

Double Flanged Butterfly Valves

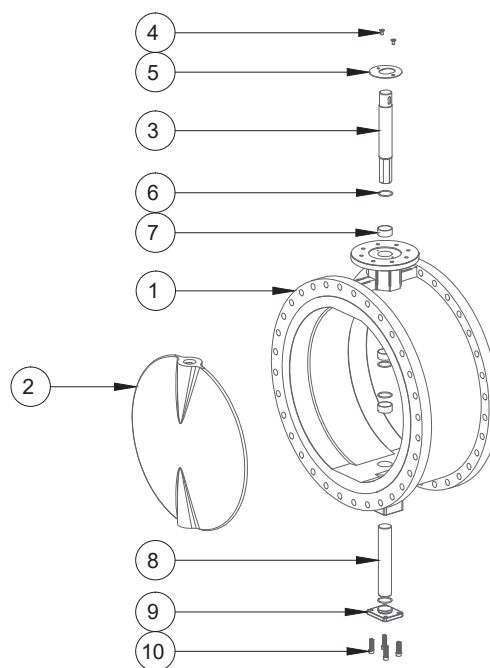
Series A45

GENERAL INFORMATION

Series A45 double flanged butterfly valve features a bonded liner extending over the flanges. The double flange design is suitable for high pressure loading and for use in heavy industry, shipbuilding, severe vacuum applications and water treatment industry like potable water, water treatment and wastewater applications.

FEATURES

- ISO5211 top flange together with stem heat suitable for direct mounting of actuators
- Stem anti-blowout design keep safety in field use
- Bonded seat protects the body and shaft out of contact with medium
- No exposed pins or bolts for stem-to-disc connection
- Single flange mounting is possible
- Can be installed in any desired position
- Bubble-tight shut off at full pressure rating
- Large flow capacity and enough strength



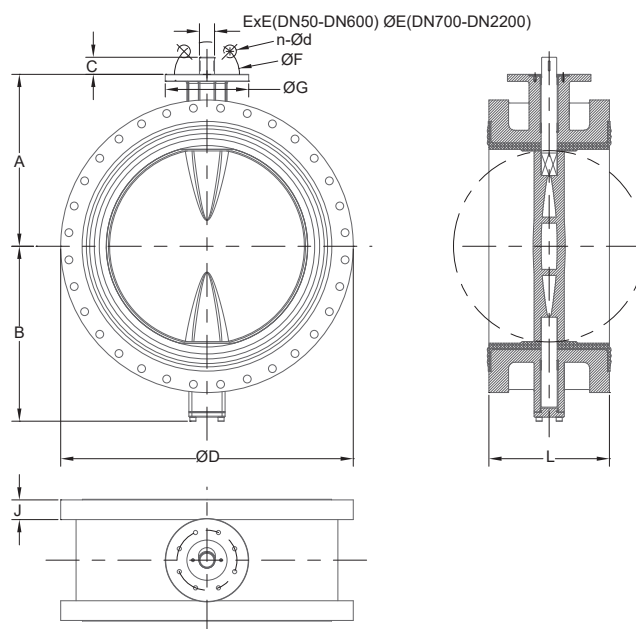
TECHNICAL DATA

Connection	Double flanged
Nominal diameter	DN50-DN2200
Operating pressure	16bar for DN50-DN300, 10bar for DN350-DN2200
Flange accommodation	EN1092 PN10/16, ASME B16.5 Class150
Face to face	EN558 Series 13
Top flange	ISO 5211
Tightness check	ISO 5208 Category 3, API 598 Table 5
Temperature range	-40°C to +130°C (Depending on pressure, medium and material)
Operation	Hand lever, gear box, pneumatic actuator, electric actuator

PARTS LIST AND MATERIAL SPECIFICATION

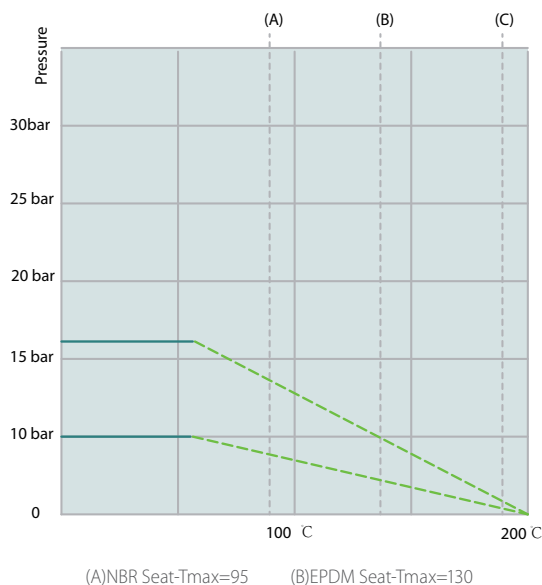
No.	Part name	Material
1	Body	ASTM A536 65-45-12, WCB, CF8M bonded with NBR or EPDM
2	Disc	ASTM A536 65-45-12 Nylon coated, CF8, CF8M, 2507, 1.4462, Aluminum Bronze
3	Stem	SS420, SS431
4	Screw	SS304
5	Retainer	SS201
6	Weather seal	NBR
7	Bearing	RPTFE with Graphite on I.D.
8	Lower Stem	SS420, SS431
9	Bottom cover	Same as body
10	Bolt	SS304

