

LUG TYPE BUTTERFLY VALVE Z 014-B



A universally applicable lug type butterfly valve with vulcanised liner according to EN 593.

TECHNICAL DATA

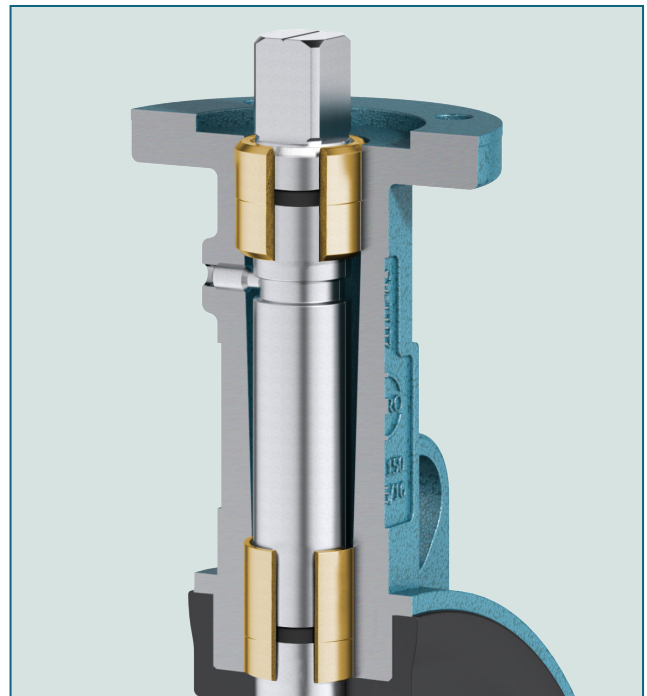
Nominal diameter:	DN 50 - DN 300
Face-to-face:	EN 558 Series 20 ISO 5752 Series 20 API 609 Table 1
Flange accommodation:	EN 1092 PN 6/10/16 ASME Class 150 AS2129 T/E AS4087 CL16
Flange Surface Design:	EN 1092 Form A/B ASME RF, FF
Top flange:	EN ISO 5211
Marking:	EN 19
Tightness check:	EN 12266 (Leakage rate A) ISO 5208, Category 3
Temperature range:	-10°C to +120°C (depending on pressure, medium and material)
Operating pressure:	max. 20 bar
Vacuum:	0,1 bar absolute

FEATURES AND BENEFITS

- Vulcanised liner for severe service conditions and Vacuum applications
- Fully lugged body for end of line services
- Triple shaft bearings prevent shaft deflection
- Accurate machining of components results in low torques and long service life
- Can be installed in any desired position
- Maintenance-free

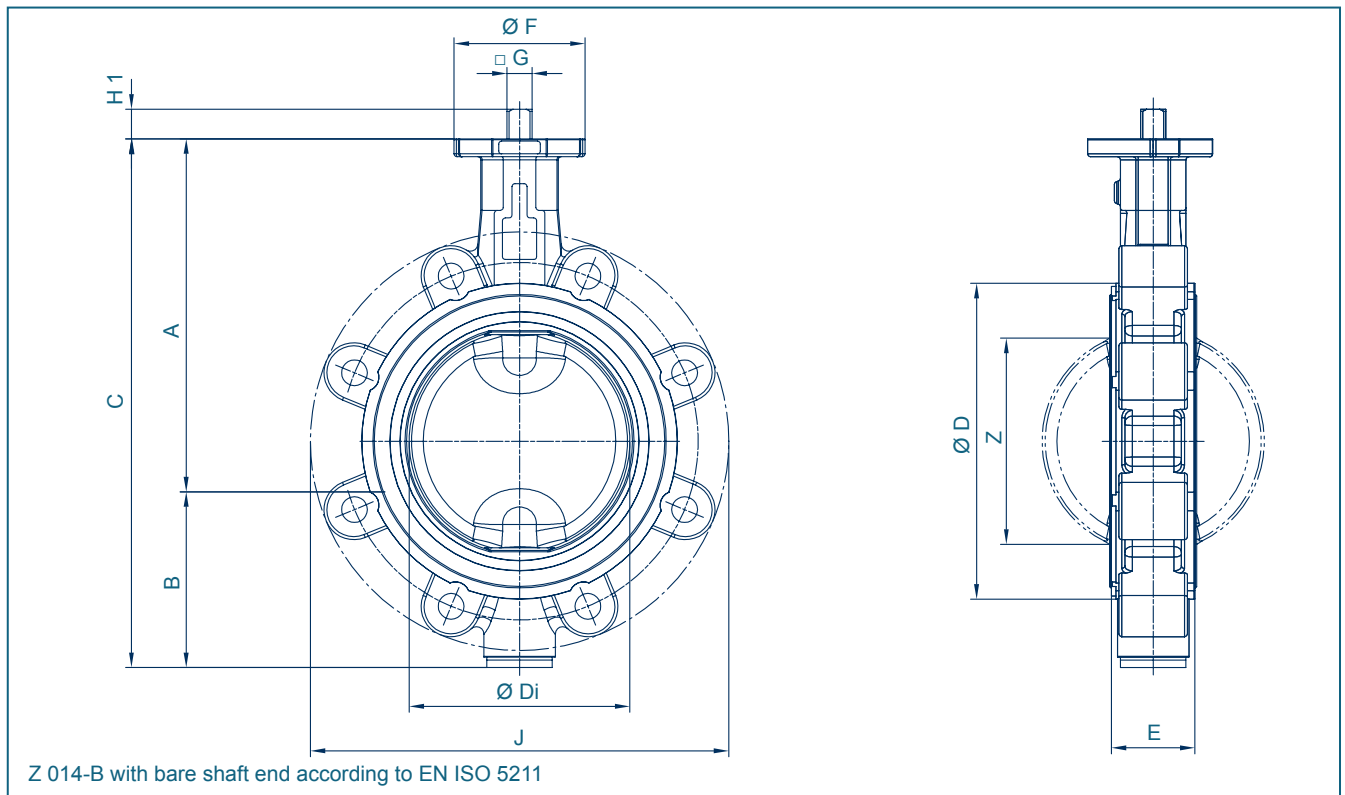
GENERAL APPLICATIONS:

