

Durco[®] TX3

Triple Offset Butterfly Valve

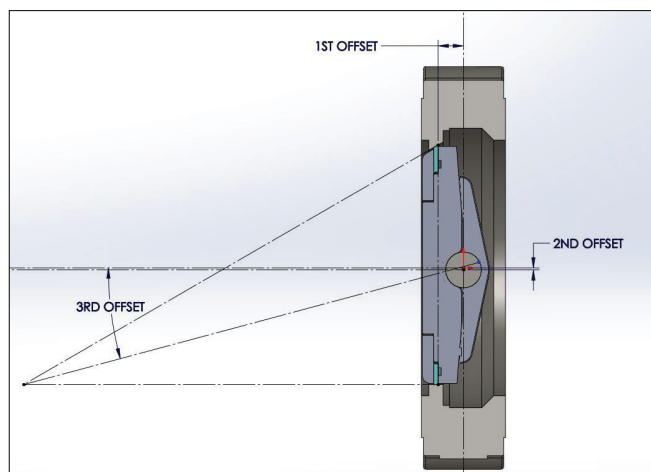


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Bubble-tight shutoff with low torque

The Durco TX3 triple offset butterfly valve from Flowserve offers excellent shutoff capabilities, with the low torque and reduced wear benefits of a triple offset design. The laminated seal ring, in conjunction with the triple offset geometry, results in a design that can provide bi-directional, bubble-tight shutoff.



Specifications

The Durco TX3 triple offset butterfly valve meets a number of industry standards for performance:

Product specifications

Design Standards	ASME B16.34, API 609
Sizes	NPS 3 to 60
Pressure Classes	ANSI class 150, 300, 600, 900, 1500, 2500
End Connections	Lugged, wafer, double flanged (long and short), butt-weld
Face-to-face	API 609 (lug and wafer), B16.10 (long pattern), API 609 and ISO 5752 (short pattern)
Operating Temperature	Standard: -50°C to 427°C (-58°F to 800°F) High temperature to 820°C (1,500°F) Cryogenic: to -196°C (-320°F)
Leakage Rates	API 598 and ISO 5208, FCI 70-2
Fire Safety	API 607, ISO 10497
Fugitive Emissions	ISO 15848, API 641

About triple offset butterfly valve technology

Durco TX3 triple offset butterfly valves feature a special sealing mechanism, comprised of contacts of an inclined and conical body seat with laminated seal ring. As a result, the friction and abrasion between the sealing elements (i.e., seal ring and body seat) are eliminated. The unique feature of this design is that it provides low torque, broad sealing and tight shutoff.

Single offset

The rotation axis of the disc is moved back from the sealing surfaces of the body seat. The purpose of this offset is to have a continuous sealing surface on the seal ring and body seat.

Double offset

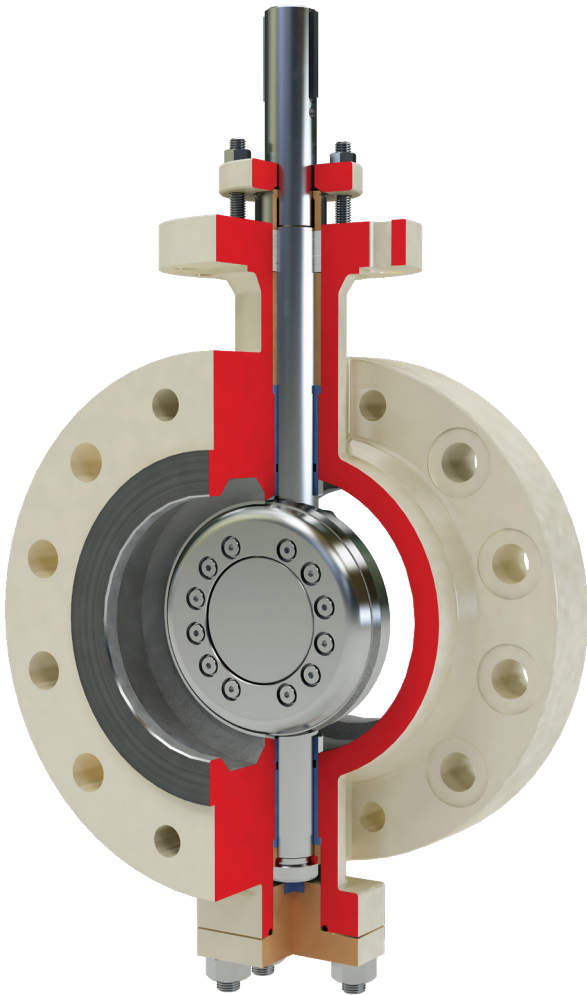
The rotation axis of the disc is moved away from the center line of the valve body. The purpose of this offset is to lift the disc and seal ring quickly off and away from the body seat while decreasing the friction during operation.

Triple offset

The virtual conic axis, extended from the sealing surfaces of the body seat, is inclined from the rotation axis of the disc. The purpose of this offset is to eliminate friction, galling and wear generated at the sealing surface during operation and provide bubble-tight shutoff on high pressure and temperature.

Features and benefits

- Triple offset design — eliminates wear associated with sealing surface contact and maintains sealing integrity during high cycle
- Laminated graphite or metal-to-metal sealing provides robust performance in a wide range of harsh and difficult services
- Robust, anti-blowout shaft meets requirements of API 609
- Bi-directional, tight shutoff
- Low-operating torque for compact, cost-effective actuation
- Meets industry standards for design, fire safety and fugitive emissions



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Sealing system

Durco TX3 triple offset valves operate using a camming action, which reduces the possibility of galling or scratching on the sealing surfaces between the sealing elements (i.e., disc and seat). It also reduces the possibility of jamming between the sealing elements, which can happen with valves that rely on single-point sealing.

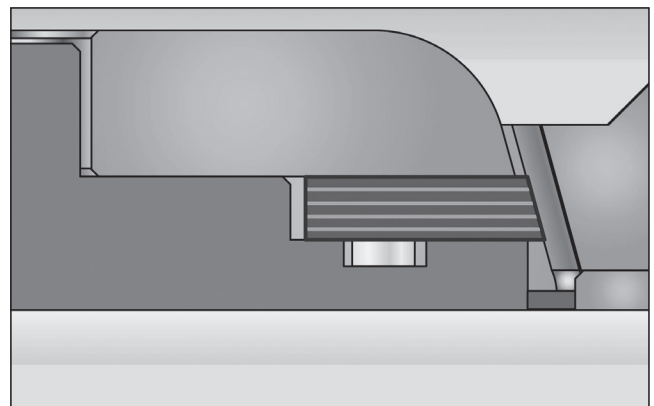
The sealing surfaces of the Durco TX3 valve disc have different angles in all points. The Durco TX3 valve has an elliptical sealing system. The sealing surfaces of an elliptical sealing system are completely in contact at the final position only, and upon opening, all contact points are released immediately from the seat ring. This mechanism provides bubble-tight shutoff.

The Durco TX3 triple offset butterfly valve is a torque-seated valve, utilizing the torque provided by the operator to create a seal, rather than by positioning of the disc. This provides a robust, positive means for shutoff, particularly for high-pressure and/or high-temperature applications.

Laminated seal ring

The laminated seal ring is composed of alternating layers of metal and graphite. The laminated seal ring of a Durco TX3 valve provides bubble-tight shutoff, even in gas applications. Each individual layer performs an independent sealing and is unaffected by the damages to other layers. The elements of the laminated metal plate can be offered with various metals, including 316SS, duplex, Inconel®, Monel® and Hastelloy®, depending on the application.

Additionally, for high-temperature and more severe applications, a solid metal seal ring is available. The solid metal seal ring is also used for cryogenic applications.



Packing and bearings

The Durco TX3 butterfly valve uses proven packing designs to provide trouble-free stem seal performance for a variety of applications. Material options include PTFE for optimum leakage control, while graphite provides fire-safe protection. Options include single and double packing sets, purge ports and spring loading for high-cycle or high-temperature swing services.

A robust bearing design provides solid shaft support to maximize service life and valve performance. Materials are offered to provide corrosion resistance in a variety of harsh chemical services.

Bearings

Bearing Material	Recommended Shaft Materials
316 SS Nitrided	410 SS, XM-19 (Nitronic 50), 17-4PH, 431 SS, Inconel, F6a Class 4
Alloy 6, 316 Alloy 6	410 SS, XM-19 (Nitronic 50), Inconel, 431 SS, Monel, F6a Class 4

The standard 316 SS bearing with Nitride treatment is compatible with all shaft materials and will work acceptably in most applications. For special applications where a customer's application or specifications demand a more durable bearing, a solid Alloy 6 or Alloy 6-overlayed 316 SS bearing is available.

Note: Valves with shaft diameters 38.1 mm (1.5 in.) or smaller must use a solid Alloy 6 bearing; overlay is not possible on these sizes of bearings.

End connections, flanges and bolting

The Durco TX3 butterfly valve is offered in several standard end connections to meet a variety of industry standards and customer applications. Lug, wafer and double-flanged styles are offered as standard. Face to face dimensions for all styles will meet the API 609 standard.

Packing options

Packing System	Packing Description	Maximum Pressure		Max. Temp		Options Availability	Certification
		psi	bar	°C	°F		
Graphite Rib-Braided	Braided Graphite rings	4,400	300	-196 to 850	-320 to 1,562	Single/Twin/Live Loading	API 607, ISO 5848, API 641
Braided PTFE	Virgin braided PTFE	4,000	276	-196 to 204	-320 to 400	Single/Twin/Live Loading	ISO 5848

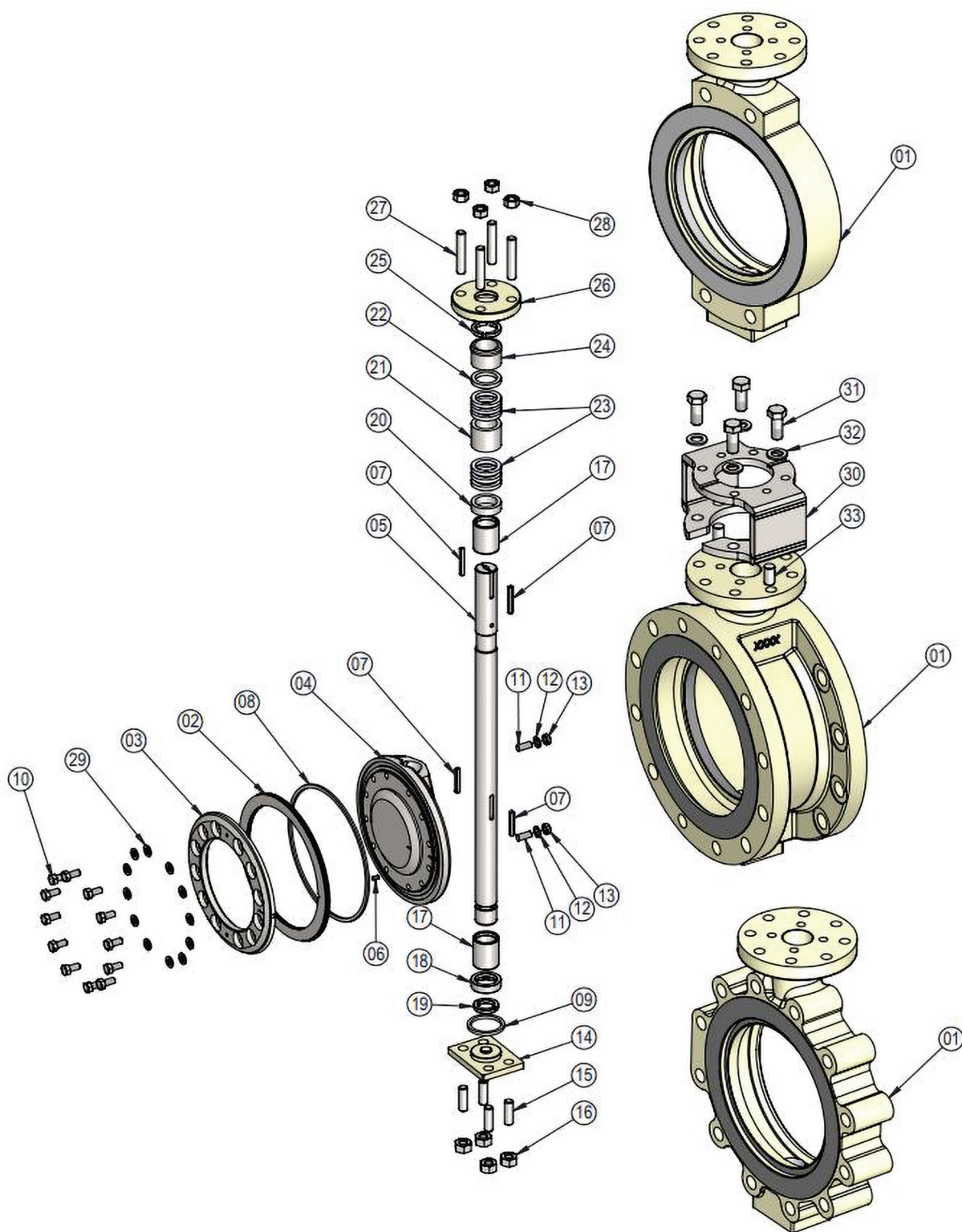
Note: Cryogenic stem extension required for temperatures below -51°C (-60°F). Higher temperature limits can be achieved with stem extensions. Consult factory for details. Graphite rib packing is limited to 450°C (842°F) in oxidizing service.

