

Butterfly valves with clips,
PN 6 / PN 10 / PN 16, for shut-off functions

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



Overview of types

Type	DN [mm]	k_{Vmax}^1 [m ³ /h]
D625N	25	45
D632N	32	55
D640N	40	70
D650N	50	90
D665N	65	180
D680N	80	300
D6100N	100	580
D6125N	125	820
D6150N	150	1600
D6200N	200	2900
D6250N	250	4400
D6300N	300	7300
D6350N	350	10900

¹⁾ in accordance with VDE 2176

Technical data

Functional data	Media	Cold and warm water, water with max 50% volume of glycol	
	Media temperature	-20°C ... +120°C (max. 130°C during one hour)	
	Rated pressure p_s	1600 kPa	
	Flow rate k_{Vs}	See «Overview of types»	
	Leakage rate	A, tight (EN 12266-1)	
	Pipe connectors	DN 25 ... DN 200 DN 250 ... DN 350	Flange PN 6 / PN 10 / PN 16 (according to ISO 7005-2) Flange PN 16 (according to ISO 7005-2)
	Suitable connecting flanges	According to ISO 7005-2 and EN 1092-2	
	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	

Technical data
(Continued)

Dimensions / weights	See «Dimensions and weights» on page 3
Motorising	See complete range of water solutions

Safety notes

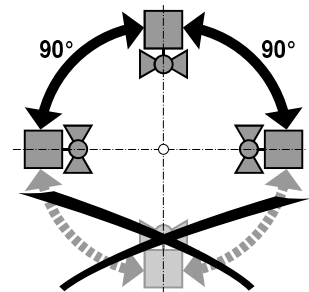

- The butterfly valve has been designed for use in stationary heating, ventilation and air conditioning systems and is not allowed to be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- It may only be installed by suitably trained personnel. Any legal regulations or regulations issued by authorities must be observed during assembly.
- The butterfly valve does not contain any parts that can be replaced or repaired by the user.
- The butterfly 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 final controlling elements, 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 butterfly valve is opened or closed completely by an open-close rotary actuator. Continuous rotary actuators are controlled by a commercially available controller and move the valve cones into any position desired. The valve cone made of stainless steel is pressed into the soft-sealing EPDM seat by a rotary movement and ensures leakage rate A (tight). The flow rate losses are slight in open position and the k_{VS} value is high.
Manual override	Manual throttling or shut-off can be carried out with a lever or a worm gear (see «Accessories»): – 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 instructions

Recommended installation positions	The butterfly valves may be mounted either vertically or horizontally . The butterfly 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.
-----------------------------------	--

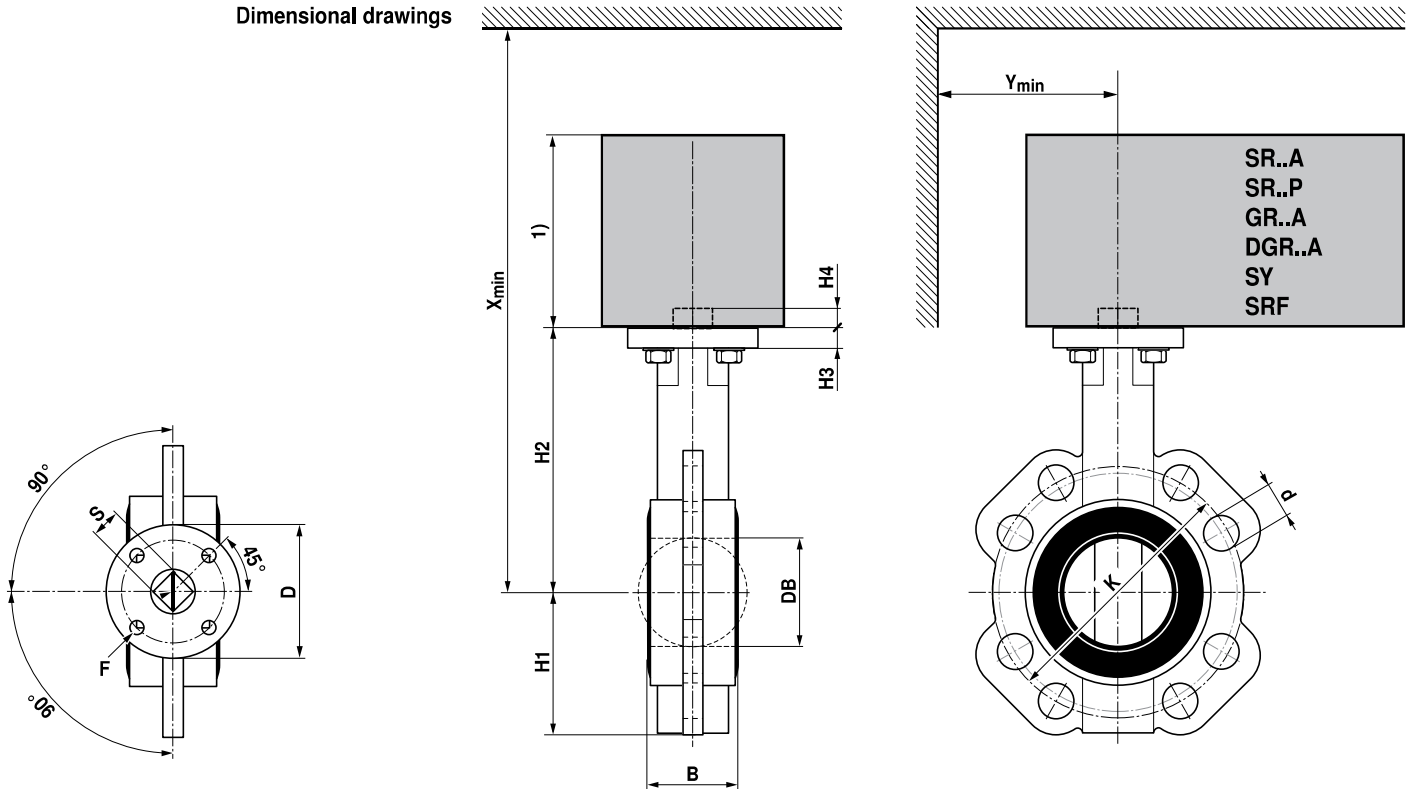
Maintenance	<ul style="list-style-type: none"> • Butterfly valves and rotary actuators are maintenance-free. • Before any kind of service work is carried out on actuator sets of this type, it is essential to isolate the rotary actuator from the power supply (by unplugging the power lead). Any pumps in 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 atmospheric). • The system must not be returned to service until the butterfly valve and the rotary actuator have been properly reassembled in accordance with the instructions and the pipework has been refilled in the proper manner.
--------------------	---

