

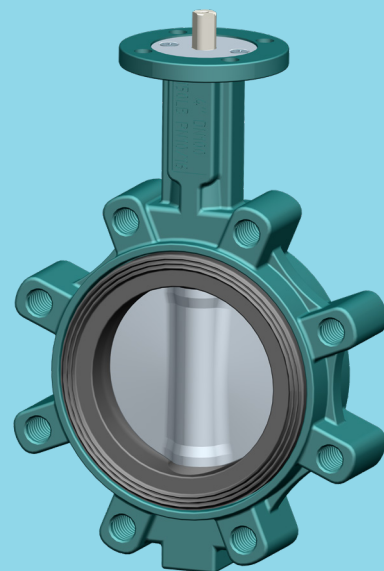
Wafer Concentric Butterfly Valves

Series A32

GENERAL INFORMATION

Series A32 Abrasion resistant centric butterfly valves feature a lock type seat, spherical sealing surface disc and strong stem-to-disc connection for easy use in many industrial applications especially Mining Industry, dry bulk conveying, paper mills, and all users of Slurry and High Abrasion applications.

With the seat fully isolating the body and shaft from the media, and the heavy duty construction for severe vacuum up to 285 psi, the valves are also widely used in food and beverage processing, vacuum desulphurization plants, shipbuilding, HVAC, etc.



FEATURES

Blow out proof shaft with position indication

Stem anti-blowout design keep safety in field use

Extended valve neck allowing insulation

Body locating holes for proper installation and centering of the valve between flanges

The seat fully isolates the body and shaft from the media. In addition the improved seat design provides elevated dead end shut off performance

Thin disc stem for excellent flow characteristics and bi-directional shut off

For rubber seat, calculated curve mating with disc closing travel allows better performance in reducing friction, torque and wear than normal design. For PU seat, cylindrical sealing area kept for convenience of production, also PU is enough wear resistant

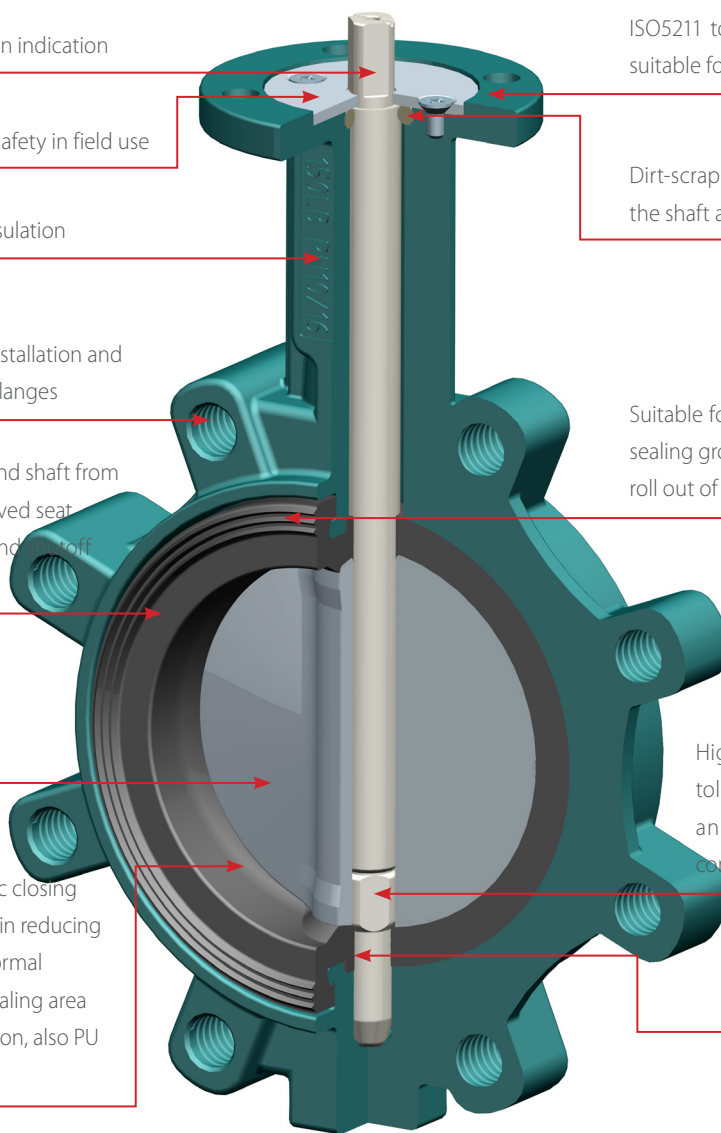
ISO5211 top flange together with stem square suitable for direct mounting of actuators