Parts list and standard materials of construction

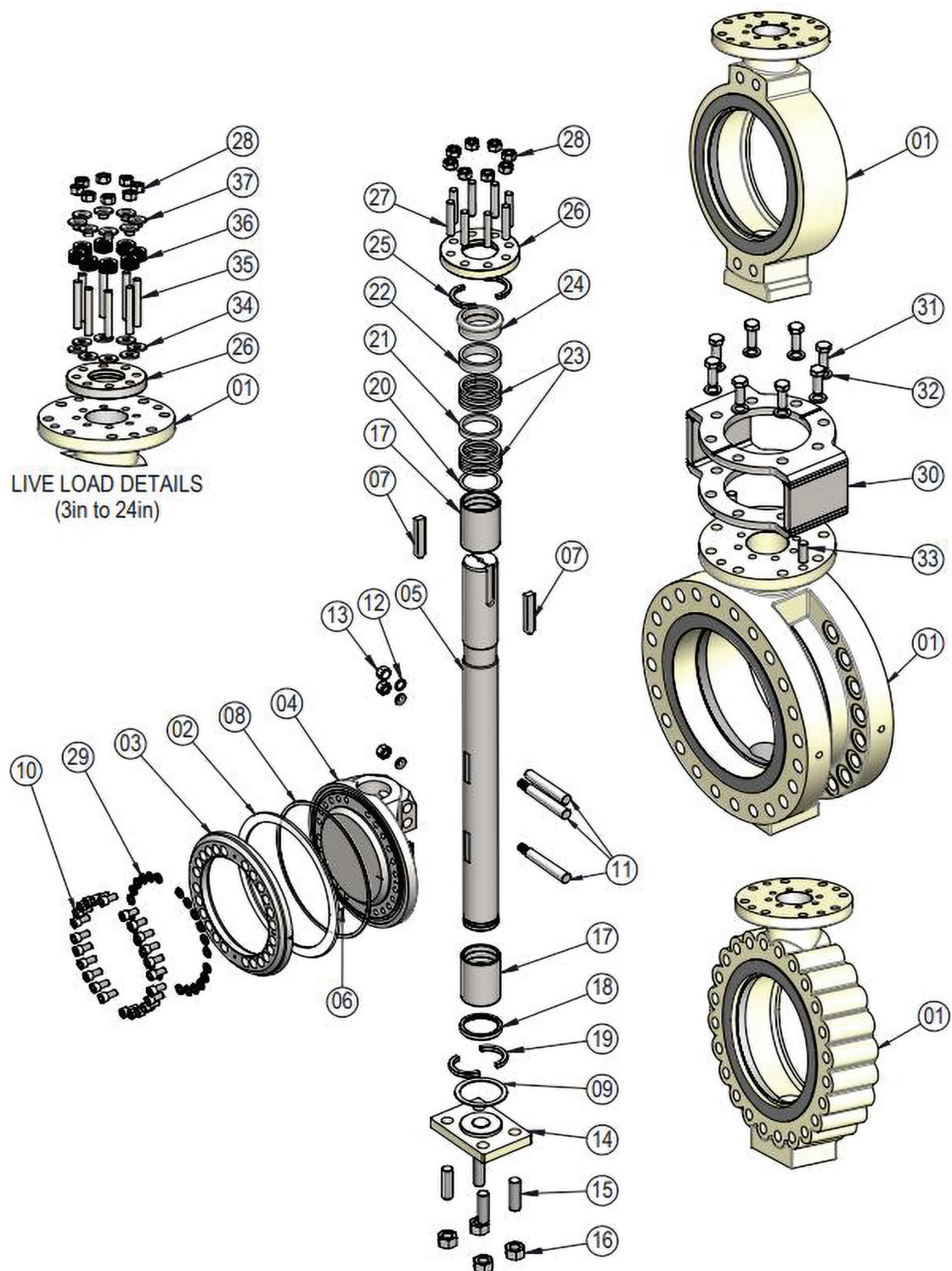
		Materials of Construction by Temperature Limit			
Part		-29°C to 400°C (-20°F to 752°F)	-29°C to 343°C (-20°F to 650°F)	- 50°C to 400°C (-58°F to 752°F)	- 50°C to 343°C (-58°F to 650°F)
Item Number	Description	CS (non-NACE)	CS (NACE)	SS (non-NACE)	SS (NACE)
1	Body	ASTM A216 Gr WCB	ASTM A216 Gr WCB	ASTM A351 Gr CF8M	ASTM A351 Gr CF8M
1a	Body Seat	Alloy 21	Alloy 21	Alloy 21	Alloy 21
2	Seal Ring	S31803 + Graphite	S31803 + Graphite	S31803 + Graphite	S31803 + Graphite
3	Seal Retainer	ASTM A516 Gr 70	ASTM A516 Gr 70	316 SS	316 SS
4	Disc	ASTM A216 Gr WCB	ASTM A216 Gr WCB	ASTM A351 Gr CF8M	ASTM A351 Gr CF8M
5	Shaft	F6a Class 4	UNS S17400 1150D	431 SS	UNS S17400 1150D
6	Disc Pin	Gr B8-8 Cl 2	Gr B8M-8M Cl 1	Gr B8-8 Cl 2	Gr B8M-8M Cl 1
7	Keys	F6a Class 4	UNS S17400 1150D	431 SS	UNS S17400 1150D
8	Seal Gasket	316L SS + Graphite	316L SS + Graphite	316L SS + Graphite	316L SS + Graphite
9	Bottom Flange Gasket	316L SS + Graphite	316L SS + Graphite	316L SS + Graphite	316L SS + Graphite
10	Retainer Screws	ASTM A193 Gr B8 Cl 2	ASTM A193 Gr B8M Cl 1	ASTM A193 Gr B8 Cl 2	ASTM A193 Gr B8M Cl 1
11, 12, 13	Disc Lock screw	ASTM A193 Gr B8 Cl 2	ASTM A193 Gr B8M Cl 1	ASTM A193 Gr B8M Cl 2	ASTM A193 Gr B8M Cl 1
14	Bottom Flange	ASTM A105	ASTM A105N	316 SS	316 SS
15	Bottom Flange Stud	ASTM A193 Gr B7	ASTM A193 Gr B7M	ASTM A193 Gr B8 Cl 2	ASTM A193 Gr B8M Cl 1
16	Bottom Flange Nut	ASTM A194 Gr 2H	ASTM A194 Gr 2HM	ASTM A194 Gr 8	ASTM A194 Gr 2HM
17, 18, 19	Bearings	SS316 + Nitriding	SS316 + Nitriding	SS316 + Nitriding	SS316 + Nitriding
20, 21, 22, 25	Spacers	316 SS	316 SS	316 SS	316 SS
23	Packing	Graphite	Graphite	Graphite	Graphite
24	Packing Follower	316 SS	316 SS	316 SS	316 SS
26	Gland Flange	Gr 70 or A105	Gr 70 or A105N	316 SS	316 SS
27	Packing Stud	ASTM A193 Gr B7	ASTM A193 Gr B7M	ASTM A193 Gr B8 Cl 2	ASTM A453 Gr 660 Cl B
28	Packing Nut	ASTM A194 Gr 2H	ASTM A194 Gr 2HM	ASTM A194 Gr 8	ASTM A453 Gr 660 Cl B
29	Washer	316 SS	316 SS	316 SS	316 SS
30	Yoke	Steel, Carbon	Steel, Carbon	Steel, Carbon	Steel, Carbon
31	Stud	EN ISO 898-1, Class 8.8	EN ISO 898-1, Class 8.8	EN ISO 898-1, Class 8.8	EN ISO 898-1, Class 8.8
32	Nut	Steel Carbon	ISO 898-2, class 8	ISO 898-2, class 8	Steel Carbon
33	Pin Dowel	316 SS	316 SS	316 SS	316 SS
34	Thrust washer Live load	316 SS	316 SS	316 SS	316 SS
35	Stud Live load	ASTM A193 Gr B7	ASTM A193 Gr B7M	ASTM A193 Gr B8 Cl 2	ASTM A453 Gr 660 Cl B
36	Nut Live load	ASTM A194 Gr 2H	ASTM A194 Gr 2HM	ASTM A194 Gr 8	ASTM A453 Gr 660 Cl B
37	Thrust washer Live load	316 SS	316 SS	316 SS	316 SS

Notes: The Temperature 343°C and above, Shaft material is XM-19 for NACE Application.

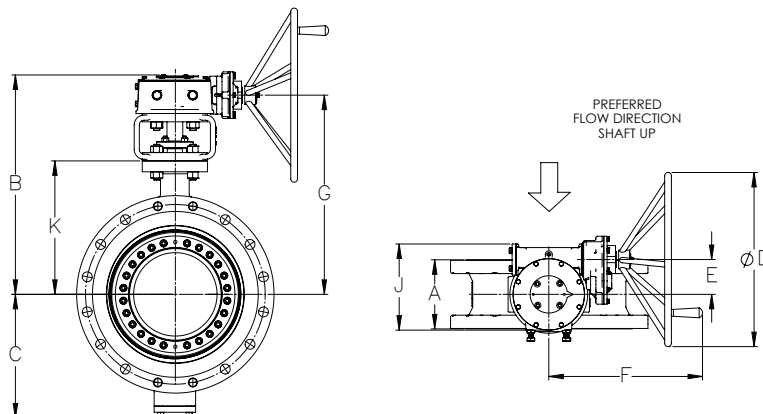
Exploded view for 3in to 20in Valves



Exploded view for 24in Valves



NPS 3 to 24: Double flanged dimensions (short pattern) — metric



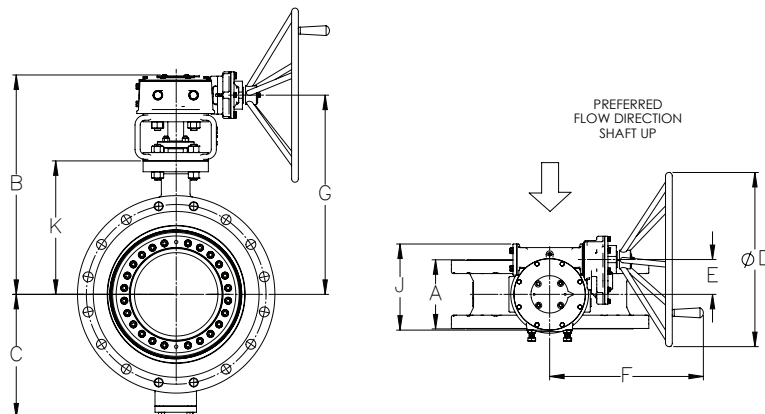
Notes: Flange dimensions per B16.5. Some sizes have tapped holes around the shaft area (top and bottom); consult factory for actual dimensions. Consult factory for pressure classes 900 and 1,500, 2,500.

