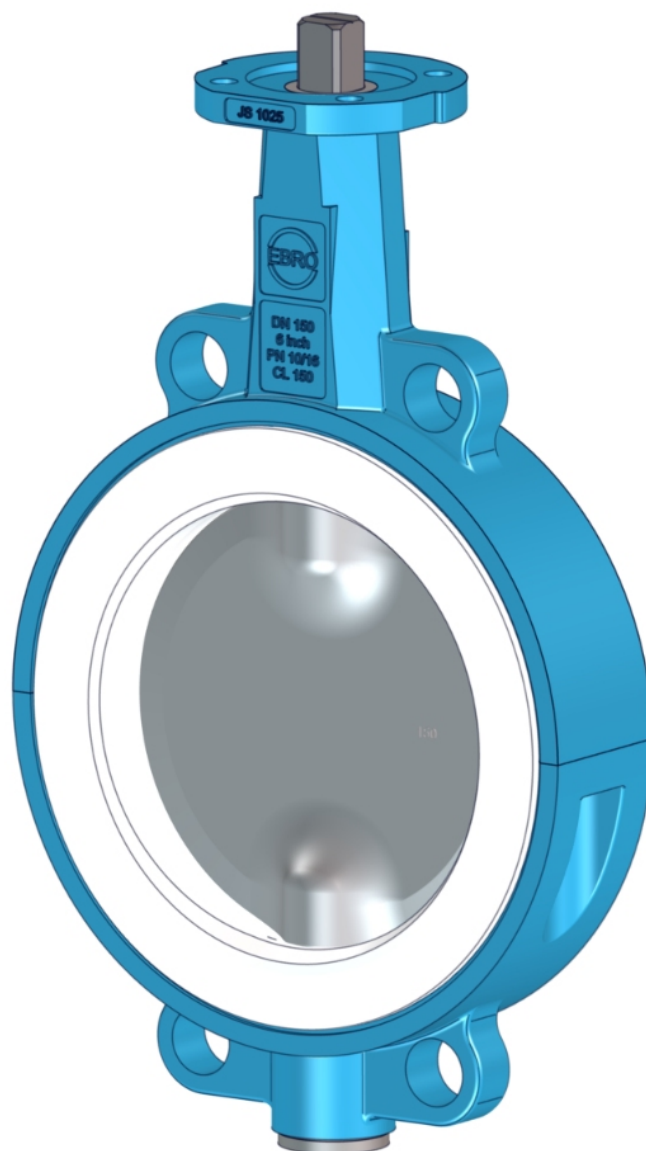


Technical data sheet

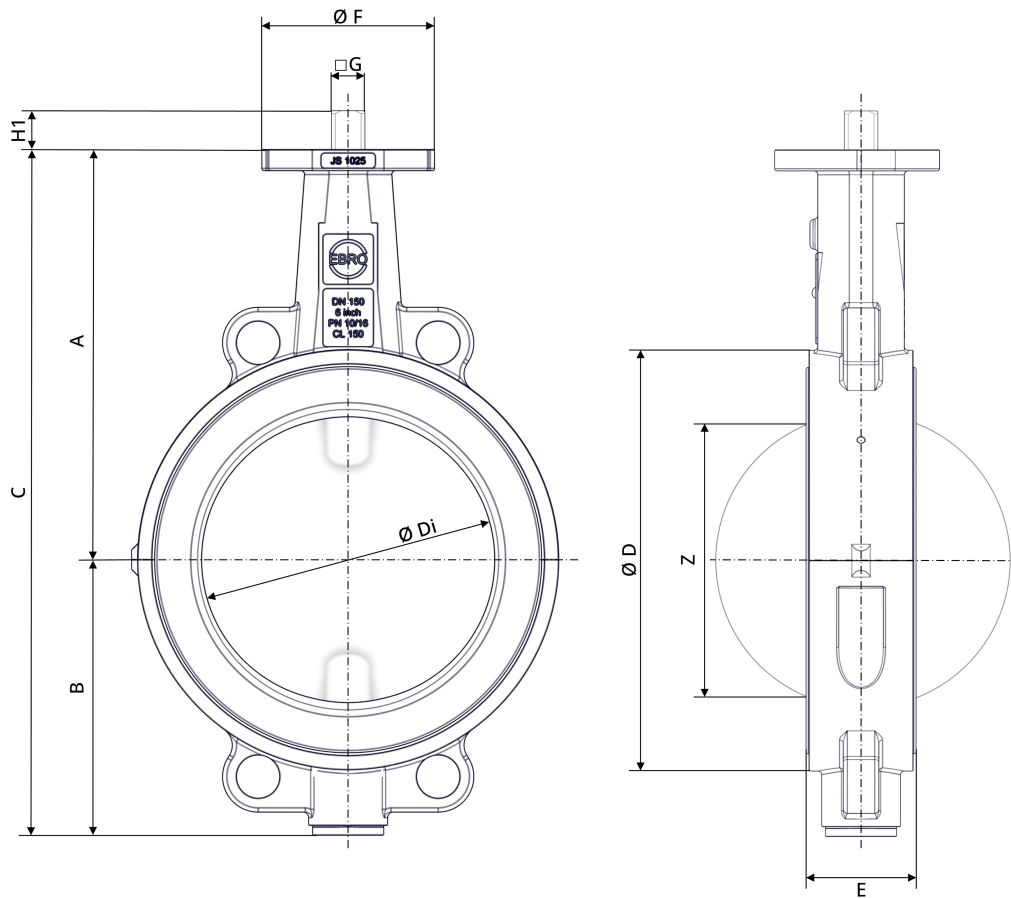
Wafer-type butterfly valve T211-A with bare shaft



WAFER-TYPE BUTTERFLY VALVE T211-A
PTFE-LINED BUTTERFLY VALVE
 TECHNICAL DATA SHEET



Dimension sheet

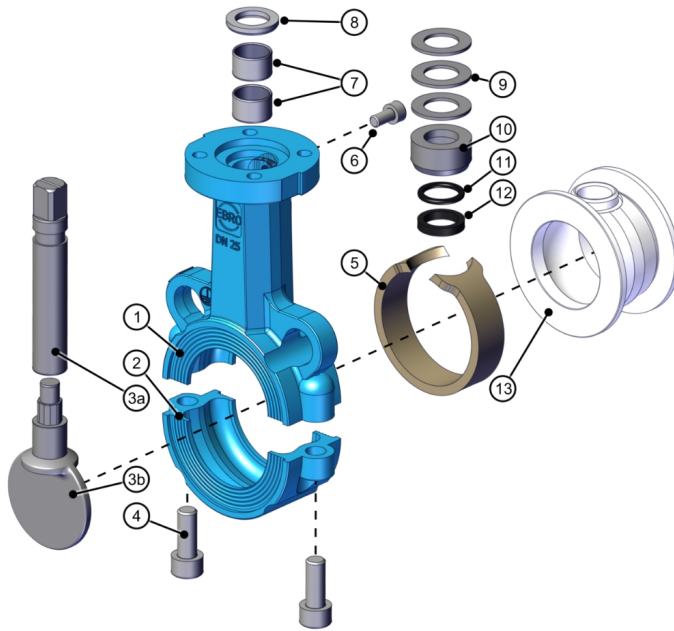


DN	Size	Main dimensions [mm]											Weight [kg]
		A	B	C	$\varnothing D$	$\varnothing Di$	E	$\varnothing F$	Flange	$\square G$	H1	Z	
25	1	104	35	139	69	43	35	54	F04	11	12	26	1
32	1¼	104	39	143	77	43	35	54	F04	11	12	26	1
40	1½	106	78	184	89	49	43	54	F04	11	12	25	3
50	2	135	81	216	108	61	46	54	F04	11	14	40	3
65	2½	150	82	232	120	61	46	54	F04	11	14	40	3
80	3	157	108	264	138	80	46	65	F05	14	17	65	5
100	4	180	117	297	160	100	52	65	F05	14	17	85	6
125	5	195	129	324	190	125	56	88	F07	17	20	111	8
150	6	210	141	351	215	151	60	88	F07	17	20	140	10
200	8	240	169	409	269	196	60	88	F07	17	20	186	15
250	10	275	217	492	324	248	68	125	F10	22	24	238	24
300	12	298	240	538	374	293	78	125	F10	22	23	282	34