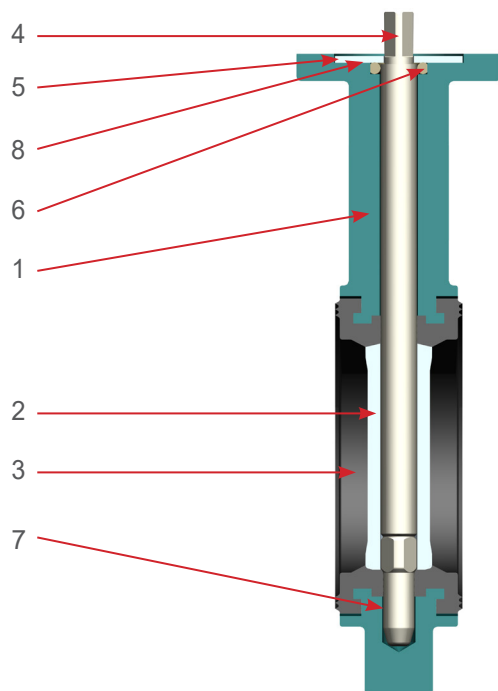
Dirt-scraper prevents moisture penetrating into the shaft area

Suitable for slip-on flange and plate flanges. The sealing grooves on the tightening face eliminates roll out of seat

High-strength through stem with close tolerance of square driving the disc fast and firmly, eliminates stem retention components being exposed to the media

A additional back seat O-ring secures increased valve performance





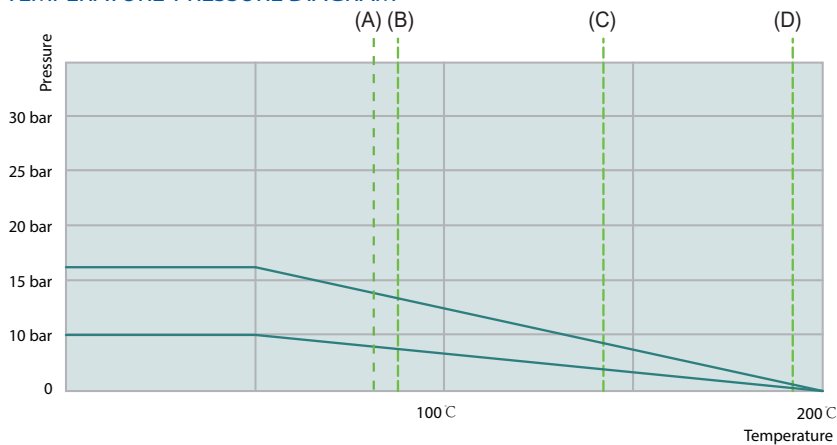
PARTS LIST AND MATERIAL SPECIFICATION

No.	Part name	Material
1	Body	Cast Iron, Ductile Iron, Cast Steel, Stainless Steel
2	Disc	Ductile iron Nickel plated, Ductile iron Nylon coated, Stainless Steel, SS Tungsten coated, SS PU coated, Duplex, Super Duplex
3	Seat	Nitrile Rubber, Wear-resistant Nitrile, Copolymer EPDM, Copolymer EPDM-HT, Polyurethane, Fluoroelastomer, PTFE
4	Stem	Stainless Steel
5	Retainer	Stainless Steel
6	Weather seal	Nitrile Rubber
7	Bearing	Nylon Bonded, RPTFE (for SS body)
8	Screw	Stainless Steel

