales transactions, deliveries and other services provided by E. Hawle Armaturenwerke GmbH (henceforth referred to as “Hawle”) to our customers as of 01.01.2026 are subject exclusively to the following Conditions of Sale.

1.2 Hawle shall not recognise any conflicting or deviating terms and conditions of the customer unless Hawle has expressly agreed to their validity in writing.

1.3 Supplements and amendments to these Conditions of Sale, as well as ancillary agreements, must be made in writing in order to be effective. This also applies to the waiver of the written form requirement.

1.4 If individual provisions of these Conditions of Sale are or become invalid, the remaining provisions shall remain effective. Ineffective provisions shall automatically be replaced by legally effective provisions which come as close as possible to the economic intent of the contracting parties.

1.5 It is the responsibility of the customer to assess the technical and legal suitability of the goods offered by Hawle for the use intended by the customer or his buyers. The customer is also required to observe export and import restrictions.

1.6 Any administrative authorisations required for the import of goods into their country of destination or for the use intended by the customer or his buyers must be obtained by the customer in good time. If such authorisations are not obtained in good time, delivery dates and periods shall be extended accordingly.

1.7 Hawle reserves the property rights and copyrights to the product catalogue sheets, drawings, product photos, cost estimates and other documents prepared by Hawle. These documents may not be disclosed to third parties without the prior permission of Hawle.

2 Conclusion of contract

2.1 All offers and price lists issued by Hawle are subject to change and non-binding, unless expressly agreed otherwise, and only become binding once Hawle has confirmed the order in writing or performed an action set by Hawle in fulfilment of the contract (e.g. delivery/shipment of the goods).

2.2 Following the confirmation of the order or the performance of an action in fulfilment of the contract by Hawle, the customer may withdraw from the contract only with the prior written consent of Hawle. Unilateral withdrawal from the contract on the part of the customer is not permitted.

3 Prices and terms of payment

3.1 All documents pertaining to an offer such as drawings, illustrations and weight specifications shall only be regarded as approximate unless they are expressly designated as being binding. This reservation applies in particular to obvious errors, typographical errors, printing errors and miscalculations.

3.2 Unless otherwise agreed, all prices quoted by Hawle are in EURO ex works Frankenmarkt or EXW Frankenmarkt (Incoterms 2020), excluding in particular packaging, transport costs, transport insurance, sales tax and export and import duties. Packaging, loading, transport costs and transport insurance as well as potential taxes and duties shall be invoiced separately by Hawle.

3.3 Any changes in wage costs due to collective or statutory regulations or internal agreements as well as changes in other costs relevant to the calculation of costs necessary for the provision of the service, such as the costs incurred for materials, energy, transport, third-party work, financing, etc., shall entitle Hawle to increase the prices accordingly. For this reason, the customer shall have neither the right to withdraw from the contract nor the right to assert that the basis of the transaction has ceased to exist. Orders confirmed by Hawle are exempt from potential price changes.

3.4 Unless different payment terms have been agreed in writing, delivery shall be made against advance payment. Shipment shall only be arranged after full payment has been received in our account. Payments shall be offset against the oldest claim outstanding.

3.5 Claims by Hawle may not be offset.

3.6 In the event that the customer defaults on payment, Hawle shall be released from all further service and delivery obligations and be entitled to withhold any outstanding deliveries or services or to demand advance payments or guarantees.

3.7 In the event that, upon conclusion of the contract, a significant deterioration in the financial circumstances of the customer occurs, or if circumstances become known which from Hawle's point of view are likely to reduce the creditworthiness of the customer, Hawle shall have the right to change due dates for outstanding claims, withhold deliveries to the customer and adjust conditions for future legal transactions with immediate effect.

4 Delivery

4.1 Orders confirmed by Hawle shall be fulfilled by Hawle as swiftly and diligently as possible. The delivery dates and periods announced by Hawle are merely intended to serve as a guideline and are always non-binding unless the stated delivery dates and periods have been expressly designated as binding by Hawle.

4.2 In the event of force majeure or any unforeseeable obstacle for which Hawle is not responsible, delivery dates and deadlines shall be reasonably extended by the duration of the impediment. This shall also apply if Hawle's sub-suppliers encounter such impediments. These include, in particular, official measures, strikes and lock-outs, natural disasters, market-related problems with material procurement as well as import and export restrictions.

4.3 Hawle deliveries may always be divided into sub-deliveries. Hawle is at liberty to make partial deliveries or provide partial services and to issue partial invoices to the customer.

4.4 National and international goods traffic is subject to the terms of delivery FCA, 4840 Frankenmarkt, Hawle dispatch warehouse (Incoterms 2020), unless another delivery clause has been explicitly agreed.

4.5 In the case of a sales shipment, the transfer of risk takes place once the purchased item has been handed over to the first carrier. Where acceptance of a service is required, Hawle's notification of readiness for acceptance shall be decisive for the transfer of risk.

4.6 The customer is obliged to accept the deliveries and services provided by Hawle as per contract. In the event of default of acceptance or a culpable breach of other obligations to cooperate on the part of the customer, Hawle is entitled to demand compensation from the customer for any damage incurred as a result, including any additional expenses.

4.7 Hawle is entitled to make changes to the technical design of the goods ordered, provided that these do not result in significant functional changes and the customer does not demonstrate the unreasonable nature of such changes. Unreasonableness is to be ruled out if the change constitutes a technical improvement or is caused by the further development of the state of the art or by legal or official measures.

4.8 In principle, the customer is not entitled to refunds or replacements. Refunds and replacements are only possible in exceptional cases and require the prior written consent of Hawle.

