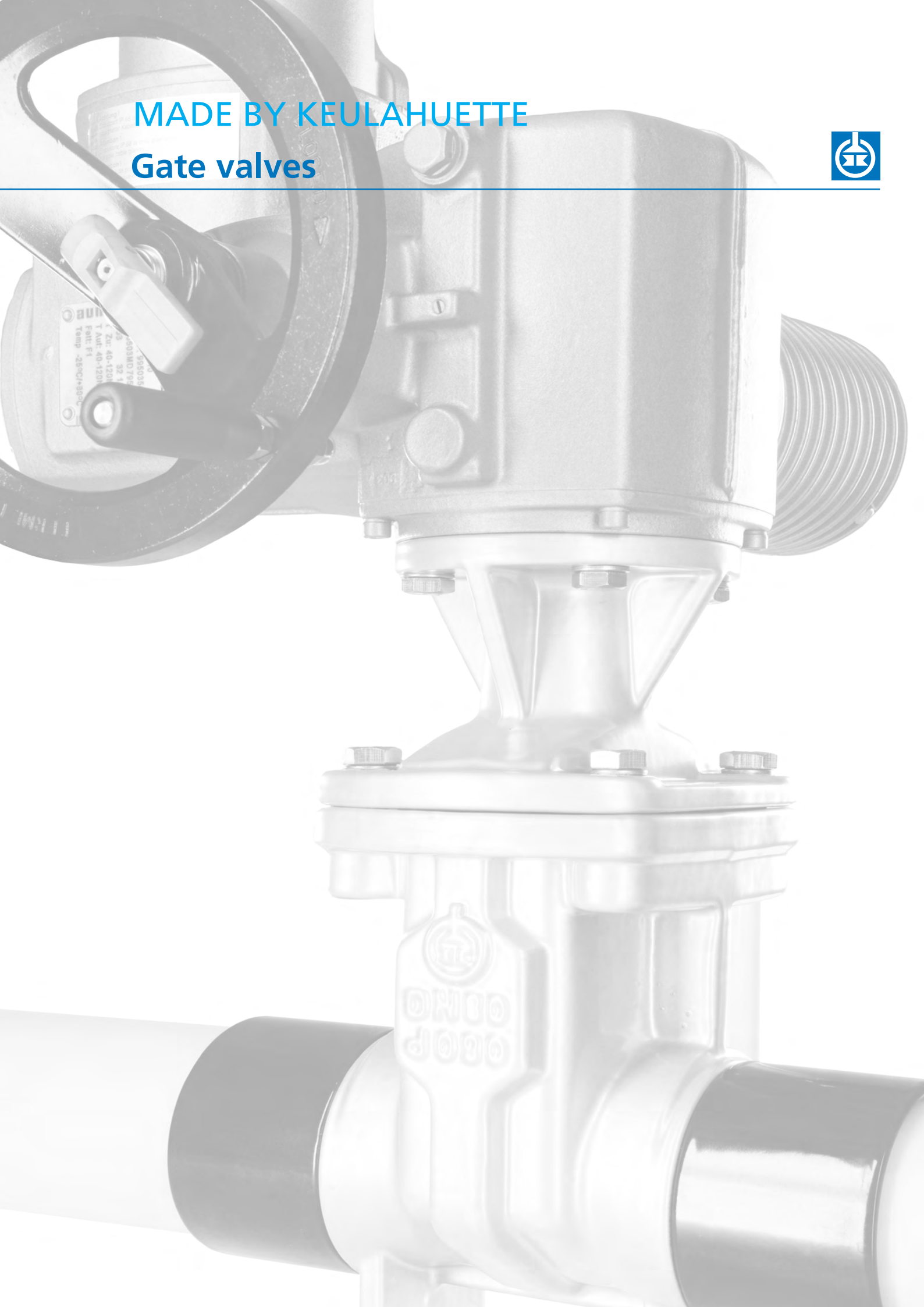


MADE BY KEULAHUETTE

Gate valves



Gate valves



Made of ductile cast iron



Introduction

Keulahütte GmbH in Krauschwitz manufactures gate valves made of ductile cast iron (SGCI).

The product portfolio comprises soft-seated gate valves for use in water, drinking water and gas pipelines, in particular the following types:

- Double-flanged gate valves, FTF length: basic ranges GR 14 und GR 15
- PE spigot end gate valves, ETE length
- Double-socket gate valves, ETE length

Available surface protection options include integral epoxy resin powder coating and enamelling.

The gate valves can be actuated either manually or with electric drive, which opens up a wide field of applications in the industry, in water and waste water installations and for underground pipelines.

Tests during production according to DIN EN 12266-1 and DIN EN 1074-1/2 are documented through an ID number given to each gate valve. In combination with a type approval by DVGW (German Technical and Scientific Association for Gas and Water), this guarantees a high quality standard of Keula gate valves. A works certificate with testing results can be issued on request.

Gate valves



Range of application

Materials, surface protection, temperature, testing and acceptance



	Drinking water	Waste water I	Waste water II	Waste water III Liquid menure	Biogas H ₂ S up to 3076 mg/m ^{3**}	Gas	Gas (PU)
Material – Body, bonnet, wedge	EN-GJS-400-15						
Coating – Body, bonnet	Epoxy resin powder coating or enamelling*				Epoxy resin powder coating*		
Rubber coating – Wedge, seals	EPDM W270	Nitrile rubber (NBR)					
Material – Stem	X20Cr13 1.4021	X20Cr13 1.4021	X6CrNi-Mo-Ti17122 1.4571	X6CrNiMo-Ti17122 1.4571	X6CrNiMo-Ti17122 1.4571	X20Cr13 1.4021	
Material – Stem screw nut	Brass CuZn40Pb2 2.0402.10	Brass CuZn40Pb2 2.0402.10	Brass CuZn40Pb2 2.0402.10	Bronze CuSn12Ni2 2.1060.01	Bronze CuSn12Ni2 2.1060.01	Brass CuZn40Pb2 2.0402.10	
Material – Wedge guide	PTFE						
Working temperature °C							
Epoxy resin powder coating	Up to 50 °C						
Enamel	Up to 70 °C	Up to 60 °C				–	
Testing and acceptance	According to DIN EN 1074-1/2 and DIN EN 12266-1 with water or air						
	Leak rate A	Leak rate A			Pg 1 acc. to DIN 3230 T.5 Pg 2 or 3 on request		
Permitted torque	Max. operating torque MOT = 1x DN in Nm Min. torque strength = 2x DN in Nm, corresponding to Cat. 2 acc. to DIN EN 1171						
Pipe colour	Blue	Black			Yellow orange		

* Internal and external surface protection

- Epoxy resin powder coating (sky blue RAL 5015) according to DIN 3476 with a minimum layer thickness of 300 µm
- Enamelling (cobalt blue RAL 5013) according to DIN 51178

** Please submit analysis of conveyed medium and information on working temperature and moisture before ordering to enable us to check suitability of our gate valves for your application.

All materials used comply with the requirements of the German Federal Environmental Agency (UBA).

Soft-seated gate valves



Soft-seated Keula gate valve according to DIN 1171

Face-to-face length GR 14/15 according to DIN EN 558

DN 40-400, PN 10 and PN 16

Flanged connections



Specifications

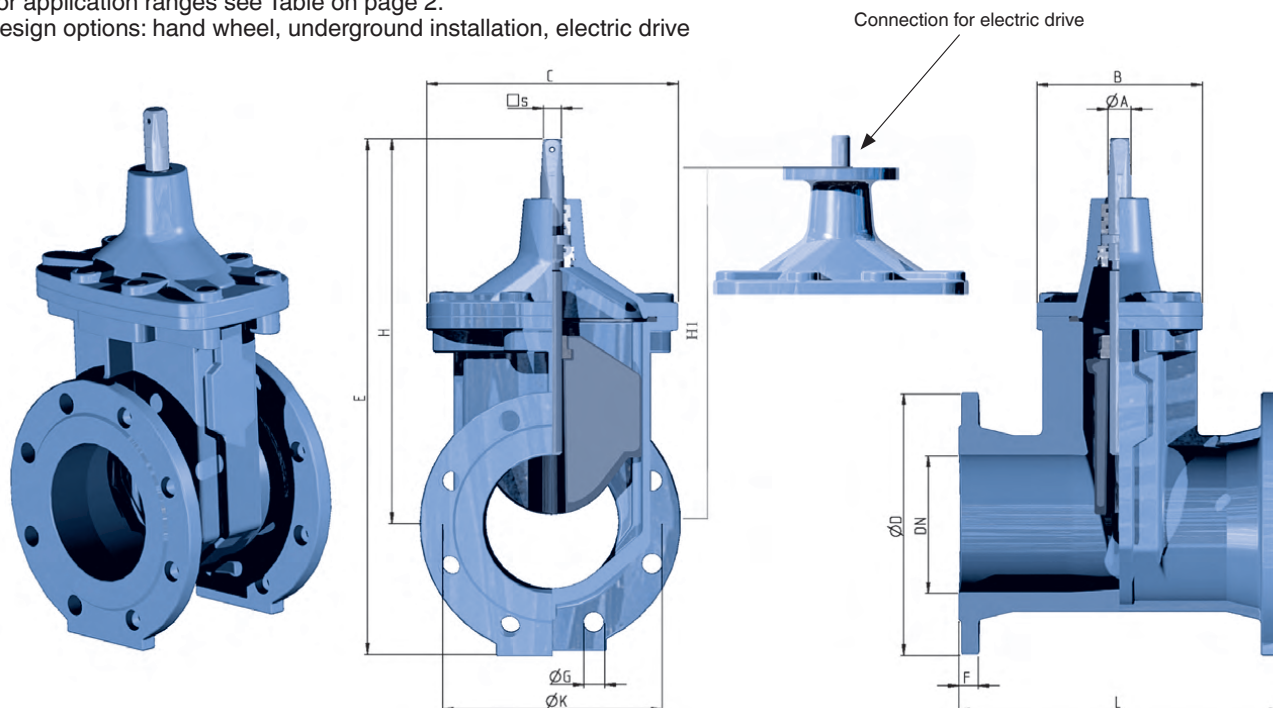
DIN DVGW conformity mark, DN 40–300: gas: NG-4313BR0534 / CE-0085BR0540, water: NW-6108BS0039 / DN 400: water: NW-6202BQ0533

Keula gate valves are manufactured according to DIN 1171, Cat. 2, PN10/16 and in face-to-face lengths GR 14/GR 15 according to DIN 558. Flange design and dimensions comply with DIN EN 1092-2, PN10/16.