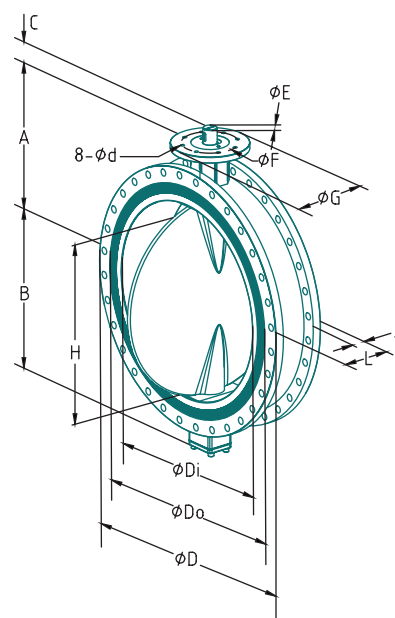
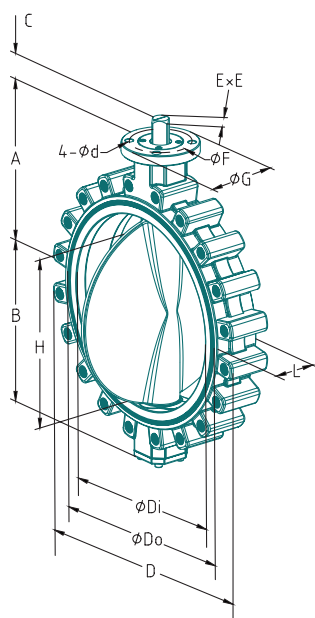
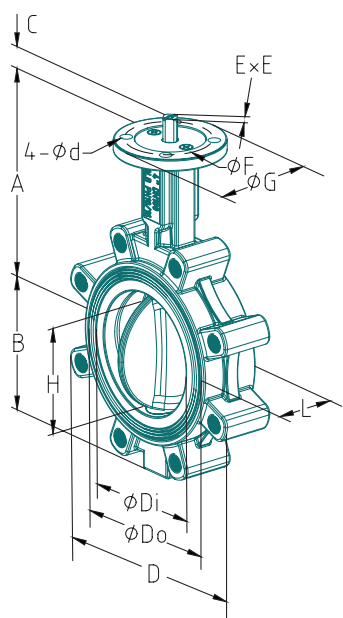
TECHNICAL DATA

Connection	Lug
Nominal diameter	DN50-DN2000
Max. working ressure	Up to 20bar
Standard working pressure	Full vacuum to 16bar for DN50-DN200, Full vacuum to 10bar for DN250-DN2000
Flange accommodation	EN1092 PN10/16, ASME B16.5 Class150
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 +200° C (Depending on pressure, medium and material)
Operation	Hand level, gear box, pneumatic actuator, electric actuator

TEMPERATURE-PRESSURE DIAGRAM



(A)PU Seat-Tmax=90°C (B)NBR Seat-Tmax=95°C
(C)EPDM Seat-Tmax=130°C (D)FRM Seat-Tmax=180°C



SIZE		A	B	C	D	Di	Do	E	F	d	G	H	J	L	WT (kg)
DN	INCH														
25/32	1" 1/4"	110	51	13.5	101	34	61	9	50	8	70	19	26	30	1.5
40	1 1/2"	130	54	13.5	108	42	71	9	50	8	70	28	26	33	2
50	2"	135	72	19	116	52	86	11	70	10	90	32	34	43	3
65	2 1/2"	150	83	19	131	67	104	11	70	10	90	50	36	46	4
80	3"	161	92	19	177	81	122	11	70	10	90	69	36	46	6
100	4"	177	105	19	206	101	140	11	70	10	90	88	40	52	9
125	5"	195	120	19	236	127	141	14	70	10	90	115	44	56	10
150	6"	208	133	19	258	151	195	14	70	10	90	141	44	56	11
200	8"	239	170	25	321	202	248	17	70	10	90	194	50	60	20
250	10"	281	200	32	395	254	301	22	102/125	12/14	150	240	57	68	29
300	12"	316	236	32	461	300	354	22	102/125	12/14	150	290	66	78	42
350	14"	332	254	40	511	339	401	22	125	14	150	330	62	80	55
400	16"	367	301	40	580	388	451	27	125	14	150	377	84	102	75
450	18"	397	341	65	630	440	515	36	140	18	175	425	94	114	150
500	20"	437	382	65	700	490	573	36	140	18	175	475	110	127	170
600	24"	522	464	80	823	590	660	46	165	22	210	570	120	154	250
700	28"	560	531	90	910	695	775	63.1	254	18	300	674	54	165	345
750	30"	610	564	90	984	750	832	63.1	254	18	300	727	54	165	410
800	32"	620	601	90	1025	795	875	63.1	254	18	300	771	60	190	490
900	36"	692	660	110	1125	865	960	74.7	254	18	300	839	60	203	610
1000	40"	735	728	120	1255	965	1060	83.7	298	22	350	939	60	216	780
1100	44"	813	771	140	1355	1065	1183	94.7	298	22	350	1036	50	255	990
1200	48"	917	874	150	1485	1155	1285	104.7	298	22	350	1137	62	276	1200
1400	56"	1000	940	175	1685	1380	1490	139.9	356	32	415	1351	62	279	1400
1600	64"	1150	1085	195	1930	1570	1695	160	356	32	415	1548	65	318	2100
1800	72"	1260	1170	195	2130	1770	1893	174.5	406	39	475	1703	70	356	3100
2000	80"	1363	1360	245	2345	1945	2099	199	406	39	475	1938	75	406	4500