Accessories

	Description
Mechanical accessories	Lever ZD6N-H100 for DN 50 ... DN 100
	Lever ZD6N-H150 for DN 125 ... DN 150
	Worm gear ZD6N-S200 for DN 125 ... DN 200
	Worm gear ZD6N-S250 for DN 250
	Worm gear ZD6N-S350 for DN 300 ... DN 350

Dimensions [mm]

Dimensional drawings



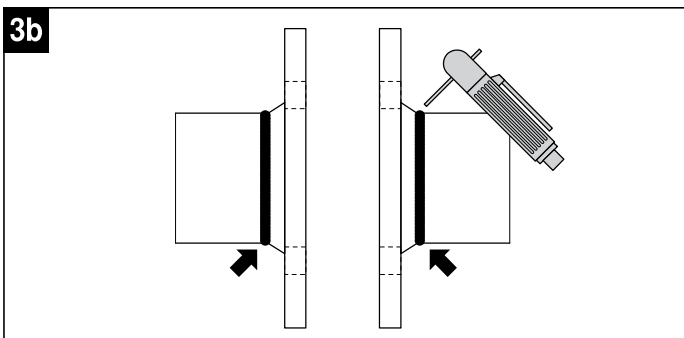
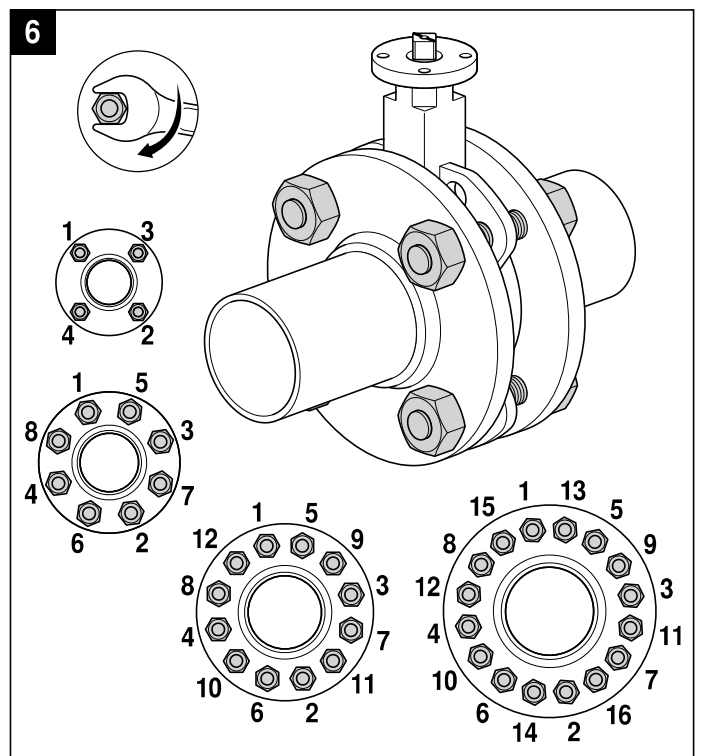
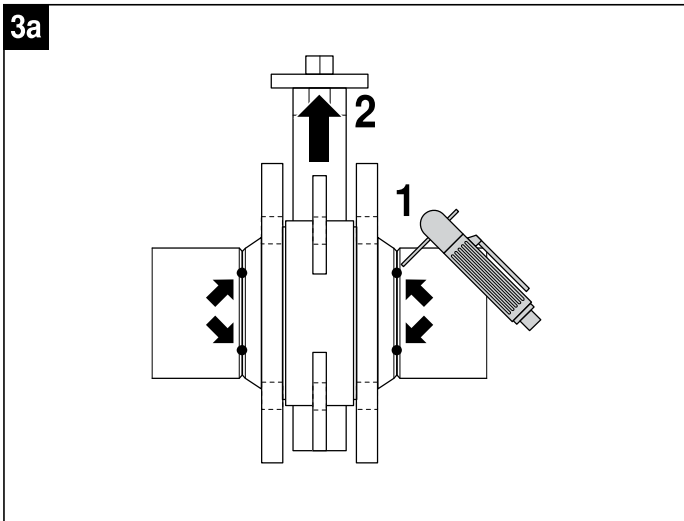
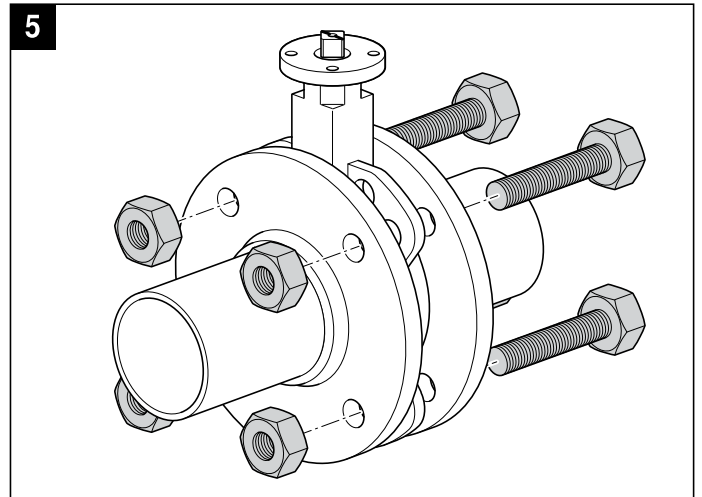
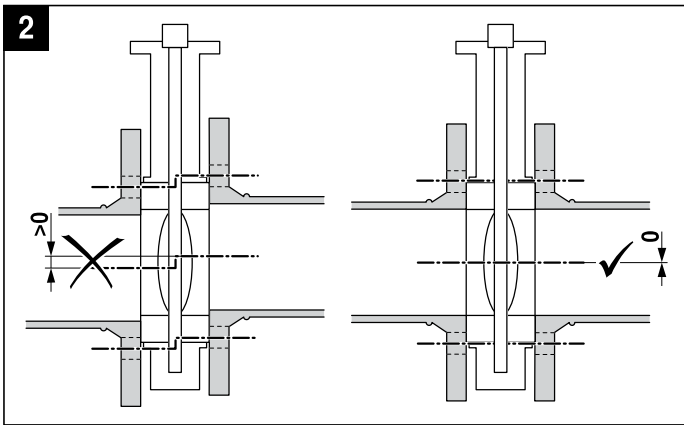
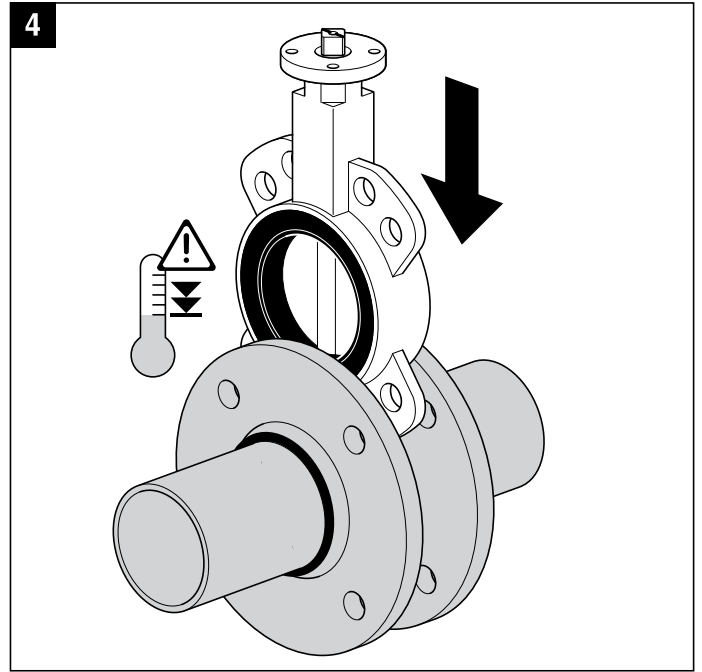
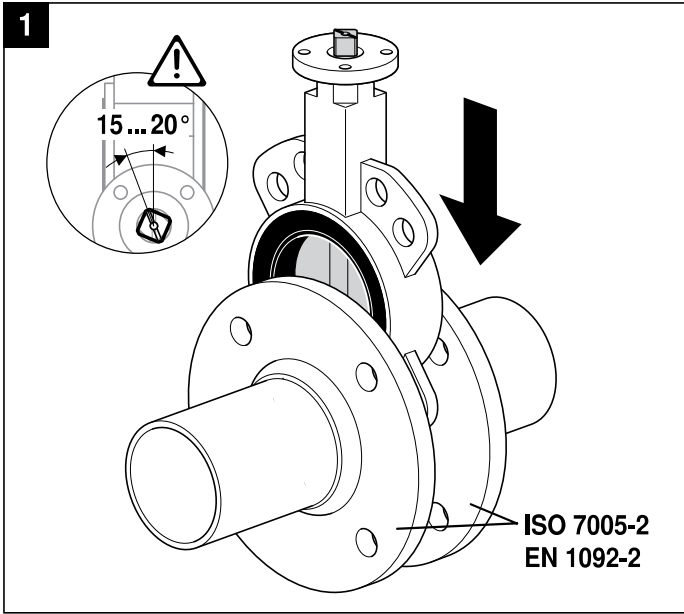
Mounting flange 2)						PN 6				PN 10		PN 16		Weight [kg]		
DN [mm]	D [mm]	F [mm]	S [mm]	H3 [mm]	H4 [mm]	H1 [mm]	H2 [mm]	B [mm]	DB [mm]	K [mm]	d [mm]	K [mm]	d [mm]		K [mm]	d [mm]
25	65	F05	14	10	13	48	86	32	30	75	4 x 11	85	4 x 14	85	4 x 14	1.0
