EliteValve

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Customized
valve solutions
for the toughest
applications

Butterfly Valves

Offering both standard and custom-engineered solutions, Elite Valve can meet all your process requirements.

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Size	Body Style	Body Material	Pressure Rating	Disc Material	Shaft Material	Bushing Material	Seat/Liner	Operator
06	C	1	5	4	6	3	5	3

1	Size		
02	2”	06	6”
25	2 1/2”	08	8”
03	3”	10	10”
04	4”	12	12”

2	Body Style
A	Wafer (ANSI 125/150)
B	Wafer (ANSI 125 / 150) (PN10 / PN16)
C	Lug (ANSI 125 / 150)
D	Double Flanged

3	Body Material		
1	Cast Iron (A216B)	3	Carbon Steel
2	Ductile Iron (A395)	4	316SS (A315CF8M)

4	Pressure Rating		
2	285 PSI	5	200 PSI
3	275 PSI	8	125 PSI
4	250 PSI		

5	Disc Material		
1	EPDM Coated	6	Monel
2	Nickel Plated Ductile Iron	7	Hastelloy C
3	Aluminium Bronze	8	Nylon Coated Ductile Iron
4	316SS (A351CF8M)	9	PTFE Coated 316SS
5	Alloy 20		

6	Shaft Material		
1	416SS / 413SS	5	17-4PH SS
4	316SS	6	416SS

7	Bushing Material		
0	Bronze	4	RTFE+316SS
3	PTFE		

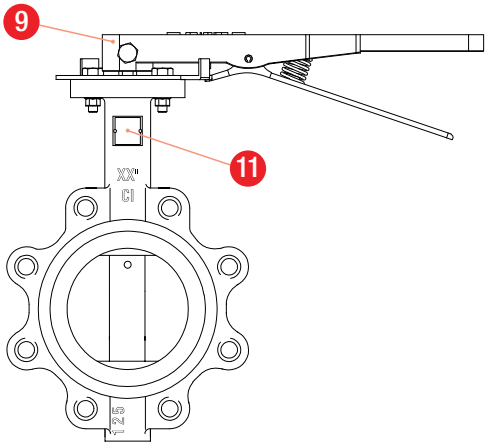
8	Seat/Liner		
1	Buna-N	7	RTFE
4	EPDM (NSF61)	8	Hypalon
5	EPDM	9	EPDM backed PTFE* (125 PSI rated only)
6	Viton		

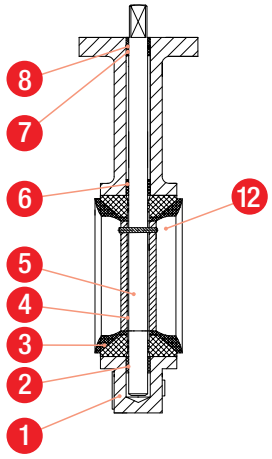
9	Operator		
3	Lockable Handle	N	Nut
5	Gear	5(N)	Gear + Nut
6	DA Rack and Pinion	C	Chain Wheel
7	FC Rack and Pinion	V	DA Vane
8	FO Rack and Pinion	W	FC Vane
9	Electric	X	Bare Stem

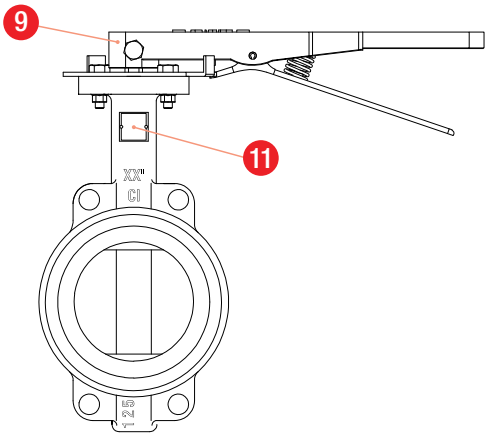
BFL & BFW Series

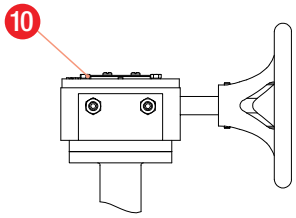
Lug Style

Wafer Style









Description

200 PSI cast iron body lug and wafer style commercial butterfly valves are manufactured with a 316 stainless steel disc and a 416 stainless steel stem. Lever operated (2” - 8") and gear operated (6” - 12"). The lever handle is lockable.

Features

- Cartridge seat with a phenolic backing provides a dimensionally stable seating surface, minimal seat wear and extends seat life.
- Two molded in primary shaft seals on upper and lower seal bore I.D. with three additional shaft seals (seats are field replaceable).
- Standard dead-end service for lug style valves.
- Blow-out proof design.
- Actuation available to suit any requirement.
- Compatible with ASME 125/150 flanges.
- Universal ISO5211 mounting pad.
- Consult us for vacuum service.

Standards

API609, MSS-SP67, tested per API-598, CRN.

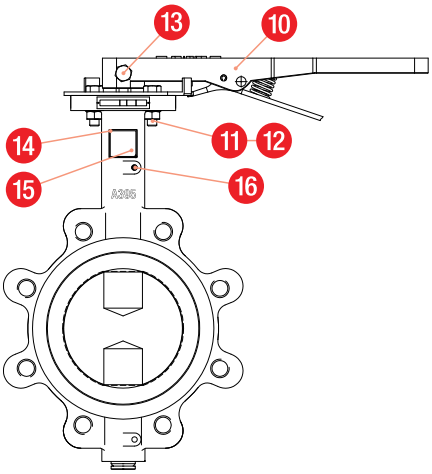
Materials

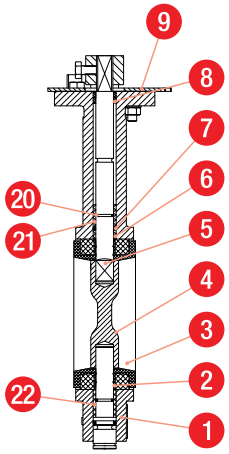
No.	Part	Material	Standard
1	Body	Cast Iron	ASTM A126 B
2	Lower Bushing	PTFE	–
3	Seat Ring	EPDM	–
4	Disc	Stainless Steel	ASTM A351 CF8M
5	Stem	Stainless Steel	ASTM A582 TYPE 416
6	Bushing I	PTPE	–
7	Bushing II	PTPE	–
8	O-Ring	NBR	–
9	Lever	–	–
10	Gear Box	–	–
11	Name Plate	Stainless Steel	SS304
12	Pin	Stainless Steel	ASTM A276 TYPE SS316

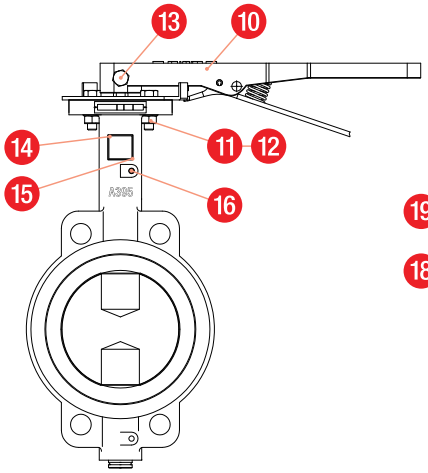
BFL & BFW Series

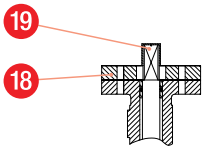
Lug Style

Wafer Style









Description

250 PSI epoxy coated ductile iron body lug and wafer style industrial butterfly valves are manufactured and used extensively to regulate, stop and start fluid flow in pipelines. Locking lever handle with 10 position notch plate on sizes 2" to 8" – gear operator available on request.

Features

- Cartridge seat with a phenolic backing provides a dimensionally stable seating surface, minimal seat wear and extends seat life.
- Two molded in primary shaft seals on upper and lower seal bore I.D. with three additional shaft seals (seats are field replaceable).
- 2 upper, 1 lower F4 bushing to provide additional support.
- Set screws to maintain seat alignment on dead-end service. Standard dead-end service for lug style valves.
- Compatible with ASME 125/150 flanges.
- Universal ISO5211 mounting pad.
- Consult supplier for vacuum service.

Standards

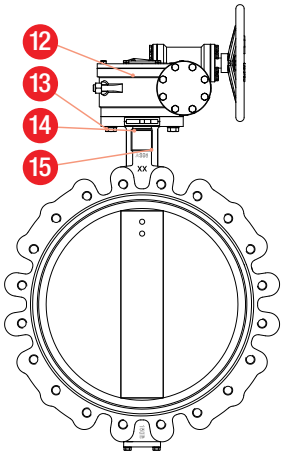
API609, MSS-SP67, Tested per API598, CRN, Certified NSF/ANSI 61.