The stem bearing is of a maintenance-free design. Coated anti-friction discs (bronze/PTFE) ensure excellent actuating torque characteristics.

For application ranges see Table on page 2.

Design options: hand wheel, underground installation, electric drive



DN	PN	Face-to-face length L		A	B	C	D	E	F	G	Qty.	H	H1	K	S	Weight in kg	
		GR14	GR15														
		Drill holes														GR14	GR15
40	10/16	140	240	18	96	165	150	274	19	19	4	196	–	110	14	10.4	10.7
50	10/16	150	250	18	96	165	165	313	19	19	4	196	–	125	14	11.0	12.0
65	10/16	170	270	25	139	166	185	383	19	19	4	290	245	145	17	16.8	18.2
80	10/16	180	280	25	139	166	200	390	19	19	8	290	245	160	17	18.5	19.5
100	10/16	190	300	25	151	186	220	430	19	19	8	320	275	180	19	23.7	25.0
125	10/16	200	325	25	160	225	250	445	19	19	8	320	275	210	19	28.1	31.5
150	10/16	210	350	25	180	275	285	553	19	23	8	410	360	240	19	43.3	48.3
200	10	230	400	32	195	330	340	690	20	23	8	520	470	295	24	63.0	75.6
200	16	230	400	32	195	330	340	690	20	23	12	520	470	295	24	70.6	81.0
250	10	250	450	32	236	414	400	820	22	23	12	620	550	350	27	99.5	113.0
250	16	250	450	32	236	414	400	820	22	28	12	620	550	355	27	105.5	119.0
300	10	270	500	32	260	480	455	915	24.5	23	12	685	625	400	27	135.5	155.5
300	16	270	500	32	260	480	455	915	24.5	28	12	685	625	410	27	145.5	166.5
400	10	310	600	47	240	580	565	1282	24.5	28	16	1000	–	515	32	290.0	320.0
400	16	310	600	47	240	580	580	1290	24.5	32	16	1000	–	515	32	290.0	320.0

Soft-seated gate valves

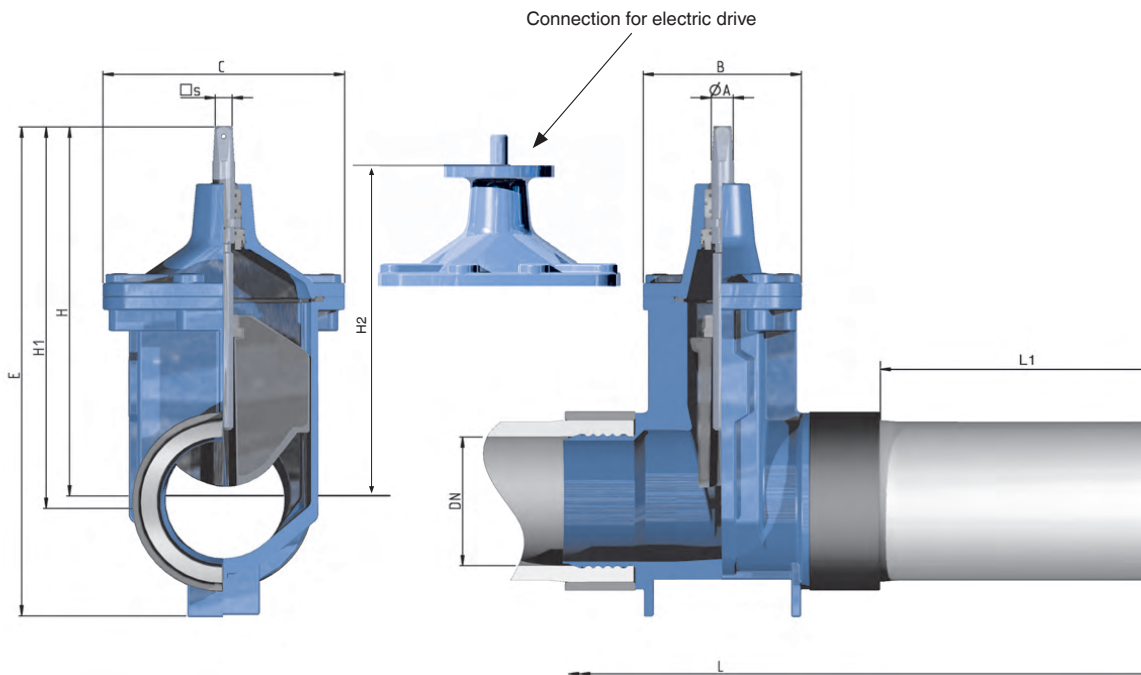


Soft-seated Keula gate valve according to DIN 1171
 DN 50 to DN 300
 PE welded connections



Specifications

Keula gate valves are made with an internal leadscrew drive for nominal pressures of 1–12.5 and 16 bar. The stem bearing is of a maintenance-free design. Coated anti-friction discs (bronze/PTFE) ensure excellent actuating torque characteristics. These valves shall be fitted with PE pipes according to DIN 8074. For application ranges see Table on page 2.
 Design options: hand wheel, underground installation, electric drive



DN	d	SRo SDR11	SRo SDR17	oS	ØA	B	C	E	H	H1	H2	L	L1
50	63	5.8		14	18	96	165	296	230	234		768	275
80	90	8.2	5.4	17	25	139	166	369	290	297	245	740	230
100	110	10.0	6.6	19	25	151	186	410	320	330	275	755	230
100	125	11.4	7.4	19	25	151	186	415	320	324	275	755	230
150	160	14.6	9.5	19	25	180	275	536	410	425	360	892	268
150	180	16.4	10.7	19	25	180	275	545	410	416	360	892	268
200	225	20.5	13.4	24	32	195	330	673	510	522	460	1120	338
300	315	–	18.7	27	32	260	480	900	681	708	625	1180	343

PE pipes by medium and pipe material ¹⁾

Pipe type	Material	Water Colour	Waste water Colour	PN	Gas Colour	Permitted pressure
SDR 11	PE 100	Blue	Black	16.0 bar	Yellow orange	10 bar
SDR 17	PE 100	Blue	Black	10.0 bar	Yellow orange	5 bar
SDR 17.6	PE 100	Blue	Black	9.6 bar	Yellow orange	5 bar

¹⁾ Other pipe types on request

Soft-seated gate valves



Soft-seated Keula gate valve according to DIN EN 1171
 DN 80-200, PN 10 and PN 16
Socket and spigot connections

