

Shut-off valves with threads, PN 10 / PN 16,
with manual override

- in open and closed cold and warm water systems
- for switching heating and cooling machines on and off



Overview of types

Type	DN [mm]	$k_{Vmax}^{1)}$ [m ³ /h]	ζ Zeta value	Manual override
A650HL	50	90	1.23	with lever
A665HL	65	180	0.88	with lever
A680HL	80	300	0.73	with lever
A6100HL	100	580	0.47	with lever
A6125HL	125	820	0.58	with lever
A6150HL	150	1600	0.32	with lever
A6125SL	125	820	0.58	with worm gear
A6150SL	150	1600	0.32	with worm gear
A6200SL	200	2900	0.3	with worm gear
A6250SL	250	4400	0.32	with worm gear
A6300SL	300	7300	0.24	with worm gear
A6350SL	350	10900	0.2	with worm gear

¹⁾ according to VDI 2176

Technical data

Functional data	Media	
Medium temperature	Cold and warm water, Water with max 50% volume of glycol	
Authorised pressure p_s	-20 °C ... +120 °C (max. 130 °C during one hour)	
Flow rate k_{Vmax}	1600 kPa	
Leakage rate	See «Overview of types»	
Pipe connectors DN 50 ... DN 150	A, tight (EN 12266-1)	
DN 200 ... DN 350	Flange PN 10 / PN 16 (according to ISO 7005-2) Flange PN16 (according to ISO 7005-2)	
Suitable connecting flanges	According to ISO 7005-2 and EN 1092-2	

Technical data

(Continued)

Functional data	Angle of rotation	90°↯
	Installation position	Standing to lying (in relation to the stem)
	Maintenance	Maintenance-free
Materials	Fitting	EN-JS1030 (GGG 40), Epoxy powder-coating (RAL 5002)
	Valve cone	1.4301 (Stainless steel)
	Stem	1.4005 (Stainless steel)
	Seat	EPDM
	Stem seal	EPDM O-ring
	Stem bearing:	RPTFE
Dimensions / weights	See «Dimensions and weights» on page 3 (with lever) and 4 (with worm gear)	
Actuation	manual	

Safety notes



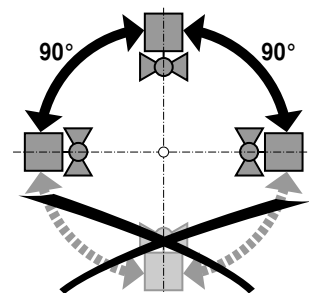
- This shut-off valve has been designed for use in stationary heating, ventilation and air conditioning systems and is not allowed to be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- It may only be installed by suitably trained personnel. Any legal regulations or regulations issued by authorities must be observed during assembly.
- The shut-off valve does not contain any parts that can be replaced or repaired by the user.
- The shut-off valve may not be disposed of as household refuse. All locally valid regulations and requirements must be observed.
- When determining the flow rate characteristic of controlled devices, the recognised directives must be observed.
- In order to avoid water hammers in the piping system, the disc is to be opened and closed slowly.

Product features

- Mode of operation** The valve cone made of stainless steel is pressed into the soft-sealing EPDM seat by a manual rotary movement and ensures leakage rate A (tight).
The pressure losses are slight in the open position and the k_v value is at a maximum.
- Manual override**
- With lever (DN 25 ... 150): Adjustable in 10 ratchet steps with position indication (0 = 0°↯; 9 = 90°↯).
 - With worm gear (DN 125 ... 350): Steplessly adjustable (self-locking) with position indication.

Installation notes

- Recommended installation positions** The shut-off valves may be mounted either **vertically** or **horizontally**.
The shut-off valves may not be installed in a hanging position i.e. with the stem pointing downwards.