32	65	F05	14	10	13	60	100	33	35	90	4 x 14	100	4 x 19	100	4 x 19	1.0
40	65	F05	14	10	13	68	119	33	42	100	4 x 14	110	4 x 19	110	4 x 19	1.4
50	65	F05	14	11	13	72	133	43	52	110	4 x 14	125	4 x 19	125	4 x 19	2.3
65	65	F05	14	11	13	81	147	46	64	130	4 x 14	145	4 x 19	145	4 x 19	2.8
80	65	F05	14	11	13	96	158	46	78	150	4 x 19	160	8 x 19	160	8 x 19	3.3
100	65	F05	14	11	13	106	170	52	103	170	4 x 19	180	8 x 19	180	8 x 19	4.4
125	90	F07	17	15	19	122	194	56	122	200	8 x 19	210	8 x 19	210	8 x 19	6.0
150	90	F07	17	15	19	140	202	56	155	225	8 x 19	240	8 x 23	240	8 x 23	7.3
200	90	F07	17	15	19	172	240	60	202	280	8 x 19	295	8 x 23	295	12 x 23	12.0
250	125	F10	22	15	24	206	268	68	250					355	12 x 28	18.7
300	125	F10	22	15	24	244	316	78	301					410	12 x 28	26.8
350	125	F10	22	15	24	267	361	78	333					470	16 x 28	39.2

