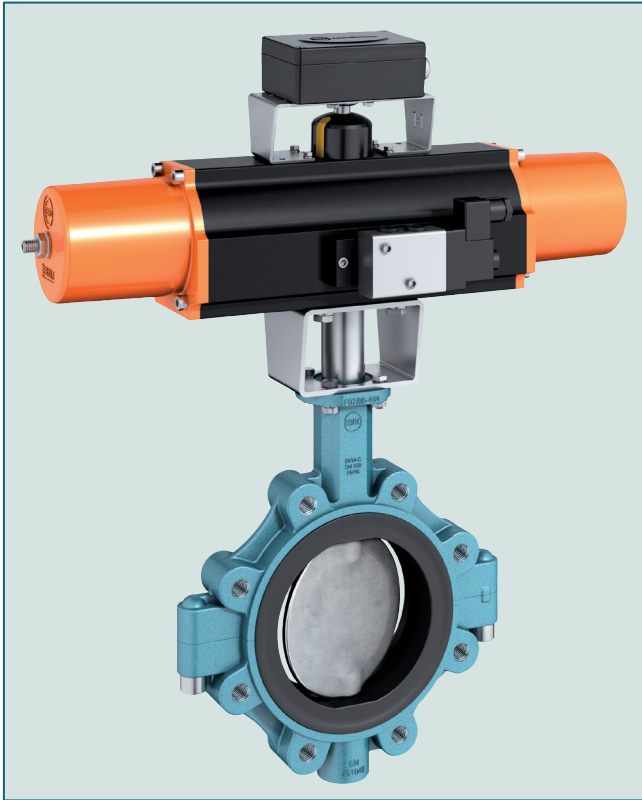


# LUG TYPE BUTTERFLY VALVE Z 614-C



Lug 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

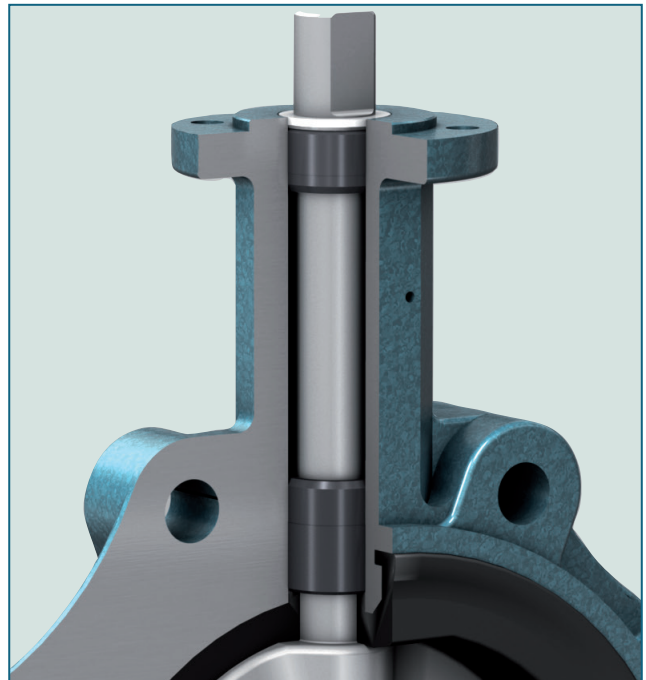
Valve Design  
acc. to PAS 1085

## 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

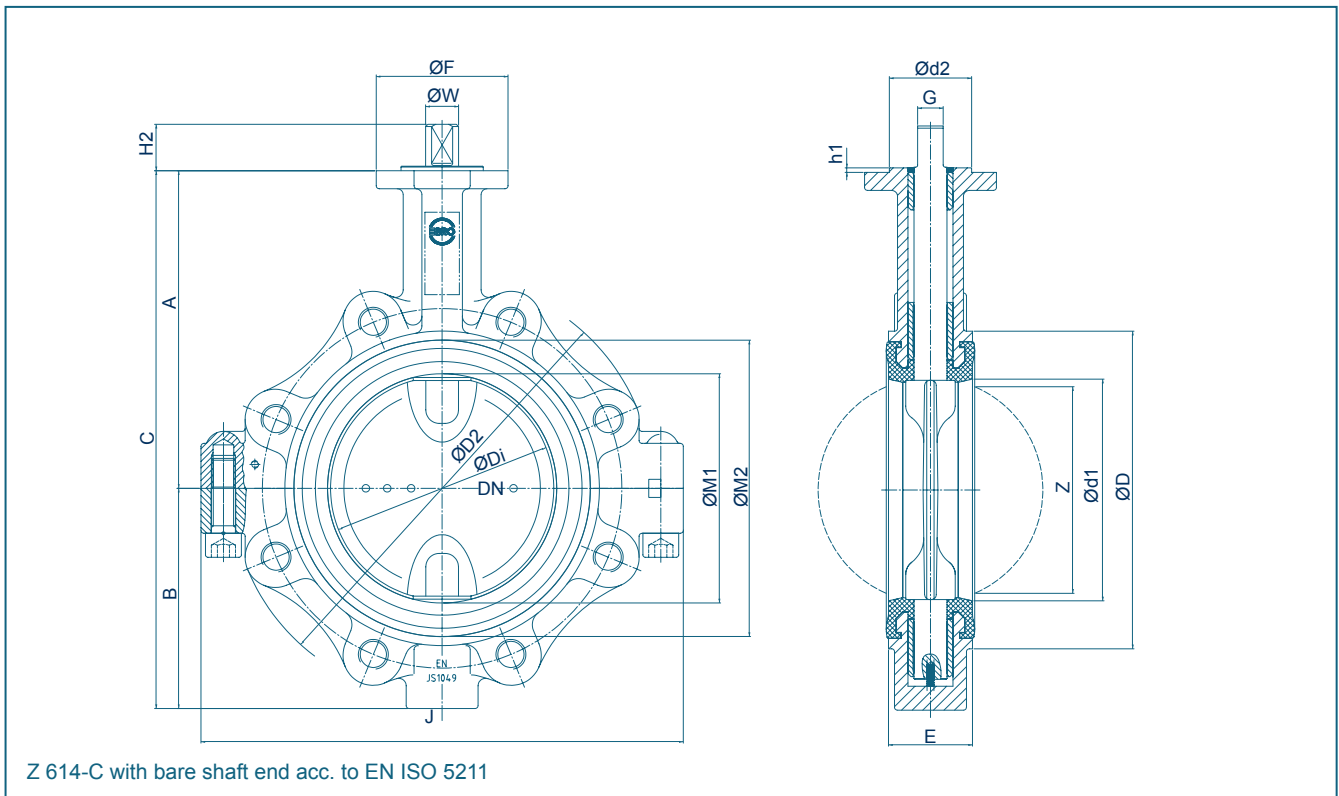
## DESIGN FEATURES

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



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

# LUG TYPE BUTTERFLY VALVE Z 614-C

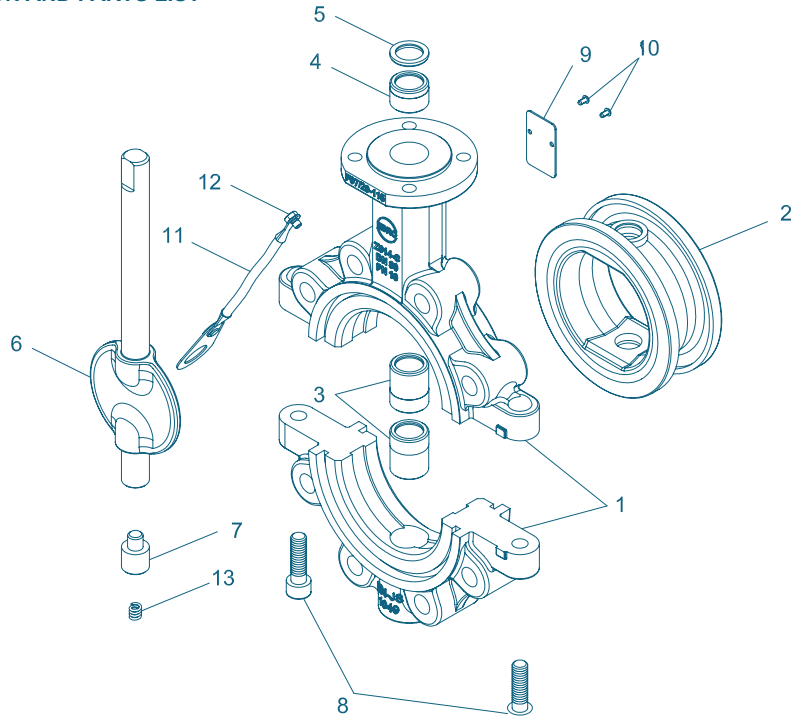


DN [mm]	Size [in]	Dimensions [mm]																		Weight [kg]
		A	B	C	ØD	ØD2	ØDi	Ød2	E	Flange	ØF	G	h1	H2	J	ØM1	ØM2	ØW	Z	
50	2	135	80,5	215,5	95	155	49	55	43	F07	90	11	3	22	167	53	86	14	25	3,7
80	3	165	100	265	138	192	79	55	46	F07	90	14	3	26	227	82,5	123	18	65	6,3
100	4	174	111	285	158	212	99	55	52	F07	90	14	3	26	266	102	145	18	85	8,5
150	6	212	147	359	212	280	149	55	56	F07	90	17	3	31	322	153	198	22	139	13,5
200	8	238	172	410	268	335	199	70	60	F10	125	17	3	31	390	203	253	22	190	21,5