Materials

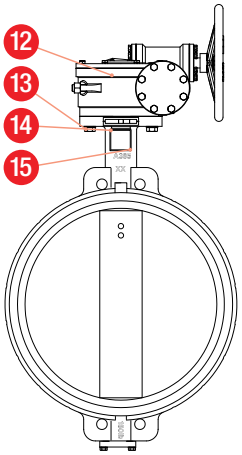
No.	Part	Material	Standard
1	Body	Ductile Iron	ASTM A395 60-40-18
2	Down Bearing	–	F4
3	Seat	EPDM/NBR/PTFE	–
4	Disc	DI/CF8M/C954	–
5	Up Shaft	416/316/431/17-4PH	–
6	Bearing	–	F4
7	O-Ring	EPDM/NBR/Viton	–
8	Bearing		F4
9	Angle Plate	Carbon Steel	–
10	Lever	–	–
11	Bolt	Stainless Steel	A2-70
12	Nut	Stainless Steel	A2-70
13	Bolt	Stainless Steel	A2-70
14	Name Plate	Stainless Steel	AL/304
15	Rivet	Stainless Steel	AL
16	Retaining Pin	Stainless Steel	SS304
17	Down Shaft	Stainless Steel	416/316/431/17-4PH
18	Spacer	Cast Iron	HT250
19	Insert	Stainless Steel	SS410
20	O-Ring	EPDM/NBR/Viton	–
21	Bearing	Derlin	–
22	Bearing	Derlin	–

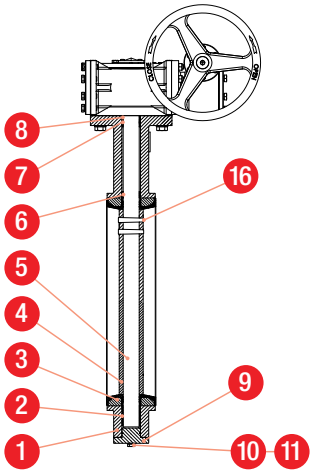
BFL & BFW Series

Lug Style



Wafer Style





Description

250 PSI epoxy coated ductile iron body lug and wafer style industrial butterfly valves are manufactured and used extensively to regulate, stop and start fluid flow in pipelines. Gear operator with hand-wheel.

Features

- Cartridge seat with a phenolic backing provides a dimensionally stable seating surface, minimal seat wear and extends seat life.
- Two molded in primary shaft seals on upper and lower seal bore I.D. with three additional shaft seals (seats are field replaceable).
- Standard dead-end service for lug style valve.
- Blow-out proof design
- Actuation available to suit any requirement
- Compatible with ASME 125/150 flanges.
- Universal ISO5211 mounting pad.
- Consult supplier for vacuum service.

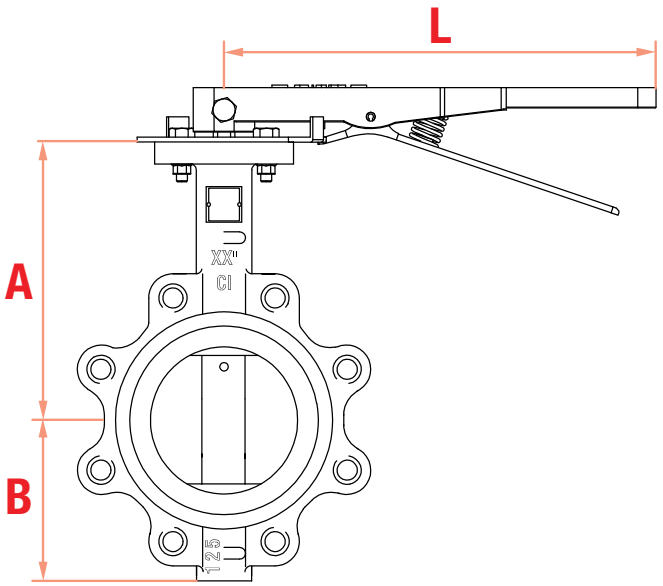
Standards

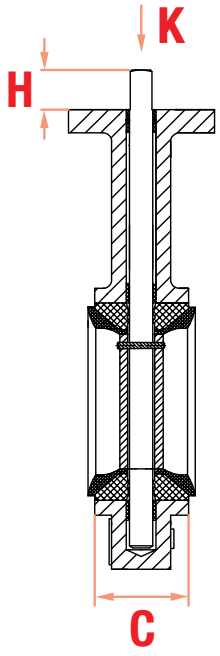
API609, MSS-SP67, tested per API-598, CRN.

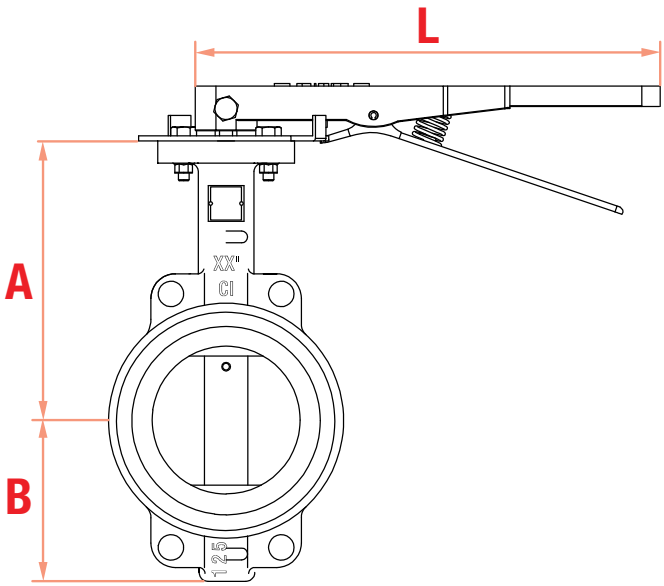
Materials

No.	Part	Material	Standard
1	Body	Ductile Iron	ASTM A395 60-40-18
2	Down Bearing	–	F4
3	Seat	Buna/EPDM/ Viton/PTFE	–
4	Disc	NI/316SS	–
5	Shaft	SS416/17-41PH	–
6	Bush	–	F4
7	O-Ring	EPDM/NBR	EPDM/NBR
8	Bush	–	F4
9	Cover	Carbon Steel	HT250
10	Gasket	Stainless Steel	304
11	Bolt	Stainless Steel	304
12	Gear Box	–	–
13	Bolt	Stainless Steel	304
14	Name Plate	AL/304	–
15	Pin	Aluminum	AL
16	Pin	Stainless Steel	416/17-4

Dimensions & Weight







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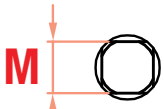
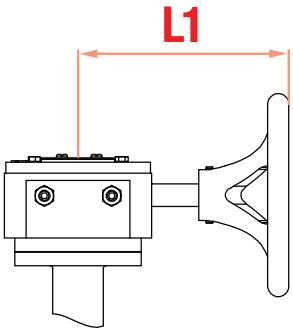


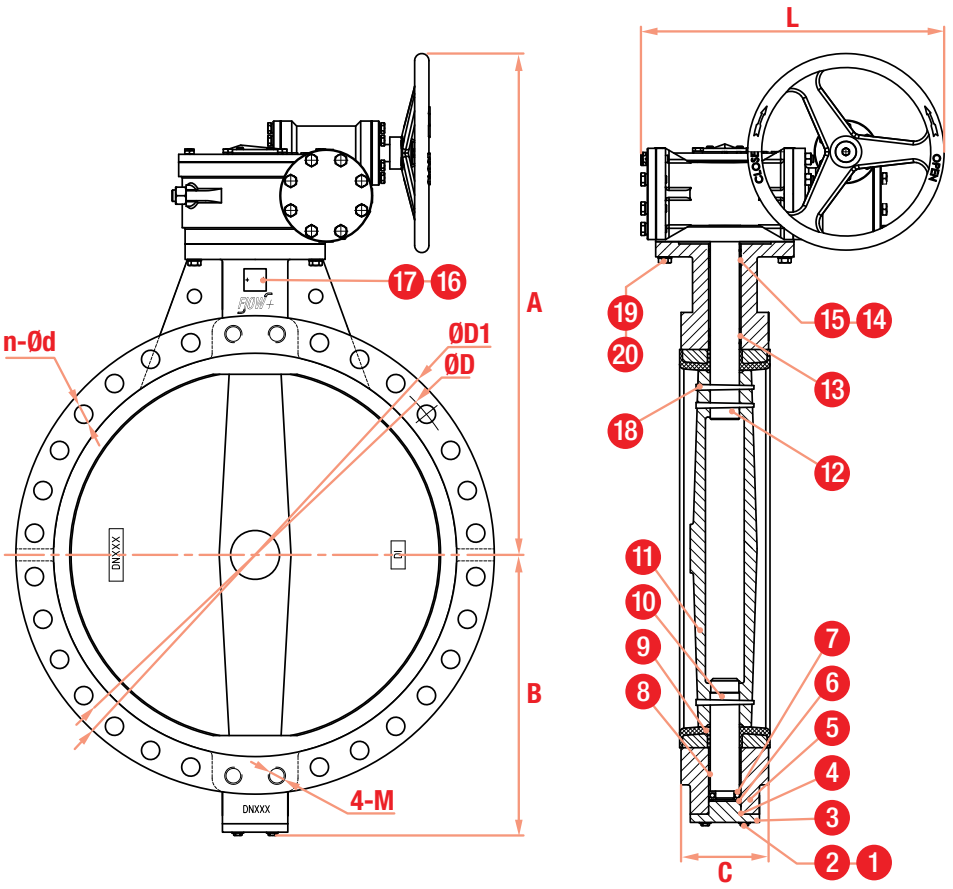


Dimensions & Weight

Metric Dimensions											
Size (DN)	A	B	C	H	M	L	L1	Weight – Lug Style		Weight – Wafer Style	
								Lever	Gear	Lever	Gear
mm	mm	mm	mm	mm	mm	mm	mm	kg	kg	kg	kg
50	161.0	80.0	42.9	32.0	10.9	261.1	152.9	4.2	7.7	3.5	6.9
65	175.0	88.9	46.0	32.0	10.9	261.1	152.9	5.0	8.5	4.4	7.9
80	181.1	95.0	46.0	32.0	10.9	261.1	152.9	5.4	8.8	4.7	8.1
100	199.9	114.0	52.1	32.0	14.0	261.1	152.9	8.4	11.8	5.7	9.1
125	213.1	127.0	55.9	32.0	14.0	364.0	235.0	10.8	17.6	9.7	11.7
150	226.1	140.0	55.9	32.0	17.0	364.0	235.0	14.5	21.6	11.3	12.7
200	260.1	175.0	59.9	84.1	22.1	364.0	235.0	19.7	26.3	16.1	19.1
250	292.1	220.0	68.1	84.1	22.1	540.0	235.0	22.9	33.2	20.1	29.8
300	337.1	255.0	78.0	85.1	22.1	540.0	230.9	36.7	46.0	32.8	42.8
350	368.0	268.0	78.0	85.1	23.9	–	277.1	–	76.0	–	66.0
400	400.1	318.0	102.1	125.0	26.9	–	243.1	–	111.0	–	77.0
450	421.9	365.0	114.0	125.0	26.9	–	243.1	–	134.0	–	103.0
500	479.0	357.9	127.0	125.0	32.0	–	243.1	–	158.0	–	122.0
600	562.1	490.0	153.9	136.9	36.1	–	295.9	–	275.0	–	220.0