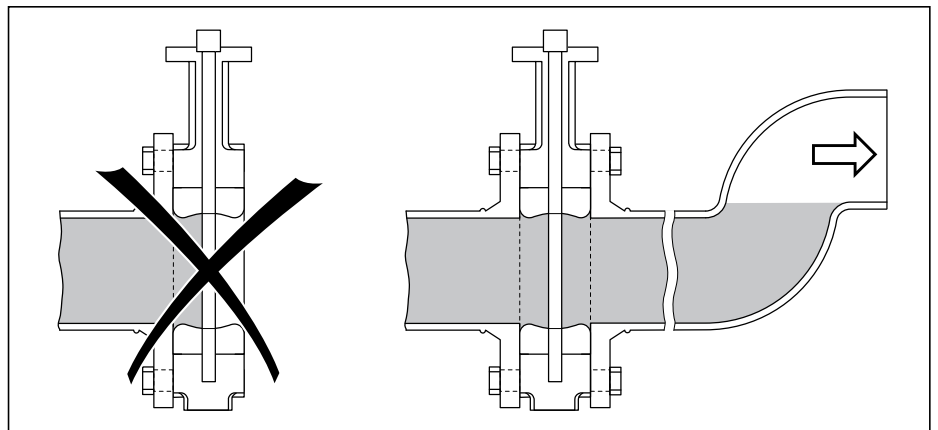
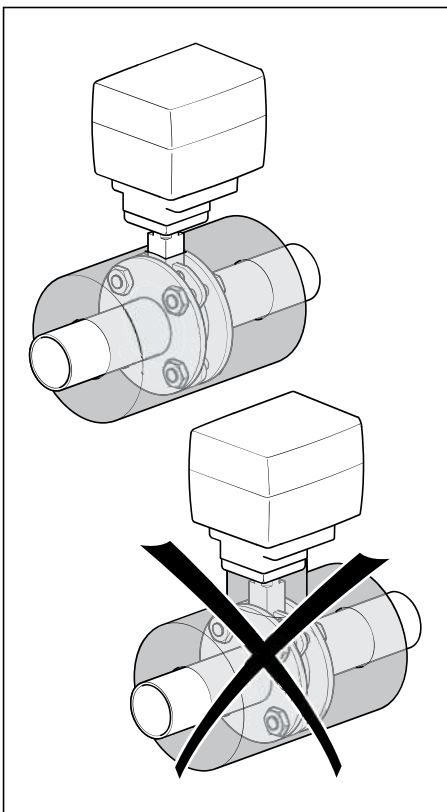
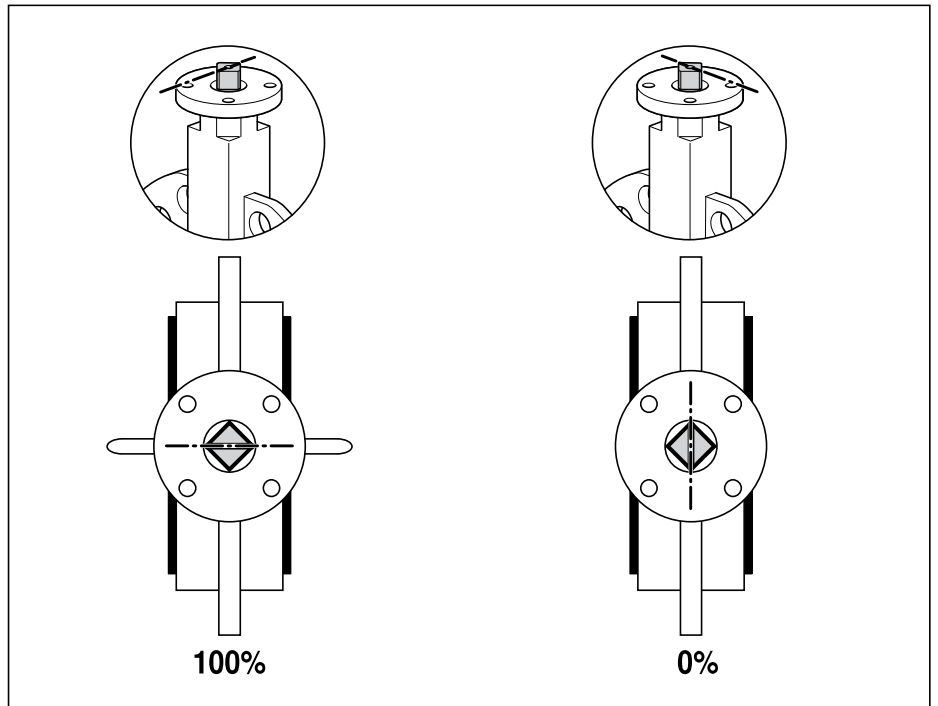
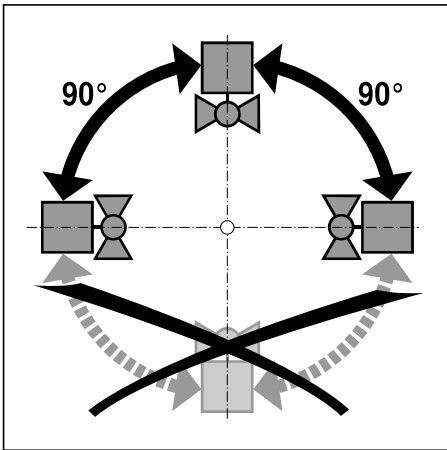
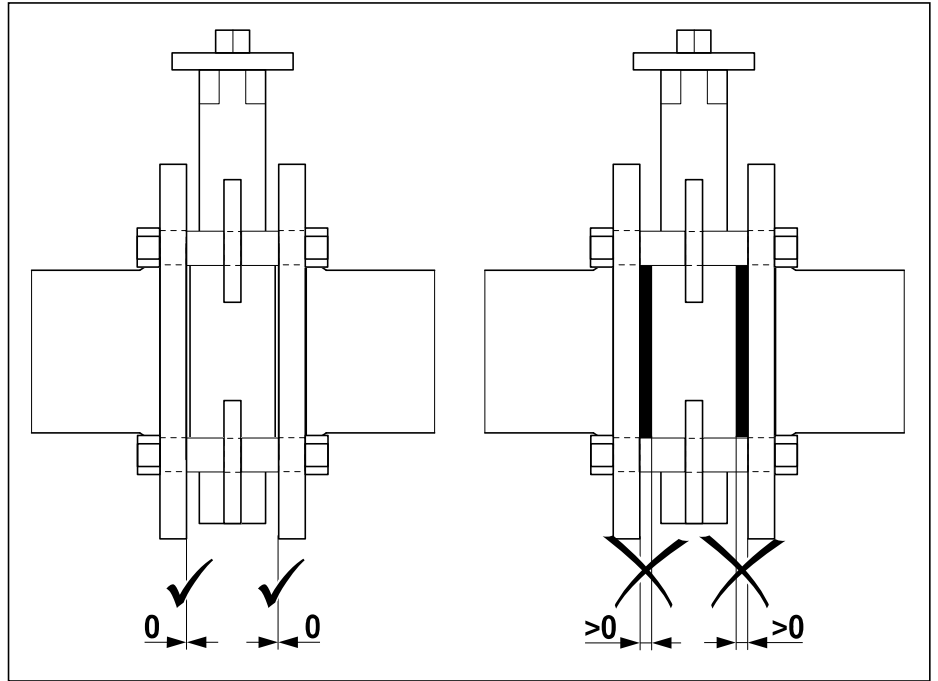
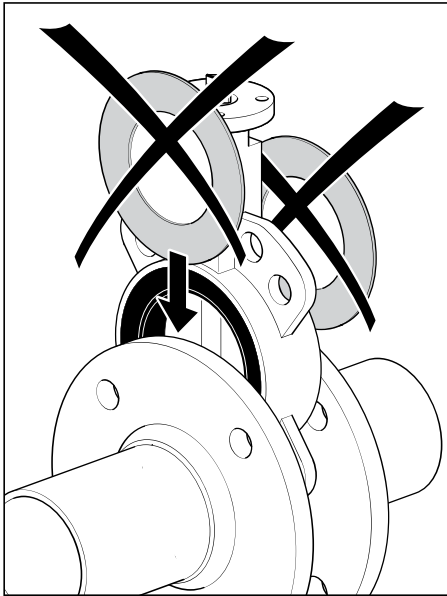
DN [mm]	SR..A		SR..P		GR..A		DGR..A		SY1		SY2 / SY3		SY4 / SY5		SRF (ARF)	
	X _{min} [mm]	Y _{min} [mm]	X _{min} [mm]	Y _{min} [mm]	X _{min} [mm]	Y _{min} [mm]	X _{min} [mm]	Y _{min} [mm]	X _{min} [mm]	Y _{min} [mm]	X _{min} [mm]	Y _{min} [mm]	X _{min} [mm]	Y _{min} [mm]	X _{min} [mm]	Y _{min} [mm]
25	220	150	320	150					320	150					240	150
32	240	150	340	150					340	150					260	150
40	250	160	350	160					350	160					280	160
50	270	160	370	160					370	160					290	160
65	280	170	380	170					380	170					310	170
80	290	180	390	180	300	180			390	180					310	180
100	300	190			320	190			410	190						
125					340	210	400	210			530	210				
150							400	220			540	220				
200											580	250				
250													630	280		
300													680	310		
350													730	340		