WAFER-TYPE BUTTERFLY VALVE T211-A
PTFE-LINED BUTTERFLY VALVE
 TECHNICAL DATA SHEET



Material specifications & bill of materials



Item	Naming	Piece	Material group ¹	Material no.
1	Body top	1	Cast iron / stainless steel	5.3103, 1.4408
2	Body bottom	1	Cast iron / stainless steel	5.3103, 1.4408
3a	Shaft	1	Duplex steel	1.4469, 1.4462
3b	Valve disc ²	1	Duplex steel ¹	1.4469
			Duplex steel / PTFE ⁴	1.4469
			Duplex steel / M.-PTFE ⁴	1.4469
			Duplex steel / cond.-PTFE ⁴	1.4469
4	Screw	2	Stainless steel	
5	Elastomer insert ⁴	1	Silicone	
			FKM	
			EPDM	
			VMQ	
6	Blow-out protection ⁵	1	Stainless steel	
7	DU bearing	2	Steel / PTFE ³	
8	Scraper ring ⁴	1	PTFE	
9	Cup spring	3	Stainless steel	
10	Pressure piece	1	Stainless steel	
11	O-ring ⁴	1	FKM	
12	Roof liner ⁴	1	PTFE	

TECHNICAL DATA SHEET

¹ Materials in the default version. Other materials and surface treatments available upon request.
² one-piece configuration
³ coated
⁴ recommended spare parts
⁵ Operation without blow-out protection not allowable!
⁶ only in combination with uncoated duplex valve disc



WAFER-TYPE BUTTERFLY VALVE T211-A
PTFE-LINED BUTTERFLY VALVE
 TECHNICAL DATA SHEET



Item	Naming	Piece	Material group ¹	Material no.
1	Body top	1	Cast iron / stainless steel	5.3103, 1.4408
2	Body bottom	1	Cast iron / stainless steel	5.3103, 1.4408
3	Shaft/valve disc ²	1	Duplex steel ¹	1.4469
			Duplex steel / PTFE ⁴	1.4469
			Duplex steel / M.-PTFE ⁴	1.4469
			Duplex steel / cond.-PTFE ⁴	1.4469
4	Screw	2	Stainless steel	
5	Lower shaft journal	1	Stainless steel	
6	Screw plug	1	Stainless steel	
7	Seal ring ⁴	1	Stainless steel	
8	DU bearing	3	Steel / PTFE ³	
9	Elastomer insert ⁴	2	Silicone	
			FKM	
			EPDM	
			VMQ	
10	Scraper ring ⁴	1	PTFE	
11	Cup spring	6 ⁵ /8	Stainless steel	
12	Pressure piece	2	Stainless steel	
13	O-ring ⁴	2	FKM	
14	Roof liner ⁴	2	PTFE	
15	Liner ⁴	1	PTFE	
			M.-PTFE	(modified)-PTFE
			Conductive PTFE	(conductive)-PTFE
			EBRODUR ⁶	

¹ Materials in the default version. Other materials and surface treatments available upon request.