250	10	275	209	484	320	395	249	70	68	F10	125	22	3	40,5	481	253	305	28	240	32,5
300	12	303	234	537	370	460	299	85	78	F12	150	22	3	40,5	558	301	356	28	287	48,5

Subject to change without notice

# LUG TYPE BUTTERFLY VALVE Z 614-C

## MATERIAL SPECIFICATION AND PARTS LIST



Lug type butterfly valve Z 614-C

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

\* Other materials upon request

Subject to change without notice

# LUG TYPE BUTTERFLY VALVE Z 614-C

## 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	80	100	150	200	250	300
Size (in)	2	3	4	6	8	10	12
<b>Case of operation I</b>							
<b>MD (Nm) at <math>\Delta p=3</math> bar</b>	7	14	18	45	70	115	175
<b>MD (Nm) at <math>\Delta p=6</math> bar</b>	8	16	22	53	95	190	220
<b>MD (Nm) at <math>\Delta p=10</math> bar</b>	9	18	26	60	125	245	290
<b>MD (Nm) at <math>\Delta p=16</math> bar</b>	10	23	30	80	165	330	380
<b>Case of operation II</b>							
<b>MD (Nm) at <math>\Delta p=3</math> bar</b>	14	21	23	90	160	295	335
<b>MD (Nm) at <math>\Delta p=6</math> bar</b>	15	23	27	96	170	345	360
<b>MD (Nm) at <math>\Delta p=10</math> bar</b>	16	25	30	100	180	330	380
<b>MD (Nm) at <math>\Delta p=16</math> bar</b>	16	31	37	105	210	400	430
<b>MAST (Nm)*</b>	<b>105</b>	<b>250</b>	<b>250</b>	<b>484</b>	<b>484</b>	<b>1020</b>	<b>1020</b>

**Case of operation I:** Fluid or lubricant media

\*Maximum torques (Nm)

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

## K<sub>V</sub>-VALUES

- The K<sub>V</sub>-value [m<sup>3</sup> per hour] is the flow of water at a temperature of 5°C to 30°C (41°F to 86°F) at a  $\Delta p$  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 $\alpha^\circ$							
		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
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
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

Subject to change without notice

For further values, please contact our engineers.