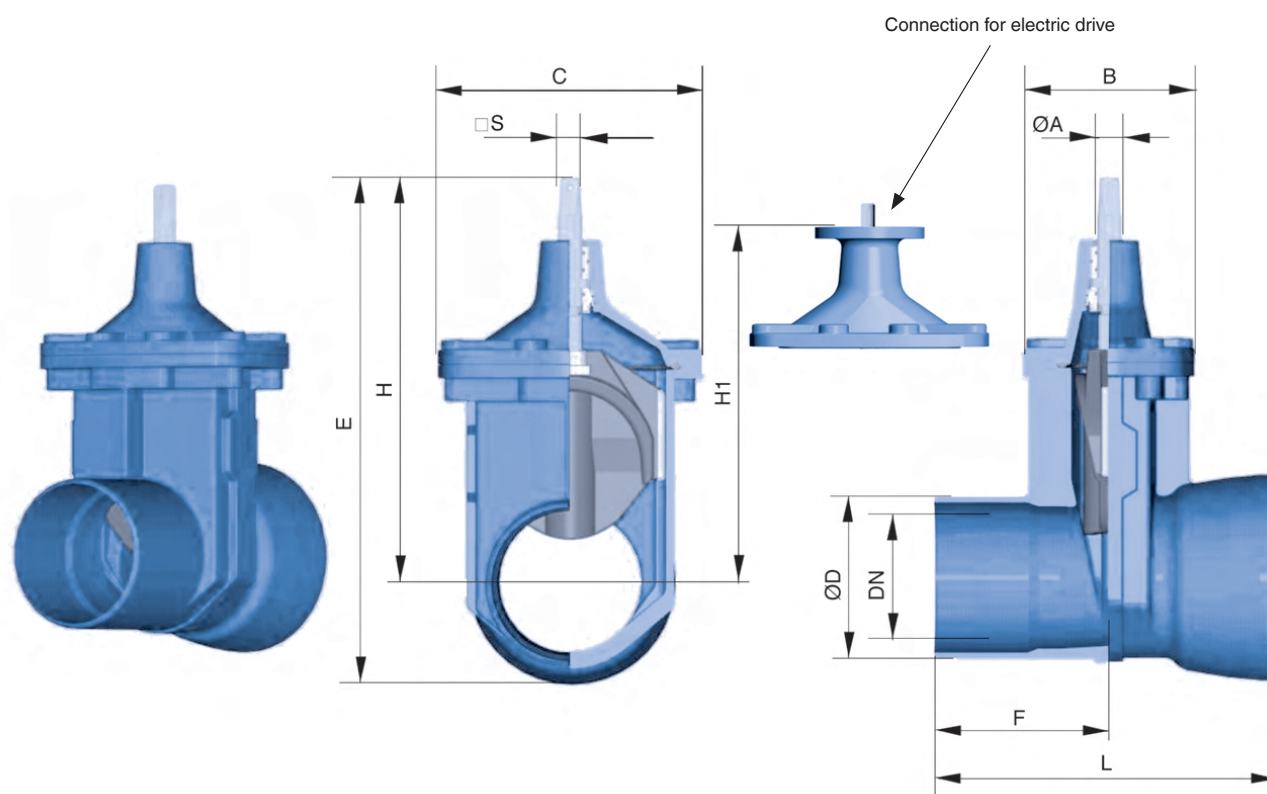


Description

Soft-seated Keula gate valve with socket and spigot end for an operating pressure rating of 10 bar or 16 bar. The stem bearing is of a maintenance-free design. Coated anti-friction discs (bronze/PTFE) ensure excellent actuating torque characteristics.

For application ranges see Table on page 2.

Design options: hand wheel, underground installation, electric drive



DN	PFA (bar)	Type	A	B	C	H	H1	S	D	L	E	F	Weight kg
80*	10/16	Tyton/spigot	25	139	166	290	245	17	98	296	361	153	16.5
100*	10/16	Tyton/spigot	25	151	186	320	275	19	118	320	400	170	22.0
150*	10/16	Tyton/spigot	25	180	275	410	360	19	170	360	518	185	41.0
200*	10/16	Tyton/spigot	32	195	330	510	470	24	222	400	645	210	66.5

* According to factory standard

Soft-seated gate valves



Soft-seated Keula gate valve according to DIN EN 1171
DN 80-200
Socket connections

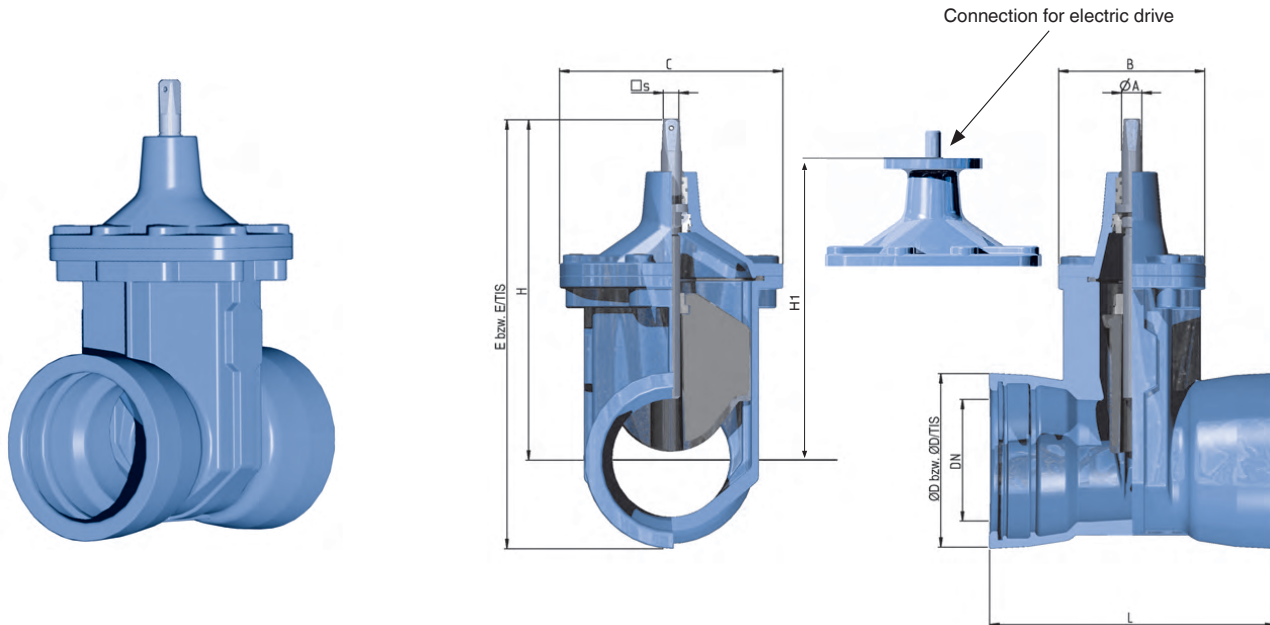


Description

Soft-seated Keula gate valve with Tyton socket joints for an operating pressure rating of 10 bar or 16 bar. The stem bearing is of a maintenance-free design. Coated anti-friction discs (bronze/PTFE) ensure excellent actuating torque characteristics.

For application ranges see Table on page 2.

Design options: hand wheel, underground installation, electric drive



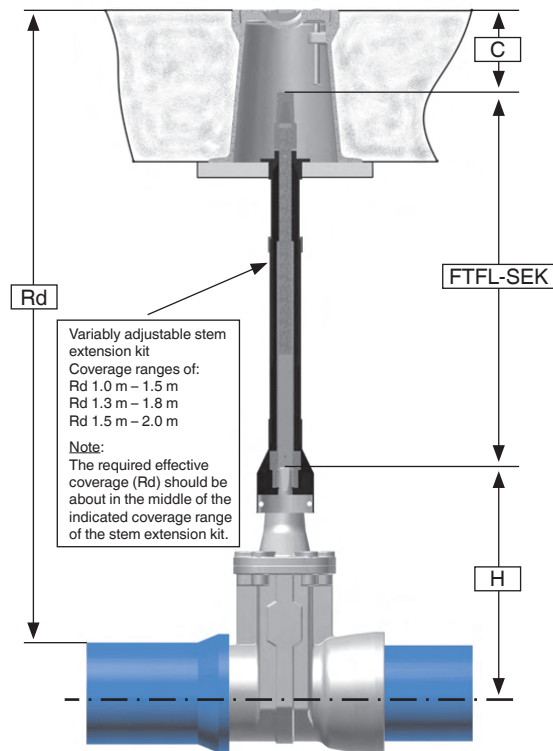
DN	PFA (bar)	Type	A	B	C	H	H1	S	D	D/TIS	L	E	E/TIS
80*	10/16	Tyton	25	139	166	290	245	17	141	168	286	361	374
100*	10/16	Tyton	25	151	186	320	275	19	161	189	310	400	415
150*	10/16	Tyton	25	180	275	410	360	19	215	243	350	518	532
200*	10	Tyton	32	195	330	510	460	24	271	296	390	645	668
200*	16	Tyton	32	195	330	510	460	24	271	296	390	645	668

* According to factory standard

Stem extension kits for underground gate valves



Stem extension kit for underground Keula gate valve with tensile telescopic connection for DN 40-400:



Description

- Stem extension kit can be mounted without tools
- Square cap made of zinc diecasting
- Galvanised coupling sleeve
- Stem extension kit compliant with DVGW standard GW 336
- Protective tube system with internal guide
- Wiper cap to prevent ingress of dirt
- Uninterrupted rotation thanks to ball bearing
- Centred extension rod
- Two-part extension rod galvanised after cutting to length
- Straight grooved pin/split pin: stainless steel
- Jacket tube and bell (welded together): HP polyethylene

Notes on ordering the stem extension kit

- Indicate nominal size (DN) of gate valve
- Indicate burying depth (coverage Rd)
- Indicate height of surface box

Further design options:

- Tensile version of stem extension kit
- Design according to DVGW standard GW336
- With hybrid coupling sleeve (electrostatic isolation, no thermal bridge, corrosion-resistant)

Legend:

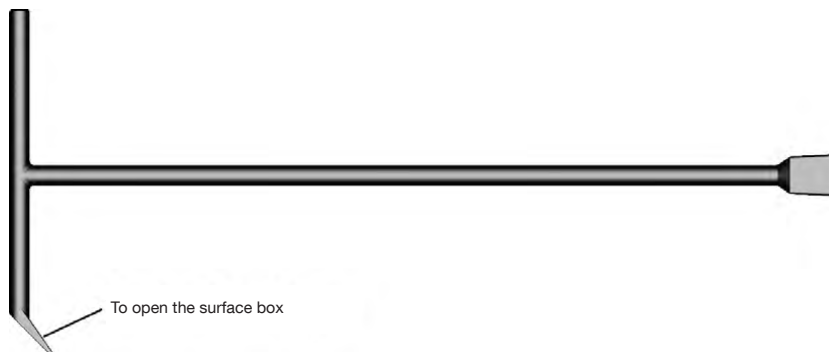
- Rd – Pipeline coverage (burying depth)
- H – Height of the valve as specified in the Gate valves section of the Keulahütte catalogue
- FTFL-SEK – Face-to-face length of the stem extension kit
- C – Half height of the surface box