4.9 The goods delivered by Hawle to the customer are intended for use or resale in the customer's country of residence or in the country of the place of delivery.

Hawle Terms and Conditions of Delivery 2026

Last updated: January 2026 / valid as of 1 January 2026

5 Reservation of title

5.1 All goods delivered by Hawle remain the property of Hawle until payment has been made in full.

5.2 The customer is authorised to resell the goods in the regular course of business, even during the period in which the goods are subject to reservation of title. If, however, the customer is in default of payment to Hawle, Hawle may prohibit the resale of the goods subject to reservation of title.

5.3 The customer herewith cedes to Hawle all purchase price claims, including all ancillary rights, arising from a resale of the goods to his customers. Hawle accepts this assignment. These purchase price claims serve as security for the goods subject to reservation of title.

6 Warranty

6.1 The customer must inspect the received goods with respect to quantity and quality immediately upon receipt. Written notices of defects must be submitted by the customer immediately after receipt of the delivery, but at the latest within 10 days from the date of delivery and prior to any handling or processing, otherwise excluding any warranty claims and/or claims for damages and/or avoidance on account of mistake, but do not entitle the customer to retain the invoiced amounts or portions thereof.

6.2 The warranty period for defects which were not detected during the inspection of the shipment is six months from the date of delivery and is neither extended nor interrupted by attempts at improvement; it also applies to partial deliveries.
Notification of any such defects must be given in writing within 10 days from the date the defect was discovered, otherwise excluding warranty claims and/or claims for damages and/or avoidance on account of mistake, but do not entitle the customer to retain the invoiced amounts or portions thereof.

6.3 It has been agreed between Hawle and the customer that a hydrostatic pressure test in accordance with EN 805 is to be performed after laying a pipeline but prior to the main backfilling of the pipe trench or further constructional measures in shafts, plants or buildings which restrict accessibility to the valves and pipe fittings. If such a test is not performed, the customer or his customers shall be charged with contributory negligence of at least 50% in the event of damage. The customer agrees to inform his customers accordingly and to pass on this obligation to perform the described hydrostatic pressure test to his customers.

6.4 Possible warranty obligations generally cover the defective goods, but not the expenses otherwise associated with correcting the defect such as excavation costs, working hours and travel expenses.

6.5 The customer always bears the burden of proving that the delivered goods were defective at the time of delivery.

6.6 The place of performance for warranty obligations is always the place of delivery agreed for the original delivery.

6.7 Hawle shall be free to decide whether to fulfill possible warranty claims by means of replacements, improvement measures, price reductions or withdrawal from the contract.

7 Damages and liability

7.1 Any consulting provided by Hawle, whether verbal or in writing, is non-binding and does not release the customer from his obligation to examine the goods with respect to their suitability and the intended purpose. This applies above all, but not exclusively, to the suitability of the goods for the use intended by the customer or his customers, in particular to their suitability for the substances (gases and/or liquids) to be conveyed.

7.2 Hawle shall be liable for damages caused to the customer in the course of processing the business transaction in an amount not exceeding the value of the order placed with Hawle, and only in the event of gross negligence on the part of Hawle or gross negligence on the part of the executors working for Hawle, with the exception of personal injuries in which case Hawle shall be liable even in the event of minor negligence. The burden of proving gross negligence always lies with the injured party.

7.3 IN NO EVENT SHALL HAWLE BE HELD LIABLE, WHETHER IN TORT OR CONTRACT, FOR INDIRECT DAMAGES, CONSEQUENTIAL DAMAGES, PURELY PECUNIARY LOSSES, FOREGONE PROFITS OR DAMAGES ARISING FROM DELAYS OR OUT OF THIRD PARTY CLAIMS.

7.4 The time limit for asserting claims for damages is one year from the date on which the customer gains knowledge of, or is subject to, negligent ignorance of the damage and the injuring party.

7.5 In the event that the customer himself is held liable under product liability law, he undertakes to immediately notify Hawle thereof by telephone or in writing and to immediately inform Hawle of the address of the claimant, failing which the customer's right of recourse against Hawle arising from product liability will cease to apply. Negotiations of claims arising from product liability with respect to Hawle products shall be conducted exclusively by Hawle.

8 Copyright and intellectual property

8.1 Hawle reserves all industrial property rights and intellectual property rights without restriction, in particular to its products, software, manufacturing processes, user manuals, technical documentation, catalogs, brochures, illustrations, and other materials, irrespective of their format or medium. This shall also apply to future developments, extensions and improvements based on existing property rights.

8.2 The customer is not permitted to modify the visual appearance of the goods, nor to modify, remove, alter, or in any way tamper with, Hawle's trademarks or other logos. This applies both to the goods themselves and to their packaging and accompanying documentation.

8.3 The customer undertakes to inform Hawle without delay of any infringement of property rights or intellectual property by third parties that comes to their attention and to provide Hawle with their full assistance in enforcing these rights.

8.4 All rights not expressly granted to the customer under this contract remain exclusively with Hawle. Any tacit or implied transfer of rights is excluded.

9 Place of performance, legal venue, applicable law

9.1 The place of performance for delivery and payment shall be 4840 Vöcklabruck, Austria, even if a different place of delivery is agreed individually.

9.2 The exclusive court of jurisdiction for all disputes arising from legal transactions between the customer and Hawle is the competent court in 4840 Vöcklabruck/Austria. Moreover, Hawle is also entitled to sue at the customer's registered office.

9.3 All legal transactions between the customer and Hawle are subject exclusively to Austrian substantive law, excluding international conflict of law rules. The application of the UN Convention on Contracts for the International Sale of Goods (CISG) is explicitly excluded.

Notes

Notes

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kramer