ASME Class 150 (mm)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, kg
	Short pattern									Short pattern
3	114	280	140	250	52	208	246	122	133	23
4	127	301	146	250	52	208	268	122	148	32
6	140	355	168	400	68	248	312	165	182	45
8	152	432	210	400	68	248	389	165	236	67
10	165	478	246	450	96	370	423	210	272	113
12	178	544	295	400	42	360	470	210	315	146
14	190	582	327	600	70	437	498	308	333	200
16	216	610	352	500	70	401	525	308	370	247
18	222	645	374	650	137	521	563	316	394	308
20	229	735	409	600	146	523	654	330	445	420
24	267	821	505	700	146	557	740	330	505	586

ASME Class 300 (mm)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, kg
	Short									Short pattern
3	114	302	133	250	52	208	253	122	149	28
4	127	338	169	400	68	248	295	165	164	46
6	140	415	203	400	68	248	372	165	225	68
8	152	460	239	400	96	360	405	210	260	116
10	165	536	269	450	70	401	451	308	293	165
12	178	597	319	700	137	521	517	423	342	241
14	190	656	353	700	137	521	576	316	372	322
16	216	693	390	600	184	532	599	423	391	440
18	222	757	426	550	184	516	663	423	429	542
20	229	819	469	700	210	592	728	470	492	706
24	267	914	542	700	235	691	833	514	584	1100

ASME Class 600 (mm)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, kg
	Short									Short
3	180	320	147	400	68	248	277	165	149	42
4	190	398	181	400	96	360	343	210	201	86
6	210	453	238	400	96	360	398	210	246	126
8	230	528	270	500	70	401	448	308	283	197
10	250	561	327	700	137	521	497	316	321	311
12	270	693	372	700	184	566	612	423	364	428
14	290	731	391	700	184	566	636	423	393	518
16	310	765	416	1000	173	621	670	423	449	642
18	330	902	482	700	260	699	803	540	484	1026
20	350	981	508	900	260	754	882	540	524	1254
24	390	1166	618	1000	309	845	1003	596	620	1845

NPS 3 to 24: Double flanged dimensions (short pattern) — U.S.



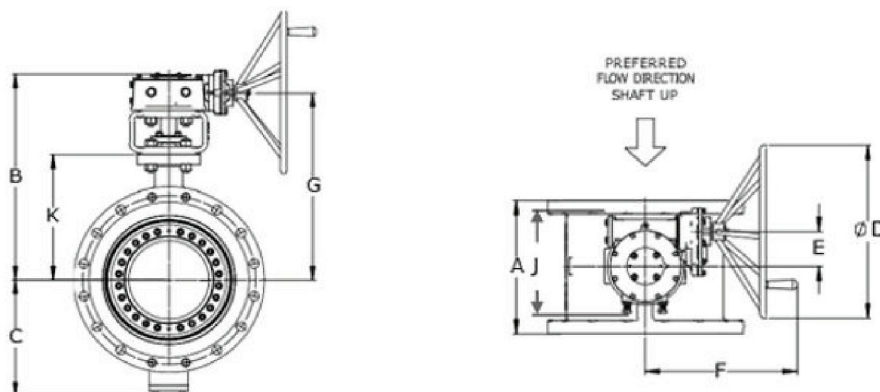
Notes: Flange dimensions per B16.5. Some sizes have tapped holes around the shaft area (top and bottom); consult factory for actual dimensions. Consult factory for pressure classes 900 and 1,500, 2,500.

ASME Class 150 (in.)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, lbs
	Short pattern									Short
3	4.50	11.03	5.53	9.85	2.07	8.19	9.70	4.80	5.25	50
4	5.00	11.86	5.76	9.85	2.07	8.19	10.54	4.80	5.83	70
6	5.50	13.99	6.63	15.75	2.70	9.76	12.30	6.50	7.16	99
8	6.00	17.02	8.29	15.75	2.70	9.76	15.33	6.50	9.31	147
10	6.50	18.83	9.67	17.71	3.80	14.57	16.67	8.27	10.70	248
12	7.00	21.41	11.62	15.75	1.67	14.17	18.51	8.27	12.40	322
14	7.50	22.92	12.87	23.62	2.75	17.20	19.60	12.12	13.11	441
16	8.50	24.00	13.87	19.68	2.75	15.78	20.68	12.12	14.57	545
18	8.75	25.40	14.74	25.60	5.41	20.51	22.15	12.44	15.50	679
20	9.00	28.95	16.12	23.62	5.74	20.59	25.73	12.99	17.56	927
24	10.50	32.34	19.89	27.56	5.75	21.93	29.12	12.99	19.89	1292

ASME Class 150 (in.)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, lbs
	Short pattern									Short
3	4.50	11.90	5.24	9.85	2.07	8.19	9.94	4.80	5.88	61
4	5.00	13.30	6.67	15.75	2.70	9.76	11.61	6.5	6.47	102
6	5.50	16.34	8.00	15.75	2.70	9.76	14.64	6.5	8.88	151
8	6.00	18.11	9.39	15.75	3.80	14.17	15.94	8.27	10.23	256
10	6.50	21.1	10.59	17.72	2.75	15.78	17.77	12.12	11.53	364
12	7.00	23.51	12.56	27.56	5.41	20.51	20.36	16.65	13.46	532
14	7.50	25.83	13.88	27.56	5.41	20.51	22.68	12.44	14.65	710
16	8.50	27.30	15.37	23.62	7.24	20.94	23.58	16.65	15.38	970
18	8.75	29.81	16.77	21.65	7.24	20.31	26.09	16.65	16.89	1194
20	9.00	32.24	18.45	27.56	8.26	23.31	28.65	18.50	19.36	1557
24	10.50	36.00	21.33	27.56	9.25	27.21	32.78	20.24	23.00	2426

ASME Class 600 (in.)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, lbs
	Short pattern									Short
3	7.09	12.58	5.80	15.75	2.70	9.76	10.89	6.5	5.87	92
4	7.48	15.66	7.12	15.75	3.80	14.17	13.49	8.27	7.90	189
6	8.27	17.82	9.38	15.75	3.80	14.17	15.65	8.27	9.69	277
8	9.06	20.77	10.63	19.69	2.76	15.78	17.62	12.12	11.13	434
10	9.84	22.07	12.87	27.56	5.41	20.51	19.55	12.44	12.65	685
12	10.63	27.28	14.64	27.56	7.24	22.28	24.09	16.65	14.32	942
14	11.42	28.78	15.41	27.56	7.24	22.28	25.05	16.65	15.47	1142
16	12.20	30.10	16.37	39.37	6.81	24.44	26.38	16.65	17.68	1414
18	12.99	35.52	18.99	27.56	10.24	27.52	31.62	21.26	19.04	2261
20	13.78	38.60	19.99	35.43	10.24	29.68	34.71	21.26	20.63	2765
24	15.35	45.90	24.34	39.37	12.16	33.27	39.49	23.46	24.4	4067

NPS 3 to 24: Double flanged dimensions (long pattern) — metric



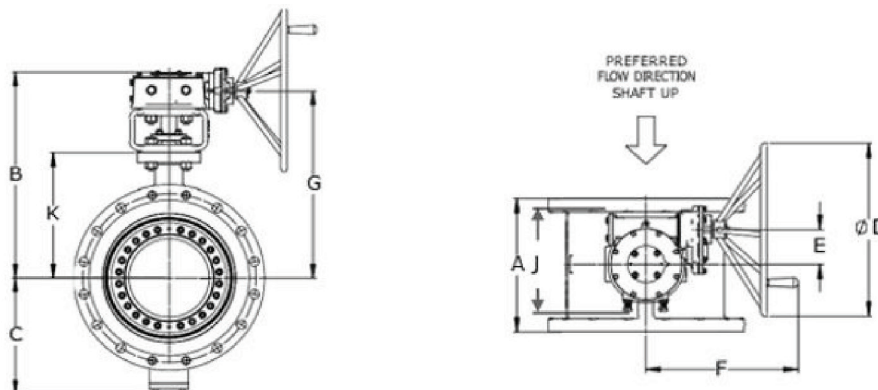
Notes: Flange dimensions per B16.5. Some sizes have tapped holes around the shaft area (top and bottom); consult factory for actual dimensions. Consult factory for pressure classes 900 and 1,500, 2,500.

ASME Class 150 (mm)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, kg
	Long pattern									Long pattern
3	203	304	153	200	42	268	259	132	133	27
4	229	346	158	200	42	268	300	132	160	39
6	267	355	187	200	42	268	309	132	185	52
8	292	482	221	300	14	375	430	192	273	94
10	330	539	257	300	14	375	487	192	305	148
12	356	581	314	400	83	421	529	217	343	178
14	381	649	343	500	28	442	587	257	378	226
16	406	688	381	630	43	487	622	287	410	310
18	432	707	397	560	112	496	641	287	429	371
20	457	768	455	560	153	559	687	373	474	506
24	508	898	535	710	182	608	812	427	569	944

ASME Class 300 (mm)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, kg
	Long pattern									Long pattern
3	282	379	153	200	42	268	334	132	194	39
4	305	352	171	200	42	268	306	132	173	55
6	403	459	213	400	57	336	413	160	260	93
8	419	524	263	400	27	404	472	235	292	153
10	457	588	297	500	28	442	526	257	324	215
12	502	639	368	560	112	496	573	287	362	304
14	762	697	398	630	153	578	616	373	404	517
16	838	738	441	630	153	578	654	373	442	644
18	914	791	467	710	182	608	704	427	488	805
20	991	886	497	710	182	608	799	427	537	1,131
24	1,143	1034	587	710	230	698	930	530	635	1,769

ASME Class 600 (mm)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, kg
	Long pattern									Long pattern
3	356	318	164	350	57	326	271	160	151	43
4	432	425	197	300	13	375	374	192	210	84
6	559	514	245	500	28	442	452	257	269	175
8	660	575	303	710	43	492	510	287	311	278
10	787	662	365	630	153	579	581	373	356	476
12	838	700	397	710	182	608	613	427	384	644
14	889	749	447	710	182	608	663	427	414	763
16	991	861	460	800	230	708	762	530	500	1,087
18	1,092	953	511	800	230	708	853	530	553	1,347
20	1,194	1066	570	900	280	763	944	639	626	2,034
24	1,397	1189	706	900	280	763	1068	639	692	3,182

NPS 3 to 24: Double flanged dimensions (long pattern) — U.S.



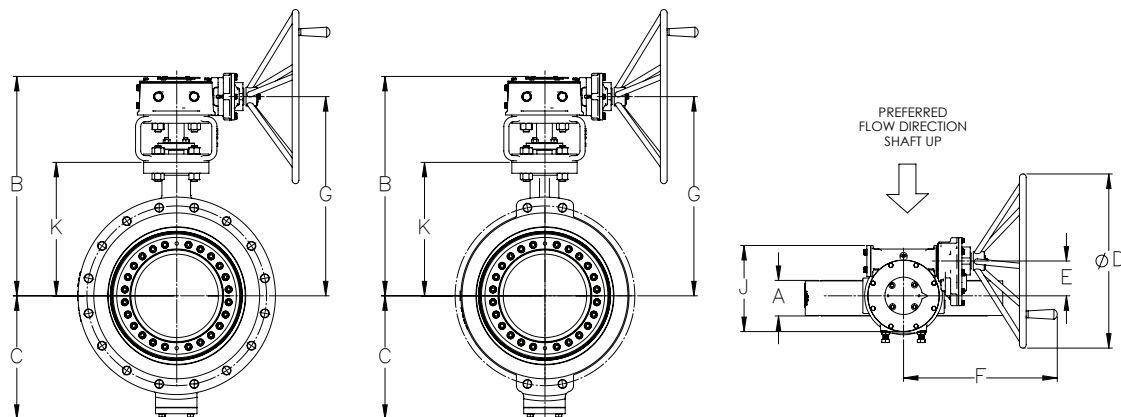
Notes: Flange dimensions per B16.5. Some sizes have tapped holes around the shaft area (top and bottom); consult factory for actual dimensions. Consult factory for pressure classes 900 and 1,500, 2,500.