Actuating wrenches



For hydrants, gate valves and butterfly valves

Type C for underground hydrants, gate valves and butterfly valves



Description of a type C wrench for underground hydrants, gate valves and butterfly valves: **C-type wrench as per DIN 3223**

Surface box for gate valves



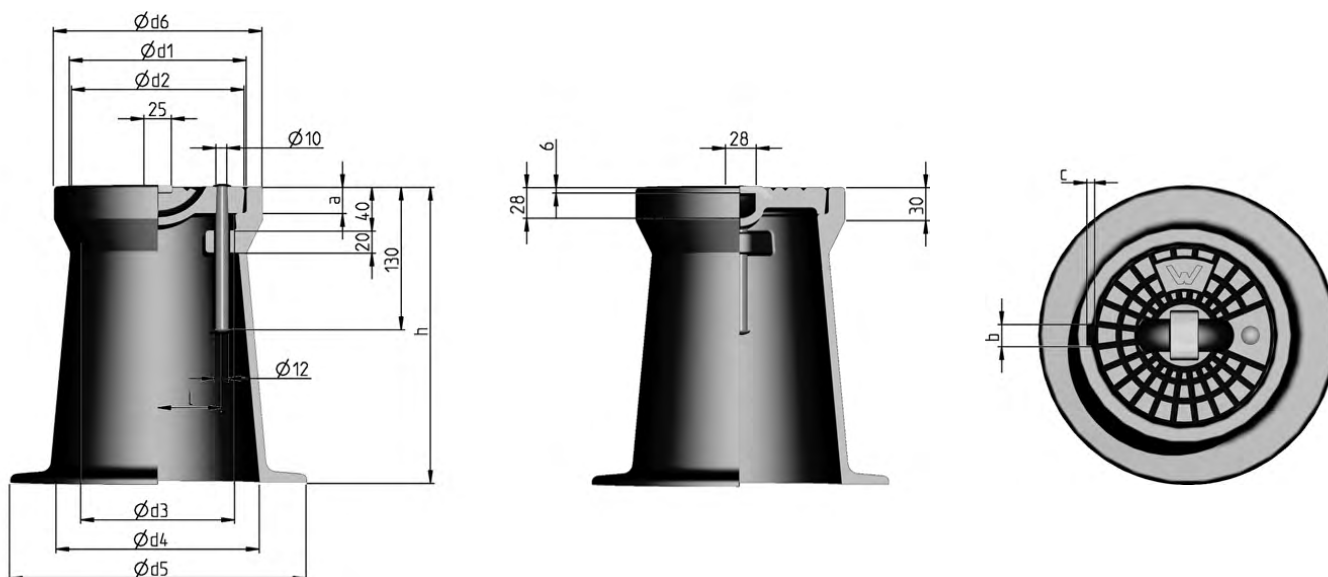
Size 1/2
DIN 4056

Material

Grey cast iron EN GJL 200

Surface protection

Black alkyd resin coating



Description of a surface box for gate valves and butterfly valves, size 1: **Surface box as per DIN 4056-1**

Size	a±1	b	c	d1 +0.5 -1.5	d2 +0.5 -1.5	d3	d4	d5	d6	h	l
1	24	20	5	161	157	140	185	270	190	270	58
2*	35	25	6	240	236	210	250	350	265	310	92

* Size 2 on request

Hand wheel for gate valves



Option 1

Material: Steel with welded-on conical square end
Surface: Phosphate coating and epoxy resin powder coating
Colour: Black (RAL 9005)
Size: Diameter 200–640 mm, depending on the nominal size of the gate valve



Option 2

Material: EN GJL250 (GG25)
Surface: Epoxy resin powder coating according to RLA-GZ 662 regulations
Colour: Sky blue (RAL5015)
Size: Diameter 200–640 mm, depending on the nominal size of the gate valve

Gate valve: DN	Hand wheel: outer Ø x square
40	200 x 14
50	200 x 14
65/80	250 x 17
100-150	315 x 19
200	400 x 24
250/300	400 x 27
400	640 x 32

Electric drive for gate valves



- With external control
- With internal control
- With field bus connection

Corrosion protection according to EN ISO 12944-2

Position indicator for gate valves



Description:

- Position indicator fixed to the gate valve using a clamping adapter

Options:

- Mechanical position indicator
- Inductive position indicator

Materials:

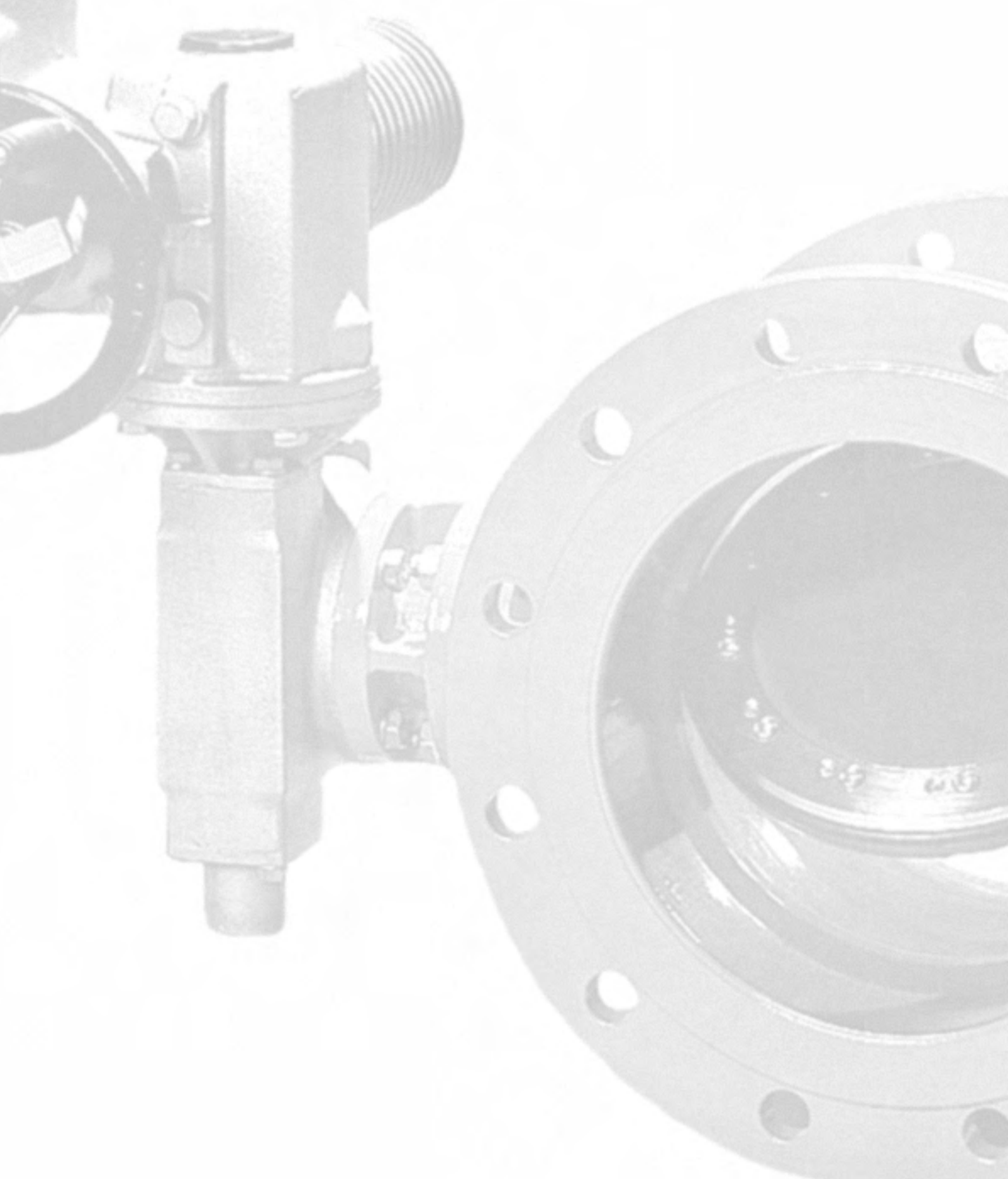
- Connection elements: stainless steel (A2)
- Clamping adapter: PP

Note:

The position indicator must be included in your original purchase order.
It cannot be retrofitted.

MADE BY KEULAHUETTE

Butterfly valves



Butterfly valves



Made of ductile cast iron



Introduction

The portfolio of valves supplied by Keulahütte GmbH in Krauschwitz is rounded off by butterfly valves and check valves, which have been designed according to international trends.

Available surface protection options include integral epoxy resin powder coating and enamelling of the body interior and valve disc. Valve discs have been developed based on long-standing experience and extensive long-term tests such to ensure longevity as well as excellent actuation and flow characteristics.

Combined with suitable drives and signal transmitter, our butterfly valves can be used in electronically monitored and controlled plants and serve as safety elements after power failure. Installation in manholes or buried installation is possible thanks to special sealing elements.

Testing during production according to DIN EN 12266-1 and DIN EN 1074-1/2 in combination with a type approval by DVGW (German Technical and Scientific Association for Gas and Water) guarantees a high quality standard. A works certificate with testing results can be issued on request.

