

WAFER TYPE BUTTERFLY VALVE Z 611-C



Wafer type butterfly valve for shut-off and control services in the chemical industry.

TECHNICAL DATA

Nominal diameter:	DN 50 - DN 300
Face-to-face:	EN 558 Series 20 SO 5752 Series 20 API 609 Table 1
Flange accommodation:	EN 1092 PN 10/16 ASME Class 150
Flange Surface Design:	EN 1092 Form A/B ASME RF, FF
Top flange:	EN ISO 5211
Marking:	EN 19 PAS 1085
Tightness check:	EN 12266 (Leakage rate A) ISO 5208, Category 3
Temperature range:	-10°C to +120°C (depending on working pressure)
Operating pressure:	max. 16 bar

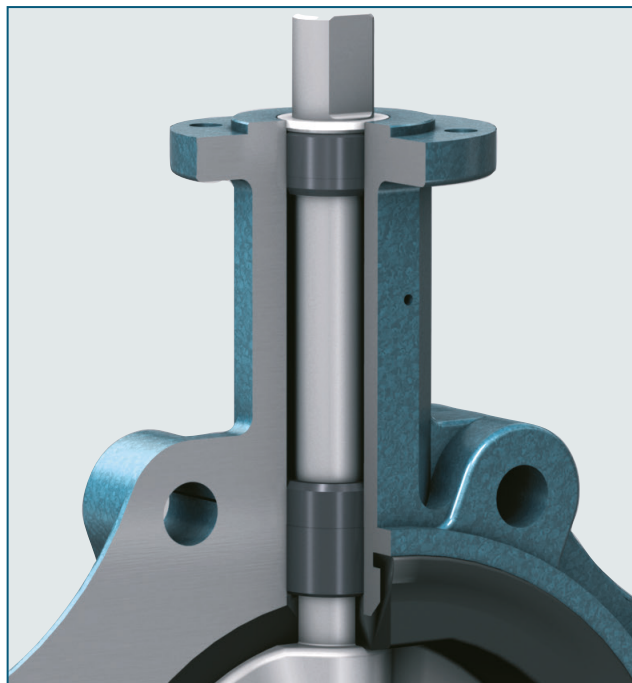
Valve Design
acc. to PAS 1085

FEATURES

- Environmental protection via EBRO-Safety seal
- Split body with stainless steel screws
- Isolation height according to plant prescription
- Can be installed in any desired position
- Maintenance-free
- Can be disassembled, material-specific recycling possible
- TA-Luft/ VDI 2440, RWTÜV certified