Imperial Dimensions											
Size (NPS)	A	B	C	H	M	L	L1	Weight – Lug Style		Weight – Wafer Style	
								Lever	Gear	Lever	Gear
inch	inch	inch	inch	inch	inch	inch	inch	lbs	lbs	lbs	lbs
2"	6.3	3.2	1.7	1.3	0.4	10.3	6.0	9.3	17.0	7.7	15.2
2½"	6.9	3.5	1.8	1.3	0.4	10.3	6.0	11.1	18.7	9.6	17.4
3"	7.1	3.7	1.8	1.3	0.4	10.3	6.0	11.9	19.4	10.4	17.9
4"	7.9	4.5	2.1	1.3	0.6	10.3	6.0	18.6	26.0	12.6	20.1
5"	8.4	5.0	2.2	1.3	0.6	14.3	9.3	23.7	38.7	21.5	25.8
6"	8.9	5.5	2.2	1.3	0.7	14.3	9.3	31.9	47.6	24.9	27.9
8"	10.2	6.9	2.4	3.3	0.9	14.3	9.3	43.5	58.0	35.4	42.1
10"	11.5	8.7	2.7	3.3	0.9	21.3	9.3	50.4	73.2	44.3	65.7
12"	13.3	10.0	3.1	3.4	0.9	21.3	9.1	80.9	101.4	72.3	94.4
14"	14.5	10.6	3.1	3.4	0.9	–	10.9	–	167.6	–	145.5
16"	15.8	12.5	4.0	4.9	1.1	–	9.6	–	244.7	–	169.8
18"	16.6	14.4	4.5	4.9	1.1	–	9.6	–	295.4	–	227.1
20"	18.9	14.1	5.0	4.9	1.3	–	9.6	–	348.3	–	269.0
24"	22.1	19.3	6.1	5.4	1.4	–	11.7	–	606.3	–	485.0

BFD Series



Description

ANSI 150# ductile iron body flanged style industrial butterfly valves are manufactured and used extensively to regulate, stop and start fluid flow in pipelines.

Features

- U type flange body style fits between a FF or a RF flange PTFE bushing to ensure the maximum shaft support and centralized alignment.
- 360° polished disc assures positive shut-off hard back cartridge seat one piece shaft, pinned and splined disc.
- Universal ISO5211 mounting pad.

Standards

API609, MSS-SP67, Tested per API598, CRN, Certified NSF/ANSI 61.

Materials

No.	Part	Material	Standard
1	Body	Ductile Iron	ASTM A536
2	O-Ring	EPDM/BUNA	–
3	Bushing	PTFE	–
4	Pin	Stainless Steel	AISI 316
5	Shaft	Stainless Steel	AISI 316
6	Disc	Stainless Steel	AISI 316
7	Seat	EPDM/BUNA	–

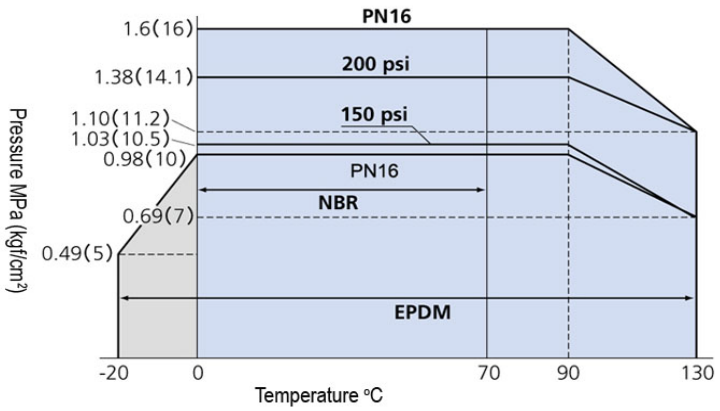
Metric / Imperial Dimensions

Size		A		B		C		H		ØD		ØD1		n-Ød1		ØC		Weight	
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	kg	lbs
711	28"	624	24.57	505	19.88	165	6.50	66	2.60	895	35.24	840	33.07	24-30	24-1.18	63	2.48	–	–
762	30"	672	26.46	565	22.24	190	7.48	66	2.60	1130	44.50	1022	40.25	28-35	28-1.38	63	2.48	–	–
914	36"	720	28.35	637	25.08	203	7.99	118	4.65	1168	46	1086	42.75	32-41	32-1.62	75	2.95	–	–
1067	42"	800	31.50	700	27.56	216	8.50	142	5.59	1346	53	1257	49.5	32-41	36-1.62	85	3.35	–	–
1219	48"	940	37.01	844	33.23	254	10	160	6.30	1511	59.90	1422	56	44-41	44-1.62	105	4.13	–	–

Engineering Data

Cv Values (US-GPM@Δ1P)									
Size	10°	20°	30°	40°	50°	60°	70°	80°	90°
2"	0.1	5	12	15	27	44	70	105	115
2½"	0.2	8	20	25	45	75	119	178	196
3"	0.3	12	22	39	70	116	183	275	302
4"	0.5	17	36	78	139	230	364	546	600
5"	0.8	29	61	133	237	392	620	930	1022
6"	2.0	45	95	205	366	605	958	1437	1579
8"	3.0	89	188	408	727	1202	1903	2854	3136
10"	4.0	151	320	694	1237	2049	3240	4859	5430
12"	5.0	234	495	1072	1911	3162	5005	7507	8250
14"	6.0	338	715	1549	2761	4568	7230	10844	11917
16"	8.0	464	983	2130	3797	6282	9942	14913	16388
18"	11.0	615	1302	2822	5028	8320	13168	19752	21705
20"	14.0	791	1647	3628	6465	10698	16931	25396	27908
22"	16.8	949	1976	4353	7758	12837	20317	30475	33576
24"	22.0	1222	2587	5605	9989	16528	26157	39236	43116

Pressure Temperature Chart



NOTE: Neither Elite Valve or its affiliated entities assumes responsibility for the selection, use and maintenance of any product. Responsibility for the selection, use, and maintenance of any listed product remains with the purchaser and end-user.

Kv Values (m³/h ΔP)									
Size	10°	20°	30°	40°	50°	60°	70°	80°	90°
2"	0.09	4.28	10.28	12.85	23.14	37.70	59.98	89.97	98.54
2½"	0.17	6.86	17.14	21.42	38.56	64.27	101.97	152.53	167.95
3"	0.26	10.28	18.85	33.42	59.98	99.40	156.81	235.65	258.78
4"	0.43	14.57	30.85	66.84	119.11	197.09	311.91	467.87	514.14
5"	0.69	24.85	52.27	113.97	203.08	335.90	531.28	796.92	875.75
6"	1.71	38.56	81.41	175.66	313.62	518.42	820.91	1231.36	1353.04
8"	2.57	76.26	161.10	349.61	622.96	1029.99	1630.68	2445.59	2687.23
10"	18.00	129.39	274.21	594.69	1059.98	1755.78	2776.35	4163.67	4652.96
12"	36.00	200.51	424.16	918.59	1637.53	2709.51	4288.77	6432.73	7069.41
14"	112.00	289.63	612.68	1327.34	2365.90	3914.31	6195.37	9292.20	10211.65
16"	159.00	397.60	842.33	1825.19	3253.64	5383.03	8519.28	12778.92	14042.84
18"	200.00	526.99	1115.68	2418.17	4308.48	7129.39	11283.63	16925.45	18598.97
20"	260.00	677.81	1411.31	3108.83	5539.85	9167.10	14508.14	21761.78	23914.31
22"	301.00	813.20	1693.23	3730.08	6647.81	11000.00	17409.60	26113.97	28771.21
24"	345.00	1047.13	2216.80	4802.91	8559.55	14162.81	22413.88	33621.25	36946.02

