

BUTTERFLY VALVE zBUT



Body material	Nominal pressure	Nominal diameter	Max. temperature
A Grey cast iron	C 16 bar	150	210°C*
	B 10 bar	200-900	
	A 6 bar	1000-1600	
B Nodular cast iron	C 16 bar	80-150	
	B 10 bar	200-1600	

\* max. temperature depends on the used materials



correspond to the pressure equipment directive 2014/68/UE

**FEATURES**

- high tightness (leakproofness class - A acc. to EN - 12266 - 1
- compact settlement
- environment friendly
- tests acc. to EN - 12266 - 1
- face-to-face dimension according to EN 558 series 20
- EPOXYD RAAL 5002 150mq
- sealing EPDM/ NBR/ FLUCAST/ SILICONE/ VITON/ HYPALON/ EPICHLOROHYDRIN/ NEOPRENE/ BUTYL
- discs NODULAR CAST IRON/ STAINLESS STEEL/ ALUMINIUM/ BRONZE/ ALU-BRONZE/ CAST STEEL/ DUPLEX/ SUPERDUPLEX

**APPLICATION \***

\* not all of the applications are suitable for all of the executions

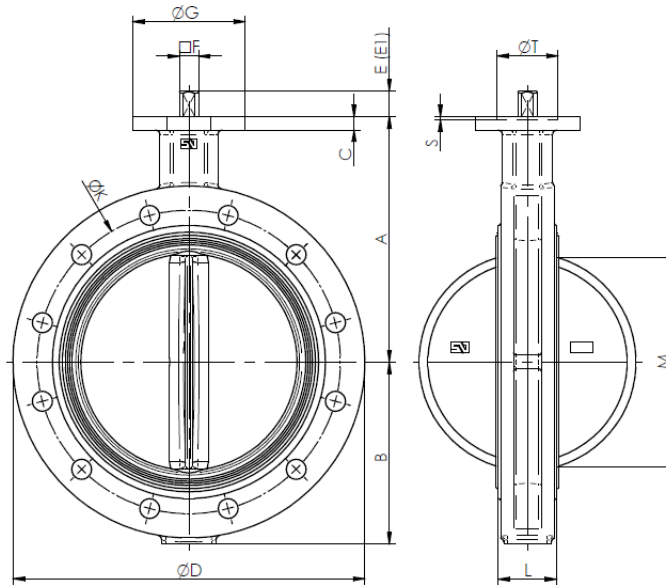
industries						
	INDUSTRY	SHIPBUILDING INDUSTRY	HEATING	REFRIGERATION AND AIR CONDITIONING		
	media					
		GLYCOL	INDUSTRIAL WATER	DIATHERMIC OIL	COMPRESSED AIR	NEUTRAL FLUIDS

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**MATERIALS, DIMENSIONS**

DN80-500



	Body material	B/A					
		Type	26-I	66-I	C6-I	06-I	36-I
1	Body	EN-GJS-400-15 5.3106 (ex.JS1030 + Epoxy) /EN-GJL-250 5.1301 (ex. JL1040)					
2	Disc*	EN-GJS-400-15 5.3106 (ex.JS1030 + Epoxy)			1.4408		
3	Seat**	EPDM					
4	Stem	1.4005					
Operation		Bare shaft	Lever	Gearbox	Bare shaft	Lever	Gearbox
Max. temperature		110°C					

\* other disc materials on request  
 \*\* other seat materials on request

DN	80	100	125	150	200	250	300	350	400	450	500
A (mm)	141	165	180	193	225	283	308	339	380	381	433
B (mm)	110	115	127	143	173	210	240	271	308	340	380
C (mm)	10	10	12	12	12	14	14	14	18	20	22
D (mm)	200	230	255	285	345	406	480	535	597	640	700
E (mm)	30	30	33	33	33	30	30	31	31	38	38
F (mm)	11	11	14	14	17	22	22	22	27	36	36
G (mm)	90	90	90	90	90	130	130	160	160	190	210
K (mm) (PN16)	160	180	210	240	295	355	410	470	525	585	650
M (mm)	65	90	112	139	191	241	290	338	387	434	478
L (mm)	46	52	56	56	60	68	78	78	102	114	127
ISO	F-07	F-07	F-07	F-07	F-07	F-10	F-10	F-10	F-12	F-12	F-14
Weight (kg)	5,3	7,0	9,5	11,0	18,4	30,8	45,3	55,00	80,0	99,9	137,0