Butterfly valves

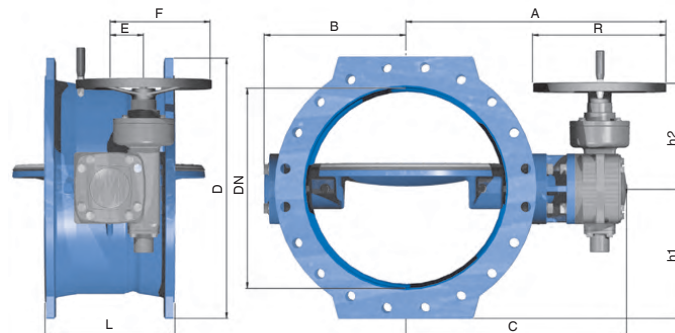


Butterfly valve with double eccentric filting disc
Soft-seated according to DIN EN 593
Face-to-face length GR 14 according to DIN EN 558
DN 200 to DN 1400, PN 10 and PN 16



Specifications

- DIN DVGW conformity mark: NW-6201AT2574
- Soft-seated butterfly valve according to DIN 593
- Flange connection according to DIN EN 1092-2, PN 10/16
- Face-to-face length GR 14 according to DIN EN 558
- Intermediate flange according to DIN ISO 5211
- Combination with various actuation options possible
- With double-offset valve disc
- Disc bearing outside the medium through PTFE/bronze bushing (in DN 200 and DN 250 valves, disc bearing outside the medium through rotary shaft seals) (excellent anti-friction properties, very smooth running)
- Drive shaft sealed by O-rings and brass bushes supported such that they cannot be displaced
- Main connection through a profiled sealing ring and adjustable pressure ring (particular durable thanks to optimised geometry)
- Shafts are adjusted with the valve disc through a form-fit pin connection.
- Thanks to a sturdy, adjustable axial lock, the disc, which opens upwards, is held in a central position through the entire travel range.
- The butterfly valve is suitable for buried installation provided the right gearbox option is chosen.



PN10

DN	A	B	C	D	E	F	h ₁	h ₂	L	R	Turns stroke	Approx. weight in kg
200	380	180	320	340	50	150	170	145	230	200	12-13	55
250	445	210	378	400	63	190	200	183	250	250	12-13	95
300	520	235	425	455	80	240	230	186	270	315	12-13	125
350	545	270	453	505	80	240	255	186	290	315	13-14	145
400	655	295	538	565	80	280	285	195	310	400	13-14	195
450	675	340	540	615	80	280	310	195	330	400	13-14	230
500	700	365	565	670	80	280	335	195	350	400	30-32	265
600	780	430	665	780	100	300	390	325	390	400	30-32	360
700	800	530	690	895	125	325	450	330	430	400	30-32	585
800	855	585	745	1015	125	325	510	330	470	400	30-32	738
900	955	665	860	1115	160	360	560	400	510	400	50-55	995
1000	1005	715	910	1230	160	360	620	400	550	400	50-55	1285
1200	1190	865	1115	1455	200	400	730	485	630	400	108-110	2120
1400	1355	965	1255	1675	250	500	840	550	710	500	100-105	2850

PN16

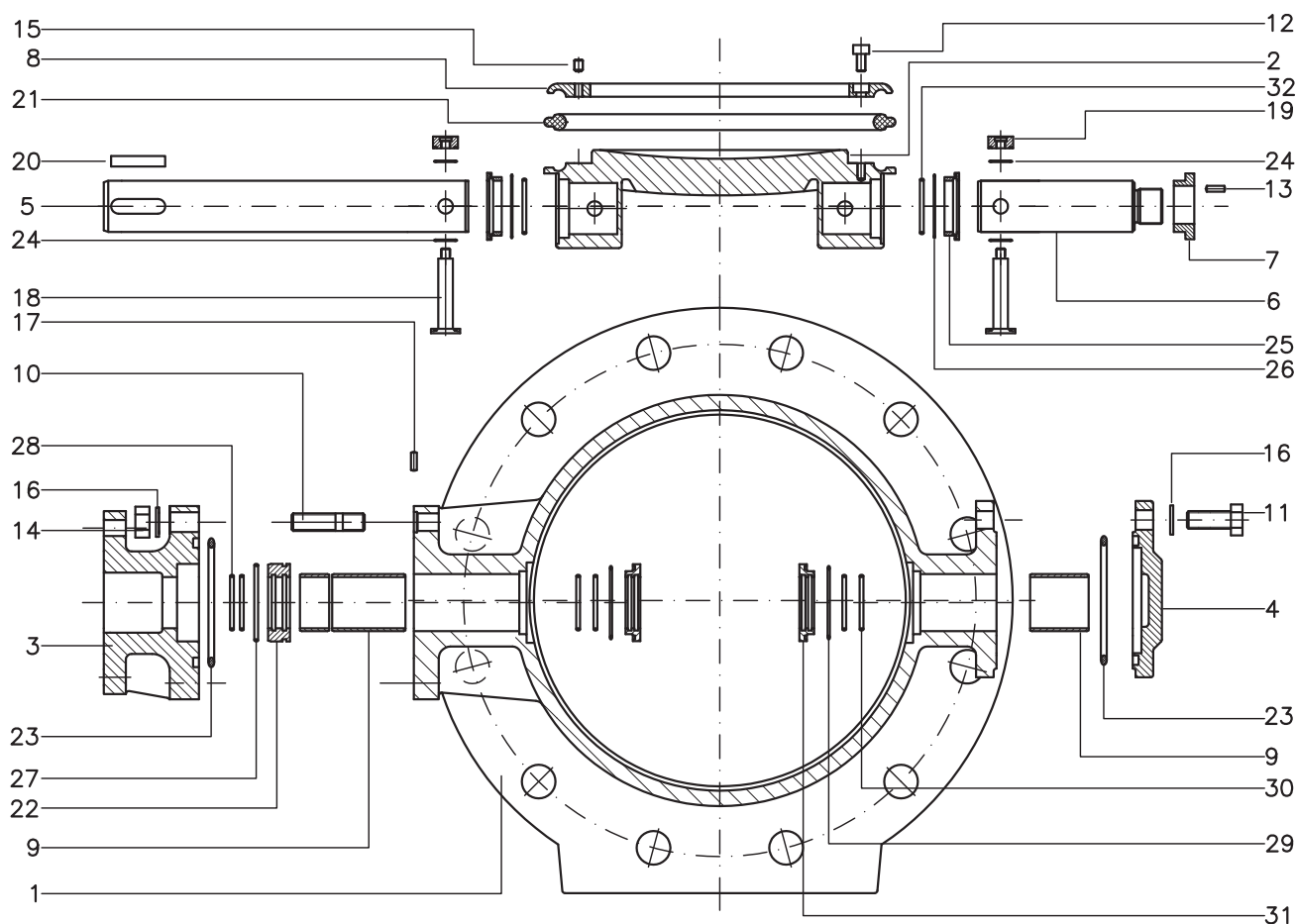
DN	A	B	C	D	E	F	h ₁	h ₂	L	R	Turns stroke	Approx. weight in kg
200	380	180	320	340	50	150	170	145	230	200	12-13	55
250	445	210	378	400	63	190	200	183	250	250	12-13	95
300	520	235	425	455	80	240	230	195	270	315	12-13	125
350	545	270	453	520	80	240	260	195	290	315	13-14	150
400	655	295	538	580	80	280	290	325	310	400	13-14	200
450	675	340	540	640	100	300	320	325	330	400	30-32	240
500	735	385	623	715	100	300	360	325	350	400	30-32	310
600	765	475	655	840	125	325	420	330	390	400	30-32	410
700	800	530	690	910	125	325	455	330	430	400	30-32	635
800	855	585	745	1025	125	325	515	330	470	400	50-55	850
900	955	665	860	1125	160	360	565	400	510	400	50-55	1100
1000	1040	715	965	1255	200	600	630	485	550	400	108-110	1685
1200	1255	865	1155	1485	250	750	745	550	630	500	100-105	2560
1400	1322	965	1282	1685	315	515	845	746	710	400	210-215	3350

Regulating valves and butterfly valves with high frequency of usage have different or larger dimensions.

Butterfly valves



Butterfly valve with double eccentric filting disc
Soft-seated according to DIN EN 593
Face-to-face length GR 14 according to DIN EN 558
DN 200 to DN 1400, PN 10 and PN 16



Item	Description	Material
1	Body	SGCI (EN-JS 1030)
2	Valve disc	SGCI (EN-JS 1030)
3	Adapter flange	SGCI (EN-JS 1030)
4	Body cover	SGCI (EN-JS 1030)
5	Driving shaft	Stainless steel (1.4021)
6	Shaft	Stainless steel (1.4021)
7	Adjusting nut	Stainless steel (1.4021)
8	Pressure ring	Stainless steel (1.4301)
9	Bearing bush	Composite
10	Stud screw	Stainless steel (A2-70)
11	Hexagon head screw	Stainless steel (A2-70)
12	cylinder head screw	Stainless steel (A2-70)
13	Straight grooved pin	Stainless steel (A2-70)
14	Straight grooved pin	Stainless steel (A2-70)
15	Set screw	Stainless steel (A2)
16	Washer	Stainless steel (A2-70)

Item	Description	Material
17	Straight grooved pin	Stainless steel (A2-70)
18	Screw pin	Stainless steel (1.4021)
19	Screw pin nut	Stainless steel (1.4021)
20	Feather key	St (1.0037)
21	Profiled sealing ring	EPDM (KTW-W270)
22	Retainer ring	Brass
23	O-ring	EPDM (KTW-W270)
24	O-ring	EPDM (KTW-W270)
25*	Sealing bush	Brass
26*	O-ring	EPDM (KTW-W270)
27	O-ring	EPDM (KTW-W270)
28	O-ring	EPDM (KTW-W270)
29*	O-ring	EPDM (KTW-W270)
30*	O-ring	EPDM (KTW-W270)
31*	Sealing bush	Brass
32*	O-ring	EPDM (KTW-W270)

* In DN 200 and DN 250 models, these parts are replaced by a profiled rotary shaft seal

All materials used comply with the requirements of the German Federal Environmental Agency (UBA).