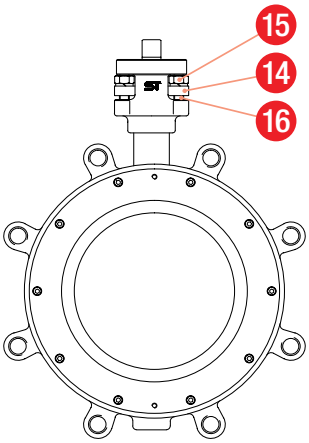
Engineering Data

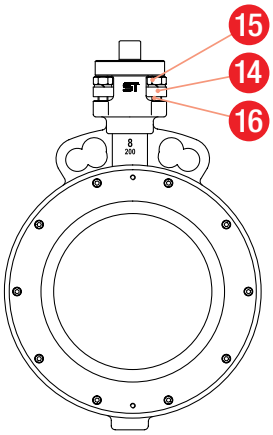
Valve Seating Torques (ΔP :PSI)						
Valve Size	ΔP=50	ΔP=75	ΔP=100	ΔP=150	ΔP=200	ΔP=250
	WET/DRY (in.lbs)	WET/DRY (in.lbs)	WET/DRY (in.lbs)	WET/DRY (in.lbs)	WET/DRY (in.lbs)	WET/DRY (in.lbs)
2"	109 / 174	112 / 179	115 / 184	123 / 196	134 / 214	240 / 384
2½"	115 / 218	119 / 225	122 / 231	136 / 258	152 / 289	300 / 480
3"	175 / 332	181 / 343	186 / 353	192 / 364	204 / 387	360 / 576
4"	276 / 505	293 / 535	309 / 565	328 / 601	352 / 644	480 / 767
5"	433 / 753	455 / 790	476 / 830	512 / 894	548 / 956	840 / 1344
6"	672 / 1186	710 / 1248	748 / 1319	831 / 1460	903 / 1540	1320 / 2112
8"	1213 / 2089	1283 / 2213	1363 / 2337	1531 / 2629	1699 / 2921	2280 / 3648
10"	1903 / 3231	2053 / 3487	2204 / 3744	2531 / 4302	2859 / 4859	3600 / 5759
12"	2779 / 4532	3036 / 4948	3284 / 5355	3797 / 6187	4337 / 7072	5160 / 8256
14"	3549 / 5319	3841 / 5753	4125 / 6187	4868 / 7302	5532 / 8577	7200 / 14401
16"	4417 / 6621	5027 / 7506	5594 / 8382	6683 / 10028	7488 / 11568	9600/ 19200
18"	5780 / 8869	6567 / 9851	7355 / 11028	8957 / 13436	10010 / 15817	12600 / 25201
20"	7408 / 111176	8541 / 12807	9674 / 14507	11949 / 17923	12666 / 20251	15600 / 22349
24"	11577 / 17375	13223 / 19835	14861 / 22296	18684 / 28022	20366 / 32846	17400 / 34800
28"	23358 / 37484	25004 / 38723	26641 / 39962	28960 / 43441	–	–
30"	28323 / 42485	29598 / 44397	30863 / 46300	33351 / 50008	–	–
32"	32421 / 51451	33749 / 52734	35077 / 54018	38130 / 57195	–	–
36"	40626 / 60939	42060 / 63081	43485 / 65223	46530 / 69799	–	–
40"	68932 / 103397	71498 / 107239	74056 / 111080	79004 / 118506	–	–
42"	69755 / 104628	72198 / 109177	74640 / 111956	79871 / 119807	–	–
48"	96609 / 145590	100229 / 150679	103849 / 1557778	111124 / 166691	–	–

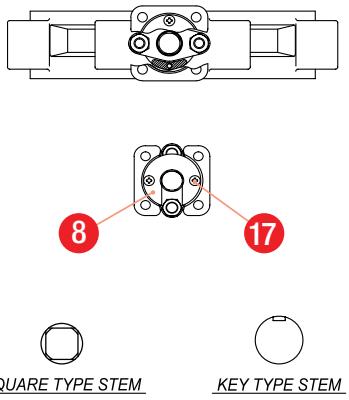
HPL & HPW Series

Lug Style

Wafer Style

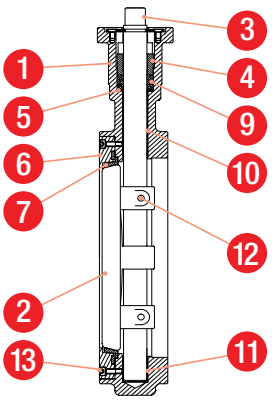






SQUARE TYPE STEM

KEY TYPE STEM



Description

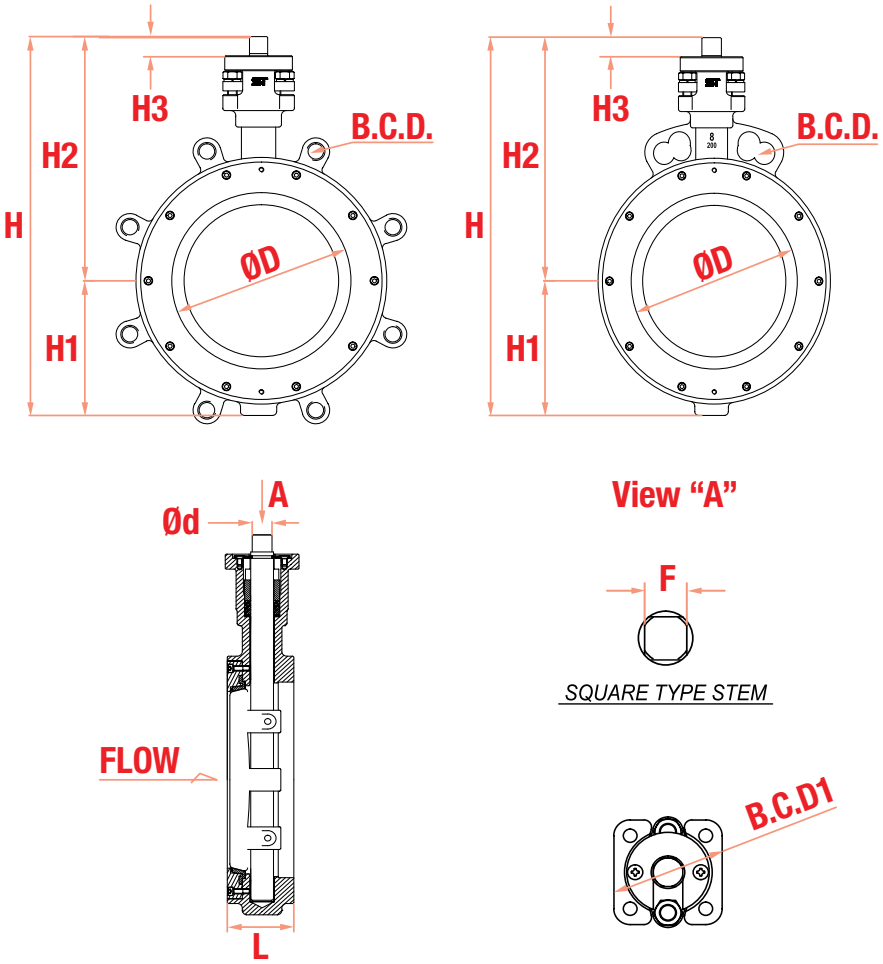
One-piece carbon steel (285 PSI) and stainless steel (275 PSI) body, lug and wafer style high performance butterfly valves with RTFE seat are manufactured and used extensively to regulate, stop and start fluid flow in pipelines. Double off set configuration with tight shut off design.

Features

- Gland Flange preventing uneven load distribution against packing.
- Double off-set configuration with conical angled disc design. Maximize flow and minimize resistance providing high Cv.
- Internal travel stop design to prevent over travel of the disc. Minimizing possible seat damage.
- Retainer ring surface finish is 125 to 200 AARH and is compatible with both standard gasket and spiral wound gasket designs. Outside diameter is recessed within gasket sealing surface to prevent external leakage.
- The heavy duty handle and 10 position notch plates allow for positioning the valve disc to very precise angle stops.
- Universal ISO5211 mounting pad.

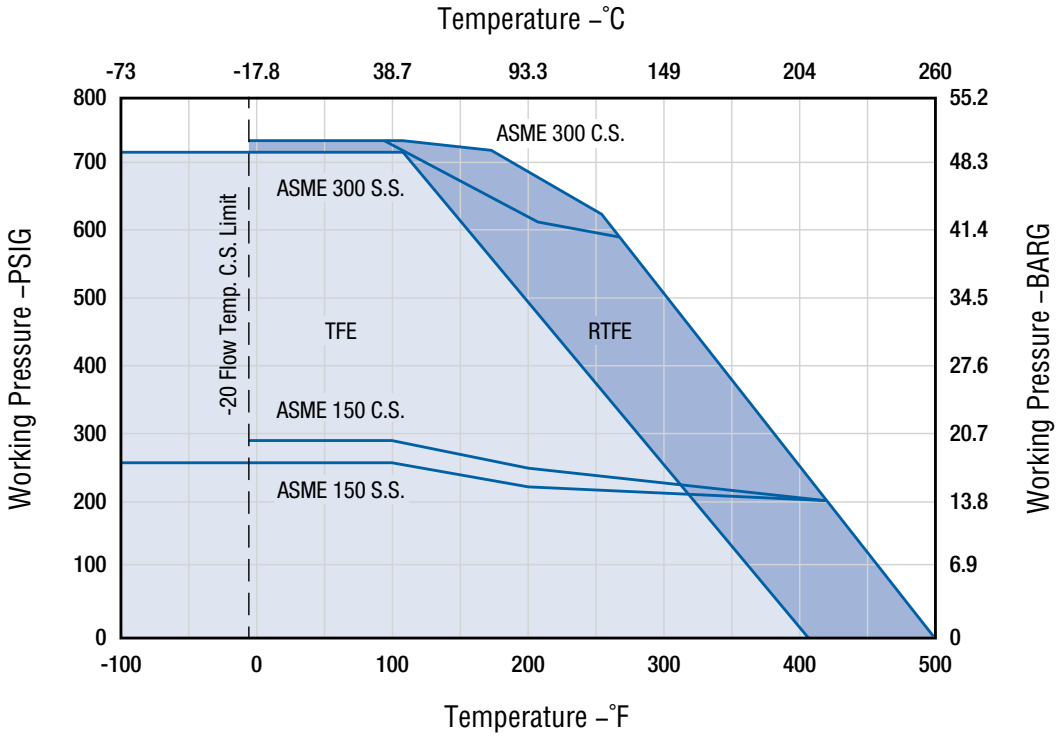
Materials			
No.	**Part**	**C.S. Body**	**S.S. Body**
1	Body	A216WCB	A351 CF8M
2	Disc	A351 CF8M	A351 CF8M
3	Stem	A 564 Gr. 630	A 564 Gr. 630
4	Gland Flange	A216WCB	A351CF8M
5	Packing Retainer	A276 Tp 316	A276 Tp 316
6	Retainer Ring	A351 CF8M	A351 CF8M
7	Seat	RTFE	RTFE
8	Top Retainer	A283D-A36	A276 Tp 316
9	Grand Packing	GRAPHITE	GRAPHITE
10	Upper Bearing	RTFE + 316SS	RTFE + 316SS
11	Lower Bearing	RTFE + 316SS	RTFE + 316SS
12	Disc Pin	A276 Tp316	A276 Tp316
13	Hex Socket Bolt	A283D A36	A276 316SS
14	Spring Washer	A283D A36	A276 316SS
15	Hex Nut	A283D A36	A276 316SS
16	Stud Bolt	A283D A36	A276 316SS
17	Flat Head Screw	A283D A36	A276 316SS