ASME Class 150 (in.)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, lbs
	Long pattern									Long
3	8.00	11.98	6.02	7.87	1.65	10.57	10.18	5.20	5.43	60
4	9.00	13.61	6.23	7.87	1.65	10.57	11.80	5.20	6.31	85
6	10.50	13.98	7.37	7.87	1.65	10.57	12.17	5.20	7.30	115
8	11.50	18.69	8.69	11.81	0.54	14.75	16.94	7.56	10.75	206
10	13.00	21.21	10.13	11.81	0.54	14.75	19.19	7.56	12.00	327
12	14.00	22.86	12.37	15.75	3.27	16.56	20.84	8.56	13.50	392
14	15.00	25.54	13.50	19.69	1.12	17.40	23.10	10.12	14.90	497
16	16.00	27.07	15.00	24.80	1.71	19.17	24.47	11.29	16.15	682
18	17.00	27.82	15.64	22.05	4.41	19.53	25.22	11.29	16.90	818
20	18.00	30.24	17.93	22.05	6.03	21.99	27.03	14.69	18.66	1,116
24	20.00	35.34	21.07	27.95	7.17	23.92	31.96	16.81	22.39	2,081

ASME Class 150 (in.)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, lbs
	Long pattern									Long
3	11.12	14.93	6.02	7.87	1.65	10.57	13.13	5.20	7.63	86
4	12.00	13.86	6.75	7.87	1.65	10.57	12.05	5.20	6.81	121
6	15.88	18.09	8.38	15.75	2.24	13.23	16.25	6.28	10.25	205
8	16.50	20.62	10.37	15.75	1.05	15.89	18.60	9.27	11.51	337
10	18.00	23.14	11.69	19.69	1.12	17.40	20.70	10.12	12.75	474
12	19.75	25.17	14.49	22.05	4.41	19.53	22.57	11.29	14.25	670
14	30.00	27.44	15.66	24.80	6.02	22.74	24.27	14.69	15.90	1,141
16	33.00	29.05	17.37	24.80	6.02	22.74	25.76	14.69	17.39	1,420
18	36.00	31.16	18.37	21.95	7.17	23.92	27.73	16.81	19.20	1,775
20	39.00	34.87	19.56	27.95	7.17	23.92	31.44	16.81	21.16	2,493
24	45.00	40.72	23.12	27.95	9.06	27.47	36.79	20.86	25.00	3,899

ASME Class 600 (in.)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, lbs
	Long pattern									Long
3	14.00	12.52	6.45	13.78	2.24	12.84	10.68	6.28	5.93	95
4	17.00	16.75	7.76	11.81	0.50	14.75	14.71	7.56	8.27	185
6	22.00	20.25	9.65	19.69	1.12	17.40	17.81	10.12	10.61	387
8	26.00	22.63	11.92	27.95	1.71	19.37	20.07	11.29	12.25	613
10	31.00	26.07	14.38	24.80	6.02	22.78	22.87	14.69	14.00	1,048
12	33.00	27.57	15.63	27.95	7.17	23.92	24.14	16.81	15.11	1,420
14	35.00	29.49	17.60	27.95	7.17	23.92	26.10	16.81	16.28	1,683
16	39.00	33.89	18.12	31.50	9.06	27.86	30.00	20.86	19.67	2,398
18	43.00	37.52	20.12	31.50	9.06	27.86	33.58	20.86	21.79	2,970
20	47.00	41.96	22.43	35.43	11.04	30.03	37.15	25.15	24.63	4,484
24	55.00	46.83	27.78	35.43	11.04	30.03	42.03	25.15	27.25	7,015

NPS 3 to 24: Lug and wafer dimensions — metric



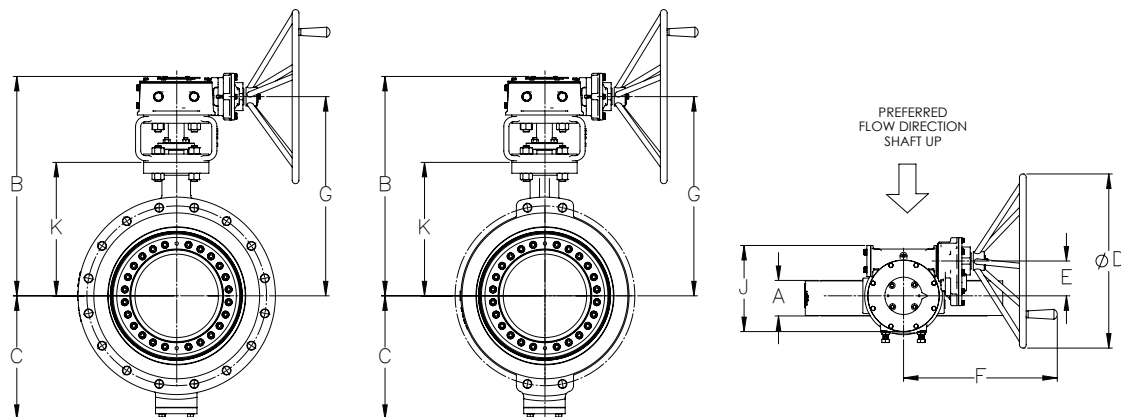
Notes: Flange dimensions per B16.5. Some sizes have tapped holes around the shaft area (top and bottom); consult factory for actual dimensions. Consult factory for pressure classes 900 and 1,500, 2,500.

ASME Class 150 (mm)												
Size	A Face-to-face		B	C	Ø D	E	F	G	J	K	Weight, kg	
	Lug	Wafer									Lug	Wafer
3	48	48	280	140	250	52	208	247	122	133	16	14
4	54	54	306	146	250	52	208	268	122	148	22	19
6	57	57	359	168	400	68	248	312	165	182	34	30
8	64	64	437	210	400	68	248	389	165	236	49	47
10	71	71	497	246	450	43	370	423	211	272	86	80
12	81	81	544	295	400	96	360	470	210	315	112	104
14	92	92	582	327	600	70	437	600	308	333	160	149
16	102	102	609	352	500	70	401	525	308	370	196	184
18	114	114	645	374	650	137	521	563	316	394	254	236
20	127	127	736	409	600	146	523	654	330	445	362	325
24	154	154	820	507	700	146	557	738	330	504	518	467

ASME Class 300 (mm)												
Size	A Face-to-face		B	C	Ø D	E	F	G	J	K	Weight, kg	
	Lug	Wafer									Lug	Wafer
3	48	48	302	149	250	52	208	269	122	133	19	18
4	54	54	342	169	400	68	248	295	165	164	32	26
6	59	59	419	203	400	68	248	372	165	225	46	41
8	73	73	479	239	400	96	360	405	210	260	84	78
10	83	83	536	269	450	70	401	451	308	293	130	114
12	92	92	600	319	700	137	521	517	316	342	191	162
14	117	117	659	353	700	137	521	576	316	372	283	231
16	133	133	693	391	600	184	532	599	423	390	393	334
18	149	149	757	426	550	184	516	663	423	429	500	411
20	159	159	819	469	700	210	592	728	470	492	654	547
24	181	181	979	542	700	260	691	880	514	579	1032	871

ASME Class 600 (mm)												
Size	A Face-to-face		B	C	Ø D	E	F	G	J	K	Weight, kg	
	Lug	Wafer									Lug	Wafer
3	54	54	320	147	400	68	248	277	165	149	26	24
4	64	64	417	181	400	96	360	343	210	201	56	52
6	78	78	469	238	400	42	360	396	210	244	82	72
8	102	102	533	270	500	70	401	448	308	283	135	118
10	117	117	579	327	700	137	521	497	316	321	239	200
12	140	140	706	364	700	184	566	612	423	372	338	300
14	155	155	731	391	700	184	566	636	423	393	451	387
16	178	178	765	416	1000	184	621	670	423	449	531	433
18	200	200	902	582	700	260	699	803	540	484	909	793
20	216	216	981	508	900	260	754	882	540	524	1119	979
24	232	232	1198	618	1000	305	845	1003	596	620	1590	1409

NPS 3 to 24: Lug and wafer dimensions — U.S.



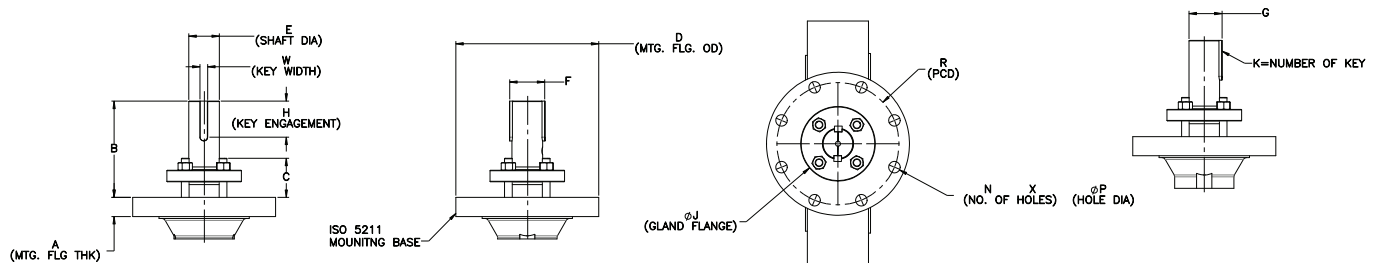
Notes: Flange dimensions per B16.5. Some sizes have tapped holes around the shaft area (top and bottom); consult factory for actual dimensions. Consult factory for pressure classes 900 and 1,500, 2,500.

ASME Class 150 (in.)												
Size	A Face-to-face		B	C	Ø D	E	F	G	J	K	Weight, lbs	
	Lug	Wafer									Lug	Wafer
3	1.88	1.88	11.03	5.53	9.85	2.07	8.19	9.71	4.80	5.25	34	31
4	2.12	2.12	12.05	5.76	9.85	2.07	8.19	10.54	4.80	5.83	49	42
6	2.25	2.25	14.15	6.63	15.75	2.70	9.76	12.30	6.50	7.16	75	67
8	2.50	2.50	17.20	8.29	15.75	2.70	9.76	15.33	6.50	9.13	108	104
10	2.81	2.81	19.56	9.67	17.72	1.68	14.57	16.67	8.30	10.70	189	175
12	3.19	3.19	21.41	11.62	15.75	3.80	14.17	18.51	8.27	12.42	246	229
14	3.62	3.62	22.91	12.87	23.62	2.76	17.20	23.62	12.13	13.11	353	328
16	4.00	4.00	23.99	13.87	19.69	2.76	15.79	20.69	12.13	14.58	433	406
18	4.50	4.50	25.40	14.74	25.59	5.41	20.51	22.15	12.44	15.50	560	521
20	5.00	5.00	28.96	16.12	23.62	5.75	20.59	25.73	12.99	17.50	798	716
24	6.06	6.06	32.29	19.95	27.56	5.75	21.93	29.06	12.99	19.83	1142	1030

ASME Class 300 (in.)												
Size	A Face-to-face		B	C	Ø D	E	F	G	J	K	Weight, lbs	
	Lug	Wafer									Lug	Wafer
3	1.88	1.88	11.91	5.88	9.85	2.07	8.19	10.59	4.8	5.24	43	40
4	2.12	2.12	13.46	6.67	15.75	2.70	9.76	11.62	6.50	6.47	71	58
6	2.31	2.31	16.50	8.00	15.75	2.70	9.76	14.65	6.50	8.88	102	91
8	2.88	2.88	18.84	9.39	15.75	3.80	14.17	15.94	8.26	10.23	184	171
10	3.25	3.25	21.10	10.60	17.72	2.76	15.79	17.77	12.13	11.54	287	252
12	3.62	3.62	23.61	12.56	27.56	5.41	20.51	20.36	12.44	13.46	421	357
14	4.62	4.62	25.93	13.88	27.56	5.41	20.51	22.68	12.44	14.65	624	509
16	5.25	5.25	27.30	15.38	23.62	7.24	20.94	23.58	16.65	15.37	588	735
18	5.88	5.88	29.81	16.77	21.65	7.24	20.31	26.09	16.65	16.89	1102	906
20	6.25	6.25	32.24	18.45	27.56	8.27	23.31	28.65	18.50	19.36	1441	1207
24	7.12	7.12	38.53	21.33	27.56	10.24	27.20	34.63	20.24	23.00	2275	1920

