

PTFE-LINED BUTTERFLY VALVE T 212-A



Double flanged PTFE-Lined butterfly valve for shut-off and control services in the chemical industry.

TECHNICAL DATA

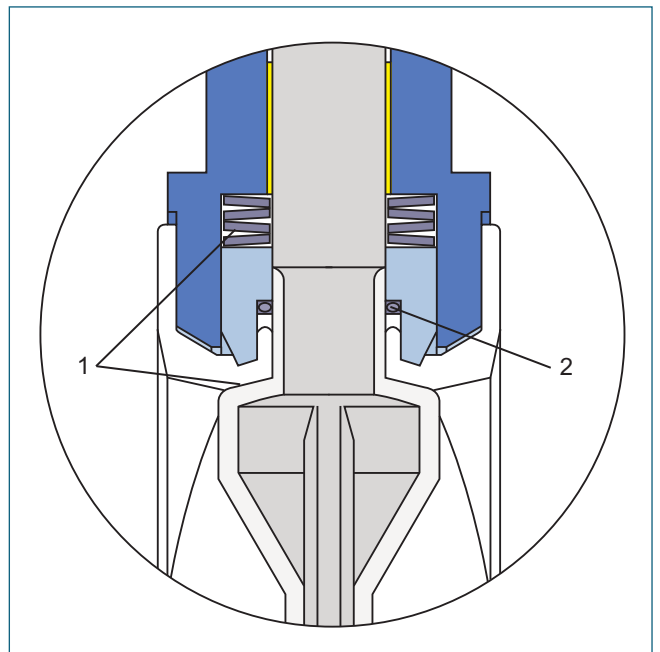
Nominal diameter:	DN 350 – DN 600
Face-to-face:	EN 558 Series 20 ISO 5752 Series 20 API 609 Table 1 BS 5155, Tab. 6 Series 4 NF E 29-305.1
Flange accommodation:	DIN 2501 PN 10/16 ANSI B 16.5, Class 150 MSS SP44 Class 150 AWWA C 207 AS 2129 Table D and E BS 10 Table D and E JIS B 2211-5 K JIS B 2212-10K
Flange surface design:	DIN 2526 Form A-E, ANSI B 16.5 RF, FF
Top flange:	EN ISO 5211 NF E 29-402
Marking:	DIN EN 19
Tightness check:	DIN 3230 T3 BO (Leakage Rate 1) ISO 5208, Category 3 API 598 Table 5 and ANSI B 16-104, Class VI
Temperature range:	–40 °C to +200 °C (depending on operation pressure)
Operating pressure:	max. 10 bar, (16 bar for spec. version)
Differential pressure:	max. Δp 10 bar, (16 bar for spec. version)
Vacuum:	up to 1 mbar absolute (with silicon elastomer inserts) from –10 °C to +160 °C

FEATURES

- PTFE-lined butterfly valve for chemically toxic and highly corrosive media
- Environmental protection via EBRO-Safety seal
- Splitted body design
- Isolation height according to plant prescription
- Can be installed in any desired position
- Maintenance-free
- Can be disassembled, material-specific recycling possible
- Material conform to FDA

GENERAL APPLICATIONS

- Chemically highly corrosive and toxic media
- Purification plants
- Pharmaceutical Industry
- Adhesives, Paper Industry, Fuel Transport
- Paint manufacture and processing
- Food Industry
- Transport of hazardous materials
- Wet chloric gas
- Conditioning of materials, e.g. galvanizing and pickling
- Processing of ore
- Fuel transport and storage

