

Wafer High Performance Butterfly Valves

Series A73

GENERAL INFORMATION

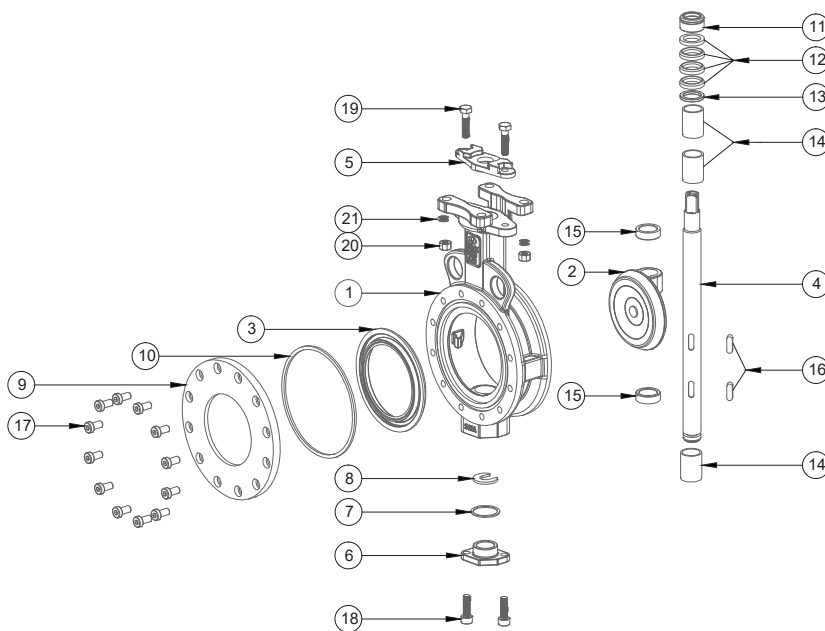
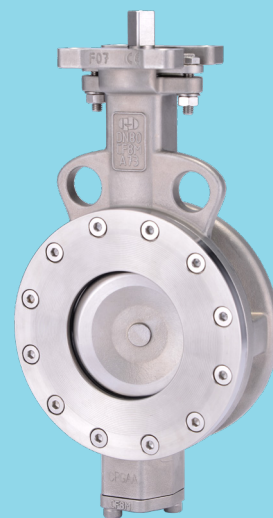
Series A73 Wafer high performance butterfly valve provides a cost-effective solution for a wide range of applications where bubble-tight shut-off is required. Utilizing an eccentric disc and offset shaft, the design incorporates the flexible-lip sealing system into a lightweight, compact body. The result is that in many cases the valve can replace globe valve and gate valve yet easier operating, longer lasting and lower cost. Significant performance makes the valve widely used in many applications such as Airport refueling, Hydrocarbon processing, HVAC, Air treatment, Chemical processing, Purified gas, Steam and vacuum services, Potable water, Powder and pulp processing, etc. Wafer design makes the valve convenient for connection between flanges and save length in pipe line.

FEATURES

- One-piece stem design with ISO 5211 square drive
- ISO 5211 direct mounting flange on the valve body
- Easy-adjust gland packing accessible with actuator mounted in place
- Belleville washers on the gland nut offer reliable primary sealing between shaft and packing
- Retaining ring for both equably pressing on packing and stem blowout proof
- Multiply rows of RPTFE chevron for soft seat valve and Graphite chevron for fire safe and metallic seat
- Extended neck for pipe insulation
- Self-energized seat resulting in longer life and reduced maintenance
- Pin-less shaft to disc connection makes the valve convenient for parts replacement and reliable even under corrosion
- Seat retainer supports the seat and allows for easy changeout
- Double offset disc reducing the valve torque
- Alloy harden disc surface for metal seat increases the sealing life time
- Integral disc stop prevent disc from over travel
- Soft seat, fire safe seat and metallic seat are replaceable each other
- PTFE lined SS316 bearing support stem and increase service life
- Thrust ring for anti-blowout and anti-static