- Chemical and petrochemical industries
- Water and waste water technology
- Pneumatic materials handling technology
- Shipbuilding
- Power generation industry
- Food industry
- Mining



The shaft has multiple bearings. This ensures an optimal guidance even after many years of use.

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DN [mm]	Size [in]	Dimensions [mm]											Weight [kg] (EN-JS 1030)		
		A	B	C	D	Di	E	F	Flange	G	H1	J	Z	2 Piece shaft	TS- shaft
50	2	126	84	210	95	49	43	54	F04	11	12	155	25	4,8	-
65	2½	134	93	227	115	64	46	54	F04	11	12	175	45	5,5	-
80	3	157	104	261	138	79	46	65	F05	14	16	182*/190	65	8,6	9,1
100	4	167	115	282	158	98	52	65	F05	14	16	220	85	9,8	10,4
125	5	180	127	307	188	123	56	65	F05	14	16	256	111	10,1	10,7
150	6	203	150	353	212	148	56	90	F07	17	19	281	139	13,1	14,6
200	8	228	176	404	268	198	60	90	F07	17	19	338	190	18,8	20,6
250	10	266	212	478	320	248	68	125	F10	22	24	412	240	29,5	32,5
300	12	291	237	528	370	296	78	125	F10	22	24	482	287	37,0	40,5

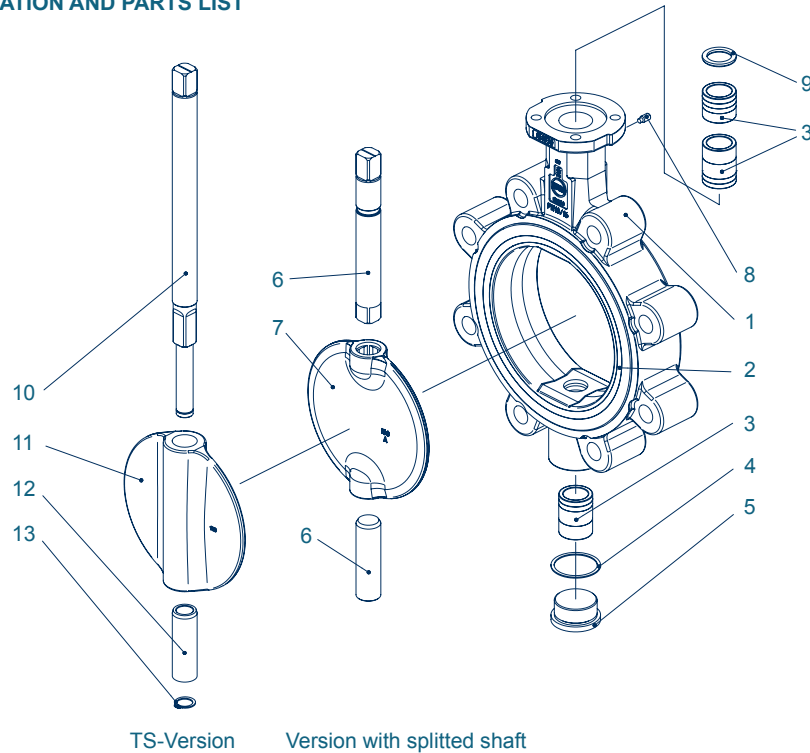
For larger diameters, see Z 011-B (Wafer type)