² one-piece configuration

³ coated

⁴ recommended spare parts

⁵ for DN50 and DN65

⁶ only in combination with uncoated duplex valve disc

Temperature limits for T200 valves

Liner	DN	Disc	PS ¹ [bar]	Elastomer insert	TS min.	TS max.
PTFE mod. PTFE electr. conductive	25-32		10	EPDM	-10 °C	120 °C
				FKM	-10 °C	180 °C
				VMQ	-40 °C	200 °C
PTFE	25-32	Duplex/PTFE/PFA	10	EPDM	-10 °C	120 °C
				FKM	-10 °C	180 °C
				VMQ	-10 °C	200 °C
PTFE mod. PTFE electr. conductive	40-150		16	EPDM	-10 °C	120 °C
				FKM	-10 °C	180 °C
				VMQ	-40 °C	200 °C
PTFE	40-300	Duplex/PTFE/PFA	10	EPDM	-10 °C	120 °C
				FKM	-10 °C	180 °C
				VMQ	-40 °C	200 °C
EBRODUR	50-300	Duplex	10	EPDM, FKM, VMQ	-10 °C	80 °C

¹ Attention: The max. permissible pressure PS specification should not exceed the value of the PN/class specification!
 Example: PS = 10 bar, but flange connection PN6 has the indication PS = 6 bar!

Torques

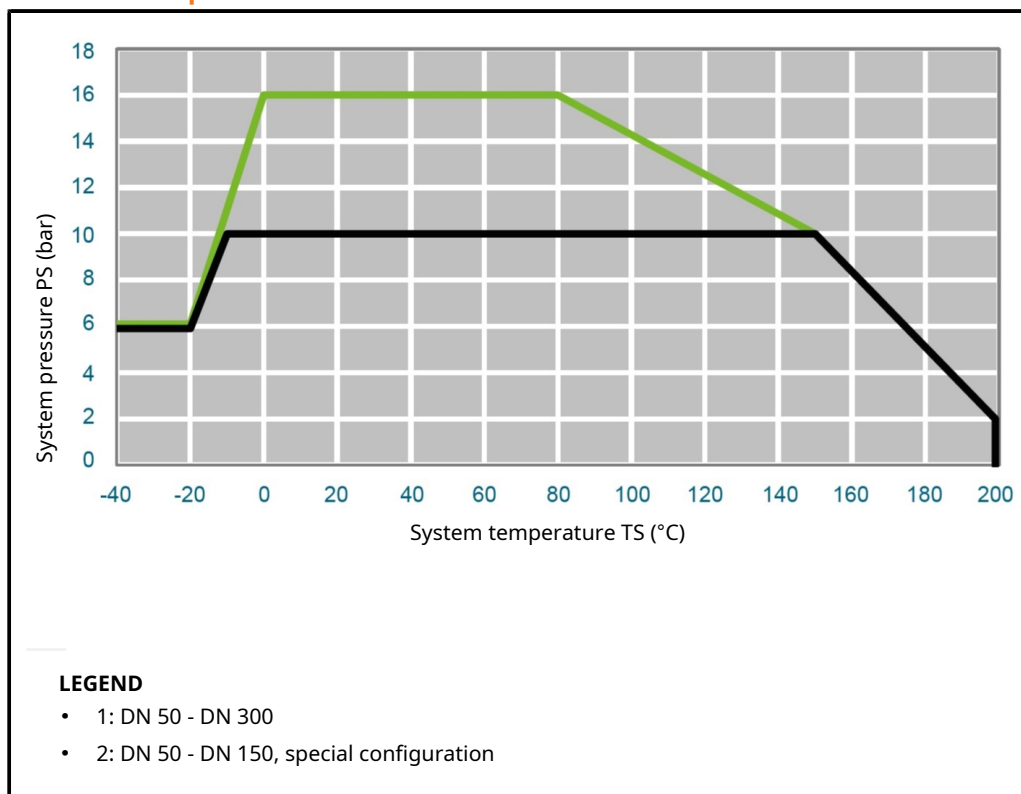
NOTICE



The values listed in the table are breakaway torques determined for liquid/ lubricating media from the position of the valve disc. They should be considered reference values since the actual torques depend on various factors such as operating pressure, medium, operating conditions, etc. Valve discs in special configurations can be provided.