TECHNICAL DATA

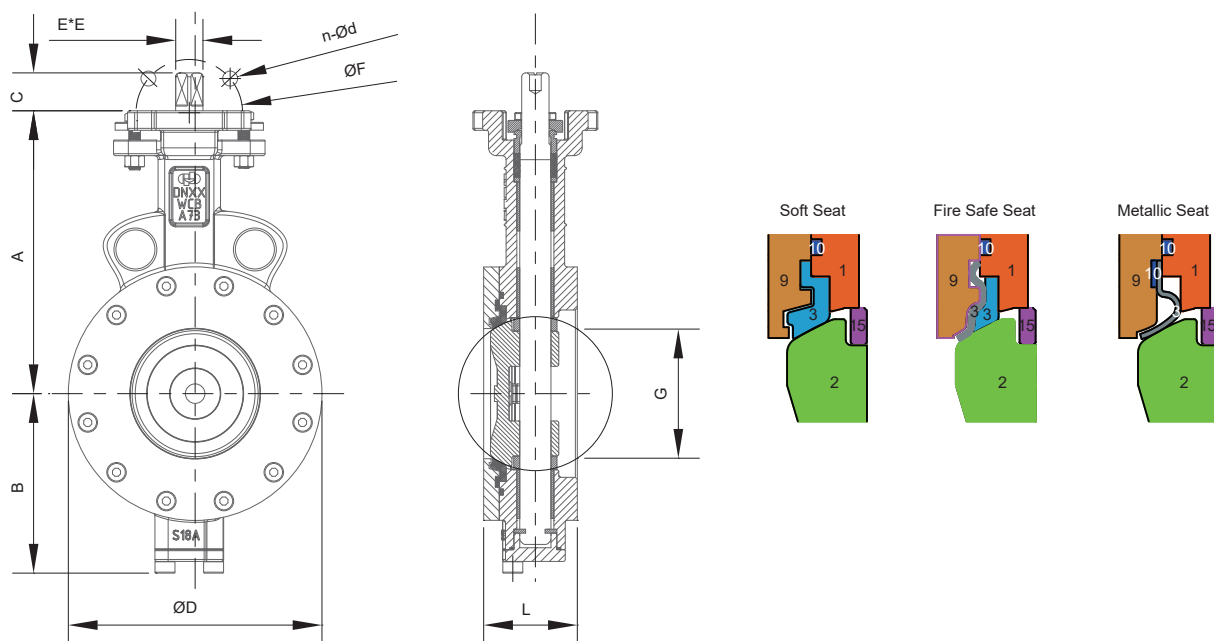
Connection	Wafer
Size	3"-24"
Pressure	Class150,Class300
Flange standard	ASME B16.5 Class150, Class300; EN1092 PN16, PN25, PN40
Face to face	API 609 Category B valve Wafer
Pressure test	API 598
Temperature	PTFE seat -29°C to +200°C, metal seat -29°C to +400°C
Operator	Lever, Gear box, Pneumatic actuator, Electric actuator