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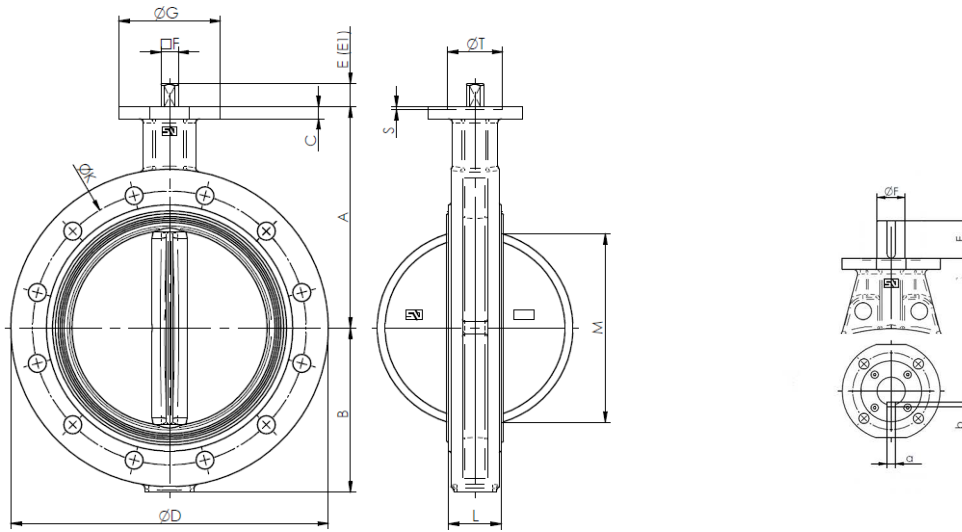
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FIG.499

DN 600-1600



Body material		B/A			
Type		26-I	C6-I	06-I	A6-I
1	Body	EN-GJS-400-15 5.3106 (ex.JS1030 + Epoxy) /EN-GJL-250 5.1301 (ex. JL1040)			
2	Disc*	EN-GJS-400-15	5.3106 (ex.JS1030 + Epoxy)	1.4408	
3	Seat**	EPDM			
4	Stem	1.4005			
Operation		Bare shaft	Gearbox	Bare shaft	Gearbox
Max. temperature		110°C			

\* other disc materials on request

\*\* other seat materials on request

DN	600	700	750	800	900	1000	1100	1200	1400	1500	1600
A (mm)	494	560	590	630	695	770	815	875	1000	1075	1115
B (mm)	440	485	530	565	610	675	733	818	969	1050	1090
C (mm)	24	25	25	29	32	32	32	40	35	40	40
D (mm)	834	927	995	1080	1170	1290	1405	1485	1736	1855	1930
E (mm)	80	106	106	106	110	110	110	110	120	180	180
F (mm)	60	65	80	80	80	80	80	100	120	130	130
G (mm)	210	300	300	300	350	350	350	350	416	475	475
K (mm) (PN10)	725	840	900	950	1050	1180	1270	1380	1590	1700	1820
M (mm)	570	660	705	763	866	966	1054	1153	1342	1447	1533
L (mm)	154	165	190	190	203	216	216	254	280	318	318
a x b	18x11	18x11	22x14	22x14	22x14	22x14	22x14	18x16	28x16	32x18	32x18
ISO	F-16	F-25	F-25	F-25	F-25	F-25	F-25	F-30	F-30	F-40	F-40
Weight (kg)	220	282	350	398	511	686	865	1072	1584	2110	2153

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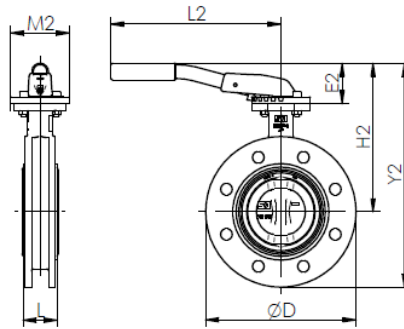
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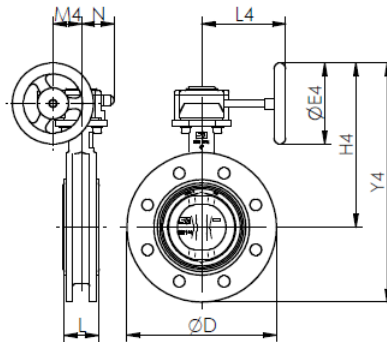
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FIG.499



N	80	100	125	150	200
D (mm)	200	230	255	285	345
L (mm)	46	52	56	56	60
E 2 (mm)	60	60	75	75	75
H 2 (mm)	201	225	255	268	300
Y 2 (mm)	303	340	383	411	473
L 2 (mm)	260	260	315	315	315
M 2(mm)	90	90	90	90	90
Weight (kg)	5,8	7,6	10,1	11,6	19,0