ASME Class 600 (in.)												
Size	A Face-to-face		B	C	Ø D	E	F	G	J	K	Weight, lbs	
	Lug	Wafer									Lug	Wafer
3	2.12	2.12	12.58	5.80	15.75	2.70	9.76	10.89	6.50	5.87	56	53
4	2.50	2.50	16.40	7.12	15.75	3.80	14.17	13.49	8.27	7.90	122	114
6	3.06	3.06	18.48	9.38	15.75	1.67	14.17	15.60	8.27	9.62	180	158
8	4.00	4.00	21.00	10.63	19.69	2.76	15.79	17.62	12.13	11.13	299	261
10	4.62	4.62	22.80	12.87	27.56	5.41	20.51	19.55	12.44	12.65	526	440
12	5.50	5.50	27.81	14.32	27.56	7.24	22.28	24.09	16.65	14.64	744	660
14	6.12	6.12	28.77	15.41	27.56	7.24	22.28	25.05	16.65	15.47	994	853
16	7.00	7.00	30.10	16.37	39.37	7.24	24.45	26.38	16.65	17.68	1170	976
18	7.88	7.88	35.52	18.99	27.56	10.24	27.52	31.62	21.26	19.04	2003	1748
20	8.50	8.50	38.60	19.99	35.43	10.24	29.69	34.71	21.26	20.63	2467	2157
24	9.13	9.13	47.16	24.34	39.37	12.01	33.27	39.48	23.46	24.4	3506	3106

NPS 3 to 24: Topworks dimensions — metric (double flange-short pattern, lug, wafer)



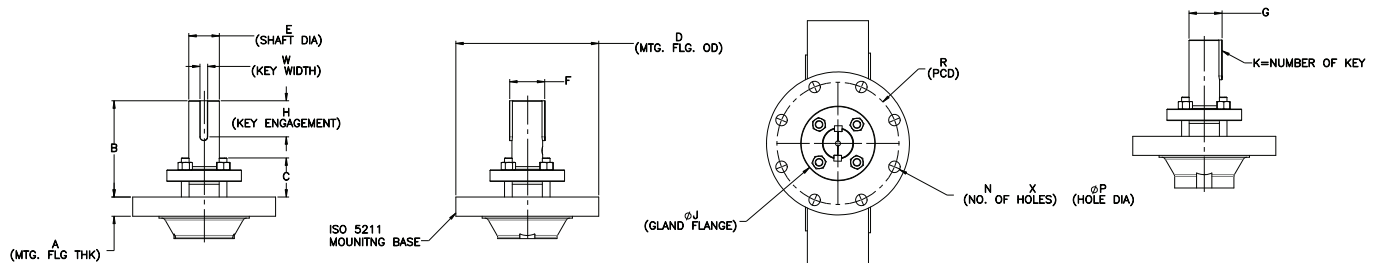
Consult factory for pressure classes 900 and 1,500, 2,500.

ASME Class 150 (mm)																	
Size	ISO Pattern	A	B	C	D	E	F	G	K	H	W	J	L	ØM	N	P	R
3	F07	13	111	41	90	16	-	17	1	30	5	76	2	8.0	4	M8X1.25	70
4	F10	16	117	41	125	19	-	20	1	37	5	84	4	10.0	4	M10X1.5	102
6	F10	15	118	45	125	19	-	20	1	30	5	84	4	10.0	4	M10X1.5	102
8	F12	19	158	54	150	29	33	-	2	45	6	98	4	12.0	4	M12X1.75	125
10	F14	25	149	57	175	32	36	-	2	45	6	102	4	16.0	4	M16x2	140
12	F14	25	167	57	175	38	43	-	2	61	10	104	4	16.0	4	M16x2	140
14	F16	30	185	51	210	38	43	-	2	65	10	104	4	20.0	4	M20X2.5	165
16	F16	31	181	54	210	45	50	-	2	75	10	114	4	20.0	4	M20X2.5	165
18	F16	31	191	57	210	51	59	-	2	61	13	118	4	20.0	4	M20X2.5	165
20	F25	31	254	54	300	57	66	-	2	86	13	140	4	16.0	8	M16x2	254
24	F25	31	275	91	300	70	79	-	2	89	16	178	4	16.0	8	M16x2	254

ASME Class 300 (mm)																	
Size	ISO Pattern	A	B	C	D	E	F	G	K	H	W	J	L	ØM	N	P	R
3	F10	16	115	41	125	19	-	20	1	30	5	84	2	10.0	4	M10X1.5	102
4	F10	16	119	45	125	22	-	24	1	37	5	84	4	10.0	4	M10X1.5	102
6	F12	19	134	60	150	29	33	-	2	51	6	98	4	12.0	4	M12X1.75	125
8	F14	25	146	51	175	35	40	-	2	47	8	104	4	16.0	4	M16x2	140
10	F16	31	178	57	210	38	43	-	2	64	10	118	4	20.0	4	M20x2.5	165
12	F16	25	188	54	210	45	50	-	2	45	10	114	4	20.0	4	M20x2.5	165
14	F25	25	229	60	300	57	65	-	2	73	13	140	4	16.0	8	M16x2	254
16	F25	25	222	54	300	64	73	-	2	76	16	172	4	16.0	8	M16x2	254
18	F30	31	280	92	350	70	79	-	2	89	16	178	4	20.0	8	M20x2.5	298
20	F30	31	270	86	350	76	87	-	2	111	19	210	4	20.0	8	M20x2.5	298
24	F35	48	337	94	415	89	102	-	2	105	22	229	4	30.0	8	M30X3.5	356

ASME Class 600 (mm)																	
Size	ISO Pattern	A	B	C	D	E	F	G	K	H	W	J	L	ØM	N	P	R
3	F10	15	114	41	125	22	-	24	1	35	5	84	4	10.0	4	M10X1.5	102
4	F14	26	138	60	175	27	-	29	1	45	6	92	4	16.0	4	M16x2	140
6	F14	24	159	57	175	38	43	-	2	65	10	104	4	16.0	4	M16x2	140
8	F16	31	191	61	210	45	50	-	2	75	10	118	4	20.0	4	M20x2.5	165
10	F25	25	224	54	300	57	71	-	2	73	13	156	4	16.0	8	M16x2	254
12	F25	25	257	70	300	60	70	-	2	89	16	165	4	16.0	8	M16x2	254
14	F30	32	283	83	350	70	79	-	2	103	16	178	4	20.0	8	M20x2.5	298
16	F30	31	270	86	350	76	87	-	2	111	19	216	4	20.0	8	M20X2.5	298
18	F35	45	356	95	415	89	102	-	2	105	22	241	4	25.0	8	M30X3.5	356
20	F40	54	400	92	475	102	117	-	2	119	25	229	4	30.0	8	M36X4.0	406
24	F40	54	446	118	475	121	139	-	2	152	32	276	4	30.0	8	M36X4.0	406

NPS 3 to 24: Topworks dimensions — U.S. (double flange-short pattern, lug, wafer)



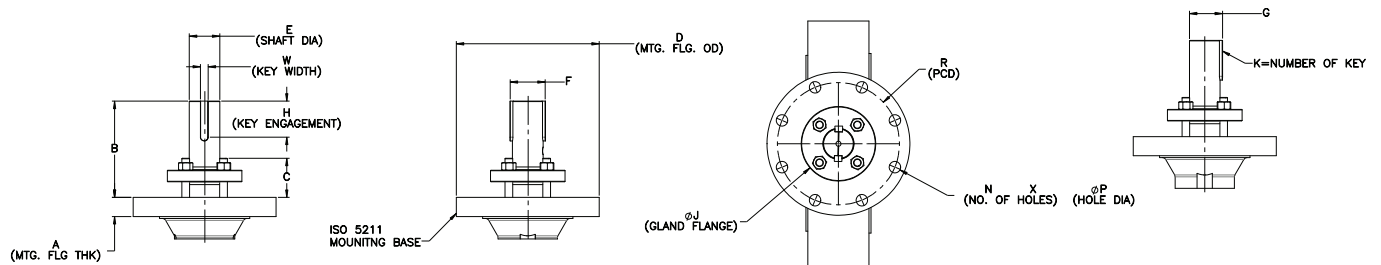
Consult factory for pressure classes 900 and 1,500, 2,500.

ASME Class 150 (in.)																	
Size	ISO Pattern	A	B	C	D	E	F	G	K	H	W	J	L	ØM	N	P	R
3	F07	0.81	4.38	1.63	3.54	0.620	-	0.673	1	1.19	0.190	2.96	2	0.315	4	M8X1.25	2.76
4	F10	0.63	4.60	1.63	4.92	0.750	-	0.800	1	1.47	0.190	3.29	4	0.394	4	M10X1.5	4.02
6	F10	0.60	4.63	1.75	4.92	0.750	-	0.800	1	1.19	0.190	3.29	4	0.394	4	M10X1.5	4.02
8	F12	0.75	6.21	2.12	5.91	1.120	1.280	-	2	1.75	0.250	3.85	4	0.472	4	M12X1.75	4.92
10	F14	1.00	5.85	2.25	6.89	1.250	1.420	-	2	1.75	0.250	4.00	4	0.630	4	M16x2	5.51
12	F14	1.00	6.56	2.25	6.89	1.500	1.700	-	2	2.38	0.380	4.10	4	0.630	4	M16x2	5.51
14	F16	1.19	7.30	2.00	8.27	1.500	1.700	-	2	2.56	0.380	4.50	4	0.787	4	M20X2.5	6.50
16	F16	1.20	7.13	2.12	8.27	1.750	1.960	-	2	2.94	0.380	4.50	4	0.787	4	M20X2.5	6.50
18	F16	1.20	7.50	2.25	8.27	2.000	2.320	-	2	2.38	0.500	4.63	4	0.787	4	M20X2.5	6.50
20	F25	1.20	10.00	2.12	11.81	2.250	2.580	-	2	3.38	0.500	5.50	4	0.630	8	M16x2	10.00
24	F25	1.20	10.81	3.56	11.81	2.750	3.120	-	2	3.50	0.630	7.00	4	0.630	8	M16x2	10.00

ASME Class 300 (in.)																	
Size	ISO Pattern	A	B	C	D	E	F	G	K	H	W	J	L	ØM	N	P	R
3	F10	0.63	4.52	1.63	4.92	0.750	-	0.800	1	1.19	0.190	3.29	2	0.394	4	M10X1.5	4.02
4	F10	0.60	4.68	1.75	4.92	0.870	-	0.930	1	1.47	0.190	3.29	4	0.394	4	M10X1.5	4.02
6	F12	0.75	5.25	2.37	5.91	1.120	1.290	-	2	2.00	0.250	3.85	4	0.472	4	M12X1.75	4.92
8	F14	1.00	5.75	2.00	6.89	1.370	1.590	-	2	1.83	0.310	4.10	4	0.630	4	M16x2	5.51
10	F16	1.20	7.00	2.25	8.27	1.500	1.700	-	2	2.50	0.380	4.63	4	0.787	4	M20x2.5	6.50
12	F16	1.00	7.39	2.12	8.27	1.750	1.960	-	2	1.75	0.380	4.50	4	0.787	4	M20x2.5	6.50
14	F25	1.00	8.99	2.37	11.81	2.250	2.570	-	2	2.88	0.500	5.50	4	0.630	8	M16x2	10.00
16	F25	1.00	8.75	2.12	11.81	2.500	2.860	-	2	3.00	0.630	6.75	4	0.630	8	M16x2	10.00
18	F30	1.20	11.00	3.62	13.78	2.750	3.120	-	2	3.50	0.630	7.00	4	0.787	8	M20x2.5	11.73
20	F30	1.20	10.63	3.37	13.78	3.000	3.400	-	2	4.38	0.750	8.25	4	0.787	8	M20x2.5	11.73
24	F35	1.88	13.27	3.70	16.34	3.500	4.020	-	2	4.12	0.880	9.00	4	1.181	8	M30X3.5	14.02