PARTS LIST AND MATERIAL SPECIFICATION

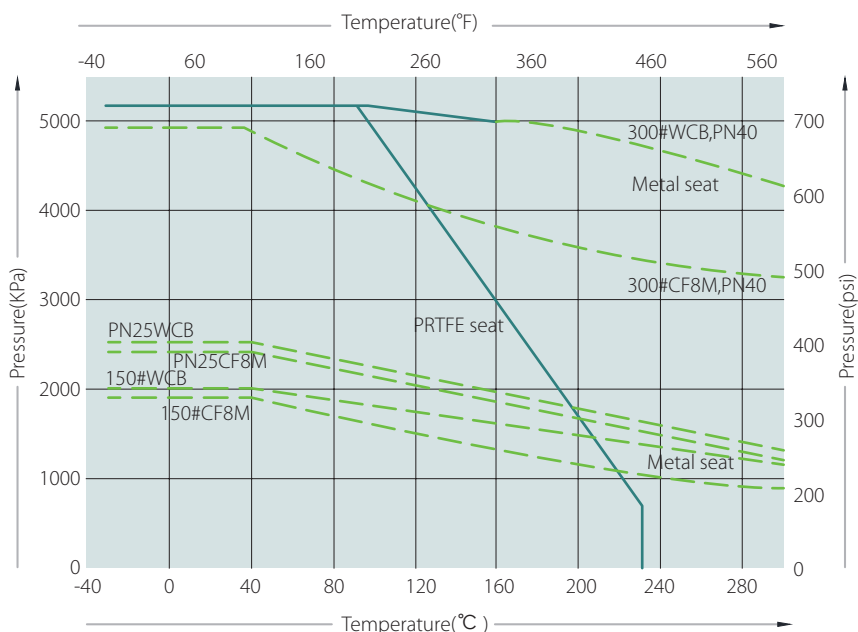
No.	Part name	Material	No.	Part name	Material
1	Body	WCB CF8M	12	Packing	RPTFE, Graphite
2	Disc	CF8* CF8M*	13	Packing supporting ring	SS316
3	Seat	RPTFE,SS316+RPTFE,SS316	14	Bearing	SS316+PTFE
4	Shaft	17-4 PHSS,1.4462	15	Thrust bearing	SS316
5	Packing gland	CF8	16	Key	SS316
6	Bottom cover	Same as body	17	Bolt	SS316
7	Cover seal	Graphite	18	Bolt	SS304
8	Retaining ring	SS316	19	Bolt	SS304
9	Seat retainer	WCB CF8M	20	Nut	SS304
10	Gasket	RPTFE, Graphite	21	Belleville washer	SS304
11	Packing pressing ring	SS304			

DIMENSIONS (mm)



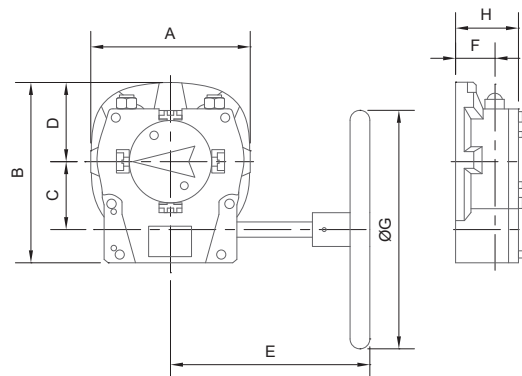
SIZE		A	B	C	D	E	Top Flange	G	L	WT(kg)	A	B	C	D	E	Top Flange	G	L	WT(kg)
DN	INCH	Class150									Class300								
50	2"	126	79	13.5	92	11	F05	45	43	3	126	79	13.5	92	11	F05	45	43	3
65	2 1/2"	126	87	13.5	105	11	F05	45	46	4	126	87	13.5	105	11	F05	45	46	4
80	3"	145	100	17.5	130	11	F07	72	48	5	145	100	17.5	130	11	F07	72	48	5
100	4"	170	124	17.5	157	14	F07	91	54	6	170	124	17.5	157	14	F07	91	54	6
125	5"	185	144	17.5	186	14	F07	114	57	9	185	144	17.5	186	14	F07	114	57	9
150	6"	203	150	18.5	216	17	F10	145	57	12	203	150	18.5	216	17	F10	145	57	12
200	8"	239	186	24.5	269	22	F10	192	64	19	257	204	24.5	269	22	F10	192	73	23
250	10"	275	226	24.5	324	22	F10	240	71	33	288	238	30	324	27	F12	240	83	39
300	12"	307	251	30	380	27	F12	285	81	42	330	268	30	380	27	F12	285	92	55
350	14"	337	294	30	416	27	F12	328	92	61	337	294	39	416	36	F14	320	117	79
400	16"	368	320	30	476	27	F14	373	102	88	368	320	49	476	46	F16	363	133	103
450	18"	406	341	39	534	36	F16	422	114	135	406	341	49	534	46	F16	400	149	170
500	20"	442	383	49	588	46	F16	470	127	173	442	383	49	588	46	F25	450	159	225
600	24"	493	442	49	692	46	F25	570	154	272	500	442	58	692	55	F25	550	181	338