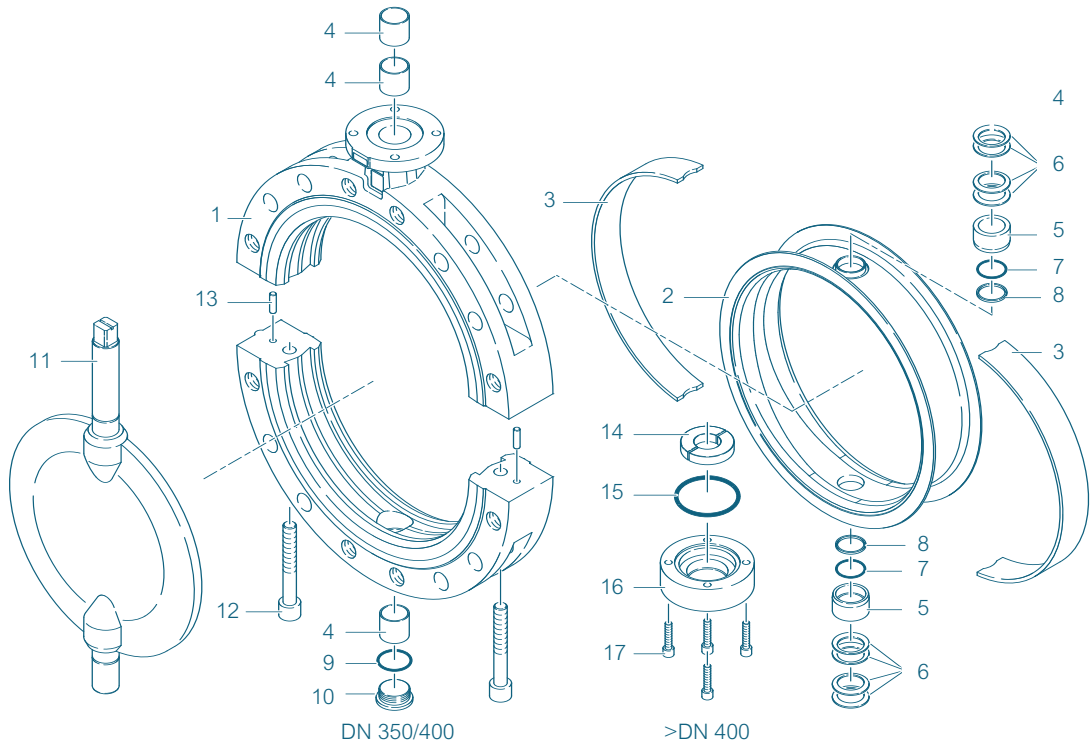


Safety seal at both shaft ends in accordance with the EBRO Twin Seal principle:

- 1 Primary sealing by means of a Belleville spring washer, transmitting prestress on the spherical segment area.
- 2 Secondary sealing of the shaft by means of PTFE-Chevron and O-Ring.

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MATERIAL SPECIFICATION AND PARTS LIST



Pt.	Description	Material	Material-No.	ASTM	Pt.	Description	Material	Material-No.	ASTM
1	Body				10	Plug screw DIN 908 only DN350-400			
	Nodular Cast Iron	GGG-40.3	0.7043	A395		Stainless Steel	G-X5CrNiMo19-11-2	1.4408	CF8M
②	Seat				⑪	Disc/Shaft			
	PTFE	Polytetrafluorethylen	PTFE	PTFE		St. Steel/St. Steel	X2CrNiMo 22-5-3	1.4462	F 51
③	Elastomer insert					St/PFA-coated	St 52.3	1.0570	A572-50
	Silicon	Silicon rubber	MVQ	VMQ			Perfluoralkoxyl	PFA	PFA
	EPDM	Etylene propylene caoutchouc	EPDM	EPDM				1.4462/1.4462	
	FPM	Flourcarbon caoutchouc				St - PFA		1.4462	*1
4	DU-bearing				12	Screw			
	Steel/PTFE coated					Stainless Steel	A4-70	1.4401	B8M
⑤	Trust collar				13	Set screw			
	Stainless Steel	X5CrNiMo 17-12-2	1.4401	316		Iron	9SMnPb28K	1.0718	SAE12L14
6	Bellev.spr.washer				14	Shaft Retainer			
	Stainless Steel	X12CrNi177	1.4310	301		Iron	St37-2		
⑦	O-Ring				⑮	O-Ring			
	FPM	Flourcarbon caoutchouc	FPM	FKM		FPM	Flourcarbon caoutchouc	FPM	FKM
	Silicon opt.				16	Cover plate			
	FPM/PTFE-coated opt.	Polytetrafluorethylen	PTFE	PTFE		Iron	St37-2		
⑧	Chevron seal	X5CrNi 18-10	1.4301	304	17	Screw			
	PTFE					Stainless Steel	A4-70	1.4401	B8M
9	Seal								
	Stainless Steel								
									Other materials upon request.