1) The actuator dimensions can be found on the respective actuator data sheet
 2) in accordance with ISO 5211

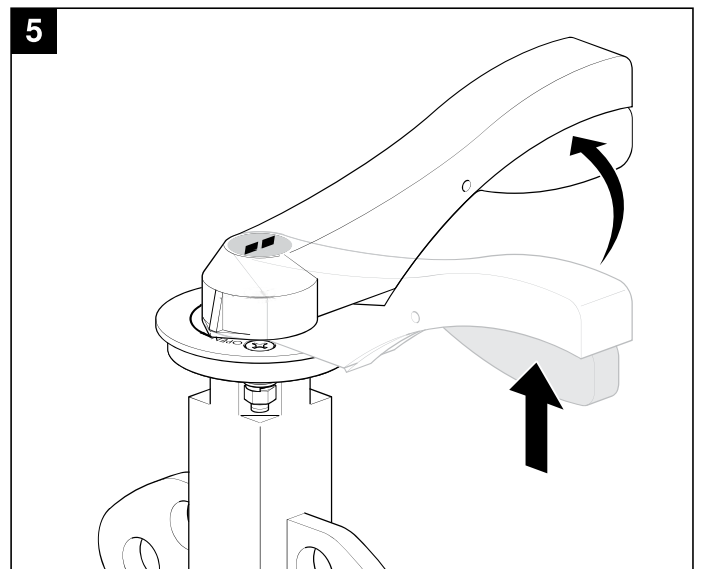
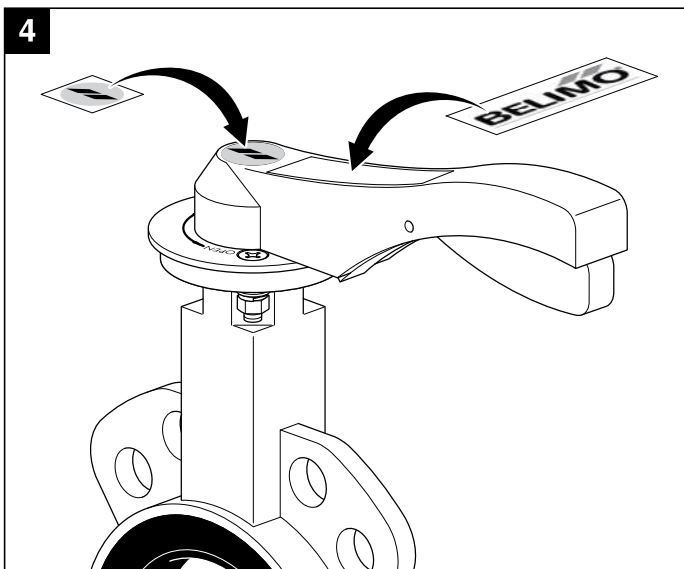