*ANSI Class 150

Subject to change without notice

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MATERIAL SPECIFICATION AND PARTS LIST



Pt.	Description	Material	Material-No.	ASTM	Pt.	Description	Material	Material-No.	ASTM
1	Body				7	Disc			
	Grey Cast Iron	GG-25	0.6025	40 B		Stainless Steel	G-X5CrNiMo19-11-2	1.4301	304
	Nodular Cast Iron	GGG-40	0.7040	60-40-18			G-X6CrNiMo18-10	1.4408	CF8M
		GGG-40.3	0.7043				X2CrNiMo17-12-2	1.4404	316 L
	Carbon Steel	GS-C25	1.0619	WCB			X6CrNiMoTi17-12-2	1.4571	316 Ti
							G-X2CrNiMoN26-7-4	1.4469	F 51
2	Vulcanised liner				8	Plug screw DIN 915			
	NBR	Acrylonitrile butadiene rubber				Steel	45 H galvanized		
	EPDM	Ethylene propylene caoutschouc			9	Wiper ring			
	CSM	Chlorsulphonated polyethylene				PTFE	Polytetrafluorethylene	PTFE	PTFE
	FPM	Fluorocarbon caoutschouc			10	TS-Shaft			
	VSI	Silicon rubber				See point 6			
	SBR-green	Polyurethane elastomer			11	TS-Disc			
3	Bearing bush					See point 7			
	Heat treated steel	42CrMo4	1.7225	A434	12	Sleeve			
	Brass	MS58	2.0401	B45		Stainless Steel	X5CrNi18-10	1.4301	A240-304
4	Seal				13	Retaining ring			
	Copper	Cu		Copper		Stainless Steel	X39CrMo17-1	1.4122	
5	Plug screw DIN 908				14	O-Ring			
	Stainless Steel	G-X5CrNiMo 19-11-2	1.4408	A351-CF8M		NBR	Acrylonitrile butadiene caoutschouc		
6	Shaft				15	Shaft retainer			
	Stainless Steel	X39CrMo17-1	1.4122			Brass	CuZn39Pb3	2.0401	B455
		X14CrMoS17	1.4104	430 F	16	Cover plate			
		X5CrNiMo 17-12-2	1.4401	316		Grey Cast Iron	EN-GLS-250	EN-JL 1040	A48-40B
		Hastelloy	2.4883	Hastelloy	17	Screw			
						Steel	45 H galvanized		
						Other materials upon request			

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TORQUE

- The torque values specified (Md) are based on liquid and lubricant media
- Powdery (non-lubricant) media
Md x 1,3
- Dry gases/high viscous media
Md x 1,2
- The values specified are based on the initial breakaway torque
- Dynamic torque specification available upon request

Regarding the dimensioning of actuators, please contact our engineers.

DN [mm]	Size [in]	Operating pressure				
		3 [bar]	6 [bar]	10 [bar]	16 [bar]	20 [bar]
50	2	5	5	5	5	6
65	2½	7	6	8	11	13
80	3	14	10	12	17	20
100	4	9	14	20	31	36
125	5	15	22	30	41	51
150	6	36	45	55	78	90
200	8	59	140	160	200	225
250	10	150	155	210	280	320
300	12	200	200	270	350	420

All values in Nm

K_V-VALUES

- The K_V-values [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,
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]	Opening angle α°							
		20°	30°	40°	50°	60°	70°	80°	90°
50	2	1,3	5,5	13	23	35	48	62	76
65	2½	3,8	8,2	22	44	73	108	148	192
80	3	11	14	37	77	132	200	277	363
100	4	17	22	93	180	277	366	429	448
125	5	26	34	305	521	769	1027	1273	1484
150	6	38	49	187	385	640	918	1184	1406
200	8	67	87	315	640	1093	1645	2268	2934
250	10	105	136	501	947	1574	2366	3305	4374
300	12	152	197	670	1526	2655	3905	5124	6159

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