Butterfly valves



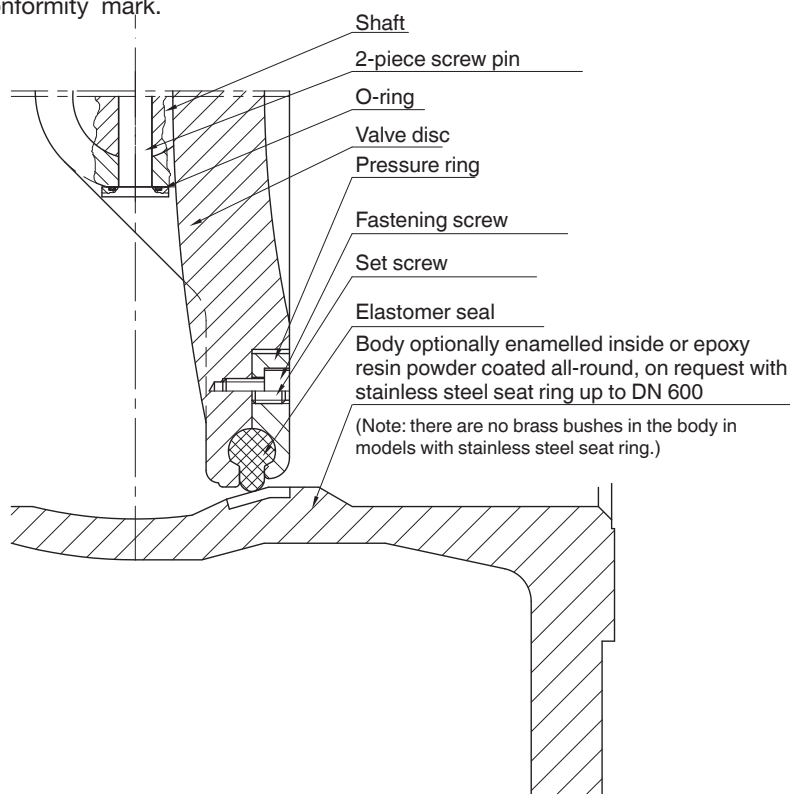
Butterfly valve with double eccentric filting disc
Soft-seated according to DIN EN 593
Face-to-face length GR 14 according to DIN EN 558
DN 200 to DN 1400, PN 10 and PN 16



Surface protection

Cast iron parts are epoxy resin powder coated according to DIN 3476 with a minimum layer thickness of 300 µm compliant with the GSK regulations or enamelled according to DIN 51178.

All mentioned materials and coatings are certified to comply with the KTW recommendation of BGA ("Recommendations for Plastic Materials in Contact with Drinking Water issued by the German Federal Health Office"), elastomers are also certified according to DVGW Standard W 270, and materials used in gas pipelines bear the DIN-DVGW conformity mark.



Information for project planning and installation

The butterfly valves are intended for the following fields of application:

Nominal pressure: 10/16
Temperature: Epoxy resin: Up to 50 °C
Enamel: Up to 70 °C
Medium: Water, drinking water, gas

Butterfly valves are mainly used for 'open-close' operation. Using them as regulating valves is only possible with certain limitations. The pressure difference control range lies between about 1 bar and 3 bar, depending on the nominal size.

Testing and acceptance

Tests are conducted based on DIN EN 12266-1 and DIN EN 1074-1/2 with water or air at a permissible leak rate A. Valves for gas pipelines are tested according to test groups PG1, PG2 or PG3 as specified in DIN 3230/5 as requested by the customer.

Nominal size	Flange according to DIN EN 1092-2	Water test pressure in bar Body	Closure	Permitted positive operating pressure in bar
DN 200-1400	PN 10	15	0.5 and 11	10
DN 200-1400	PN 16	24	0.5 and 17.6	16

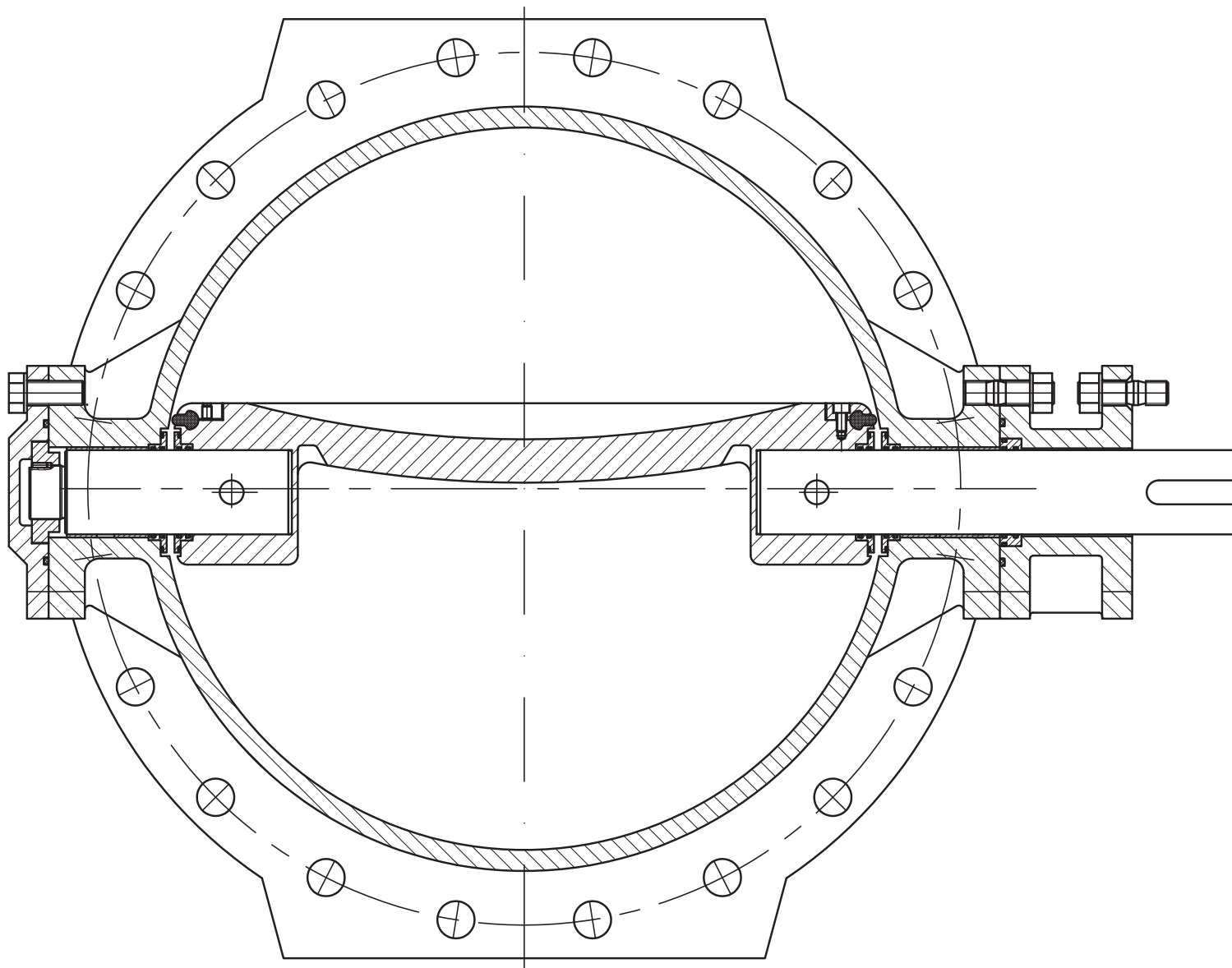
Butterfly valves



Butterfly valve with double eccentric filting disc
Soft-seated according to DIN EN 593
Face-to-face length GR 14 according to DIN EN 558
DN 200 to DN 1400, PN 10 and PN 16



Actuation options



Thanks to their design with adapter flange according to ISO 5211, butterfly valves supplied by Keulahütte GmbH can be combined with the actuation options shown overleaf.

