

SHIELD Electric Operated/Motorized Butterfly Valve

Model: SD-BV-EO

Lug concentric Butterfly valve features a cartridge type seat, streamlined disc and strong stem-to-disc connection for easy use in many industrial applications such as food and beverage, pulp and paper, chemical, mining, water treatment, power plants etc. full rated unidirectional dead-end service is achieved by a lip designed in the lug body.

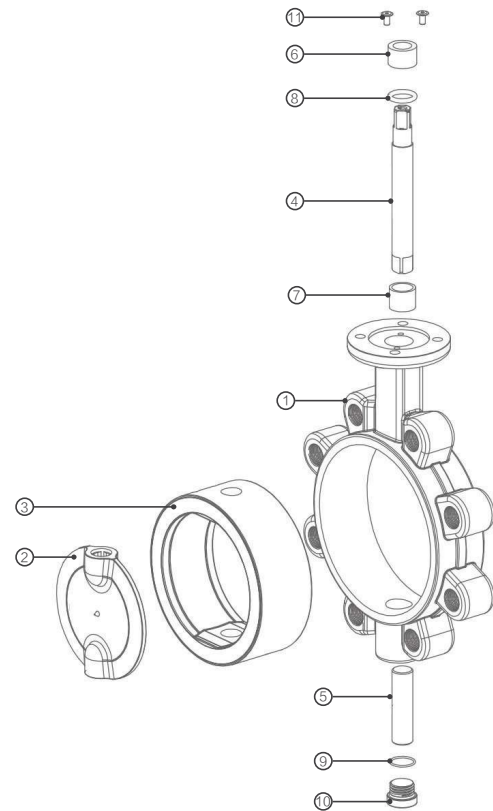


- ISO5211 top flange together with stem square suitable for direct mounting of actuators.
- Stem anti-blowout design keep safety in field use
- Dirt scraper prevents moisture penetrating into the shaft area
- Suitable for high pressure and full vacuum service due to the use of a cartridge seat design.
- Full rated unidirectional dead-end service is achieved by a lip designed in the lug body.
- No exposed pins or bolts for stem-to-disc connection.
- No need for flange gaskets.
- No risk of damage to the valve during installation in closed position.
- Bubble-tight shut off at full pressure rating.
- Large flow capacity and enough strength because of streamline disc design.
- Plug with O-ring sealing eliminates any leakage from the stem.

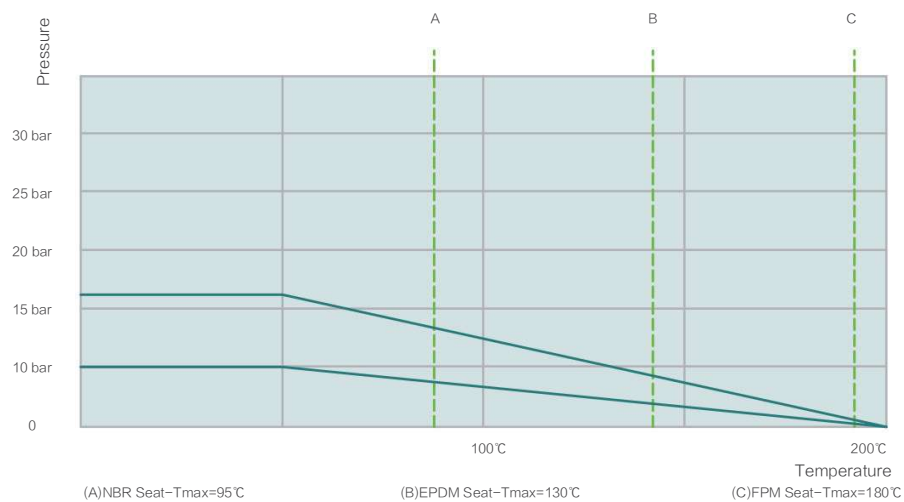
TECHNICAL DATA

Connection	Lug
Nominal diameter	DN50-DN2000
Operating pressure	16bar for DN50-DN300, 10BAR for DN350-DN2000
Flange accommodation	DN50-DN300: EN1092 PN10/16, ASME B16.5 CLASS150, JIS B2239 10K/16K, BS10 Table D/E
	DN350-DN2000: EN1092 PN10/16, ASME B16.5 Class 150, BS10 Table D/E
Face to face	EN558 Series 20, API 609 Table 1
Top flange	ISO 5211
Tightness check	ISO 5208 Category 3, API 598 Table 5
Temperature range	-40°C to 180°C (Depending on pressure, medium and material)
Operation	Hand level, gear box, pneumatic actuator, electric actuator