ASME Class 600 (in.)																	
Size	ISO Pattern	A	B	C	D	E	F	G	K	H	W	J	L	ØM	N	P	R
3	F10	0.59	4.47	1.63	4.92	0.870	-	0.930	1	1.38	0.190	3.29	4	0.394	4	M10X1.5	4.02
4	F14	1.01	5.44	2.37	6.89	1.060	-	1.140	1	1.75	0.250	3.62	4	0.630	4	M16x2	5.51
6	F14	0.95	6.25	2.25	6.89	1.500	1.700	-	2	2.56	0.375	4.10	4	0.630	4	M16x2	5.51
8	F16	1.20	7.50	2.38	8.27	1.750	1.960	-	2	2.94	0.380	4.63	4	0.787	4	M20x2.5	6.50
10	F25	1.00	8.81	2.12	11.81	2.250	2.800	-	2	2.88	0.500	6.00	4	0.630	8	M16x2	10.00
12	F25	1.00	10.10	2.75	11.81	2.370	2.730	-	2	3.50	0.630	6.50	4	0.630	8	M16x2	10.00
14	F30	1.25	11.13	3.25	13.77	2.750	3.120	-	2	4.06	0.630	7.00	4	0.787	8	M20x2.5	11.73
16	F30	1.20	10.63	3.37	13.78	3.000	3.400	-	2	4.38	0.750	8.25	4	0.787	8	M20x2.5	11.73
18	F35	1.75	14.00	3.75	16.34	3.500	4.010	-	2	4.12	0.880	9.50	4	0.984	8	M30X3.5	14.02
20	F40	2.13	15.75	3.62	18.70	4.000	4.620	-	2	4.70	1.000	9.00	4	1.181	8	M36X4.0	15.98
24	F40	2.13	17.54	4.62	18.70	4.750	5.460	-	2	6.00	1.250	10.88	4	1.181	8	M36X4.0	15.98

NPS 3 to 24: Topworks dimensions — metric (double flange-long pattern)



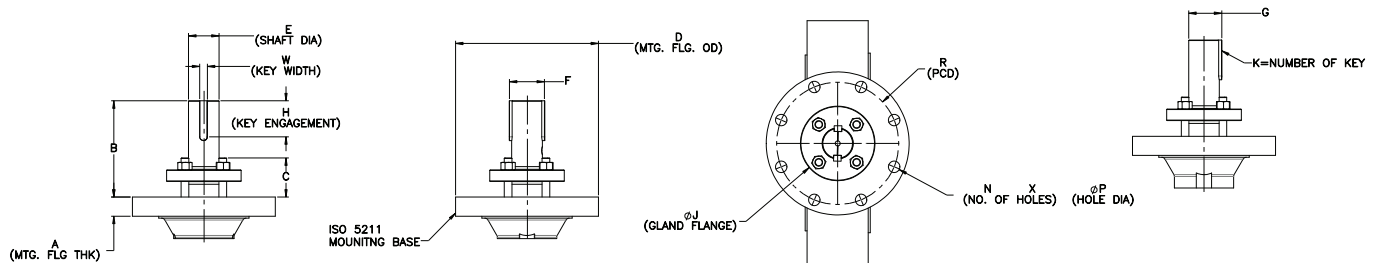
Consult factory for pressure classes 900 and 1,500, 2,500.

ASME Class 150 (mm)															
Size	ISO Pattern	A	B	C	D	E	F	G	K	H	W	J	N	P	R
3	F07	21	111	38	90	16	-	17	1	30	5	76	4	8	70
4	F10	16	132	47	125	19	-	20	1	37	5	84	4	11	102
6	F10	19	118	47	125	19	-	20	1	30	5	84	4	11	102
8	F12	19	159	57	150	29	33	-	2	45	6	92	4	13	125
10	F14	28	188	63	175	32	36	-	2	45	6	102	4	17	140
12	F14	28	194	76	175	38	43	-	2	61	10	104	4	17	140
14	F16	35	216	76	210	38	43	-	2	65	10	114	4	21	165
16	F16	35	235	73	210	45	50	-	2	75	10	114	4	21	165
18	F16	35	234	80	210	51	59	-	2	61	13	118	4	21	165
20	F25	32	254	73	300	57	66	-	2	86	13	152	8	17	254
24	F25	35	273	102	300	70	79	-	2	89	16	178	8	17	254

ASME Class 300 (mm)															
Size	ISO Pattern	A	B	C	D	E	F	G	K	H	W	J	N	P	R
3	F10	19	130	41	125	19	-	20	1	30	5	84	4	11	102
4	F10	16	130	45	125	22	-	24	1	37	5	84	4	11	102
6	F12	25	154	60	150	29	33	-	2	51	6	92	4	13	125
8	F14	29	185	60	175	35	40	-	2	47	8	104	4	17	140
10	F16	35	216	73	210	38	43	-	2	64	10	114	4	21	165
12	F16	35	234	76	210	45	50	-	2	75	10	114	4	21	165
14	F25	35	232	79	300	57	65	-	2	73	13	156	8	17	254
16	F25	32	254	86	300	64	73	-	2	76	16	172	8	17	254
18	F30	35	269	95	350	70	79	-	2	89	16	178	8	21	298
20	F30	35	316	105	350	76	87	-	2	111	19	216	8	21	298
24	F35	51	337	112	415	89	102	-	2	105	22	235	8	31	356

ASME Class 600 (mm)															
Size	ISO Pattern	A	B	C	D	E	F	G	K	H	W	J	N	P	R
3	F10	21	114	47	125	22	-	24	1	35	5	76	4	11	102
4	F14	28	165	70	175	27	-	29	1	45	6	92	4	17	140
6	F14	29	185	73	175	38	43	-	2	65	10	98	4	17	140
8	F16	35	213	73	210	45	50	-	2	75	10	118	4	21	165
10	F25	36	260	89	300	57	66	-	2	73	13	156	8	17	254
12	F25	32	272	95	300	60	69	-	2	89	16	165	8	17	254
14	F30	38	303	101	350	70	79	-	2	103	16	178	8	21	298
16	F30	38	322	117	350	76	87	-	2	111	19	216	8	21	298
18	F35	51	356	124	415	89	102	-	2	105	22	235	8	31	356
20	F40	64	388	130	475	102	117	-	2	119	25	248	8	37	406
24	F40	64	472	167	475	121	139	-	2	152	32	286	8	37	406

NPS 3 to 24: Topworks dimensions – U.S. (double flange-long pattern)



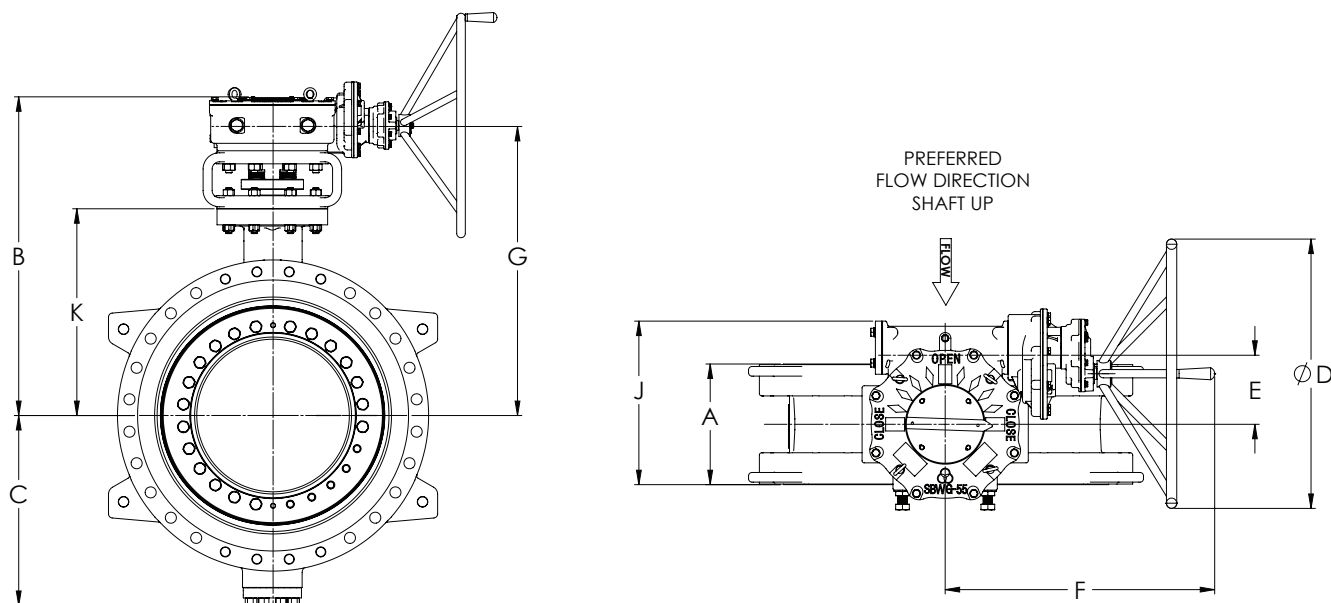
Consult factory for pressure classes 900 and 1,500, 2,500.

ASME Class 150 (in.)															
Size	ISO Pattern	A	B	C	D	E	F	G	K	H	W	J	N	P	R
3	F07	0.81	4.38	1.50	3.54	0.63	-	0.67	1	1.19	0.19	2.96	4	0.33	2.76
4	F10	0.63	5.21	1.84	4.92	0.75	-	0.80	1	1.47	0.19	3.29	4	0.41	4.02
6	F10	0.76	4.63	1.87	4.92	0.75	-	0.80	1	1.19	0.19	3.29	4	0.41	4.02
8	F12	1.00	6.25	2.25	5.91	1.13	1.29	-	2	1.75	0.25	3.63	4	0.51	4.92
10	F14	1.12	7.38	2.50	6.89	1.25	1.42	-	2	1.75	0.25	4.00	4	0.67	5.51
12	F14	1.12	7.63	3.00	6.89	1.50	1.70	-	2	2.38	0.38	4.10	4	0.67	5.51
14	F16	1.38	8.50	3.00	8.27	1.50	1.70	-	2	2.56	0.38	4.50	4	0.83	6.50
16	F16	1.38	9.25	2.86	8.27	1.75	1.96	-	2	2.94	0.38	4.50	4	0.83	6.50
18	F16	1.38	9.22	3.15	8.27	2.00	2.32	-	2	2.38	0.50	4.63	4	0.83	6.50
20	F25	1.25	10.00	2.87	11.81	2.25	2.58	-	2	3.38	0.50	6.00	8	0.67	10.00
24	F25	1.38	10.75	4.00	11.81	2.75	3.12	-	2	3.50	0.63	7.00	8	0.67	10.00

ASME Class 300 (in.)															
Size	ISO Pattern	A	B	C	D	E	F	G	K	H	W	J	N	P	R
3	F10	0.76	5.13	1.87	4.92	0.75	-	0.80	1	1.19	0.19	3.29	4	0.41	4.02
4	F10	0.60	5.13	1.87	4.92	0.88	-	0.93	1	1.47	0.19	3.29	4	0.41	4.02
6	F12	1.00	6.04	2.37	5.91	1.13	1.29	-	2	2.00	0.25	3.63	4	0.51	4.92
8	F14	1.13	7.30	2.37	6.89	1.38	1.59	-	2	1.83	0.31	4.10	4	0.67	5.51
10	F16	1.37	8.50	2.87	8.27	1.50	1.70	-	2	2.50	0.38	4.50	4	0.83	6.50
12	F16	1.38	9.19	3.00	8.27	1.75	1.96	-	2	2.94	0.38	4.50	4	0.83	6.50
14	F25	1.38	9.13	3.12	11.81	2.25	2.57	-	2	2.88	0.50	6.13	8	0.67	10.00
16	F25	1.25	10.00	3.38	11.81	2.50	2.86	-	2	3.00	0.63	6.75	8	0.67	10.00
18	F30	1.38	10.59	3.75	13.78	2.75	3.12	-	2	3.50	0.63	7.00	8	0.83	11.73
20	F30	1.38	12.42	4.12	13.78	3.00	3.40	-	2	4.38	0.75	8.50	8	0.83	11.73
24	F35	2.00	13.25	4.39	16.34	3.50	4.02	-	2	4.12	0.88	9.25	8	1.22	14.02