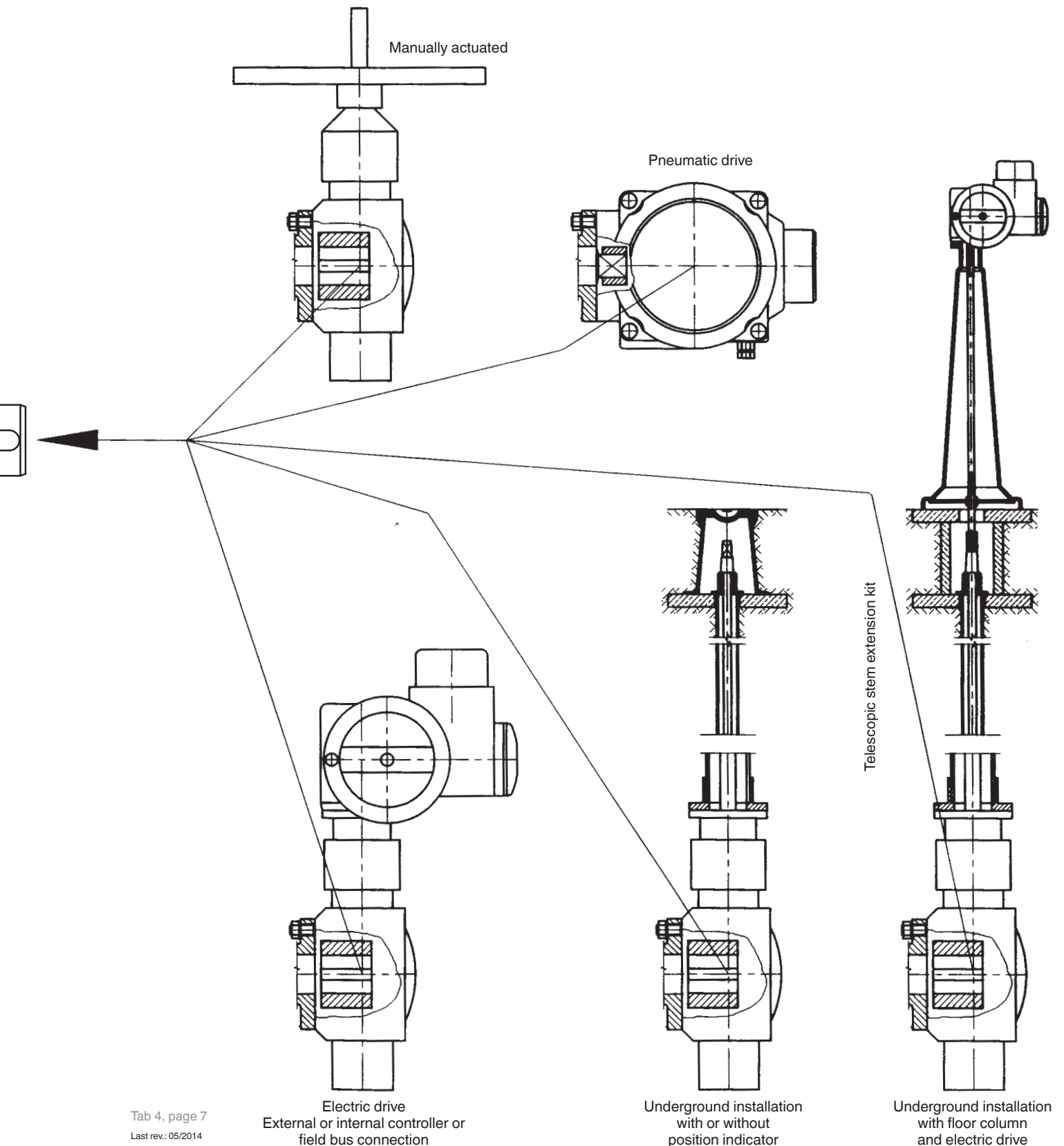
With the exception of the pneumatic drive, which is mounted directly, the valve is fitted with worm gears. The gears are submersible and are thus also suitable for buried installation of the valve. The gears are fitted with fix stops at the factory, so that butterfly valve and gears form one unit.

The desired drive unit can be assembled at the factory or on site. Electric drives mounted at the factory can be designed for external control or come with internal controller or field bus module. Further available accessories include hand wheel, stem extension kit for underground installation with or without position indicator, pedestal etc. They are pre-assembled or included in the delivery.

Butterfly valves



Butterfly valve with double eccentric filting disc
Soft-seated according to DIN EN 593
Face-to-face length GR 14 according to DIN EN 558
DN 200 to DN 1400, PN 10 and PN 16



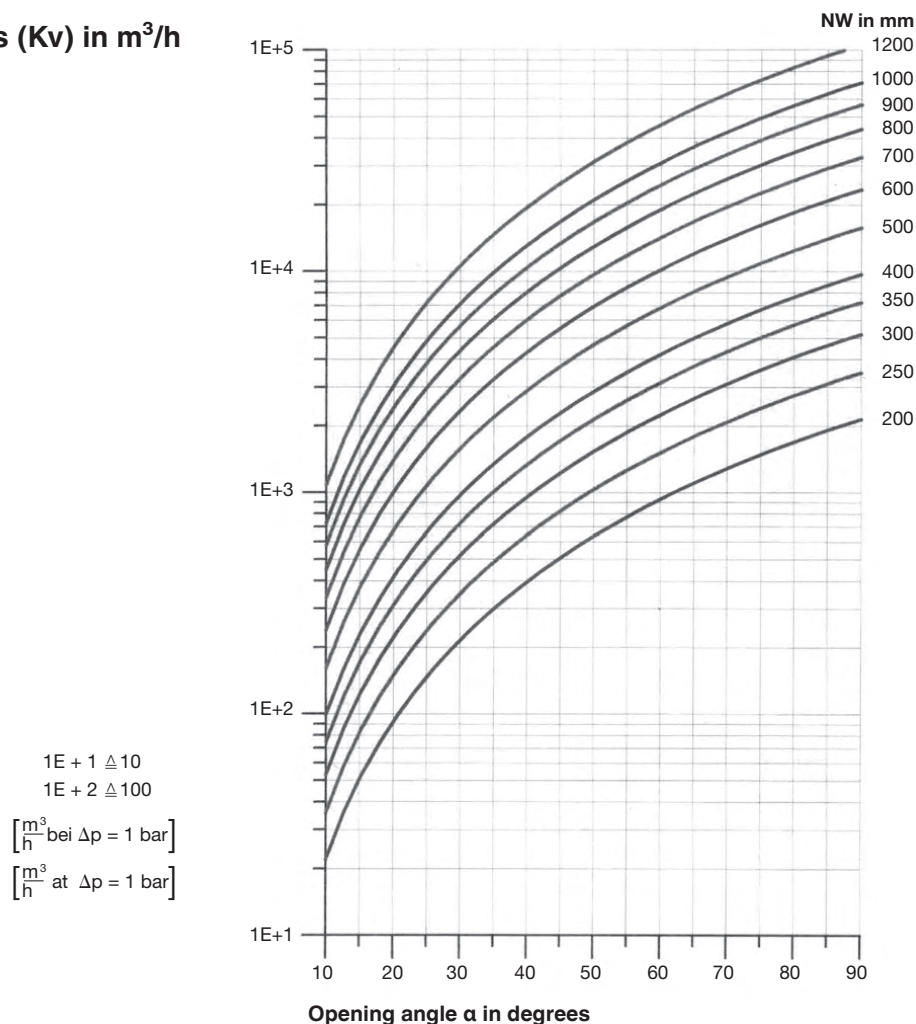
Butterfly valves



Butterfly valve with double eccentric filting disc
Soft-seated according to DIN EN 593
Face-to-face length GR 14 according to DIN EN 558
DN 200 to DN 1400, PN 10 and PN 16

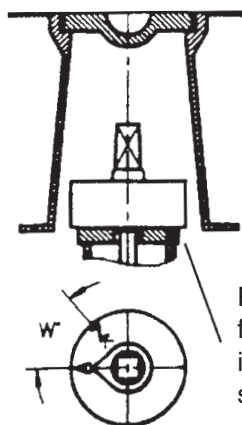


Flow rates (Kv) in m³/h



Optional position indicator

DN	W	Gears	Turns stroke
200	98	47:1	12-13
250	98	47:1	12-13
300	98	47:1	12-13
350	101	47:1	12-13
400	207	47:1	12-13
500	207	47:1	12-13
600	306	47:1	30-35
700	39	470:1	30-35
800	39	470:1	30-35
900	39	470:1	52-57
1000	41	470:1	52-57
1200	45	470:1	105-110
1400	83	470:1	100-105



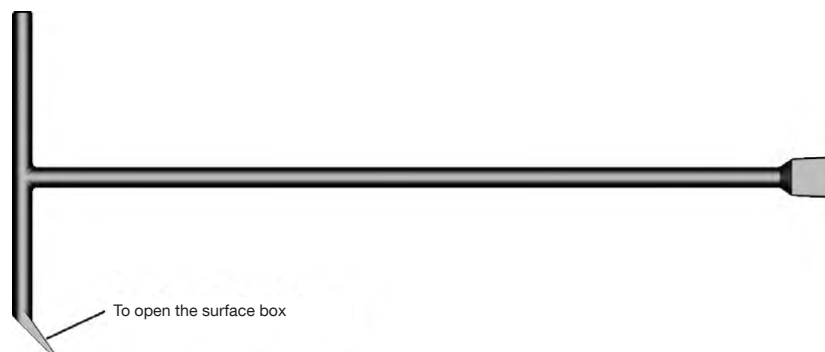
Prevent box from twisting by inserting a set screw on site.