TEMPERATURE-PRESSURE DIAGRAM



Cv AND VALVE TORQUE

SIZE		Class150 Cv (U.G.P.M at 1psi ΔP)									Class300 Cv (U.G.P.M at 1psi ΔP)									Class150 Valve torque under standard pressure (lbs. in.)		Class300 Valve torque under standard pressure (lbs. in.)	
DN	INCH	10°	20°	30°	40°	50°	60°	70°	80°	90°	10°	20°	30°	40°	50°	60°	70°	80°	90°	PTFE seat	Metal seat	PTFE seat	Metal seat
50	2"	2	5	12	23	40	59	78	110	130	2	5	12	23	40	59	78	110	130	350	525	550	630
65	2 1/2"	3	8	16	30	50	77	100	130	160	3	8	16	30	50	77	100	130	160	350	525	550	630
80	3"	4	14	30	55	88	120	150	175	180	4	14	30	55	88	120	150	175	180	420	630	620	756
100	4"	9	25	60	115	177	255	310	365	375	9	25	60	115	177	255	310	365	375	810	1215	1200	1458
125	5"	15	40	75	143	232	362	500	675	790	15	40	75	143	232	362	500	675	790	1300	1950	1800	2340
150	6"	30	70	140	215	330	511	750	1000	1350	30	70	140	215	330	511	750	1000	1350	1800	2700	2800	3240
200	8"	60	150	260	456	688	1062	1550	2200	2800	50	135	230	410	615	950	1395	1980	2520	3000	4500	6600	5400
250	10"	95	250	450	700	1052	1633	2450	3400	4300	65	225	400	630	940	1460	2205	3060	3870	4500	6750	9500	8100
300	12"	150	380	690	1050	1632	2532	3740	5300	6655	95	342	623	945	1450	2270	3366	4770	5980	6200	9300	12900	11160
350	14"	170	430	810	1220	1893	2900	4300	6100	7652	110	387	729	1098	1700	2610	3870	5490	6880	9100	13650	17200	16380
400	16"	222	570	1022	1510	2420	3705	5500	7890	9800	180	513	910	1359	2178	3333	4950	7101	8820	12500	18750	22000	22500
450	18"	170	610	1160	2230	3522	5100	6900	9150	10600	160	549	1045	2007	3169	4590	6210	8235	9540	15600	23400	28000	28080
500	20"	195	880	1530	2825	4508	6530	8800	11800	13400	175	792	1370	2540	4057	5877	7920	10620	12060	22000	33000	36000	39600
600	24"	238	1020	2200	3890	6645	9570	12900	17200	20000	220	918	1980	3501	5980	8613	11610	15480	18000	30000	45000	53000	54000



WORM GEAR

SIZE Class150		SIZE Class300		Ratio	Gear torque (N*M)	A	B	C	D	E	F	G	H	WT(kg)
DN	INCH	DN	INCH											
50-65	2"-2 1/2"	50-65	2"-2 1/2"	40:1	200	92	111	39	46	151	31	100	55	3
80-125	3"-5"	80-125	3"-5"	40:1	200	92	111	39	46	151	31	140	55	3
150-200	6"-8"	150-200	6"-8"	42:1	500	118	145	53	61	214	35	260	61	6
250-300	10"-12"	250	10"	42:1	1000	165	182	66	76	210	42	300	72	11
350-400	14"-16"	300-350	12"-14"	60:1	1800	200	231	89	100	277	50	400	81	14
450-500	18"-20"	400-450	16"-18"	68:1	3400	252	296	123	118	357	50	400	91	32
600	24"	500	20"	88:1	4400	315	354	153	145	382	50	500	93	44
		600	24"	184:1	7900	310	380	138	155	448	65	500	122	65

HAND LEVER

SIZE		D	H	L	W	WT(kg)
DN	INCH					
50-65	2"-2 1/2"	56	65	195	74	0.3
80	3"	73	82	200	101	0.52
100-125	4"-5"	78	82	269	101	0.6
150-200	6"-8"	101	100	330	145	1.5

