

Wafer Concentric Butterfly Valves

Series A23



GENERAL INFORMATION

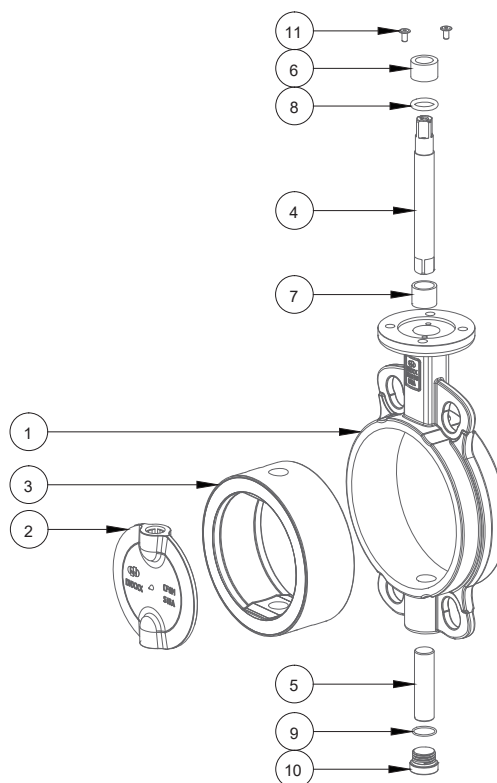
Series A23 wafer concentric butterfly valve features a cartridge type seat, streamlined disc and strong stem-to-disc connection for easy use in many industrial applications such as food and beverage, pulp and paper, chemical, mining, water treatment, power plants, etc.

FEATURES

- ISO5211 top flange together with stem square suitable for direct mounting of actuators
- Stem anti-blowout design keep safety in field use
- Dirtscraper prevents moisture penetrating into the shaft area
- Multi-standard alignment holes suitable for various standard of flanges of EN1092 PN10, PN16, ASME B16.5 CLASS150, JIS B2239 10K, 16K, BS 10 Table D, Table E
- Suitable for high pressure and full vacuum service due to the use of a cartridge seat design
- 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 of 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

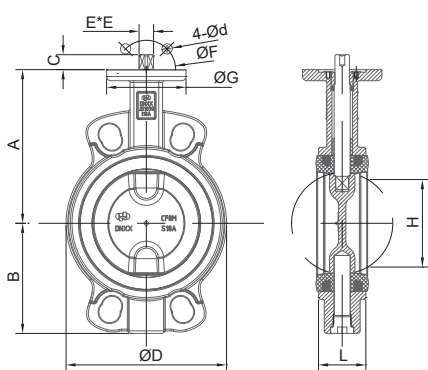
Connection	Wafer
Nominal diameter	DN50-DN2000
Operating pressure	16bar for DN50-DN200, 10bar for DN250-DN2000
Flange accommodation	DN50-DN300: EN1092 PN10/16, ASME B16.5 Class150, JIS B2239 10K/16K, BS10 Table D/E DN350-DN2000: EN1092 PN10/16, ASME B16.5 Class150, BS10 Table D/E
Face to face	EN558 Series 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 lever, gear box, pneumatic actuator, electric actuator



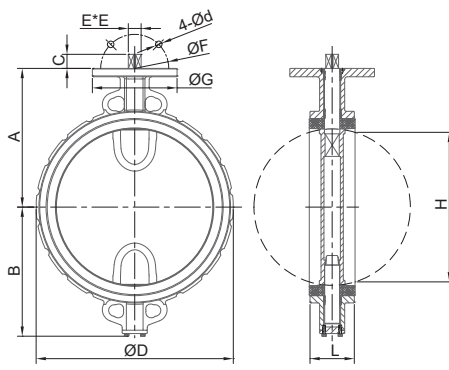
PARTS LIST AND MATERIAL SPECIFICATION

No.	Part name	Material
1	Body	ASTM A536 65-45-12, WCB, CF8M
2	Disc	ASTM A536 65-45-12 Nylon coated, CF8, CF8M, 2507, 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	Weather seal	NBR
10	Plug	Steel galvanized for DN50-DN300, Cover plate for DN350-DN2000 material same as body with SS304 bolts
11	Screw	SS304

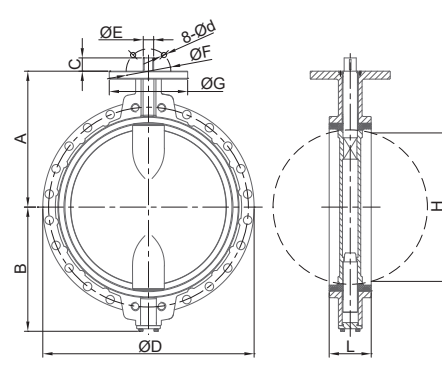
DIMENSIONS (mm)



DN50-DN350



DN400-DN600

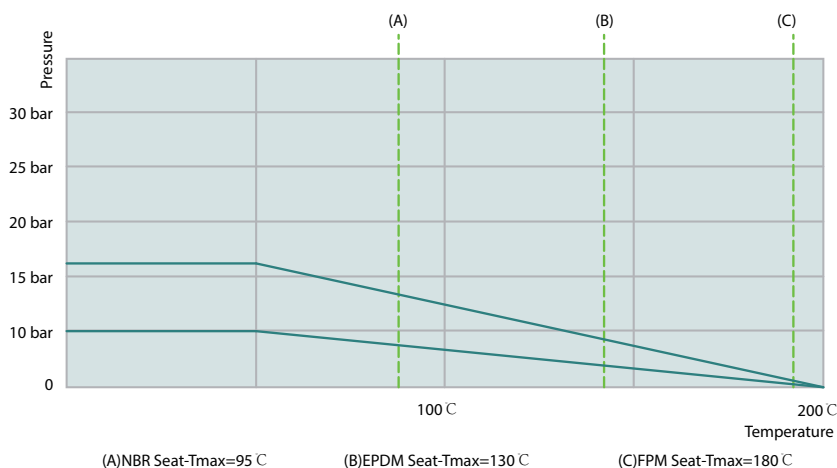


DN700-DN2000

DIMENSIONS (mm)