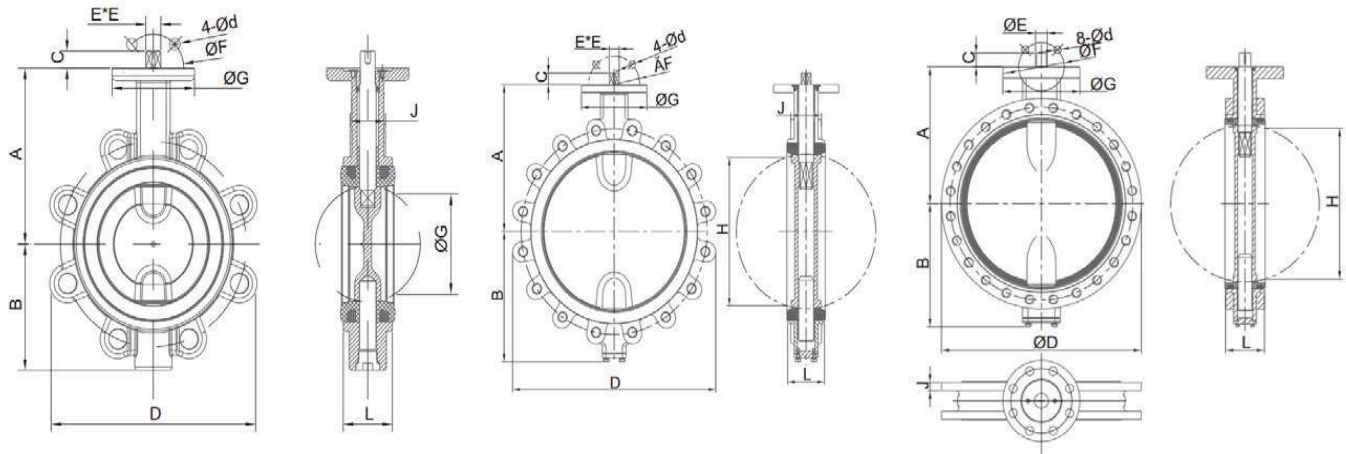
No.	Part Name	Material
1	Body	ASTM A536 65-45-12, WCB, CF8M
2	Disc	ASTM A536 65-45-12, Nylon coated, CF8, CF8M, 507, 1.4462
3	Seat	EPDM, NBR, FPM
4	Stem	SS420, SS431
5	Lower stem	SS420, SS431
6	Retainer	Nylon for DN50-DN300, SS304 for DN350-DN2000
7	Bearing	RPTFE with Graphite on I.D.
8	Weather seal	NBR
9	Seat Retainer	NBR
10	Gasket	Steel galvanized for DN50-DN300, Cover plate for DN350-DN2000 Material same as body with SS304 Bolts
11	Screw	Ss304