- Recommended spare parts
- ⊙ Recommended for coated discs

*1) Optional: electrically conductive

Subject to change without notice.

COTSWOLD VALVES LTD

27 Upper Mills Estate Bristol Rd Stonehouse Glos GL10 2BJ
INDUSTRIAL & PROCESS VALVES & CONTROLS

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TORQUE

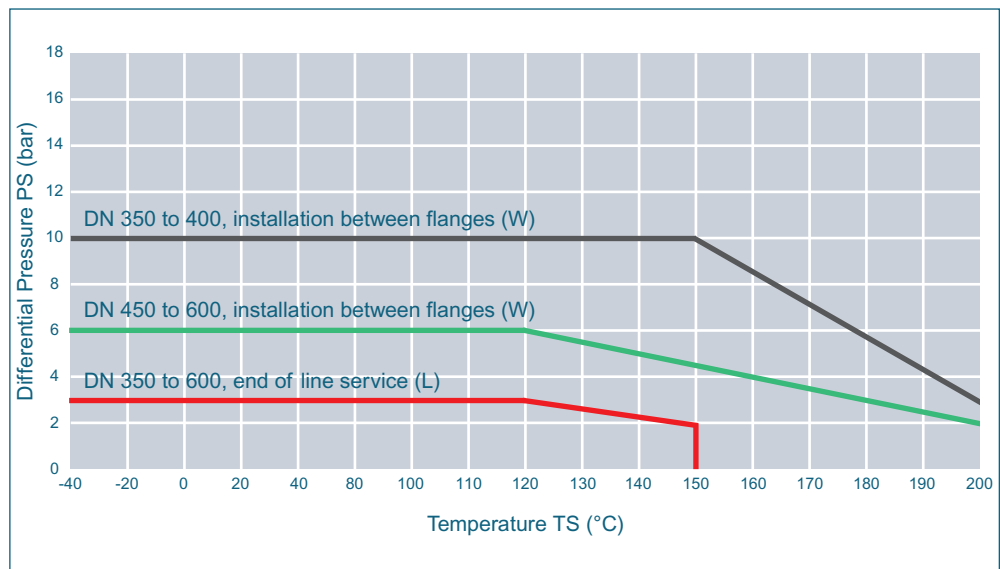
- The torque values specified (MD) are based on dry media and are measured with air at a temperature of 20 °C.
- The values specified are based on the initial breakaway torque (disc disengages from seat, torque then drops).
- Dynamic torque specification available upon request.

Regarding the dimensioning of actuators, please contact our engineers.

DN [mm]	350	400	450	500	600
Size [in]	14	16	18	20	24
MD (Nm)	720	980	1200	1500	2500