Engineering Data



Imperial / Metric Dimensions																			
Size		H		H1		H2		H3		Ød		F		ØD		B.C D 1		L	
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
2"	50	8.63	219.2	2.36	60.0	6.27	159.2	0.60	15.2	0.51	13	0.43	11	1.65	42.0	2.76	70	1.73	44
2½"	65	9.54	242.0	2.76	70.0	6.78	172.2	0.60	15.2	0.63	16	0.55	14	2.40	61.0	2.76	70	1.81	46
3"	80	9.85	250.2	3.01	76.5	6.84	173.7	0.60	15.2	0.63	16	0.55	14	2.91	74.0	2.76	70	1.89	48
4"	100	11.07	281.2	3.54	90.0	7.53	191.2	0.70	17.7	0.63	16	0.55	14	3.70	94.0	2.76	70	2.13	54
5"	125	12.55	318.7	4.09	104.0	8.45	214.7	0.70	17.7	0.71	18	0.55	14	4.65	118.0	2.76	70	2.24	57
6"	150	13.62	346.0	4.53	115.0	9.09	231.0	0.75	19.0	0.87	22	0.67	17	5.51	140.0	2.76	70	2.28	58
8"	200	15.91	404.0	5.65	143.5	10.26	260.5	0.81	20.5	0.87	22	0.67	17	7.40	188.0	2.76	70	2.52	64
10"	250	18.44	468.5	6.69	170.0	11.75	298.5	0.81	20.5	1.10	28	0.87	22	9.39	238.5	4.02	102	2.81	71.5
12"	300	20.63	524.1	7.76	197.0	12.88	327.1	0.95	24.1	1.10	28	0.87	22	11.02	280.0	4.02	102	2.81	81
14"	350	26.87	682.5	11.00	279.5	15.87	403.0	2.76	70.0	1.50	38	–	–	T.B.A.	T.B.A.	5.51	140	3.62	92
16"	400	31.66	804.1	12.54	318.5	19.12	485.6	3.48	88.5	1.77	45	–	–	T.B.A.	T.B.A.	6.50	165	4.02	102
18"	450	33.73	856.7	13.31	338.2	20.41	518.5	3.48	88.5	2.17	55	–	–	T.B.A.	T.B.A.	6.50	165	4.49	114
20"	500	34.59	878.5	14.17	360.0	20.41	518.5	3.48	88.5	2.17	55	–	–	T.B.A.	T.B.A.	6.50	165	5.00	127
24"	600	39.76	1009.78	16.70	424.26	23.05	585.5	3.68	93.5	2.56	65	–	–	T.B.A.	T.B.A.	6.50	165	6.06	154

Engineering Data



HP Series Torque Data		
Size	Class 150, Actual Torque: in.lbs Teflon Seat	
inch	150 PSIG	285 PSIG
2"	200	270
2½"	200	270
3"	200	270
4"	225	470
5"	540	680
6"	540	680
8"	910	1620
10"	1620	2530
12"	2530	3600
14"	3720	5970
16"	5530	9180
18"	6840	11900
20"	10020	16970
24"	18330	32290

The torques listed are applicable to sea water, lubricating type of hydro carbons and most media at temperature 0-82°C (32-180 °F). The operating speed of the actuator must be considered in order to avoid water hammer when the valve is closed in junction with liquid.

Design Parameters

Elite Butterfly Valves are designed for water and wastewater applications in accordance with the latest revision of AWWA C504 Class 150B service and comply with the following details.

Body

Ductile Iron ASTM A-126 Class B which conforms to AWWA C504 relative to lengths, minimum body shell thickness. End connections are 150# flanged connections per our drawings.

Disc

Cast Iron ASTM A-126 Class B (3”-20”) or ASTM A-48 class 40 (24”). Discs are furnished with 316 Stainless Steel a seating edge to mate with rubber seat of the body.

Seat

Buna N rubber, located on the valve body (seat-in body). Sizes 20” and smaller have bonded seats which meet the test procedures of ASTM D-429 Method B.

Shaft

ASTM A-276 Type 304 Stainless Steel. Elite Valve shaft seals are designed with standard self-adjusting with Chevron V-type packing. Shaft seals are designed to allow replacement without removal of valve shaft.

Bearings

Sleeve type design, corrosion resistant and self-lubricating. Our bearing loads do not exceed 1/5th of the compressive load strength of the material.

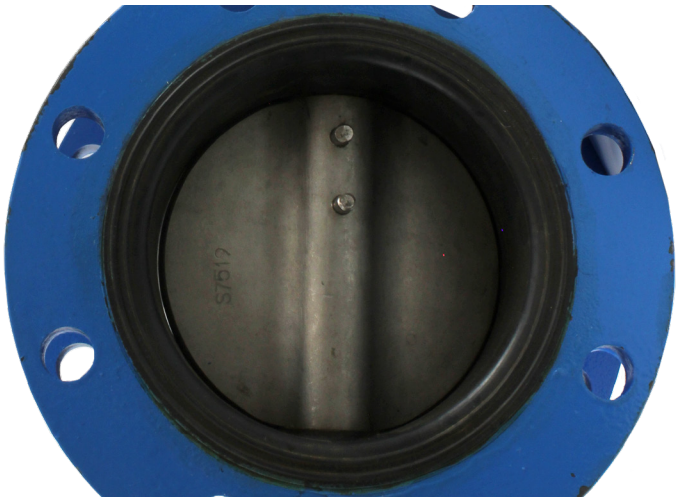
Actuators

Fully grease packed, with stops in the open/close position. Actuators can withstand an input torque of 450ft./lbs against each stop. The traveling nut does not engage alignment grooves in the housing.

Design Parameters

Paint Finish

Elite Valve provides our valves as a standard with POWER COATED EPOXY finish (Fusion bonded), to provide the best resistance against exterior corrosion, to provide years of maintenance free life, etc.



Disc Sealing

The AWWA series butterfly is manufactured with a solid 316 Stainless Steel edge design, which is machined to provide optimum performance and sealing.

Rubber Lined Body

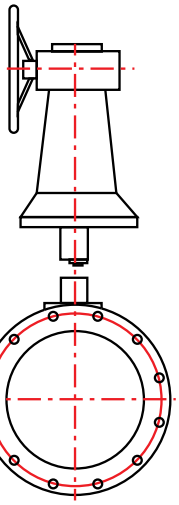
Elite Valve AWWA series butterfly valve, 3”-20” utilizes the fully lined seat body technology per AWWA 504 Standard.

The standard EPDM seat is bonded to the body, per ASTM D429, optional seats are available to suit specific applications, including Viton, and Buna “N”. The smooth finish reduces the chance of mineral and scale build up, which can affect flow performance.

Valve Assembly Testing

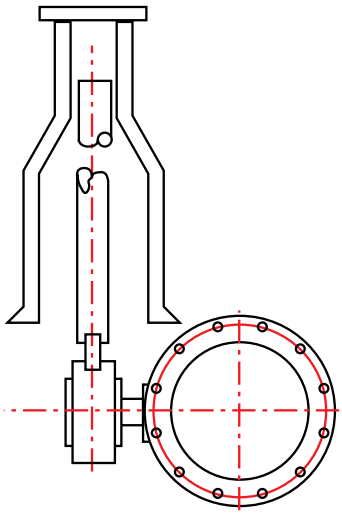
Every valve manufactured by Elite Valve is hydro-statically tested for seat leakage and performance per AWWA 504 Standard prior to shipping. The valve seating are inspected, torque adjustment made, travel stop inspected and adjusted to provide years of reliable performance.

Options & Accessories



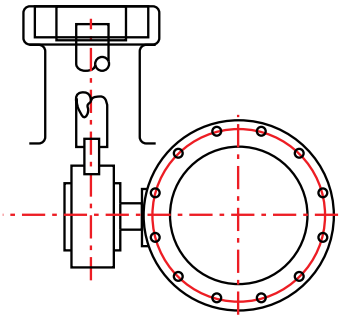
Operator Floor Stand

Our floor stands allow operators the ease of operating valves that are mounted below grade, or that are not accessible.



Floor Boxes

Floor boxes are provided with floor plates for valves mounted below grade. The valves are operated with a 2-inch square drive nut and 3-foot “T” bar. (Optional lengths are available).