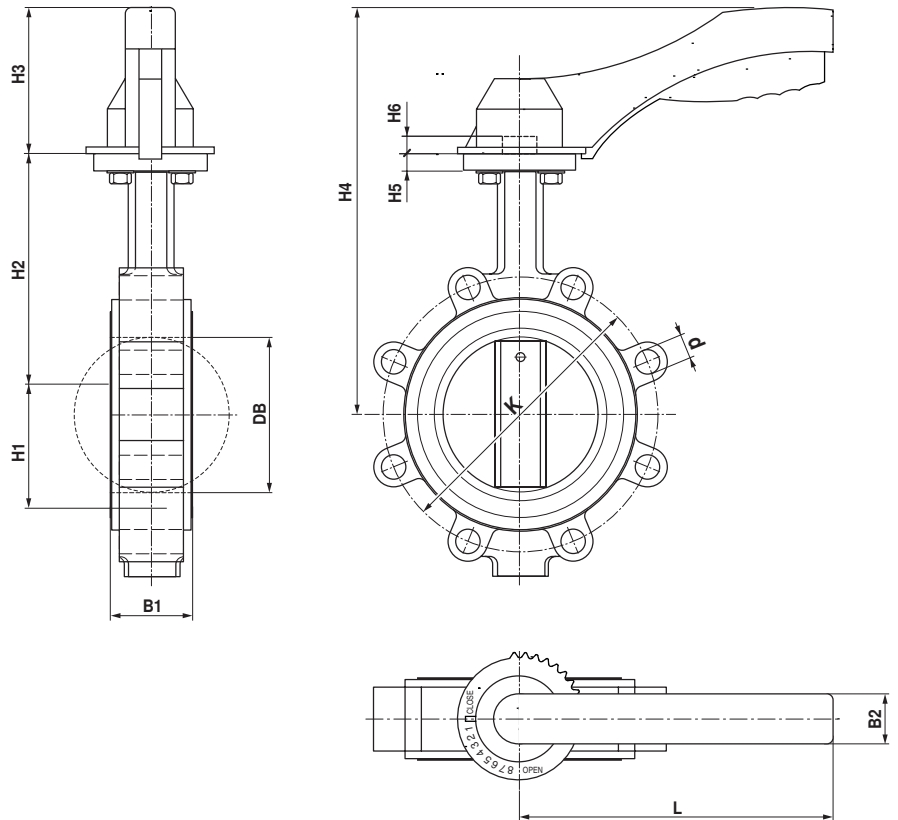


- Water quality requirements** The water quality requirements specified in VDI 2035 must be adhered to.

- Maintenance**
- Shut-off valves, lever and worm gear are maintenance-free.
 - In the event of any service work being done on the actuator, any pumps in the part of the piping system concerned must also be switched off and the appropriate isolating fittings closed (allow everything to cool down first if necessary and reduce the pressure in the system to ambient pressure levels).
 - The system must not be returned to service until the shut-off valve has been properly reassembled in accordance with the instructions and the pipeline has been refilled in the proper manner.

Dimensions [mm]