Kv AND VALVE SIZING

SIZE		Kv (m ³ /h at 1 bar ΔP)								
DN	INCH	10°	20°	30°	40°	50°	60°	70°	80°	90°
25/32	1/1 1/4"	0.5	0.8	1	5	10	16	26	35	39
40	1 1/2"	1	2	3	8	15	25	38	45	49
50	2"	1	2	6	13	28	46	69	95	103
65	2 1/2"	1.5	3	11	25	48	75	119	167	208
80	3"	3	6	27	53	89	137	209	295	382
100	4"	8	19	37	77	137	227	404	578	662
125	5"	13	26	82	153	243	377	612	926	1098
150	6"	25	50	126	220	356	561	957	1460	1762
200	8"	60	112	224	393	626	998	1720	2626	3038
250	10"	80	168	327	621	951	1499	2597	4023	5096
300	12"	120	245	480	907	1388	2186	3788	6224	7203
350	14"	140	295	618	1108	1880	3019	4864	7874	9793
400	16"	190	385	808	1448	2456	3944	6352	10763	12343
450	18"	240	488	1022	1834	3107	4991	8046	13421	16513
500	20"	300	603	1262	2263	3835	6161	9925	16905	18920
600	24"	400	867	1816	2899	5522	8873	14292	24480	27757
700	28"	450	930	2210	3750	6959	11100	19200	33080	39700
750	30"	500	1160	2400	4350	7890	12900	21200	36750	45350
800	32"	620	1330	2650	5030	8890	14350	23750	39900	49530
900	36"	790	1680	3350	6470	11890	19520	31700	52750	62000
1000	40"	1050	2210	4300	8100	15130	23720	40050	67000	81000
1100	44"	1400	3020	5980	10050	17580	28970	48950	83500	105800
1200	48"	1900	4050	7650	12600	20100	34500	56750	99570	121000
1400	56"	2400	5180	10100	18150	32000	51370	88900	142100	161000
1600	64"	3500	7200	14530	26530	45400	71500	118700	198000	229000
1800	72"	3900	8100	18750	34230	52130	90350	143780	243250	280000
2000	80"	4300	9000	21320	40350	57980	110200	169870	278980	320000

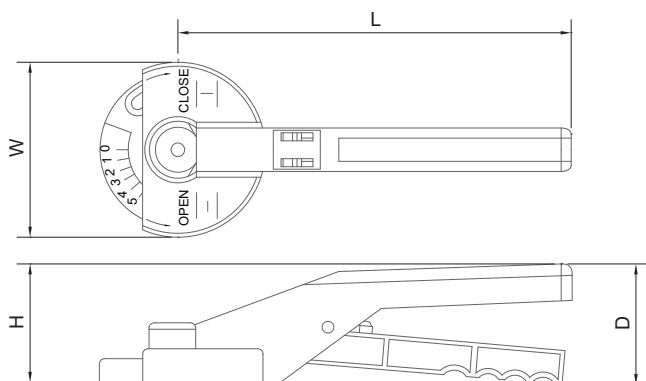
SERVICE FACTOR GUIDE

Service condition	Service type	Media type	Safety factor	Multiply
1	Normal	Water, Sea water, Hydrocarbon	25%	1.25
2	Light	Lubricating oil	15%	1.15
3	Heavy	Dry air, Solvents	45%	1.45
4	Heavier	Non-lubricant powder	65%	1.65
5	Extreme	Abrasives, Cement	90%	1.9