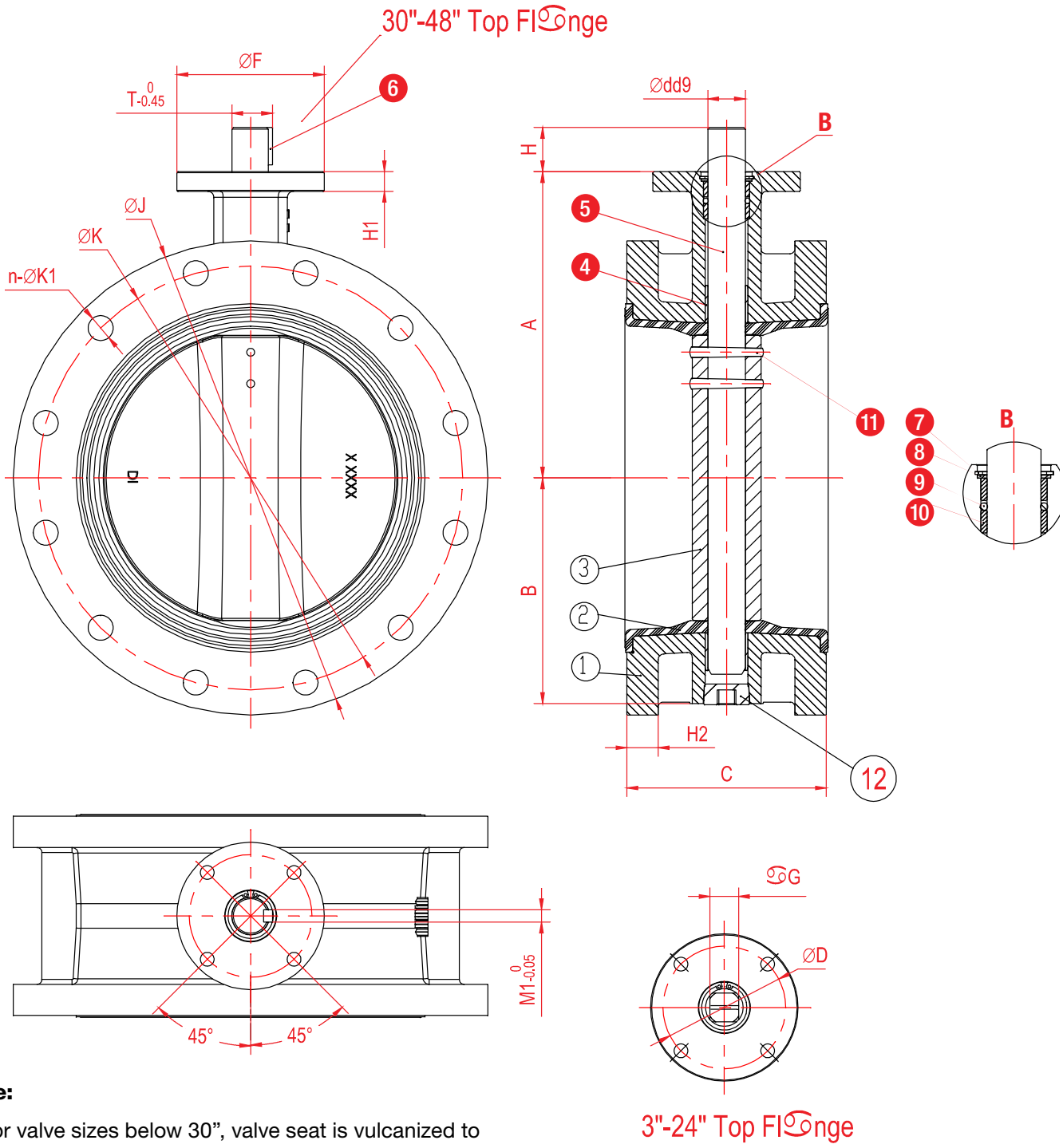
Direct Burial Boxes

For use with valves that are required to be buried. The burial boxes can be installed with several extensions depending on depth. The valves are generally operated with a 2-inch square nut, but other operators may be used in conjunction with the burial box.

Other Options

- Chain wheels operators
- Electric motors
- Operator floor stand
- Stem extensions with flex couples
- Valve position indicators
- Lever actuators
- Neck or stem extension

AWWA C504



Note:

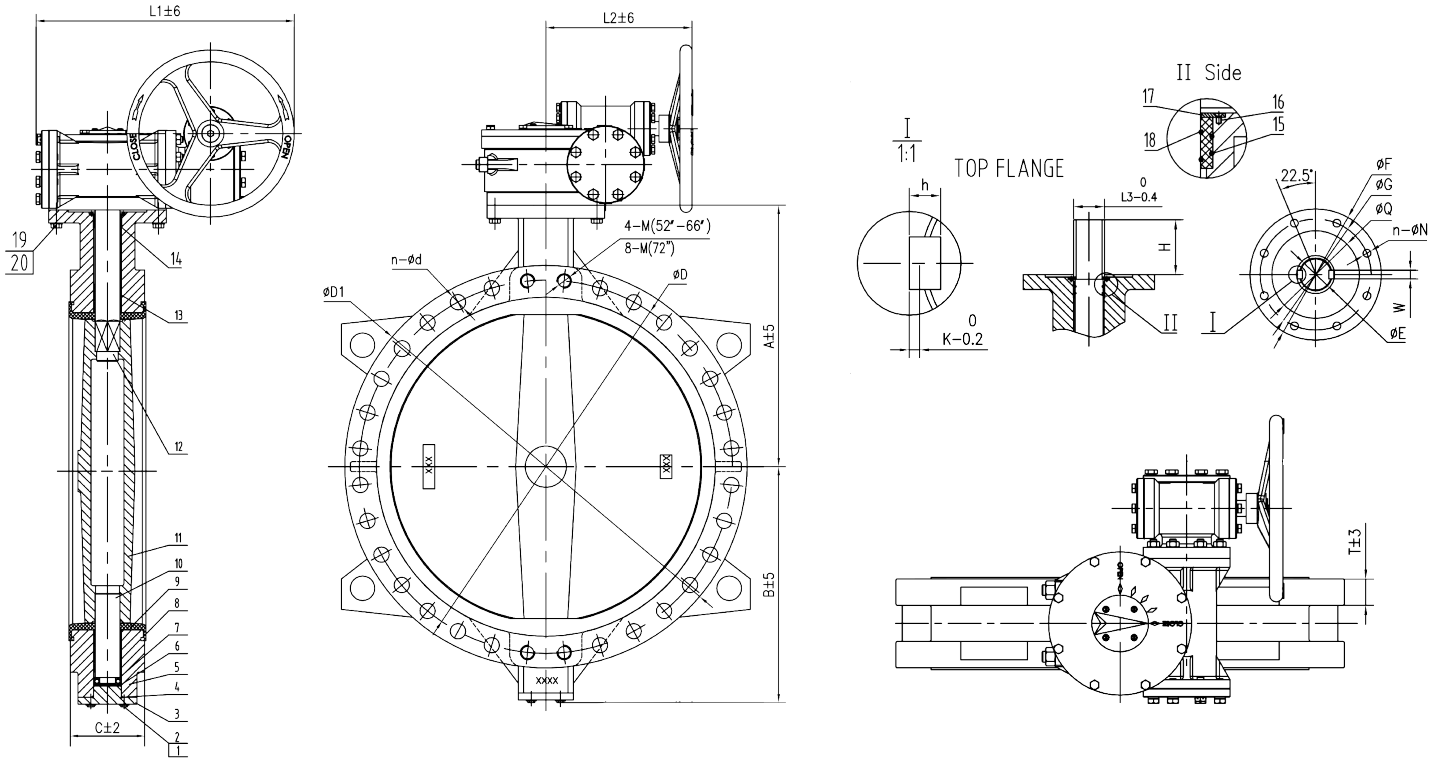
1. For valve sizes below 30”, valve seat is vulcanized to valve body, for 30” and above, valve seat is resilient type and replaceable.
2. Except regular materials, other materials may also be available, please consult with Sales.

AWWA C504

Dimensions (Metric)															
Size	A	B	C	F	ØD	Ød	H	H1	H2	T	G	M1	ØJ	ØK	n-ØK1
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
3"	146	89	127	90	70	12.7	32	11	19	–	9x9	3.18	191	152.5	4x 19
4"	177	112	127	90	70	15.9	32	13	23.9	–	11x11	4.78	229	190.5	8x 19
6"	203	140	127	90	70	15.4	32	13	25.4	–	17x17	7.94	279	241.5	8x 22
8"	235.5	170	152	125	102	28.6	45	14	28.5	–	22x22	7.94	343	298.5	8x 22
10"	267	200	203	125	102	34.9	45	14	30.2	–	24x24	12.7	406	362	12x 25
12"	312	230	203	150	125	38.1	45	20	31.8	–	27x27	12.7	483	432	12x 25
14"	343	256	203	150	125	44.5	45	20	35	–	32x32	12.7	533	476	12x 29
16"	372	299	203	210	165	50.8	50	22	36.6	–	36x36	12.7	597	539.8	16x 29
18"	402	327	203	210	165	57.2	50	22	39.7	–	42x42	15.88	635	578	16x 32
20"	437	352	203	210	165	63.5	60	22	42.9	–	46x46	15.88	699	635	20x 32
24"	498.5	420	203	210	165	76.2	70	22	47.7	–	55x55	15.88	813	749.5	20x 35
28"	624	524	305	300	254	92.1	70	28	53.8	104.8	–	25.4	927	863.6	28x 35
30"	660	563	305	300	254	92.1	95	33	53.8	104.8	–	25.4	984.25	914.4	28x 35
32"	666	599	305	300	254	92.1	95	33	60	104.8	–	25.4	1060	977.9	28x 41
36"	720	664	305	300	254	111	95	34	60	123.7	–	25.4	1168.4	1086	32x 41
40"	806	737	305	300	254	111	130	35	60	123.7	–	25.4	1289	1200	36x 41
42"	865	801	305	350	298	127	150	35	66.5	142.88	–	31.75	1346.2	1257	36x 41
48"	938	879	381	350	298	143	150	38	69.9	162.05	–	38.1	1511.3	1422	44x 41