Dimensional drawings

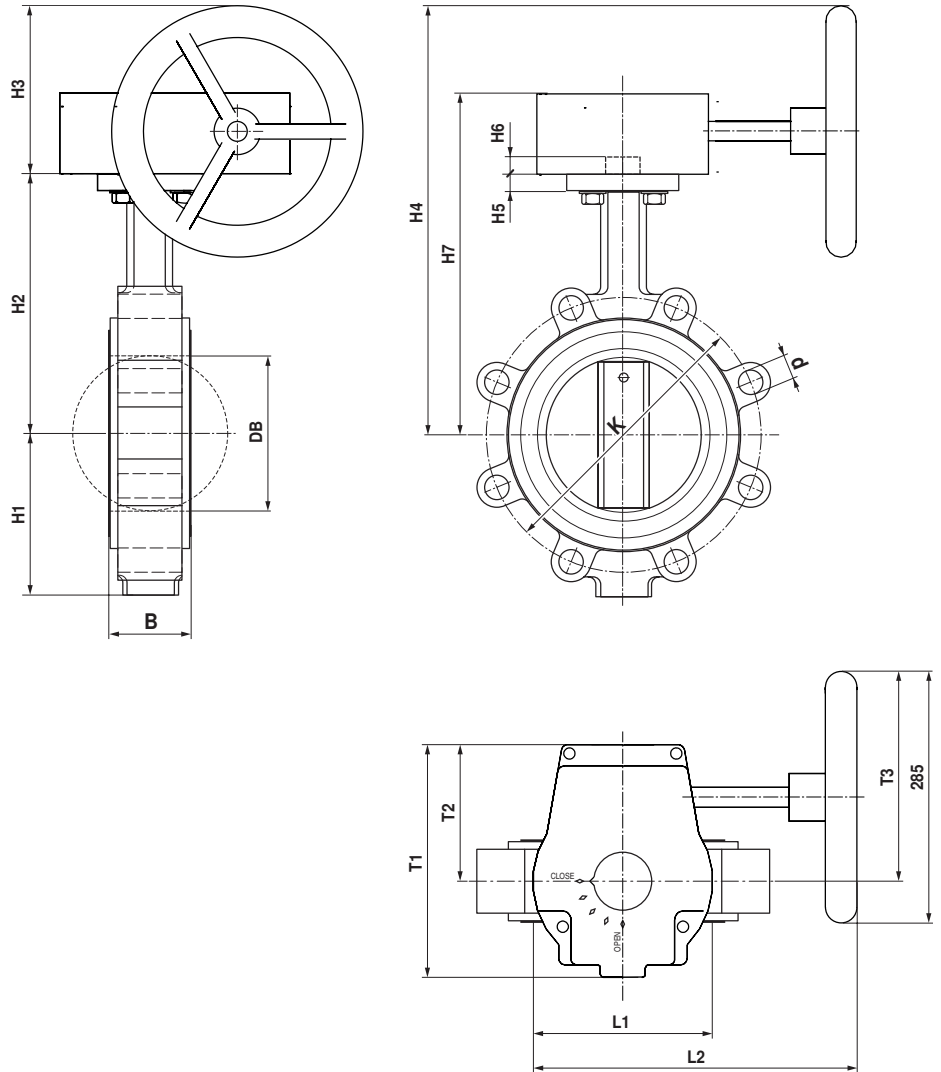


DN [mm]	H5 [mm]	H6 [mm]	PN 10 / PN 16		Weight [kg]
			K [mm]	d [mm]	
50	11	13	125	4 x M16	2.8
65	11	13	145	4 x M16	3.3
80	11	13	160	8 x M16	4.6
100	11	13	180	8 x M16	5.3
125	15	19	210	8 x M16	7.6
150	15	19	240	8 x M20	9.2

DN [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	B1 [mm]	B2 [mm]	L [mm]	DB [mm]
50	72	133	64	197	43	25	175	52
65	81	147	64	211	46	25	175	64
80	96	158	64	222	46	25	175	78
100	106	170	64	234	52	25	175	103
125	122	194	78	272	56	28	263	122
150	140	202	78	280	56	28	263	155

Dimensions [mm]