ASME Class 600 (in.)															
Size	ISO Pattern	A	B	C	D	E	F	G	K	H	W	J	N	P	R
3	F10	0.83	4.47	1.87	4.92	0.88	-	0.93	1	1.38	0.19	3.00	4	0.41	4.02
4	F14	1.12	6.50	2.74	6.89	1.06	-	1.14	1	1.75	0.25	3.62	4	0.67	5.51
6	F14	1.13	7.30	2.87	6.89	1.50	1.70	-	2	2.56	0.38	3.88	4	0.67	5.51
8	F16	1.38	8.38	2.87	8.27	1.75	1.96	-	2	2.94	0.38	4.63	4	0.83	6.50
10	F25	1.40	10.25	3.49	11.81	2.25	2.58	-	2	2.88	0.50	6.13	8	0.67	10.00
12	F25	1.25	10.70	3.74	11.81	2.38	2.73	-	2	3.50	0.63	6.50	8	0.67	10.00
14	F30	1.50	11.91	3.99	13.78	2.75	3.12	-	2	4.06	0.63	7.00	8	0.83	11.73
16	F30	1.50	12.66	4.62	13.78	3.00	3.40	-	2	4.38	0.75	8.50	8	0.83	11.73
18	F35	2.00	14.00	4.87	16.34	3.50	4.01	-	2	4.12	0.88	9.25	8	1.22	14.02
20	F40	2.50	15.26	5.12	18.70	4.00	4.62	-	2	4.70	1.00	9.75	8	1.46	15.98
24	F40	2.50	18.59	6.56	18.70	4.75	5.46	-	2	6.00	1.25	10.25	8	1.46	15.98

NPS 30 to 60: Double flanged Series A flanged dimensions — metric



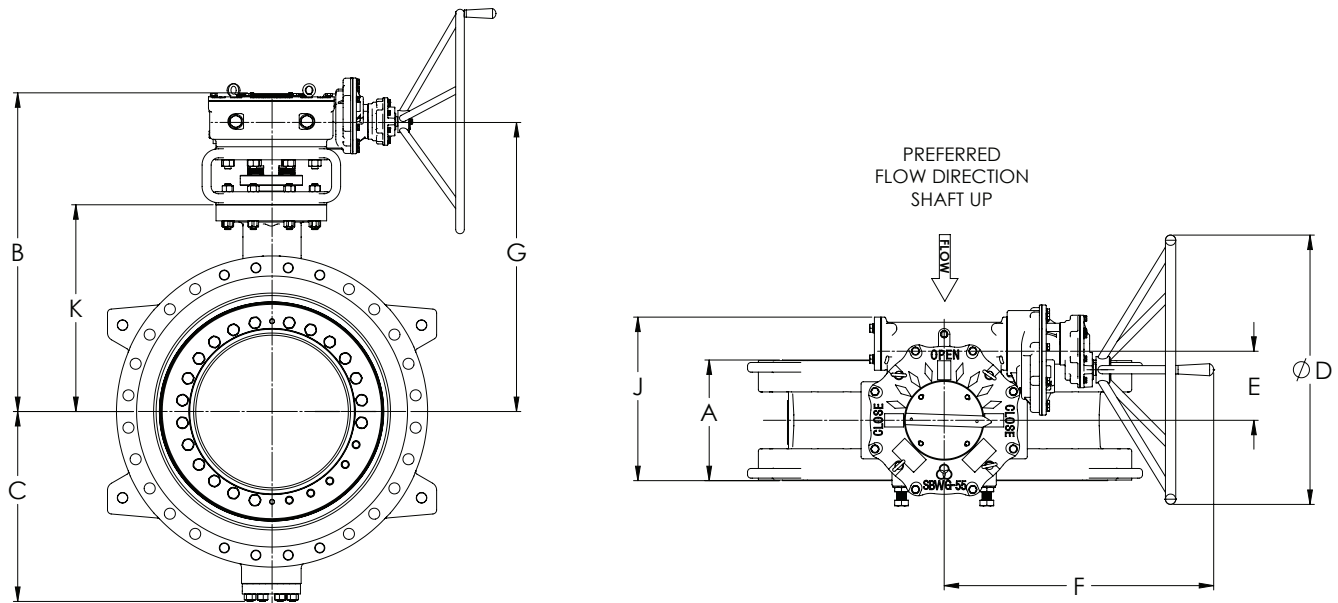
Notes: Flange dimensions per B16.47. Some sizes have tapped holes around the shaft area (top and bottom).

ASME Class 150 (mm)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, kg
	Short									Short
30	318	1,015	601	710	202	735	933	501	654	1,069
32	318	1,141	627	800	230	801	1,050	573	706	1,370
36	330	1,216	728	800	230	801	1,125	578	762	1,731
42	410	1,414	859	900	281	846	1,303	690	864	2,700
48	470	1,592	963	1,000	326	1,011	1,466	815	1,016	3,907
52	530	1,679	1,005	1,000	326	1,011	1,553	845	1,140	4,653
56	530	1,829	1,060	1,000	379	1,046	1,700	953	1,238	5,199
60	600	1,867	1,187	1,000	379	1,046	1,738	988	1,245	6,248

ASME Class 300 (mm)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, kg
	Short									Short
30	318	1,303	711	1,000	356	1,011	1,177	739	737	2,063
32	318	1,372	756	1,000	356	1,011	1,246	739	828	2,368
36	330	1,419	788	1,000	379	1,046	1,290	853	853	2,986
42	410	1,586	857	1,000	449	1,086	1,440	962	921	3,741
48	470	1,703	1,012	1,000	449	1,086	1,557	992	1,082	5,256
52	530	1,755	1,014	1,000	449	1,086	1,609	1,023	1,140	5,669
56	530	1,984	1,166	1,000	513	1,322	1,796	1,156	1,245	7,979
60	600	2,089	1,222	1,000	513	1,322	1,901	1,191	1,337	9,038

ASME Class 600 (mm)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, kg
	Short									Short
30	450	1,410	796	1,000	379	1,046	1,281	913	826	3,321
36	510	1,541	819	1,000	449	1,086	1,395	1,013	914	5,550
42	570	1,686	905	1,000	513	1,322	1,498	1,176	953	5,162

NPS 30 to 60: Double flanged Series A flanged dimensions — U.S.



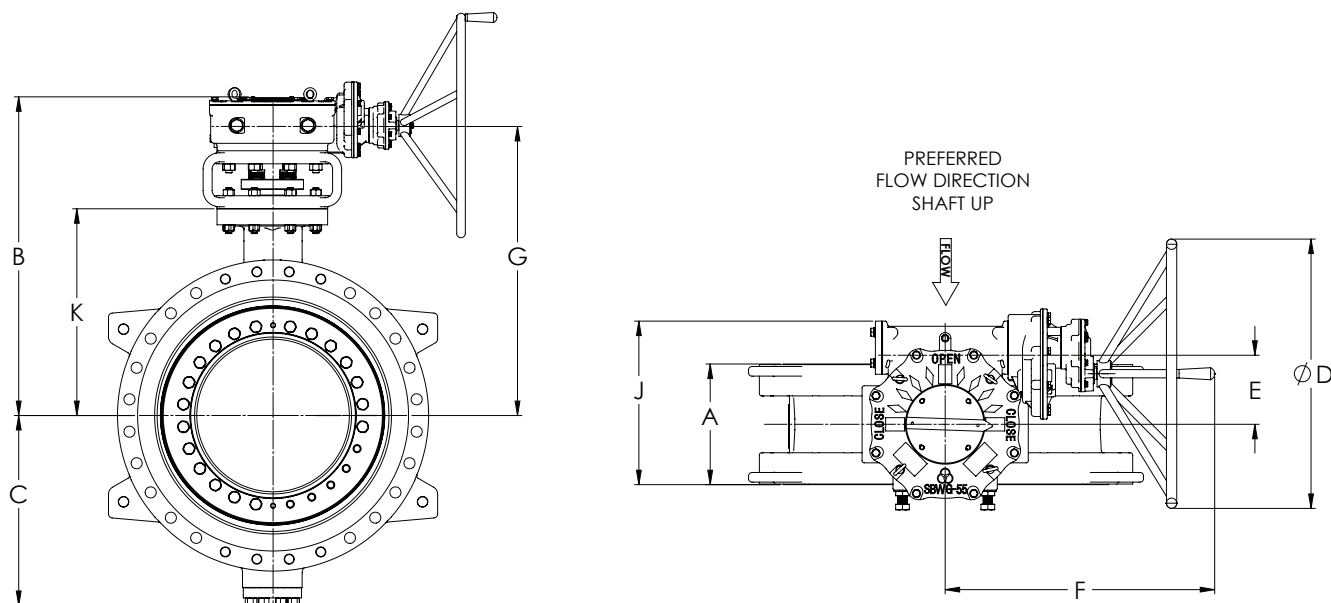
Notes: Flange dimensions per B16.47. Some sizes have tapped holes around the shaft area (top and bottom); consult factory for actual dimensions.

ASME Class 150 (in.)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, lbs
	Short									Short
30	12.52	39.95	23.66	27.95	7.95	28.92	36.72	19.71	25.75	2,358
32	12.52	44.92	24.70	31.50	9.06	31.54	41.34	22.54	27.80	3,021
36	12.99	47.87	28.65	31.50	9.06	31.54	44.29	22.78	30.00	3,817
42	16.14	55.69	33.81	35.43	11.04	33.31	51.32	27.18	34.00	5,953
48	18.50	62.69	37.91	39.37	12.84	39.80	57.72	32.09	40.00	8,613
52	20.87	66.09	39.58	39.37	12.84	39.80	61.12	33.27	44.90	10,259
56	20.87	72.00	41.73	39.37	14.92	41.18	66.92	37.52	48.75	11,463
60	23.62	73.50	46.75	39.37	14.92	41.18	68.42	38.90	49.00	13,774

ASME Class 300 (in.)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, lbs
	Short									Short
30	12.52	51.31	28.00	39.37	14.02	39.80	46.35	29.10	29.00	4,548
32	12.52	54.04	29.75	39.37	14.02	39.80	49.07	29.10	32.60	5,220
36	12.99	55.85	31.01	39.37	14.92	41.18	50.77	33.58	33.60	6,582
42	16.14	62.43	33.72	39.37	17.66	42.76	56.68	37.89	36.25	8,247
48	18.50	67.03	39.85	39.37	17.66	42.76	61.28	39.07	42.60	11,588
52	20.87	69.08	39.92	39.37	17.66	42.76	63.33	40.26	44.90	12,497
56	20.87	78.11	45.89	39.37	20.20	52.05	70.71	45.51	49.00	17,591
60	23.62	82.26	48.12	39.37	20.20	52.05	74.86	46.89	52.65	19,925

ASME Class 600 (in.)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, lbs
	Short									Short
30	17.72	55.50	31.33	39.37	14.92	41.18	50.42	35.95	32.50	7,321
36	20.08	60.68	32.25	39.37	17.66	42.76	54.93	39.86	36.00	12,235
42	22.44	66.36	35.62	39.37	20.20	52.05	58.96	46.30	37.50	11,381

NPS 30 to 60: Double flanged Series B flanged dimensions — metric



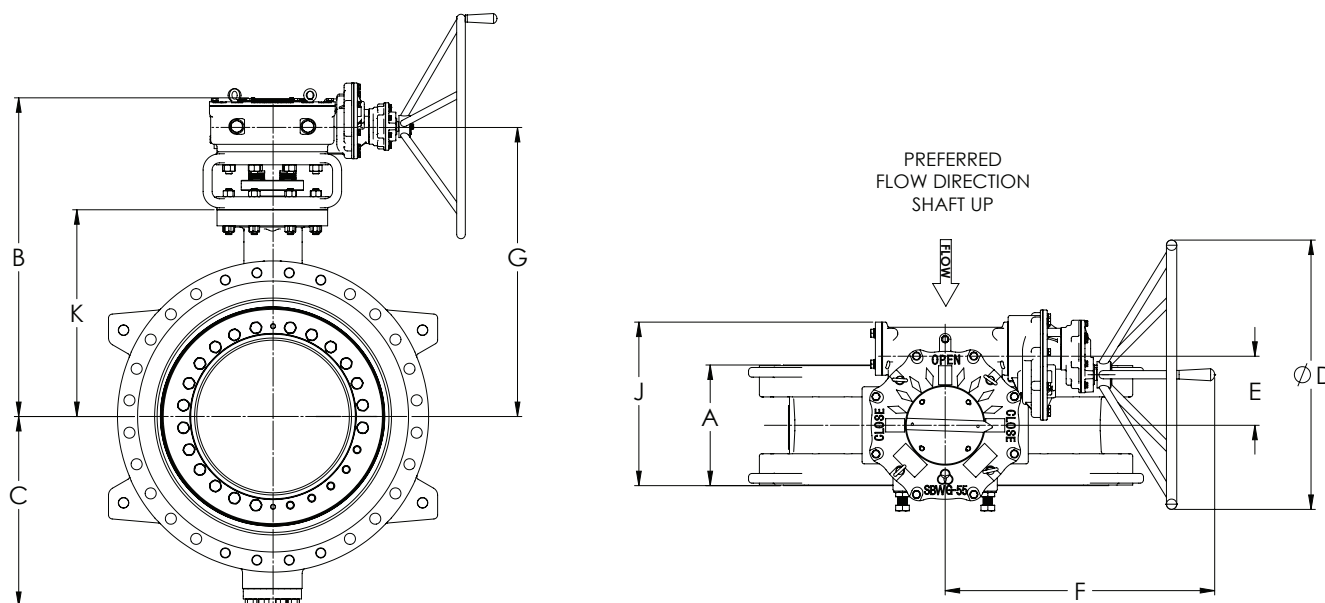
Notes: Flange dimensions per B16.47. Some sizes have tapped holes around the shaft area (top and bottom); consult factory for actual dimensions.