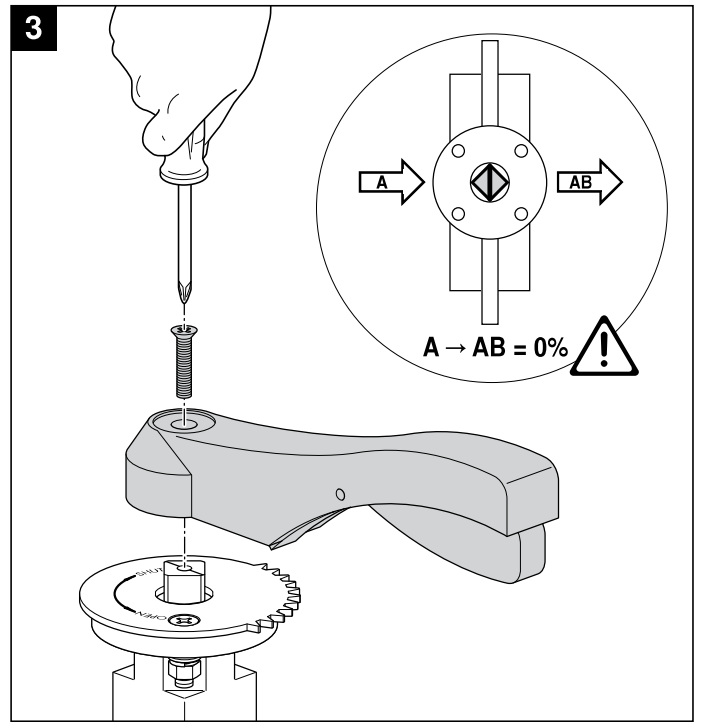
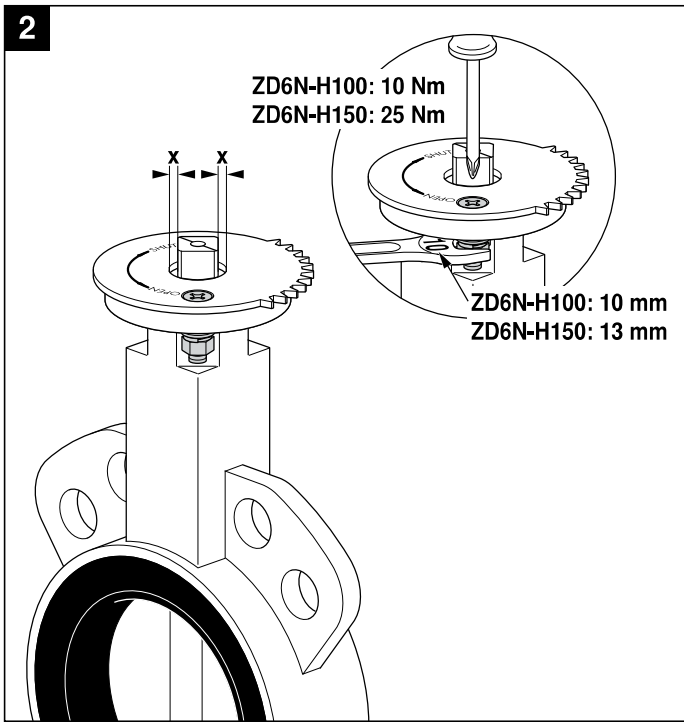
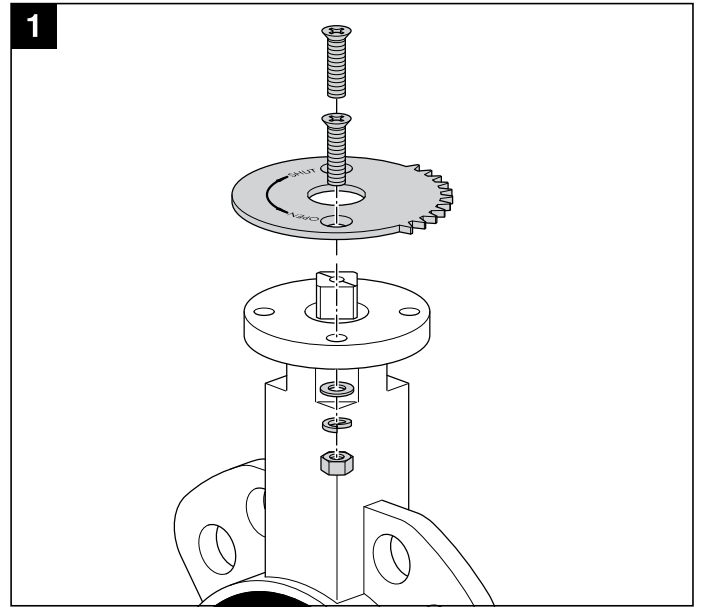
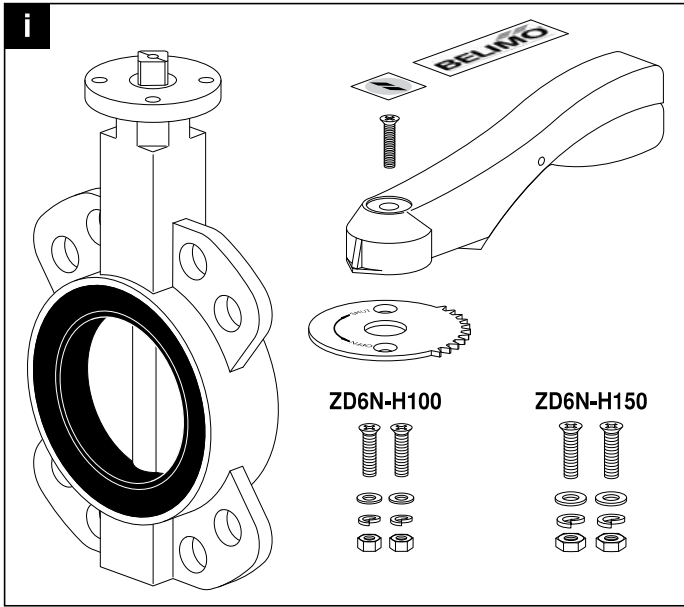
Further documentations