DN	D	L	E4	H4	Y4	L4	M4	N	Ciężar (kg)
80	200	46	125	229	329	129	43,5	50,5	6,6
100	230	52	125	253	368	129	43,5	50,5	8,3
125	255	56	160	286	413	135	43,5	50,5	10,9
150	285	56	160	298	441	135	43,5	50,5	12,5
200	345	60	200	355	528	152	52,5	59	21,0
250	406	68	250	442	652	222	61,2	70,5	34,2
300	480	78	250	468	708	222	61,2	70,5	48,7
350	535	78	250	498	770	222	61,2	70,5	58,5
400	597	102	300	572	880	277	68,8	72,5	89,0
450	640	114	400	630	970	321	96,5	91,5	119,0
500	700	127	400	682	1062	321	96,5	91,5	156,0
600	834	154	500	798	1239	408	138	140	255,0
700	927	165	500	864	1350	408	138	140	317,0
750	995	190	600	944	1474	456	138	140	393,0
800	1060	190	600	944	1550	456	138	140	440,0
900	1170	203	600	1108	1718	510	180	156	573,0
1000	1290	216	700	1184	1858	579	180	156	754,0
1100	1405	216	700	1228	1962	579	180	156	933,0
1200	1485	254	700	1310	2128	593	252	228	1270,0
1400	1735	280	700	1436	2404	593	252	228	1782,0
1500	1855	318	700	1510	2560	593	252	228	2317,0
1600	1930	318	700	1550	2640	593	252	228	2359,0

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**KV [m<sup>3</sup>/h] DEPENDING OF ANGLE OPENING DISC**

DN	90°	80°	70°	60°	50°	40°	30°	25°
80	258	207	138	110	54	33	19	13
100	474	410	260	200	103	63	36	24
125	970	860	540	420	215	133	76	52
150	1680	1420	890	690	353	215	146	125
200	2800	2350	1510	1120	603	360	215	146
250	4310	3700	3190	1850	990	580	336	224
300	6465	5215	3490	2670	1380	860	475	327
350	8620	6980	4395	3535	1896	1120	645	430
400	10775	9310	5600	4395	2285	1465	775	560
450	15086	12700	7930	6120	3190	1980	1077	775
500	18965	15085	9900	7500	3965	2415	1380	970
600	24137	20700	14225	10130	5260	3275	1895	1293
700	36000	25300	17100	10600	5980	3860	1990	1350
750	40500	27400	18400	11450	7150	4350	2125	1560
800	44000	29000	20000	12500	8200	4500	2200	1600
900	58000	42000	29000	17500	10400	6100	2300	1800
1000	80500	59200	37500	23000	13500	8700	3800	2500
1100	97586	72540	54560	28560	18210	10560	6350	4450
1200	110500	82000	61500	35500	22600	12500	7800	5400
1400	170500	145800	85700	45685	28950	15256	8568	5680
1500	195400	176450	101675	54560	34230	18850	9755	6154
1600	220350	198450	110325	59452	37850	20568	10952	6456

**OPERATING TORQUE IN NM TO CLOSE THE VALVES DEPENDING ΔP (BAR)**

DN	3 bar	6 bar	10 bar	16 bar
80	17	20	23	28
100	22	29	42	50
125	39	46	72	85
150	48	75	90	110
200	90	120	140	215
250	126	210	270	350
300	161	270	390	560
350	245	300	500	950
400	520	600	700	1000
450	590	1120	1450	1950
500	840	1390	1800	2500
600	1000	2200	3450	3800
700	1650	3300	5000	5860
750	1800	3500	5500	6000
800	2300	4600	6500	9500
900	4700	6800	8500	11500
1000	6500	8500	11500	15000
1100	7000	9000	12000	16000
1200	8500	12000	15500	22000
1400	14000	17000	19500	
1500	20000	24000	28000	
1600	22000	26000	30000	

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**PART'S MATERIALS**

Disc

Material	Standard	Application
Stainless steel	1.4308	Chemical products/ nourishing products
Stainless steel	1.4408	Demineralized water/ chemical products/ nourishing products
Stainless steel	1.4404	Chemical and nourishing products/ sea water/ demineralized water
Aluminium	En-AC-44100	Cold water/ air
Bronze tin	CuSn10-C	Sea water
Bronze-aluminium	CuAl10Fe5Ni5-C	Sea water
Cast steel	GP240GH	Water/ gas
Nodular cast iron	EN-GJS-400-15 5.3106	Hot water / air/ gas
Nodular cast iron + EPDM	EN-GJS-400-15 + EPDM 5.3106	Powdery products/ pneumatic transport/ sea water
Duplex	1.4517	Chemical products
Superduplex	1.4469	Sea water/ corrosive atmospheres