TEMPERATURE - PRESSURE DIAGRAM



DIMENSIONS



SIZE		A	B	C	D	E	F	d	G	H	J	L	WT(KG)
DN	INCH												
50	2"	126	78	13.5	117	9	50	8	70	31	34	43	2.8
65	2½"	134	84	13.5	131	9	50	8	70	45	36	46	3.7
80	3"	138	92	13.5	176	9	50	8	70	64	36	46	5.1
100	4"	167	114	13.5	206	11	70	10	90	91	40	52	6.9
125	5"	180	129	17.5	236	14	70	10	90	110	44	56	9.3
150	6"	203	144	17.5	258	14	70	10	90	146	44	56	10.5
200	8"	228	179	24.5	321	17	102	12	125	193	50	60	17.4
250	10"	266	216	25	395	22	102	12	125	241	57	68	28.1
300	12"	291	247	25	461	22	102	12	125	292	66	78	40
350	14"	332	273	30	511	27	125	14	150	329	62	78	55
400	16"	363	317	30	580	27	125	14	150	376	84	102	85
450	18"	397	348	39	630	36	140	18	175	425	94	114	114
500	20"	425	393	39	700	36	140	18	175	475	110	127	144
600	24"	498	453	49	823	46	165	22	210	573	120	154	227
700	28"	626	531	90	928	63.1	254	18	300	674	54	165	342
750	30"	660	564	90	984	63.1	254	18	300	727	54	165	400
800	32"	666	601	90	1061	63.1	254	18	300	771	60	190	485
900	36"	722	660	110	1170	74.7	254	18	300	839	60	203	605
1000	40"	806	728	120	1290	83.7	254	22	350	939	60	216	776
1100	44"	826	771	140	1404	94.7	298	22	350	1036	50	255	985
1200	48"	941	874	150	1511	104.7	298	22	350	1137	62	276	1190
1400	56"	1000	940	175	1685	139.9	356	32	415	1351	62	279	1380
1600	64"	1200	1085	195	1930	160	356	32	415	1548	65	318	2054
1800	72"	1360	1170	195	2170	174.5	406	39	475	1703	70	356	3075
2000	80"	1363	1360	245	2345	199	406	39	475	1938	75	406	4500

Kv AND VALVE SIZING

SIZE		Kv(m ³ /h at 1 bar ▲P)								Valve torque under standard pressure (NM)	double acting pneumatic actuator sizing 6bar air	Spring Return Pneumatic Actuator sizing- 6bar Air
DN	INCH	20°	30°	40°	50°	60°	70°	80°	90°	Standard EPDM/NBR	Air pressure	
50	2"	2	6	13	29	47	70	97	105	12	50	65S12
65	2½"	3	11	26	49	77	121	170	212	18	50	75S12
80	3"	6	28	54	91	140	213	301	390	26	65	85S12
100	4"	19	38	79	140	232	412	590	676	38	65	95S12
125	5"	27	84	156	248	385	624	945	1120	57	85	110S12
150	6"	51	129	224	363	572	977	1490	1798	105	95	125S12
200	8"	114	229	401	639	1018	1755	2680	3100	200	125	160S12
250	10"	171	334	634	970	1530	2650	4105	5200	280	125	190S12
300	12"	250	490	925	1416	2231	3865	6351	7350	340	140	190S12
350	14"	301	631	1131	1918	3081	4963	8035	9993	600	160	240S12
400	16"	393	824	1478	2506	4024	6482	10983	12595	800	190	240S12
450	18"	498	1043	1871	3170	5093	8210	13695	16850	1200	210	270S12
500	20"	615	1288	2309	3913	6287	10128	17250	19306	2200	270	350S12
600	24"	885	1853	2958	5635	9054	14584	24980	28323	2800	300	400S12
700	28"	930	2210	3750	6959	11100	19200	33080	39700	2900		
750	30"	1160	2400	4350	7890	12900	21200	36750	45350	5300		
800	32"	1330	2650	5030	8890	14350	23750	39900	49530	7300		
900	36"	1680	3350	6470	11890	19520	31700	52750	62000	8300		
1000	40"	2210	4300	8100	15130	23720	40050	67000	81000	12000		
1100	44"	3020	5980	10050	17580	28970	48950	83500	105800	16000		
1200	48"	4050	7650	12600	20100	34500	56750	99570	121000	21000		
1400	56"	5180	10100	18150	32000	51370	88900	142100	161000	25000		
1600	64"	7200	14530	26530	45400	71500	118700	198000	229000	34000		
1800	72"	8100	18750	34260	52130	90350	143780	243250	280000	38000		
2000	80"	9000	21320	40350	57980	110200	169870	278980	320000	40000		