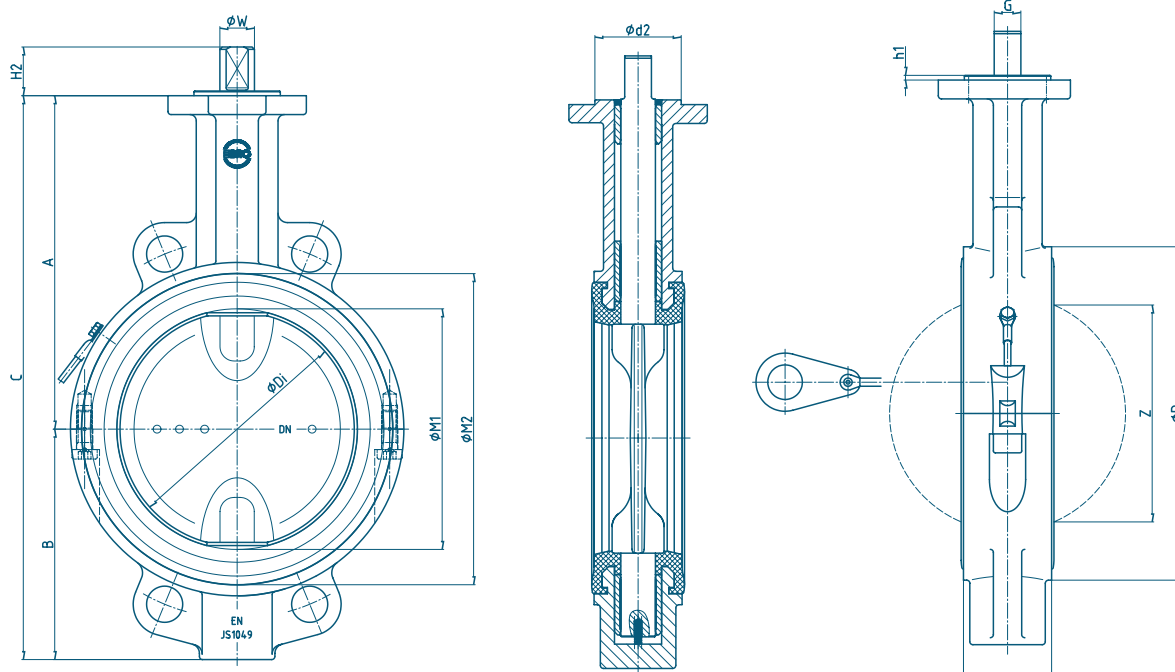
DESIGN FEATURES

- Optimized low torques
- FEM dimensioned components
- Valve neck for 100mm isolation
- Centering holes for easy installation
- Triple shaft bearing
- One-piece shaft and disc
- Double flat shaft acc. to EN standards



Safety seal acc. to TA-Luft/ VDI 2440, RWTÜV

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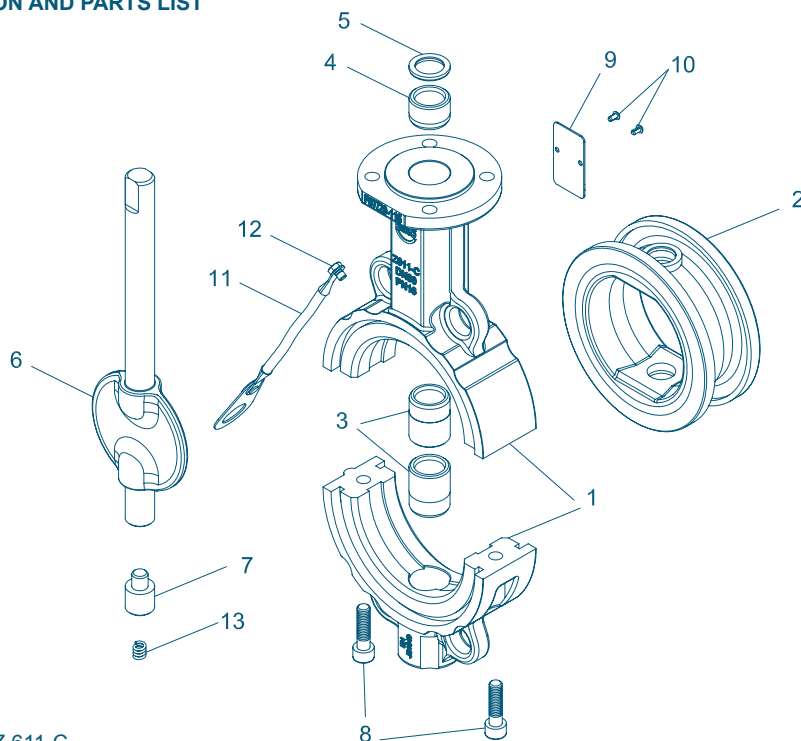
Z 611-C with bare shaft end acc. to EN ISO 5211

DN [mm]	Size [in]	Dimensions [mm]																Weight [kg]
		A	B	C	ØD	ØDi	Ød2	E	ØF	Flange	G	h1	H2	ØM1	ØM2	ØW	Z	
50	2	135	80,5	215,5	95	49	55	43	90	F07	11	3	22	53	86	14	25	3,2
65	2½	143,5	89	232,5	120	65	55	46	90	F07	11	3	22	68	106	14	42	4,0
80	3	165	100	265	138	79	55	46	90	F07	14	3	26	82,5	123	18	65	4,5
100	4	174	111	285	158	99	55	52	90	F07	14	3	26	102	145	18	85	6,0
125	5	195	124	319	190	124	55	56	90	F07	14	3	26	127	174	18	111	7,7
150	6	212	147	359	212	149	55	56	90	F07	17	3	31	153	198	22	139	10,0
200	8	238	172	410	268	199	70	60	125	F10	17	3	31	203	253	22	190	16,0
250	10	275	209	484	320	249	70	68	125	F10	22	3	40,5	253	305	28	240	24,5
300	12	303	234	537	370	299	85	78	150	F12	22	3	40,5	301	356	28	287	33,5