Dimensions (Imperial)															
Size	A	B	C	F	ØD	Ød	H	H1	H2	T	G	M1	ØJ	ØK	n-ØK1
	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch
3”	5.75	3.50	5.00	3.54	2.76	0.50	1.26	0.43	0.75	–	0.354 X 0.354	0.13	7.52	6.00	4 X 0.748
4”	6.97	4.41	5.00	3.54	2.76	0.63	1.26	0.51	0.94	–	0.433 X 0.433	0.19	9.02	7.50	8 X 0.748
6”	7.99	5.51	5.00	3.54	2.76	0.61	1.26	0.51	1.00	–	0.669 X 0.669	0.31	10.98	9.51	8 X 0.866
8”	9.27	6.69	5.98	4.92	4.02	1.13	1.77	0.55	1.12	–	0.866 X 0.866	0.31	13.50	11.75	8 X 0.866
10”	10.51	7.87	7.99	4.92	4.02	1.37	1.77	0.55	1.19	–	0.945 X 0.945	0.50	15.98	14.25	12 X 0.984
12”	12.28	9.06	7.99	5.91	4.92	1.50	1.77	0.79	1.25	–	1.062 X 1.062	0.50	19.02	17.01	12 X 0.984
14”	13.50	10.08	7.99	5.91	4.92	1.75	1.77	0.79	1.38	–	1.260 X 1.260	0.50	20.98	18.74	12 X 1.141
16”	14.65	11.77	7.99	8.27	6.50	2.00	1.97	0.87	1.44	–	1.417 X 1.417	0.50	23.50	21.25	16 X 1.141
18”	15.83	12.87	7.99	8.27	6.50	2.25	1.97	0.87	1.56	–	1.653 X 1.653	0.63	25.00	22.76	16 X 1.260
20”	17.20	13.86	7.99	8.27	6.50	2.50	2.36	0.87	1.69	–	1.811 X 1.811	0.63	27.52	25.00	20 X 1.260
24”	19.63	16.54	7.99	8.27	6.50	3.00	2.76	0.87	1.88	–	2.165 X 2.165	0.63	32.01	29.51	20 X 1.378
28”	24.57	20.63	12.01	11.81	10.00	3.63	2.76	1.10	2.12	4.13	–	1.00	36.50	34.00	28 X 1.378
30”	25.98	22.17	12.01	11.81	10.00	3.63	3.74	1.30	2.12	4.13	–	1.00	38.75	36.00	28 X 1.378
32”	26.22	23.58	12.01	11.81	10.00	3.63	3.74	1.30	2.36	4.13	–	1.00	41.73	38.50	28 X 1.614
36”	28.35	26.14	12.01	11.81	10.00	4.37	3.74	1.34	2.36	4.87	–	1.00	46.00	42.76	32 X 1.614
40”	31.73	29.02	12.01	11.81	10.00	4.37	5.12	1.38	2.36	4.87	–	1.00	50.75	47.24	36 X 1.614
42”	34.06	31.54	12.01	13.78	11.73	5.00	5.91	1.38	2.62	5.63	–	1.25	53.00	49.49	36 X 1.614
48”	36.93	34.61	15.00	13.78	11.73	5.63	5.91	1.50	2.75	6.38	–	1.50	59.50	55.98	44 X 1.614

AWWA C504



Dimensions (Metric)																					
Size	A	B	C	L1	L2	L3	ØD	ØD1	n-Ød	4-M	T	ØE	ISO 5211	ØF	ØG	ØQ	n-ØN	H	W	K	h
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
54"	1050	2026	381	740	460	156	1682.8	1593.9	44 x 51	4 x 1 ¾" UN	76	140	F35	415	356	260	8 x 33	200	36	8	20
60"	1130	1091	381	616	559	178	1854.2	1759	52 x 51	4 x 1 ¾" UN	79	160	F35	415	356	200	8 x 33	250	40	9	22
66"	1250	1245	457	616	559	178	2032	1930.4	52 x 51	4 x 1 ¾" UN	85	160	F35	415	356	200	8 x 33	250	40	9	22
72"	1360	1310	457	1062	600	200	2197.1	2095.5	60 x 51	8 x 1 ¾" UN	89	180	F40	475	406	300	8 x 39	280	45	10	25

Dimensions (Imperial)																					
Size	A	B	C	L1	L2	L3	ØD	ØD1	n-Ød	4-M	T	ØE	ISO 5211	ØF	ØG	ØQ	n-ØN	H	W	K	h
inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch
54"	41.34	79.76	15.00	29.13	18.11	6.14	66.25	62.75	44 x 2.008	4 x 1 ¾" UN	2.99	5.51	F35	16.34	14.02	10.24	8 x 33	7.87	1.42	0.31	0.79
60"	44.49	42.95	15.00	24.25	22.01	7.01	73.00	69.25	52 x 2.008	4 x 1 ¾" UN	3.11	6.30	F35	16.34	14.02	7.87	8 x 33	9.84	1.57	0.35	0.87
66"	49.21	49.02	17.99	24.25	22.01	7.01	80.00	76.00	52 x 2.008	4 x 1 ¾" UN	3.35	6.30	F35	16.34	14.02	7.87	8 x 33	9.84	1.57	0.35	0.87
72"	53.54	51.57	17.99	41.81	23.62	7.87	86.50	82.50	60 x 2.008	8 x 1 ¾" UN	3.50	7.09	F40	18.70	15.98	11.81	8 x 39	11.02	1.77	0.39	0.98

Product Specification/Ordering

Valve Data	
Size (2 thru 20")	
Body Type	Flgd
Body Material	Cast or Ductile Iron
Min. Valve Class	150B
Disc Material	Ductile Iron or 316 SS
Seat Material	EPDM / Buna-N
Stem Material	304 / 316 / 410 SS
Max Non-Shock Pressure	
Shutoff (PSI)	
Line (PSI)	
Required Flow Rates	
Normal (GPM)	
Max (GPM) (1)	
Text Records Required	Yes / No
Connecting Piping	
Material	
OD (inches)	
ID (inches)	
Shaft Seal	Chevron
Type of Installation (2)	B / S / P
Other Data	
Valve & Positioner	
Arrangement	
Position	
Affidavit of Compliance	Yes / No
Certified Drawings	Yes / No
Valve Torque Data Sheet	Yes / No
Water Temperature	
Min. (F)	
Max. (F)	
Leakage Testing	Yes / No
One / Both Directions (7)	1 / 2
With / Without Actuator (8)	W / WO

Actuator Data	
Mfg'er Specified / Selected	
Service	
Open / Close	Yes / No
Modulating	Yes / No
Stem Extension	Yes / No
Floor Stand	Yes / No
Manual	
Manual (3)	H / C / W
Turn Direction (4)	C / CC
Position Indicator	Yes / No
Special Devices (5)	
Electric	
Operating Voltage	
Phase (Hz)	
Heater	Yes / No
Limit Switches (Qty)	Yes / No
Limit Switches (Qty)	
Control Scheme	
Time of Operation (Sec's)	
Position Indicator	Yes / No
Cylinder	
Operating Medium (6)	A / W / O
Medium Pressure (PSI)	
Max. (PSI)	
Min. (PSI)	
Limit Switches	Yes / No
Limit Switches (Qty)	
Control Scheme	
Position Indicator	Yes / No

Notes

When opening or closing
B = Buried, S = Submerged, P = In Plant, H = Handwheel,
C = Chainwheel, W = Wrench Nut, C = Clockwise,
CC = Counter Clockwise Advise., A = Air, W = Water, O = Oil;

One Direction = 1, Both Directions = 2

With = W, Without = W/O

Other Options / Accessories or Notes

A _____

B _____

C _____

D _____

E _____

Product Specifications

- The Elite Valve Split Body Butterfly Valve is available with both wafer and lug style bodies. Standard materials of construction for the body are epoxy coated ductile iron and CF8M (316 SS) steel.
- This valve is ideally suited for industrial applications, specifically processes with strong chemical compositions. Both body and disc are carefully manufactured through castings, final machined to tight tolerances.
- Lug style body provides a drip tight dead-end service. These Split Body Butterfly Valves also, provide excellent proportion control.
- The unique shape of the interface between the disc and seat provides a long-lasting, tight seal that self-adjusts through the use of spring washers as the components wear. This live-loaded, self-adjusting seal provides superior life expectancy, increasing the time between maintenance. There are no encapsulated elastomer O-rings to swell, or metal hoops to corrode.
- Installation is simple and mistake proof. The seat is field replaceable, saving time and money in expensive repairs.
- The disc material comes standard as a high polish CF8M (316 SS). The upper and lower stems are fully welded to the disc then machined to size. The crevice-free assembly ensures a long life free from corrosion.
- Elite Valve offers a wide range of actuator options, including lever, gear, nut, pneumatic, and electric. We also offer associated accessories such as pressure regulators and positioners.

Design Features

Mounting Pad
Drilled to accommodate both ISO 5211 and Keystone Imperial bolting patterns. Both Elite Valve and competitor actuators can be mounted directly, without the need of a special mounting bracket.

Shaft
Machined from 316 SS material, the shaft is split into an upper and lower portion. Each half is welded directly to the disc, then finish machined to size.

Bearings
PTFE sleeves act as a journal bearings, ensuring a smooth turning valve. The PTFE material matches the seats, making it impervious to nearly all chemical attacks, prolonging the life of the valve.