Dimensional drawings



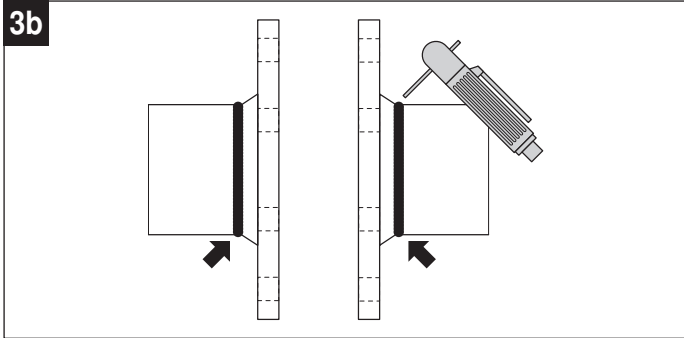
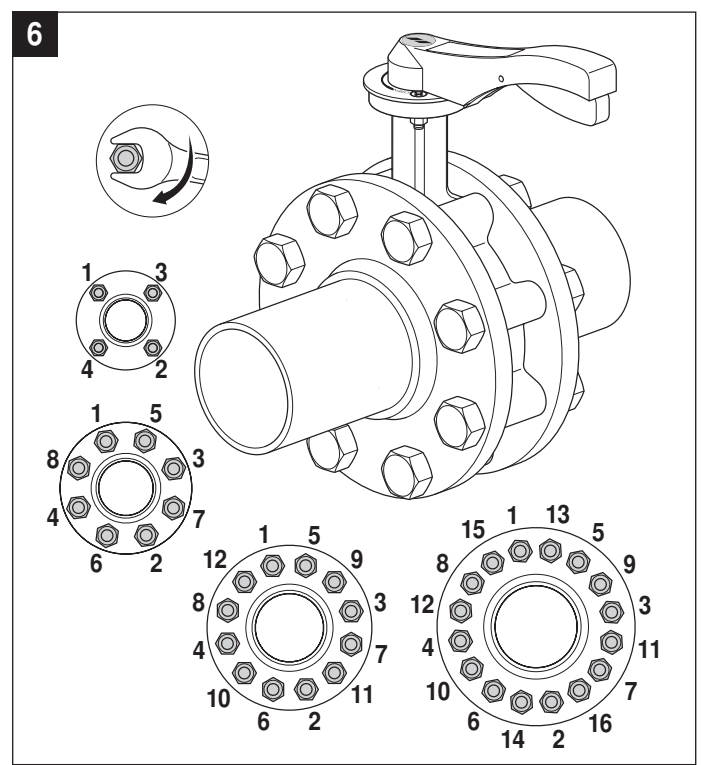
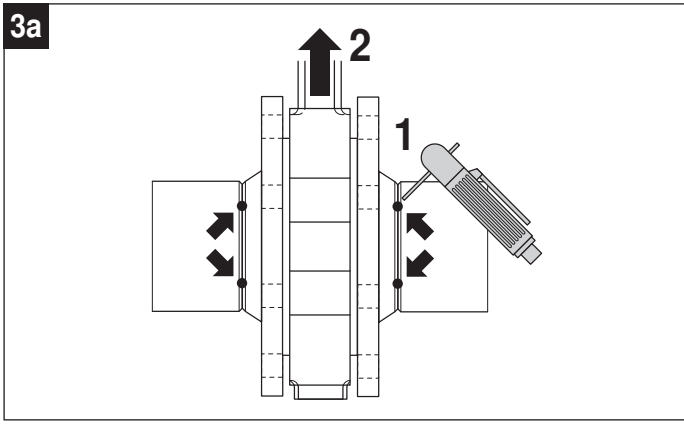
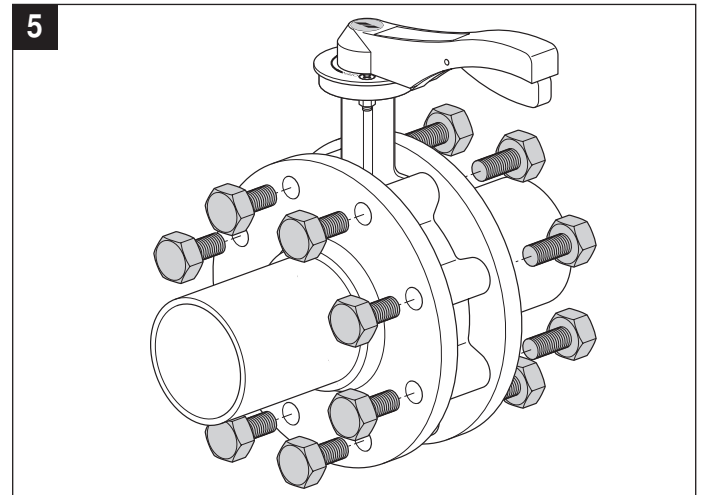
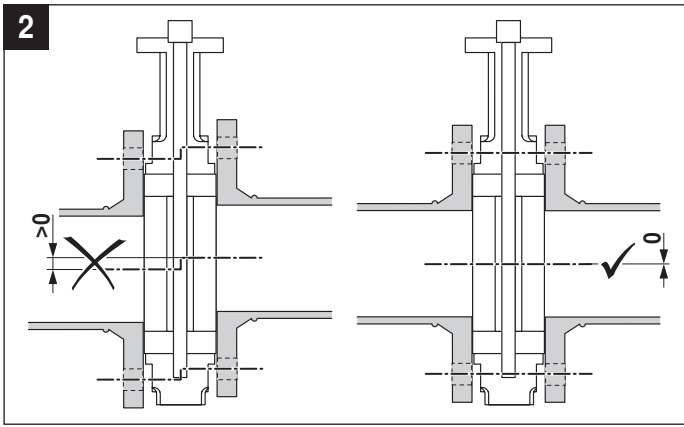
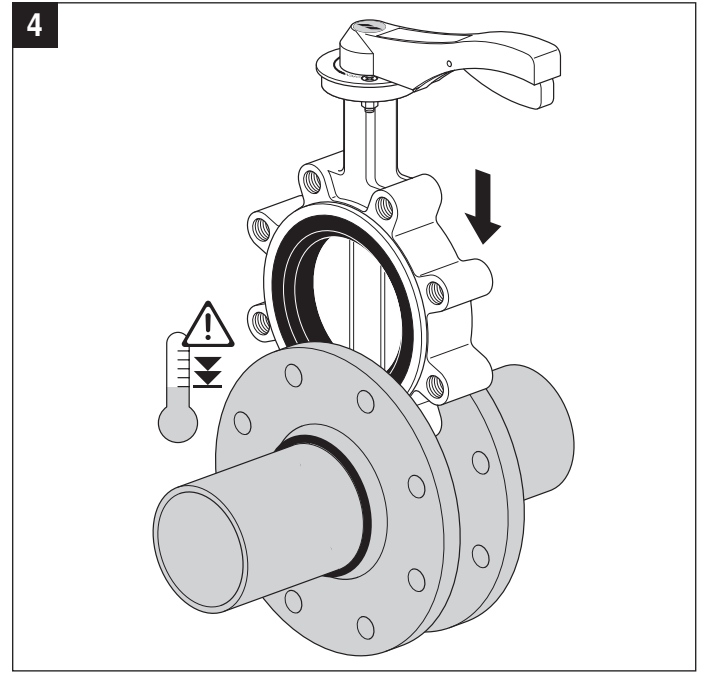