Subject to change without notice

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MATERIAL SPECIFICATION AND PARTS LIST



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Pos.	Description	Material	Material-No.	ASTM	Pos.	Description	Material	Material-No.	ASTM
1	Body				8	Screw			
	Nodular Cast Iron	GJS-400-18U-LT	EN-JS 1049	A395		Stainless Steel	A4-70	1.4401	
2	Seat				9	Type plate			
	EPDM-C *					Stainless Steel	A2		
3	Bearing bush				10	Groove pin			
	Steel	42Cr Mo 4 V (nitrided)	1.7225			Stainless Steel	A2		
4	Bearing bush				11	Buttstrap			
	Steel	42Cr Mo 4 V (nitrided)	1.7225						
5	Scraper				12	Screw			
	PTFE	Polytetrafluorethylen	PTFE			Stainless Steel	A4-70	1.4401	
6	Shaft/Disc	one-piece			13	Spiral spring			
	St. Steel /St. Steel *	GX2CrNiMoN26-7-4	1.4469	EN 10213		Spring steel	X10CrNi 18-8	1.4310	301
7	Lower shaft stub (DN 50 - DN 80 only)								
	Stainless Steel		1.4462	EN 10088					

* Other materials upon request

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TORQUE

- The values listed in the table are initial breakaway torques, taken with liquids and lubricant media.
- Please regard these as approximate values, as the objective value depends on different factors like pressure, medium, rubber, quality, temperature ... etc.
- Our engineers look forward to help you with exact values for your application.
- Powdery (non-lubricant) media
Md x 1,3
- Dry gases/high viscous media
Md x 1,2

DN (mm)	50	65	80	100	125	150	200	250	300
Size (in)	2	2½	3	4	5	6	8	10	12
Case of operation I									
MD (Nm) at Δp=3 bar	7	8	14	18	22	45	70	115	175
MD (Nm) at Δp=6 bar	8	9	16	22	28	53	95	190	220
MD (Nm) at Δp=10 bar	9	10	18	26	34	60	125	245	290
MD (Nm) at Δp=16 bar	10	14	23	30	48	80	165	330	380
Case of operation II									
MD (Nm) at Δp=3 bar	14	15	21	23	30	90	160	295	335
MD (Nm) at Δp=6 bar	15	16	23	27	35	96	170	345	360
MD (Nm) at Δp=10 bar	16	17	25	30	41	100	180	330	380
MD (Nm) at Δp=16 bar	16	19	31	37	51	105	210	400	430
MAST (Nm)*	105	105	250	250	250	484	484	1020	1020

Case of operation I: Fluid or lubricant media

Case of operation II: Powder or gases (dry seat)

*Maximum torques (Nm)

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 a Δp of 1 bar
- Permissible velocity of flow
 - Vmax 4,5 m/s for liquids
 - Vmax 70 m/s for gases
- The throttle function is linear at an angle 30° to 70°
- Avoid cavitation

DN [mm]	Size [in]	Opening angle α°							
		20°	30°	40°	50°	60°	70°	80°	90°
50	2	3,84	10,1	20,7	34,4	49,7	65,2	79,5	91,2
65	2½	9,5	16,6	39,1	72,6	113	157	199	235
80	3	15,6	20,6	51,4	102	165	234	304	368
100	4	24,9	39,8	96,5	183	288	398	503	589
125	5	51,8	67,2	135	256	428	652	926	1250
150	6	76,5	97,3	197	375	629	957	1360	1830
200	8	137	187	373	697	1160	1760	2510	3400
250	10	227	271	563	1090	1850	2830	4010	5390
300	12	287	409	820	1550	2610	4050	5880	8120

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For further values, please contact our engineers.