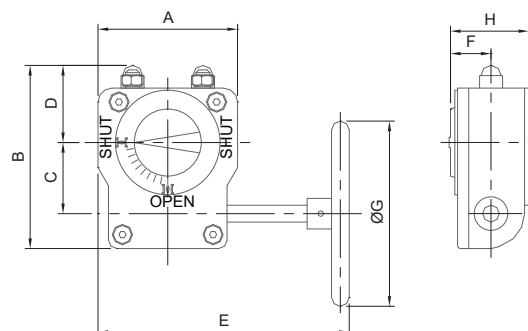
SIZE		A	B	C	D	E	F	d	G	H	L	WT(kg)
DN	INCH											
50	2"	126	78	13.5	94.3	9	50	8	70	31	43	2
65	2 1/2"	134	84	13.5	107.6	9	50	8	70	45	46	2.5
80	3"	138	92	13.5	123.9	9	50	8	70	64	46	3
100	4"	167	114	13.5	157	11	70	10	90	91	52	4.5
125	5"	180	129	17.5	181.5	14	70	10	90	110	56	6
150	6"	203	144	17.5	212	14	70	10	90	146	56	7
200	8"	228	179	24.5	267.4	17	102	12	125	193	60	12
250	10"	266	216	25	323.6	22	102	12	125	241	68	17
300	12"	291	247	25	377.4	22	102	12	125	292	78	25
350	14"	332	273	30	425	27	125	14	150	329	78	41
400	16"	363	317	30	484	27	125	14	150	376	102	58
450	18"	397	348	39	537	36	140	18	175	425	114	80
500	20"	425	393	39	589.5	36	140	18	175	475	127	97
600	24"	498	453	49	693.1	46	165	22	210	573	154	169
700	28"	626	531	90	928	63.1	254	18	300	674	165	252
750	30"	660	564	90	984	63.1	254	18	300	727	165	290
800	32"	666	601	90	1061	63.1	254	18	300	771	190	367
900	36"	722	660	110	1170	74.7	254	18	300	839	203	465
1000	40"	806	728	120	1290	83.7	298	22	350	939	216	606
1100	44"	826	771	140	1404	94.7	298	22	350	1036	255	805
1200	48"	941	874	150	1511	104.7	298	22	350	1137	276	900
1400	56"	1000	940	175	1685	139.9	356	32	415	1351	279	1158
1600	64"	1155	1085	195	1930	160	356	32	415	1548	318	1684
1800	72"	1200	1170	195	2170	174.5	406	39	475	1703	356	2645
2000	80"	1363	1360	245	2345	199	406	39	475	1938	406	4000

TEMPERATURE-PRESSURE DIAGRAM



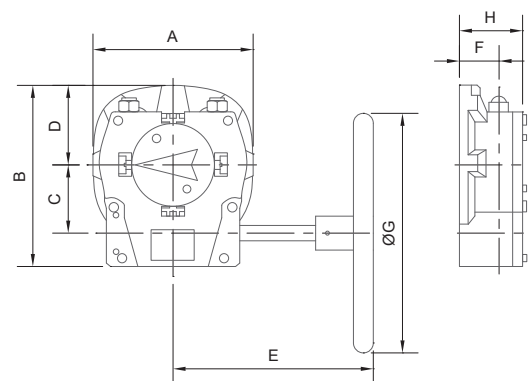
Kv AND VALVE SIZING

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		



ALUMINIUM HOUSING WORM GEAR

SIZE		Ratio	Gear torque(N-M)	A	B	C	D	E	F	G	H	WT(kg)
DN	INCH											
50-100	2"-4"	40:1	150	80	98	43	45	99	26	100	48	1.3
125-150	5"-6"	37:1	250	100	115	50	55	115	27	120	54	2
200-300	8"-12"	45:1	750	146	155	60	81	220	38	300	71	5.6



CAST IRON HOUSING WORM GEAR

SIZE		Ratio	Gear torque(N-M)	A	B	C	D	E	F	G	H	WT(kg)
DN	INCH											
350	14"	42:1	1000	165	182	66	76	210	42	300	72	11
400	16"	60:1	1800	200	231	89	100	277	50	400	81	14
450-500	18"-20"	68:1	3400	252	296	123	118	357	50	400	91	32
600	24"	88:1	4400	315	354	153	145	382	50	500	93	44
700-900	28"-36"	184:1	7900	310	380	138	155	448	65	500	122	65
1000	40"	250:1	10200	355	446	181	178	480	80	600	160	110
1100-1200	28"-36"	720:1	23800	415	642	237	208	575	74	600	155	185
1400	56"	816:1	26000	628	825	440	305	662	192	600	322	500
1600-2000	64"-80"	1872:1	40000	844	977	537	367	830	217	800	372	1020

HAND LEVER

SIZE		D	H	L	W	WT(kg)
DN	INCH					
50-80	2"-3"	56	65	195	74	0.3
100	4"	73	82	200	101	0.52
125-150	5"-6"	78	82	269	101	0.6
200-250	8"-10"	101	100	330	145	1.5