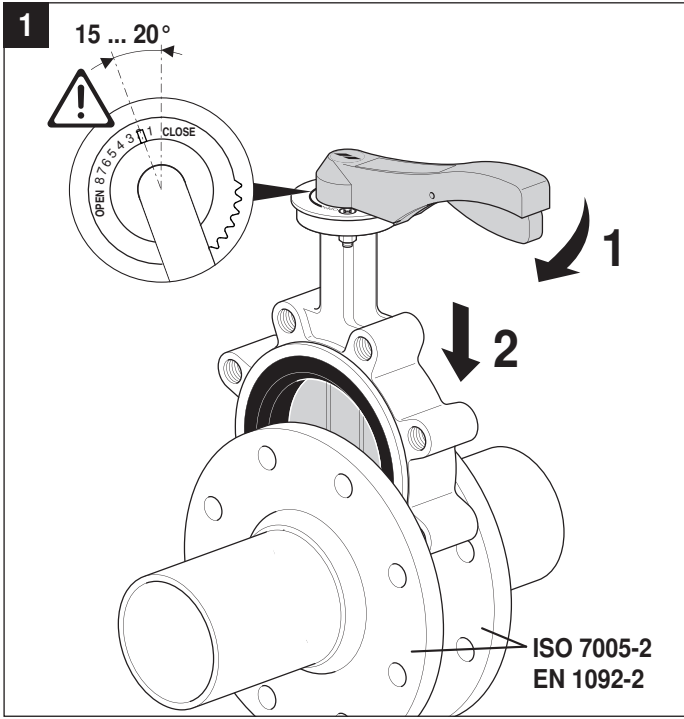
DN [mm]	H5 [mm]	H6 [mm]	PN 10 / PN 16		PN 16		Weight [kg]
			K [mm]	d [mm]	K [mm]	d [mm]	
125	15	19	210	8 x M16			17.7
150	15	19	240	8 x M20			19.3
200	15	19			295	12 x M20	24.7
250	15	24			355	12 x M24	34.3
300	15	24			410	12 x M24	45.1
350	15	24			470	16 x M24	56.1