Seat

Material	Application	Temperature range	
EPDM ( Ethylene propylene)	Water/ sea water/ weak acids and basis	-40°C	+110°C
EPDM HT (EDM high temp.)	Heating without steam water	+80°C	+130°C
NBR (nitrile)	Mineral oils/ vegetables oils/ greases	-40°C	+90°C
Flucast AB/P	Abrasive powdered products	-10°C	+90°C
Flucast AB/E	Oxygenated solvents ketones esters with abrasion	-20°C	+95°C
Flucast AB/N	Mineral oils/ vegetables oils/ greases/ abrasives	-10°C	+100°C
Silicone	Air and hot water without steam	-60°C	+200°C
Food silicone	Nourishing and milky products	-60°C	+200°C
Steam silicone	steam	-60°C	+140°C
Viton	Acids/ high temperature	-15°C	+210°C
Biodisel Viton	Biodiesel	-5°C	+210°C
Viton GF Gasoline	Oxygenate gasoline	-5°C	+210°C
Hypalon	Water/ diluted bases	-25°C	+120°C
Epichlorohydrin	Brine systems	-40°C	+125°C
Neoprene	Sea water	-25°C	+80°C
Butyl	Gas	-10°C	+95°C
Flucast extreme	Water / steam / acids	-5°C	+200°C

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TYPE

Figure	Body material	Nominal diameter	Nominal pressure	Type		
499	A Grey cast iron EN-GJL-250	150 mm	C 16 bar	66 disc - ductile iron; covered by epoxy; layer; EPDM sealing; catch lever		
		200 mm	B 10 bar	66 disc - ductile iron; covered by epoxy; layer; EPDM sealing; catch lever		
		150 mm	C 16 bar	C6 disc - ductile iron covered by epoxy; layer; gear box; EPDM sealing		
		200-900 mm	B 10 bar	C6 disc - ductile iron covered by epoxy; layer; gear box; EPDM sealing		
		1000-1600 mm	A 6 bar	C6 disc - ductile iron covered by epoxy; layer; gear box; EPDM sealing		
		150 mm	C 16 bar	26 disc - ductile iron; covered by epoxy layer; EPDM sealing; bare shaft – for the actuator		
		150 mm	C 16 bar	36 disc - stainless steel; EPDM sealing; catch lever		
		200 mm	B 10 bar	36 disc - stainless steel; EPDM sealing; catch lever		
		150 mm	C 16 bar	A6 disc - stainless steel gear box; EPDM sealing		
		200-900 mm	B 10 bar	A6 disc - stainless steel gear box; EPDM sealing		
		1000-1600 mm	A 6 bar	A6 disc - stainless steel gear box; EPDM sealing		
		150 mm	C 16 bar	06 disc - stainless steel; EPDM sealing; bare shaft - for the actuator		
		200-900 mm	B 10 bar	06 disc - stainless steel; EPDM sealing; bare shaft - for the actuator		
		1000-1600 mm	A 6 bar	06 disc - stainless steel; EPDM sealing; bare shaft - for the actuator		
		499	B Nodular cast iron EN-GJS-400-15	80-150 mm	C 16 bar	66 disc - ductile iron; covered by epoxy; layer; EPDM sealing; catch lever
				200 mm	B 10 bar	66 disc - ductile iron; covered by epoxy; layer; EPDM sealing; catch lever
				80-150 mm	C 16 bar	C6 disc - ductile iron covered by epoxy; layer; gear box; EPDM sealing
				200-1600 mm	B 10bar	C6 disc - ductile iron covered by epoxy; layer; gear box; EPDM sealing
80-150 mm	C 16 bar			26 disc - ductile iron; covered by epoxy; layer; EPDM sealing; bare shaft – for the actuator		
80-150 mm	C 16 bar			36 disc - stainless steel; EPDM sealing; catch lever		
200 mm	B 10 bar			36 disc - stainless steel; EPDM sealing; catch lever		
80-150 mm	C 16 bar			A6 disc - stainless steel gear box; EPDM sealing		
200-1600 mm	B 10 bar			A6 disc - stainless steel gear box; EPDM sealing		
80-150 mm	C 16 bar			06 disc - stainless steel; EPDM sealing; bare shaft - for the actuator		
200-1600 mm	B 10 bar			06 disc - stainless steel; EPDM sealing; bare shaft - for the actuator		

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**ORDERING**

Figure	Body material	Nominal diameter	Nominal pressure	Type
499	A Grey cast iron EN-GJL-250	150 mm	C 16 bar	66 disc - ductile iron; covered by epoxy; layer; EPDM sealing; catch lever

Order example acc. index

499 A 150 C 66

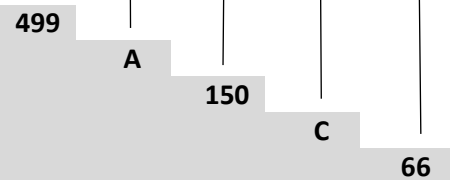
Butterfly valve, ends wafer type, form straight

Grey cast iron EN-GJL-250

Nominal diameter (mm)

Nominal pressure PN 16

Disc - ductile iron; covered by epoxy; layer; EPDM sealing; catch lever



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