Actuating wrenches



For hydrants, gate valves and butterfly valves

Type C for underground hydrants, gate valves and butterfly valves



Description of a type C wrench for underground hydrants, gate valves and butterfly valves: **C-type wrench as per DIN 3223**

Surface box for gate valves and butterfly valves



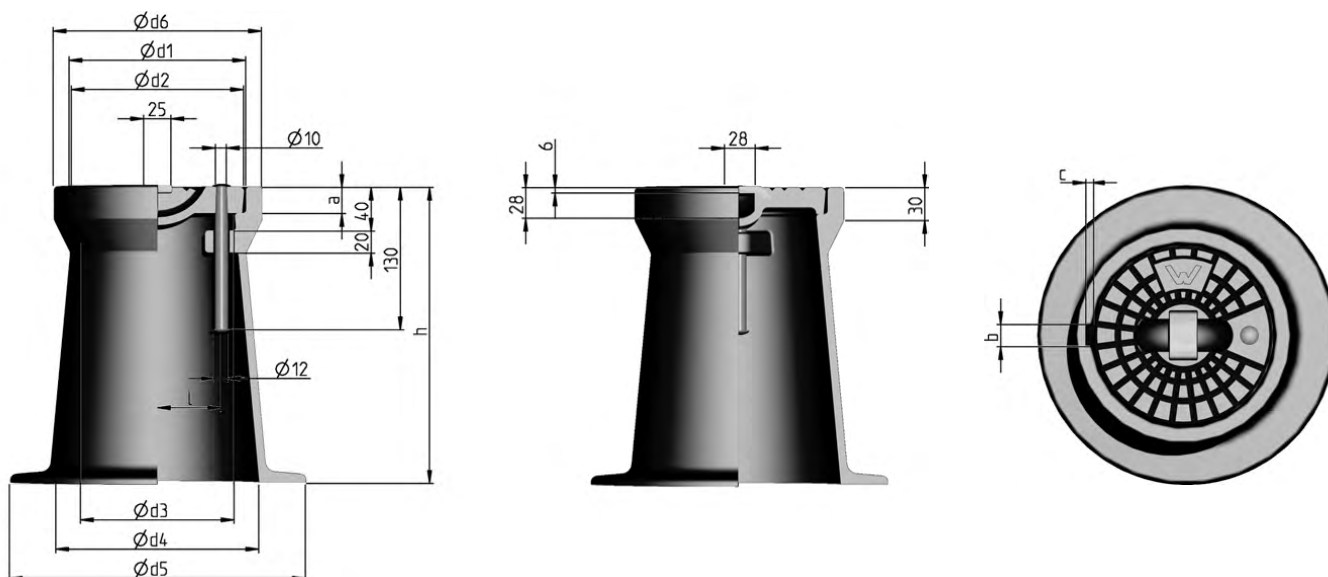
Size 1/2
DIN 4056

Material

Grey cast iron EN GJL 200

Surface protection

Black alkyd resin coating



Description of a surface box for gate valves and butterfly valves, size 1: **Surface box as per DIN 4056-1**

Size	a±1	b	c	d1 +0.5 -1.5	d2 +0.5 -1.5	d3	d4	d5	d6	h	l
1	24	20	5	161	157	140	185	270	190	270	58
2*	35	25	6	240	236	210	250	350	265	310	92

* Size 2 on request

Swing check valves

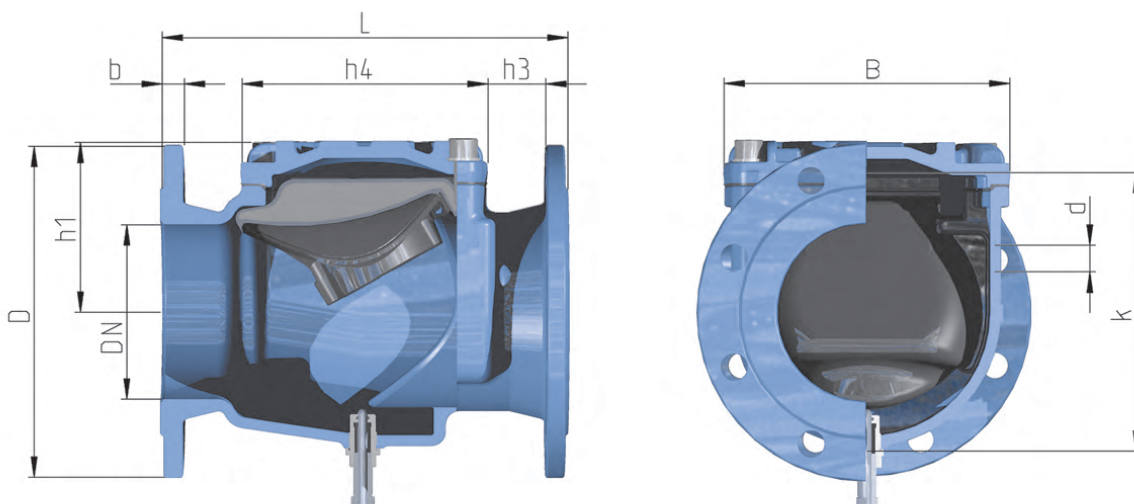


Soft-seated
Face-to-face length GR 14, 15 and 48
According to DIN EN 558
DN 80 to DN 300
PN 10/PN 16



Specifications

- Soft-seated with flange dimensions according to DIN EN 1092-2, PN 10/16
- Face-to-face length GR 14, 15 and 48 according to DIN EN 558
- Curved valve disc with all-round rubber-coating and lip seal and excellent sealing effect
- Rated cross-sectional area completely free when open
- Horizontal to vertical installation position possible as long as disc axis is horizontal and direction of flow is rising
- If used as pump protection valve in control mode, very low flow resistance effects very low energy loss
- The robust basic model, which only contains few parts, can be supplemented with the following options:
 1. Drain plug
 2. Lifting device (up to 3 bar counter-pressure)
DN 250 and DN 300 swing check valves can generally not be supplied with a lifting device. This applies to both PN 10 and PN 16 models.
 3. Position sensor (open, closed, intermediate position)
 4. Closing spring for vertical installation



Swing check valve, shown here with a lifting device

DN	PN	Face-to-face length			D	K	L			b	n* x d	h1	h3			h4	B	Weight
		GR14	GR15	GR48			GR14	GR15	GR48				GR14	GR15	GR48			
80	10/16	X	X	X	200	160	180	280	260	19	8 x 19	100	16	65	55	110	152	16.0
100	10/16	X	X	X	220	180	190	300	300	19	8 x 19	110	16	70	70	120	172	21.0
125	10/16			X	250	210			350	19	8 x 19	145			50	212	246	38.5
150	10/16		X	X	285	240		350	400	19	8 x 23	145		50	75	212	246	43.0
200	10		X	X	340	295		400	500	20	8 x 23	192		45	95	270	341	80.0
200	16		X	X	340	295		400	500	20	12 x 23	192		45	95	270	341	80.0
250	10			X	400	350			600	22	12 x 23	231			92	367	440	125.0
250	16			X	400	355			600	22	12 x 28	231			92	367	440	125.0
300	10			X	455	400			700	24.5	12 x 23	271			129	392	520	184.0
300	16			X	455	410			700	24.5	12 x 28	271			129	392	520	184.0

Swing check valves



Soft-seated
Face-to-face length GR 14, 15 and 48 according to DIN EN 558
DN 80 to DN 300
PN 10/PN 16



Materials

Description	Material
Body, discs, cover	EN-GJS-400-15
Connection elements	Stainless steel (A2)
Disc coating, seal	NBR/EPDM
Coating:	Epoxy resin powder coating, sky blue (RAL 5015), according to DIN 3476, min. layer thickness: 300 µm, compliant with the GSK regulations, or enamelling, cobalt blue (RAL 5013), according to DIN 51178

All materials used comply with the requirements of the German Federal Environmental Agency (UBA).

Surface protection

In order to be able to use our swing check valves in drinking water pipelines, only those non-metallic materials are used which comply with the "Recommendations for Plastic Materials in Contact with Drinking Water issued by the German Federal Health Office" and which are approved accordingly.

Epoxy resin powder coating is a form of heavy corrosion protection which allows the swing check valves to be used even under unfavourable conditions. Parts are coated on our in-house equipment using either electrostatic or whirl-sintering processes, which are compliant with the GSK regulations.

An enamel layer also forms a very effective means of corrosion protection which is characterised by the following properties:

- Extremely high resistance to conveyed media
- Very good adhesion to the basic material thanks to the "baking" enamel
- Ideal long-term protection thanks to excellent resistance of enamel to subsurface corrosion
- Excellent thermal stability

Information for project planning and installation

Our soft-seated swing check valves are intended for use in drinking water and waste water pipelines. They may also be used in gas pipelines to a limited extent. The nominal sizes of DN 80 and DN 100 are available in face-to-face lengths of GR 14, GR 15 and GR 48, and DN 150 and DN 200 are available in face-to-face lengths of GR 15 and GR 48 according to DIN EN 558. The swing check valves can be used for temperatures up to 50 °C. The permitted positive operating pressure is identical with the rated pressure. Check suitability for vertical installation position and high pressure differences with the manufacturer before ordering. Optional induction sensors detect the actual disc position (open, close, intermediate position). It is further possible to fit a lifting device.

Testing and acceptance

Tests are conducted based on DIN EN 12266-1 and DIN EN 1074-1/2 with water or air at leak rate A.

DN	PN	Body	Test pressure in bar (closure)	
			p min	p max
80	10/16	17/25	1.7	11/17.6
100	10/16	17/25	1.5	11/17.6
125	10/16	17/25	0.5	11/17.6
150	10/16	17/25	0.5	11/17.6
200	10	17	0.5	11
200	16	25	0.5	17.6
250	10	17	0.5	11
250	16	25	0.5	17.6
300	10	17	0.5	11
300	16	25	0.5	17.6