DN	25	32	40/50	65	80	100	125	150	200	250	300
NPS	-	-	2	2½	3	4	5	6	8	10	12
Torque (Md) [Nm]	-	-	40	40	70	95	130	170	230	350	480

Pressure-temperature chart



NOTICE

- Underpressure insert up to 1 mbar absolute, from -10 °C to o more than +160 °C when installed between flanges
- Pressure-temperature indications with elastomer inserts of silicone rubber
- Usage limit with elastomer inserts of fluoro-rubber (FKM), at most from - -10 °C to +180 °C
- Usage limit with elastomer inserts of EPDM, at most from - -10 °C to +120 °C

K_v values

NOTICE



The K_v value [m³/h] indicates the water flow rate at a temperature of 5 °C to 30 °C and a Δp of 1 bar.
 The allowable flow velocity V_{max} is 4.5 m/s for liquids and 70 m/s for gases.
 At an opening angle of 30° to 70°, the valve disc is in the optimum control range. The curve is flat between 20° and 30° and between 70° and 90°, so that changing the opening angle has little effect on the flow control. Avoid cavitation.

		Opening angle α°							
DN	NPS	20°	30°	40°	50°	60°	70°	80°	90°
1) K _v -values metallic valve disc									
25	1	-	-	-	-	-	-	-	-
32	1¼	-	-	-	-	-	-	-	-
40	1½	-	-	-	-	-	-	-	-
50	2	3.5	11	19	27	45	72	103	120
65	2½	3.7	12	28	53	89	140	190	200
80	3	6.0	20	45	83	140	220	280	300
100	4	60	90	145	220	340	510	610	660
125	5	70	99	170	270	420	670	970	1200
150	6	90	110	190	310	510	830	1320	1680
200	8	100	220	390	660	1080	1750	2600	3100
250	10	180	350	620	1030	1720	2780	4400	5240
300	12	260	730	1190	1840	2860	4670	6710	7120
2) K _v -values PTFE-valve disc									
25	1	-	-	-	-	-	-	-	-
32	1¼	-	-	-	-	-	-	-	-
40	1½	-	-	-	-	-	-	-	-
50	2	0.8	7.6	15	20	32	51	75	93
65	2½	1.6	8.0	19	37	67	104	122	128
80	3	3.0	11	29	59	104	160	190	210
100	4	20	45	90	160	250	370	450	470
125	5	29	67	140	240	380	600	850	1020
150	6	50	120	220	370	610	960	1400	1500
200	8	80	200	360	600	980	1600	2400	2800
250	10	170	300	550	950	1600	2500	4100	4800
300	12	300	600	1000	1700	2700	4290	6100	6500
Information in m ³ /h.									

Technical features

Designation	Description
Nominal sizes	DN 25 – DN 300
Body design	Wafer-type (2-piece)
Temperature range ¹	-40 °C to +200 °C
Use with vacuum ²	up to 1 mbar absolute, -10 °C to +160 °C
Maximum allowable pressure (PS) ³	10 bar
Notices ¹ Depending on pressure, medium and material selection ² With silicone elastomer inserts ³ Special configuration in 16 bar	

Standards

Designation	Description
Standard of use	DIN EN 593:2018-01
Marking	DIN EN 19:2024-03
Top flange	DIN EN ISO 5211:2024-10
Face-to-face	DIN EN 558:2022-09 Series 20
	ISO 5752:2021-06 Series 20
	API STD 609:2021-04 Table 1
Flange connection	DIN EN 1092-1:2018-12 PN 10/16
	ASME B16.5:2020 Class 150
	AS 4087:2011
Tightness test	DIN EN 12266-1:2012-06 (Leakage rate A)

Certificates and approvals

Designation	Description
Equipment for tanks	DIN EN 14432, TÜ-AGG
Fugitive emissions	TÜV Nord
International approvals	TSSA certificate
Shipbuilding	Lloyds Register, DNV
SIL: Safety Integrity Level	IEC 61508
Notice Further certificates and approvals available upon request. Applicable only for specific nominal sizes and material combinations (except for directive on pressure equipment and safety integrity level).	