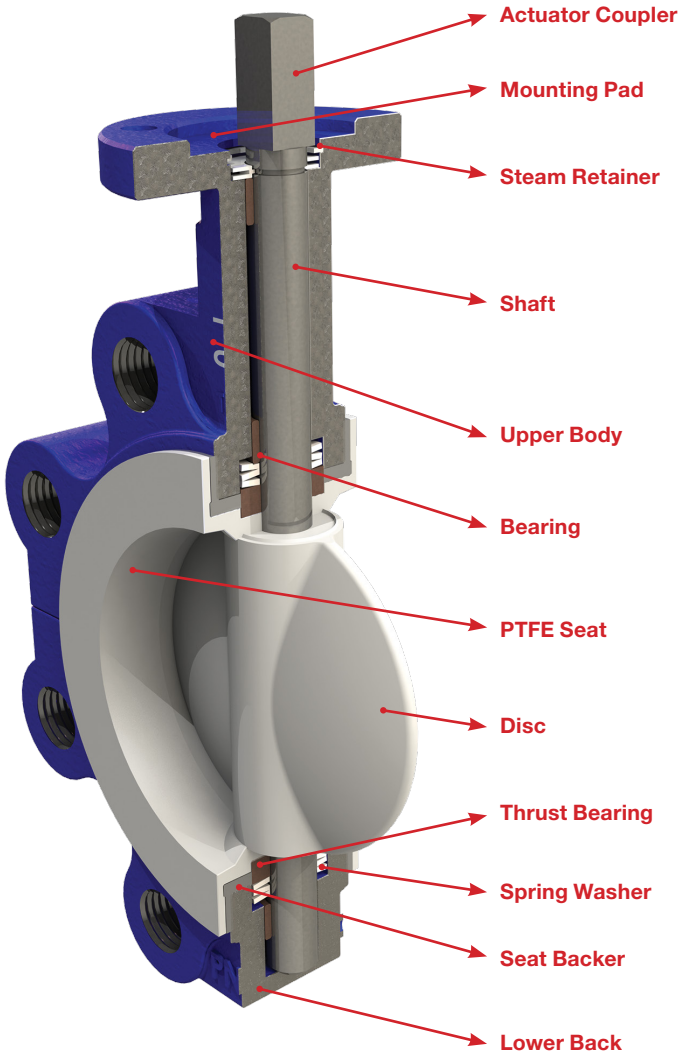
PTFE Seat
PTFE coated seats withstand the most severe chemical attack. Seats are flexible and can be replaced in the field as a maintenance item.

Disc
CF8M disc material is carefully welded to the upper and lower stem halves, eliminating any crevices where corrosive action can occur. The surface of the disc comes standard as polished steel or PTFE coated.

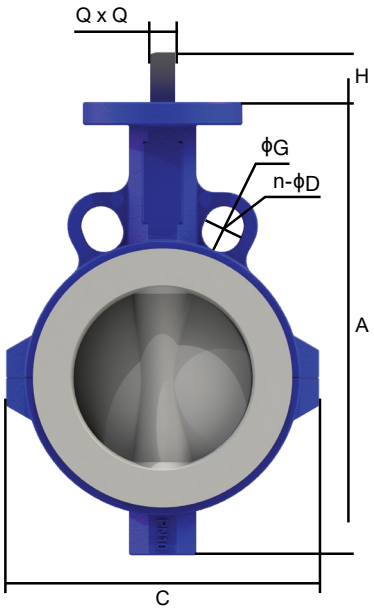
Thrust Bearings
PTFE washers act as thrust bearings, both positioning the seat and transmitting the live thrust force of the spring washers to the seal.

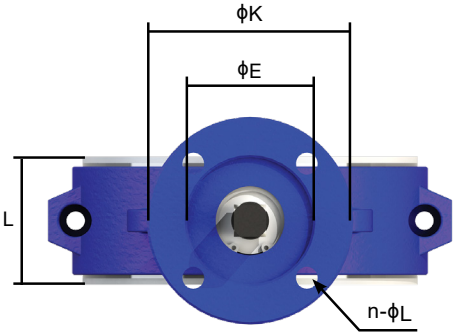
Spring Washers
The primary seal between the disc and seat is a labyrinthine lip seal. The constant force of spring washers keeps the stationary seat component in tight contact, even as the seal surfaces wear from usage.

Seat Backer
The backer provides structural support to the seat. Available in BUNA, EPDM, and Viton to limit adverse effects from accidental contact with the process media.



Materials & Dimensions





No.	Name	Material
1	Body	Ductile Iron / CF8M
2	Disc	PTFE / 316 SS
3	Shaft	316 SS
4	Seat	PTFE
5	Seat Backer	BUNA / EPDM / VITON
6	Bearings	PTFE
7	Thrust Bearings	PTFE
8	Spring Washers	Spring Steel

Technical Specification / Product Features	
Design specifications	APT 609 - 2004
Specifications Model	2" - 24"
Nominal pressure	2"- 6"= 232 psi / 8" - 12" = 150psi / 14" - 24" = 125psi
Applicable medium	Sulfuric acid, hydrofluoric acid, phosphoric acid, chlorine, alkali, aqua regia, etc.
Operating temperature	-20 °C to 180 °C
Drive Type	Lever / Gear / Pneumatic / Electric
Thrust Bearings	PTFE
Spring Washers	Spring Steel

Dimensions

Size (in)	A	B	C	L	H	Upper Flange			Q x Q	ANSI 150	
						K	E	N-ϕL		ϕG	N-ϕd
2”	2.4	5.4	4.4	1.9	1.9	2.6	1.97	4 - 0.26	0.35	4.74	4 - ⅝"
2.5”	2.8	5.4	5.0	2.0	2.0	2.6	1.97	4 - 0.26	0.35	5.49	4 - ⅝"
3”	3.1	5.5	5.6	2.0	2.0	2.6	1.97	4 - 0.26	0.35	6.00	4 - ⅝"
4”	4.1	6.2	6.6	2.2	2.2	3.5	2.76	4 - 0.41	0.43	7.50	8 - ⅝"
5”	4.8	7.1	9.4	2.3	2.3	3.5	2.76	4 - 0.41	0.55	8.50	8 - ¾"
6”	5.3	7.3	10.4	2.3	2.3	3.5	2.76	4 - 0.41	0.55	9.51	8 - ¾"
8”	6.5	9.2	12.6	2.5	2.5	4.9	4.02	4 - 0.57	0.67	11.75	8 - ¾"
10”	7.6	10.7	15.2	2.9	2.9	4.9	4.02	4 - 0.57	0.87	14.25	12 - ⅞"
12”	8.8	11.9	17.7	3.2	3.2	4.9	4.02	4 - 0.58	0.87	17.01	12 - ⅞"
14”	10.2	12.6	19.7	3.2	3.2	4.9	4.02	4 - 0.58	–	18.75	12 - 1"
16”	11.7	16.1	23.0	3.6	3.6	6.9	5.51	4 - 0.71	–	21.26	16 - 1"
18”	12.4	16.6	24.3	4.6	4.6	6.9	5.51	4 - 0.71	–	22.75	16 - 1 ⅛"
20”	14.0	18.9	27.0	5.1	5.1	8.3	6.50	4 - 0.87	–	25.00	20 - 1 ⅛"
24”	17.3	22.1	32.2	6.2	6.2	8.3	6.50	4 - 0.87	–	29.50	20 - 1 ¼"

Cv & Torque Chart

Butterfly Valve Cv Values									
Size (in)	Disc Angle Open								
	10	20	30	40	50	60	70	80	90
2”	0.1	5	12	15	27	44	70	105	115
3”	0.3	12	23	39	70	116	183	275	302
4”	0.5	17	36	78	139	230	364	546	600
6”	2	45	95	205	366	605	958	1437	1579
8”	3	89	188	408	727	1202	1903	2854	3136
10”	4	151	320	694	1237	2049	3240	4859	7507
12”	5	234	495	1072	1911	3162	5005	7507	8250
14”	6	338	715	1549	2761	4568	7230	10844	11917
16”	8	464	983	2130	3797	6282	9942	14913	16388
18”	11	628	1315	2878	5131	8490	13437	20155	22148
20”	14	791	1647	3625	6465	10698	16931	25396	27908
24”	22	1222	2587	5605	9989	16528	26157	39236	43116

Butterfly Valve Torques								
Size (in)	Resilient Seated (250 psi) BF	Low Torque (150 psi) LT	Split Body (232 psi*) SB	AWWA (150 psi) AW	High Performance			
					(285 psi) RTFE Seat HP	(285 psi) Metal Seat HP	(500 psi) RTFE Seat HP Class 300	(500 psi) Metal Seat HP Class 300
2”	133	96	381	–	270	677	520	1,550
2.5”	211	159	487	–	270	677	520	1,550
3”	278	159	620	360	270	677	520	1,550
4”	419	358	797	480	470	1,128	670	1,850
5”	648	350	1,372	–	680	2,144	1,120	5,700
6”	940	637	1,770	2,520	680	2,144	1,120	5,700
8”	1,510	1,354	3,788	3,180	1,620	2,595	2,440	8,100
10”	2,489	1,832	4,602	3,840	2,530	4,288	4,640	14,500
12”	3,628	2,748	6,328	4,560	3,600	5,190	7,480	23,600
14”	4,200	5,018	11,506	6,000	5,970	–	10,200	–
16”	6,600	6,213	14,958	6,960	9,180	–	17,070	–
18”	9,840	–	22,437	7,440	11,900	–	20,400	–
20”	12,000	–	26,464	8,880	16,970	–	31,530	–
24”	21,840	–	37,394	10,320	32,290	–	58,820	–

Notes

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Elite Valve is committed to being a global leader in valve technology. We recognize that not all process applications are the same, and as our clients' processes vary, so should the valve they technology they use. Registered as an ISO 9001 company, Elite Valve is committed to maintaining valve manufacturing technology centers, and delivering a reliable product every time called upon. In support of this commitment, Elite Valve has strategically located manufacturing and service centers within North America.

Our engineers are rewarded for innovative thinking… turning problems into opportunities and advancing product performance. Working closely with our customers is encouraged. Our modus operandi is "Strive to be the very best". It can be seen in the work we do daily. With these few words, we employ years of experience, handcrafting some of the best products available. Our ability to provide both standardized and custom-engineered solutions allows us to meet all your needs, in the most critical of applications.

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