PRESSURE/TEMPERATURE DIAGRAM

for valves with silicone elastomer inserts



Vacuum service to 1 mbar, from -10°C up to 160°C

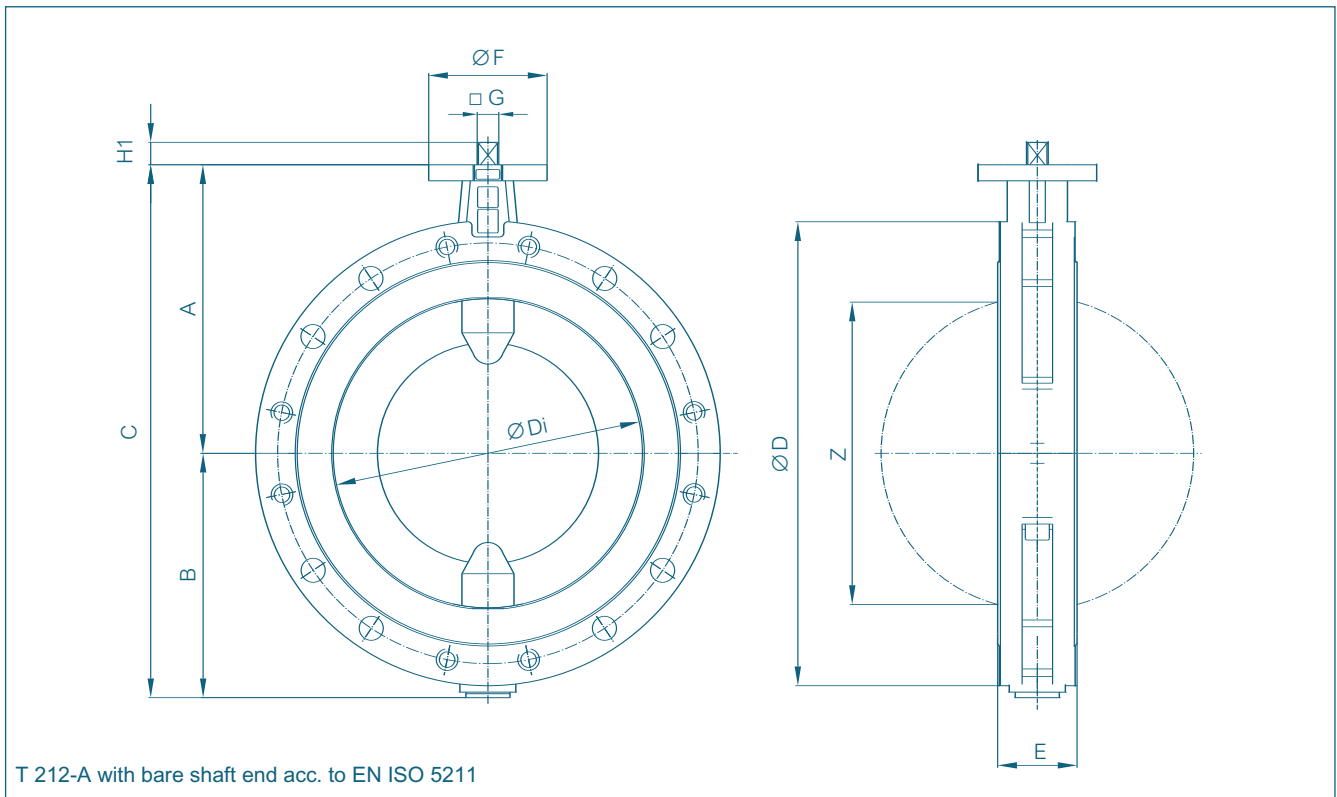
K_v-VALUES

- The K_v-value (m³ per hour) is the flow of water at a temperature of 5 °C to 30 °C (41 °F to 86 °F) at Δp of 1 bar.
- The K_v-values specified are based on tests carried out by the Delfter Hydraulics Laboratories, the Netherlands.
- Permissible velocity of flow V_{max} 4,5 m/s for liquids and V_{max} 70 m/s for gases.
- The throttle function is linear at an angle 30° to 70°.
- Avoid cavitation!

For further values, please contact our engineers.

DN [mm]	Size [in]	K _v -Values (Valve fully opened)	
		K _v -values metal disc	K _v -values PTFE-disc
350	15	13500	11500
400	16	15000	12000
450	18	18500	14000
500	20	22000	16000
600	24	28000	20000

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DN [mm]	Size [in]	Dimensions [mm]											Weight [kg]
		A	B	C	D	Di	E	F	Flange	G	H1	Z	
350	14	330	277	607	535	338	92	150	F12	27	29	327	68
400	16	360	305	665	580	389	102	150	F12	27	29	377	95
450	18	397	363	760	639	437	114	175	F14	36	38	423	130
500	20	437	390	827	715	490	127	175	F14	36	38	475	170
600	24	498	462	960	830	579	154	210	F16	46	48	560	270

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