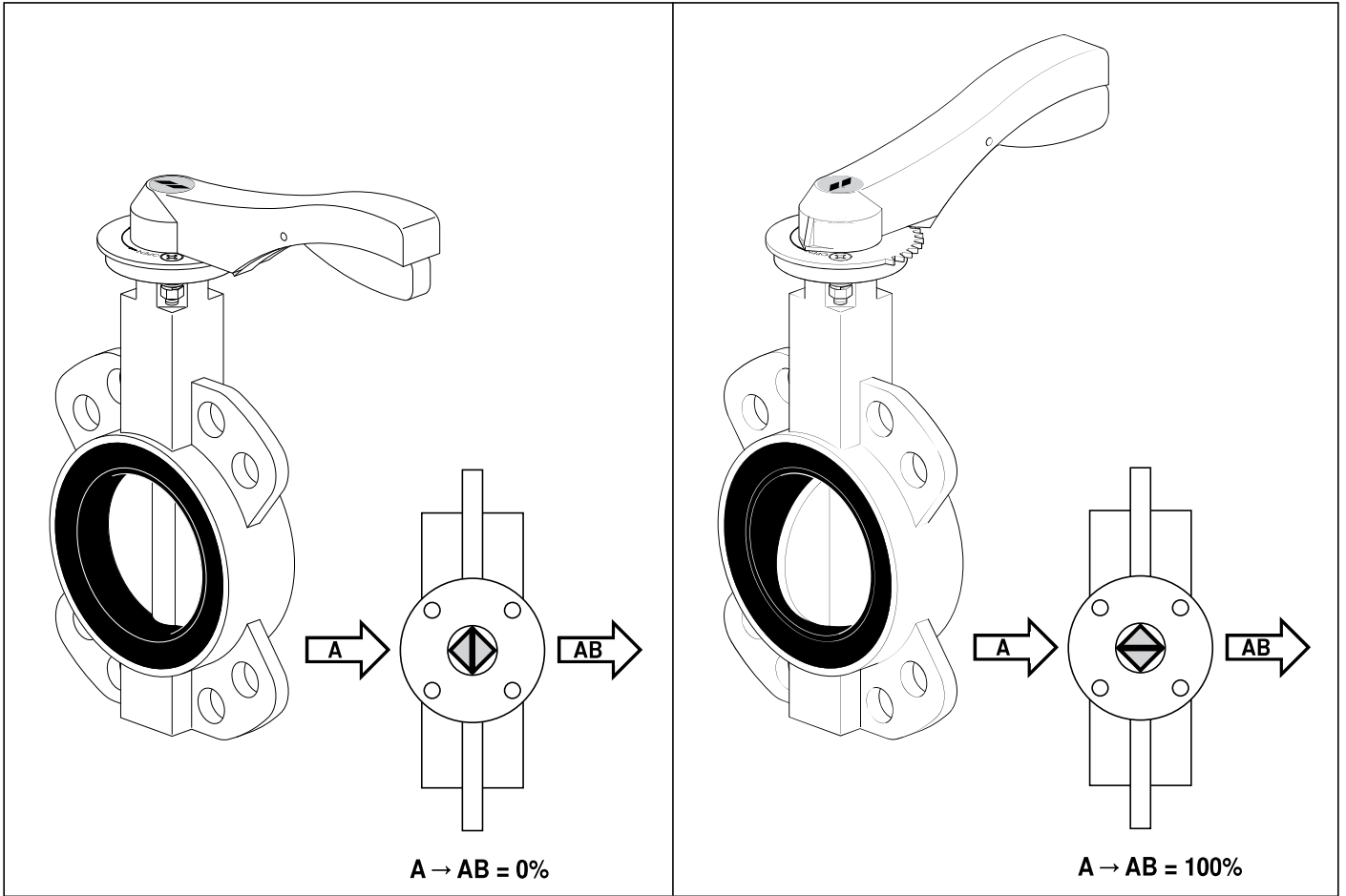
- Complete overview «The complete range of water solutions»
- Data sheets actuators
- Installation instructions for butterfly valves and/or actuators, respectively
- Notes for project planning (hydraulic characteristic curves and circuits, installation regulations, commissioning, maintenance etc.)





70905-00001.A





70906-00001.B