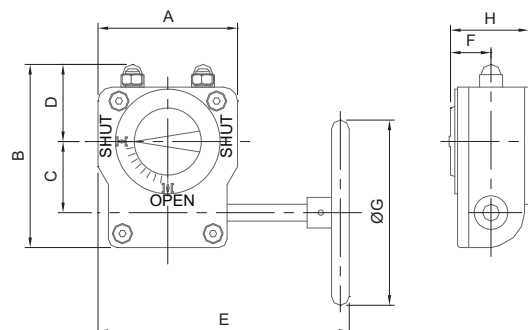
SEATING TORQUE

SIZE		Operating Pressure					Maximum Allowable Shaft Torque
DN	INCH	3.5bar	6bar	10bar	16bar	20bar	
25/32	1"/1 1/4"	3	4	5	6	8	100
40	1 1/2"	4	5	5	7	10	100
50	2"	6	7	7	8	12	270
65	2 1/2"	9	10	11	13	25	270
80	3"	13	15	18	22	30	270
100	4"	16	18	25	30	45	270
125	5"	25	30	40	50	65	580
150	6"	38	45	55	65	120	580
200	8"	50	70	90	110	250	1080
250	10"	150	180	200	230	450	1800
300	12"	200	230	270	350	700	1800
350	14"	300	350	410	700	900	1800
400	16"	500	600	680	850	1300	2700
450	18"	700	750	850	1200	1700	5900
500	20"	1000	1200	1500	2500	3200	5900
600	24"	1400	1700	1900	3000	3900	8600
700	28"	1900	2500	3500	8000		18000
750	30"	2500	3200	4500	9000		18000
800	32"	3900	4700	6500	11000		18000
900	36"	4500	5100	7500	14000		24000
1000	40"	6000	6900	10500	24000		37000
1100	44"	7900	8500	13500	29000		49000
1200	48"	10500	13000	19750	40000		65000
1400	56"	15200	18000	23700			72000
1600	64"	20120	25000	33000			105000
1800	72"	23150	29000	38000			110000
2000	80"	24500	31500	40000			120000

HAND LEVER

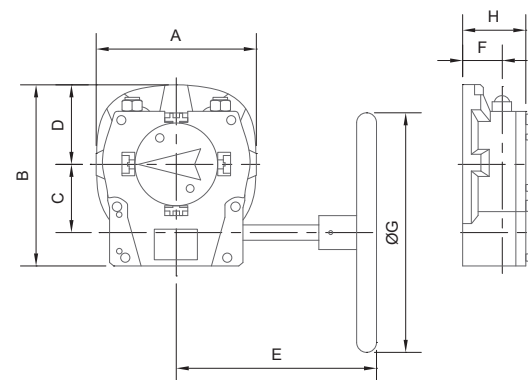


SIZE		Handle Code	D	H	L	W	WT (kg)
DN	INCH						
25-40	1"-1 1/2"	F0509 200	56	65	195	74	0.3
50-100	2"-4"	F0711 200	73	82	200	101	0.52
125-150	5"-6"	F0714 270	78	82	269	101	0.6
200	8"	F0717 270	101	100	330	145	1.5



ALUMINIUM HOUSING WORM GEAR

SIZE		Gear Code	Ratio	Gear torque (N·M)	Input Torque (NM)	A	B	C	D	E	F	G	H	WT (kg)
DN	INCH													
25-40	1"-1 1/2"	3D310F0509 100	40:1	150	5	80	98	43	45	99	26	100	48	1.3
50-100	2"-4"	3D310F0711 120	40:1	150	5	80	98	43	45	99	26	100	48	1.3
125-150	5"-6"	3D315F0714 140	37:1	250	12	100	115	50	55	115	27	120	54	2
200	8"	3D315F0717 200	37:1	250	12	100	115	50	55	115	27	120	54	2
250-300	10"-12"	3D350F1022 300	45:1	750	30	146	155	60	81	220	38	300	71	5.6



CAST IRON HOUSING WORM GEAR

SIZE		Gear Code	Ratio	Gear Torque (N·M)	Input Torque (N*M)	A	B	C	D	E	F	G	H	WT (kg)
DN	INCH													
350	14"	M12F12 22 300	42:1	994	88	165	182	66	76	210	42	300	72	11
400	16"	M14F12 27 400	60:1	1789	110	200	231	89	100	277	50	400	81	14
450-500	18"-20"	M15F14 36 400	68:1	3381	165	252	296	123	118	357	50	400	91	32
600	24"	M16F16 46 500	88:1	4474	169	315	354	153	145	382	50	500	93	44
700-900	28"-36"	M36F25 63 500	184:1	7910	152	310	380	138	155	448	65	500	122	65
1000	40"	M50F30 83 600	250:1	10169	140	355	446	181	178	480	80	600	160	110
1100	44"	M60F30 94 600	720:1	23786	151	415	642	237	208	575	74	600	155	185
1200	48"	M60F30 104 600	720:1	23786	151	415	642	237	208	575	74	600	155	185
1400	56"	M70F35 139 600	816:1	26000	160	628	825	440	305	662	192	600	322	500
1600	64"	M80F35 160 800	1872:1	40000	200	844	977	537	367	830	217	800	372	1020
1800	72"	M80F40 174 800	1872:1	40000	200	844	977	537	367	830	217	800	372	1020
2000	80"	M80F40 199 800	1872:1	40000	200	844	977	537	367	830	217	800	372	1020