DIMENSIONS (mm)



SIZE		A	B	C	D	E	F	n	d	G	J	L	L	WT (kg)
DN	INCH													
50	2"	142	80	13.5	165	9	70	4	10	90	15	108		9
65	2 1/2"	155	89	13.5	185	9	70	4	10	90	15	112		10
80	3"	161	95	13.5	200	9	70	4	10	90	17	114	127	12
100	4"	180	114	13.5	229	11	70	4	10	90	17	127	127	16
125	5"	193	127	17.5	254	14	70	4	10	90	19	140		24
150	6"	205	139	17.5	285	14	70	4	10	90	19	140	127	29
200	8"	250	175	24.5	343	17	102	4	12	125	21	152	152	39
250	10"	282	203	25	406	22	102	4	12	125	23	165	203	60
300	12"	326	242	25	483	22	102	4	12	125	24	178	203	82
350	14"	358	267	30	533	27	102	4	12	125	24	190	203	108
400	16"	380	301	30	597	27	140	4	18	175	28	216	203	145
450	18"	422	381	39	640	36	140	4	18	175	33	222	203	183
500	20"	479	387	39	710	36	140	4	18	175	40	229	203	230
600	24"	562	457	49	840	46	165	4	22	210	40	267	203	303
700	28"	560	465	95	910	63.35	254	8	18	300	40	292		410
750	30"	610	508	95	984	63.35	254	8	18	300	43	308	305	552
800	32"	620	519	95	1025	63.35	254	8	18	300	43	318		610
900	36"	692	576	130	1125	75	254	8	18	300	46	330	305	750
1000	40"	735	640	130	1255	85	254	8	22	300	50	410		945
1100	44"	813	735	150	1355	85	254	8	22	300	53	450		1120
1200	48"	917	783	150	1485	105	298	8	22	350	57	470	381	1350
1400	56"	1000	925	200	1685	120	356	8	32	415	60	530		1700
1500	60"	1050	950	200	1820	140	356	8	32	415	78	570	381	2000
1600	64"	1150	1045	200	1930	140	356	8	32	415	65	600		2500
1800	72"	1260	1156	280	2130	160	406	8	40	475	70	670	457	3500
2000	80"	1363	1350	280	2345	160	406	8	40	475	75	760		4000
2200	88"	1500	1430	300	2555	180	483	12	40	560	85	636		4500

TEMPERATURE-PRESSURE DIAGRAM



Kv AND VALVE TORQUE

SIZE		Kv (m ³ /h at 1bar ΔP)								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 seat	Air pressure 6bar	
50	2"	2	6	13	29	47	70	97	105	12	50	65 S12
65	2 1/2"	3	11	26	49	77	121	170	212	18	50	75 S12
80	3"	6	28	54	91	140	213	301	390	26	65	85 S12
100	4"	19	38	79	140	232	412	590	676	38	65	95 S12
125	5"	27	84	156	248	385	624	945	1120	57	85	110 S12
150	6"	51	129	224	363	572	977	1490	1798	105	95	125 S12
200	8"	114	229	401	639	1018	1755	2680	3100	200	125	160 S12
250	10"	171	334	634	970	1530	2650	4105	5200	280	125	190 S12
300	12"	250	490	925	1416	2231	3865	6351	7350	340	140	190 S12
350	14"	301	631	1131	1918	3081	4963	8035	9993	600	160	240 S12
400	16"	393	824	1478	2506	4024	6482	10983	12595	800	190	240 S12
450	18"	498	1043	1871	3170	5093	8210	13695	16850	1200	210	270 S12
500	20"	615	1288	2309	3913	6287	10128	17250	19306	2200	270	350 S12
600	24"	885	1853	2958	5635	9054	14584	24980	28323	2800	300	400 S12
700	28"	930	2210	3750	6959	11100	19200	33080	39700	3900		
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	34230	52130	90350	143780	243250	280000	38000		
2000	80"	9000	21320	40350	57980	110200	169870	278980	320000	40000		
2200	88"	10000	24000	47000	64000	130000	200000	320000	360000	50000		