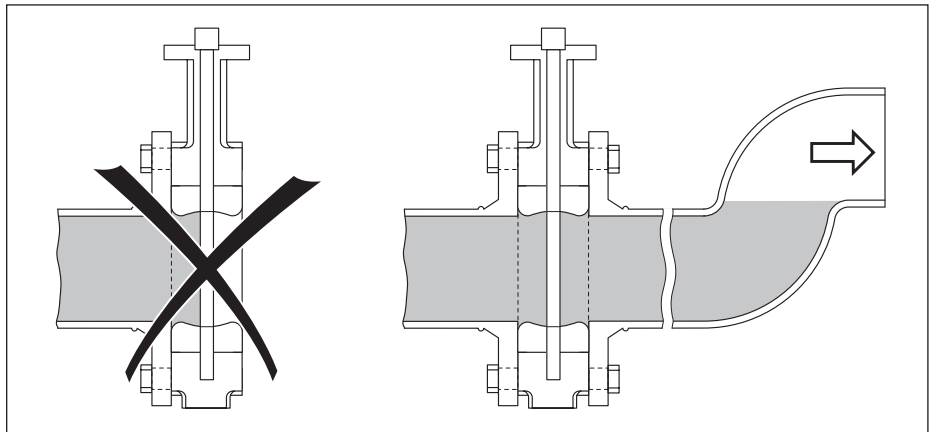
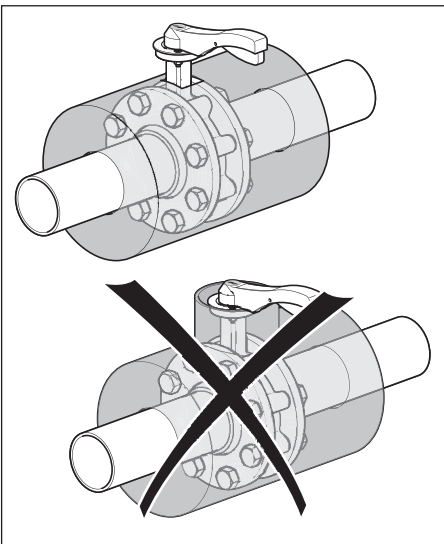
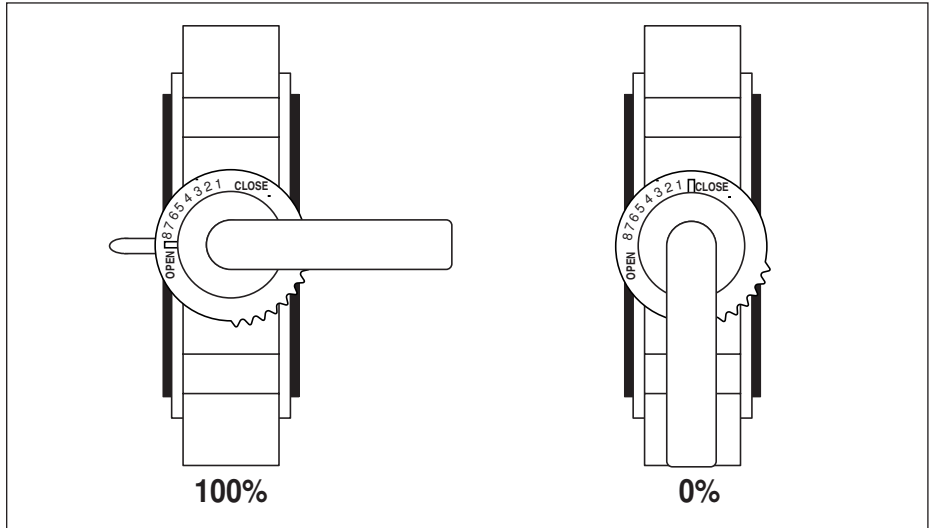
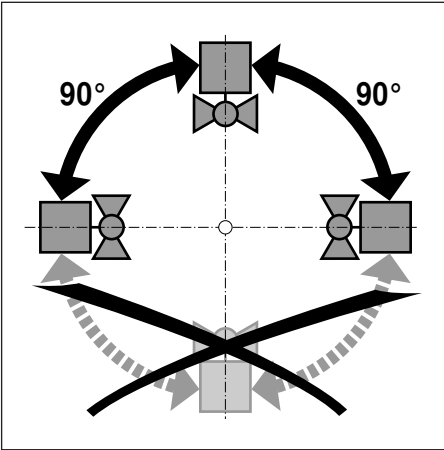
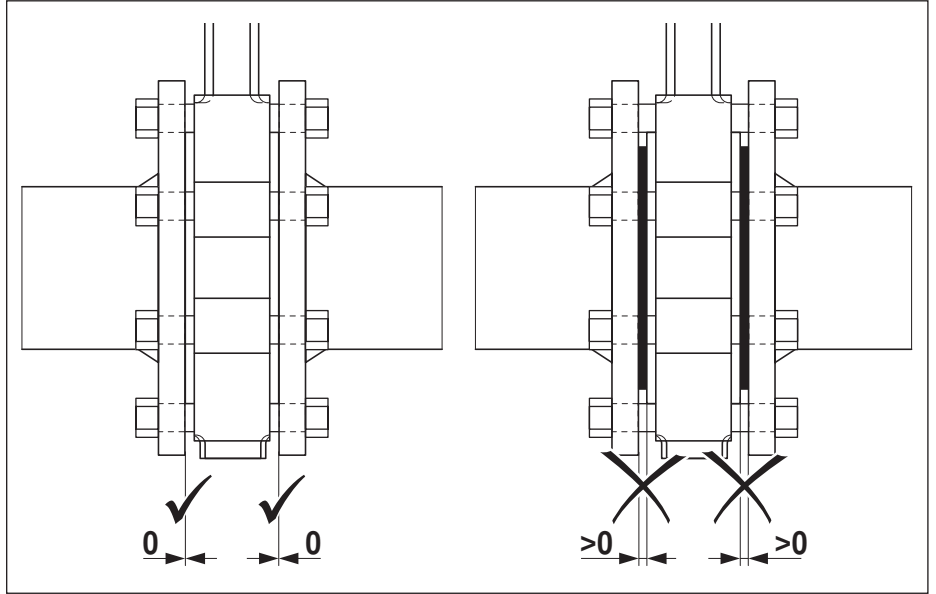
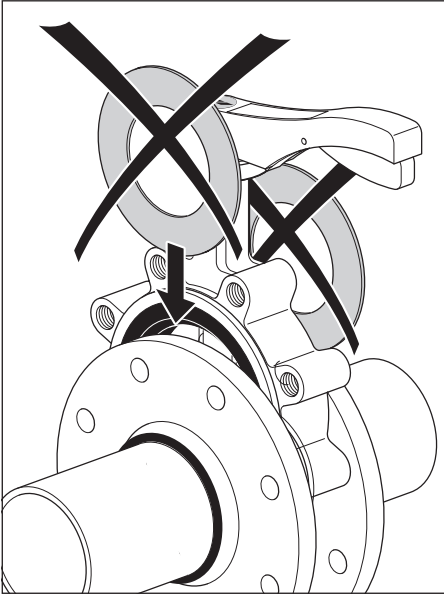
DN [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H7 [mm]	B [mm]	L1 [mm]	L2 [mm]	T1 [mm]	T2 [mm]	T3 [mm]	DB [mm]
125	122	194	184	378	276	56	150	306	172	98	206	122
150	140	202	194	386	284	56	150	306	172	98	206	155
200	172	240	184	424	322	60	150	306	172	98	206	202
250	206	268	184	452	350	68	150	306	172	98	206	250
300	244	316	210	526	398	78	160	308	192	113	223	301
350	267	361	210	571	443	78	160	308	192	113	223	333

Further documentation

- Complete overview «The complete product range of water solutions»
- Installation instructions for shut-off valves
- Notes for project planning (hydraulic characteristic curves and circuits, installation regulations, commissioning, maintenance, etc.)

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