ASME Class 150 (mm)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, kg
	Short									Short
30	318	996	589	710	202	735	914	501	635	862
32	318	1,121	609	800	230	801	1,030	573	686	1,094
36	330	1,216	722	800	230	801	1,125	578	762	1,381
42	410	1,386	829	900	281	846	1,275	690	835	2,236
48	470	1,541	944	1,000	326	1,011	1,415	815	965	3,354
52	530	1,651	966	1,000	326	1,011	1,525	845	1,113	3,875
56	530	1,797	1,026	1,000	379	1,046	1,668	953	1,207	4,247
60	600	1,852	1,177	1,000	379	1,046	1,723	988	1,229	5,170

ASME Class 300 (mm)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, kg
	Short									Short
30	318	1,252	698	1,000	356	1,011	1,126	739	686	1,829
32	318	1,353	736	1,000	356	1,011	1,227	739	809	2,175
36	330	1,393	762	1,000	379	1,046	1,264	853	828	2,703
42	410	1,586	841	1,000	449	1,086	1,440	962	921	3,790
48	470	1,728	1,055	1,000	449	1,086	1,582	992	1,107	5,276
52	530	1,755	1,015	1,000	449	1,086	1,609	1,023	1,140	5,797
56	530	2,009	1,196	1,000	513	1,322	1,821	1,156	1,270	8,169
60	600	2,121	1,257	1,000	513	1,322	1,933	1,191	1,369	9,079

ASME Class 600 (mm)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, kg
	Short									Short
30	450	1,327	710	1,000	379	1,046	1,198	913	743	2,888
36	510	1,541	832	1,000	449	1,086	1,395	1,013	914	4,472
42	570	1,686	905	1,000	513	1,322	1,498	1,176	953	6,146

NPS 30 to 60: Double flanged Series B flanged dimensions — U.S.



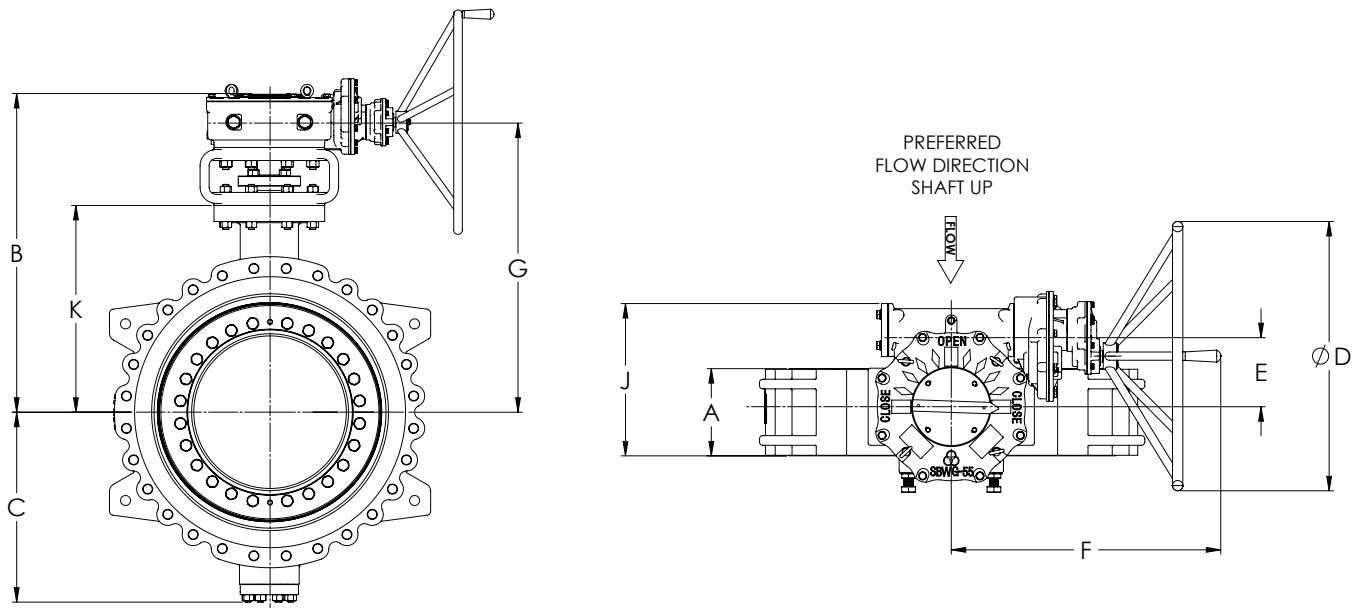
Notes: Flange dimensions per B16.47. Some sizes have tapped holes around the shaft area (top and bottom); consult factory for actual dimensions.

ASME Class 150 (in.)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, lbs
	Short									Short
30	12.52	39.20	23.18	27.95	7.95	28.92	35.97	19.70	25.00	1,900
32	12.52	44.12	23.96	31.50	9.06	31.54	40.54	22.54	27.00	2,411
36	12.99	47.87	28.41	31.50	9.06	31.54	44.29	22.78	30.00	3,045
42	16.14	54.56	32.63	35.43	11.04	33.31	50.19	27.18	32.88	4,929
48	18.50	60.69	37.16	39.37	12.84	39.80	55.72	32.09	38.00	7,394
52	20.87	64.99	38.05	39.37	12.84	39.80	60.02	33.27	43.80	8,542
56	20.87	70.75	40.38	39.37	14.92	41.18	65.67	37.52	47.50	9,362
60	23.62	72.90	46.34	39.37	14.92	41.18	67.82	38.90	48.40	11,397

ASME Class 300 (in.)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, lbs
	Short									Short
30	12.520	49.31	27.50	39.37	14.02	39.80	44.35	29.10	27.00	4,031
32	12.500	53.29	29.00	39.37	14.02	39.80	48.32	29.09	31.85	4,796
36	12.990	54.85	30.01	39.37	14.92	41.18	49.77	33.58	32.60	5,959
42	16.140	62.43	33.12	39.37	17.66	42.76	56.68	37.89	36.25	8,356
48	18.500	68.03	41.52	39.37	17.66	42.76	62.28	39.07	43.60	11,632
52	20.870	69.08	39.95	39.37	17.66	42.76	63.33	40.26	44.90	12,781
56	20.866	79.11	47.09	39.37	20.20	52.05	71.71	45.51	50.00	18,010
60	23.622	83.51	49.49	39.37	20.20	52.05	76.11	46.89	53.90	20,015

ASME Class 600 (in.)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, lbs
	Short									Short
30	17.720	52.25	27.94	39.37	14.92	41.18	47.17	35.95	29.25	6,366
36	20.079	60.68	32.74	39.37	17.66	42.76	54.93	39.86	36.00	9,859
42	22.440	66.36	35.62	39.37	20.20	52.05	58.96	46.30	37.50	13,549

NPS 30 to 60: Lug Series A dimensions — metric



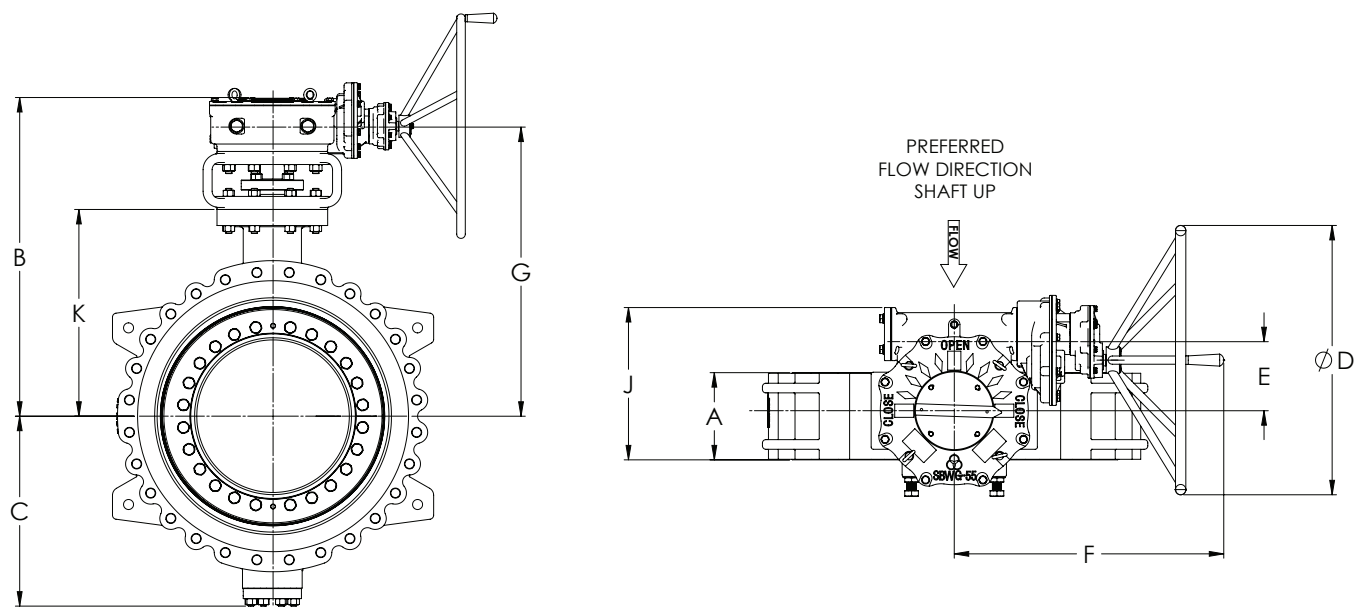
Notes: Flange dimensions per B16.47. Some sizes have tapped holes around the shaft area (top and bottom); consult factory for actual dimensions.

ASME Class 150 (mm)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, kg
	Lug									Lug
30	230	1,015	601	710	202	735	933	456	654	1,043
32	241	1,141	627	800	230	801	1,050	534	706	1,384
36	266	1,216	728	800	230	801	1,125	547	762	1,731
42	300	1,414	859	900	281	846	1,303	635	864	2,700
48	350	1,592	963	1,000	326	1,011	1,466	755	1,016	4,008
52	370	1,679	1,005	1,000	326	1,011	1,553	765	1,140	4,788
56	390	1,829	1,060	1,000	379	1,046	1,700	883	1,238	5,363
60	410	1,867	1,187	1,000	379	1,046	1,738	893	1,245	6,406

ASME Class 300 (mm)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, kg
	Lug									Lug
30	318	1,303	711	1,000	356	1,011	1,177	739	737	2,256
32	318	1,372	756	1,000	356	1,011	1,246	739	828	2,516
36	330	1,419	788	1,000	379	1,046	1,290	853	853	3,202
42	330	1,586	857	1,000	449	1,086	1,440	922	921	3,711
48	387	1,703	1,012	1,000	449	1,086	1,557	951	1,082	5,103
52	422	1,755	1,014	1,000	449	1,086	1,609	969	1,140	5,195
56	435	1,984	1,166	1,000	513	1,322	1,796	1,108	1,245	7,750
60	450	2,089	1,222	1,000	513	1,322	1,901	1,116	1,337	8,556

ASME Class 600 (mm)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, kg
	Lug									Lug
30	394	1,410	796	1,000	379	1,046	1,281	885	826	3,378
36	394	1,541	819	1,000	449	1,086	1,395	954	914	4,569
42	432	1,686	905	1,000	513	1,322	1,498	1,107	953	5,847

NPS 30 to 60: Lug Series A dimensions — U.S.



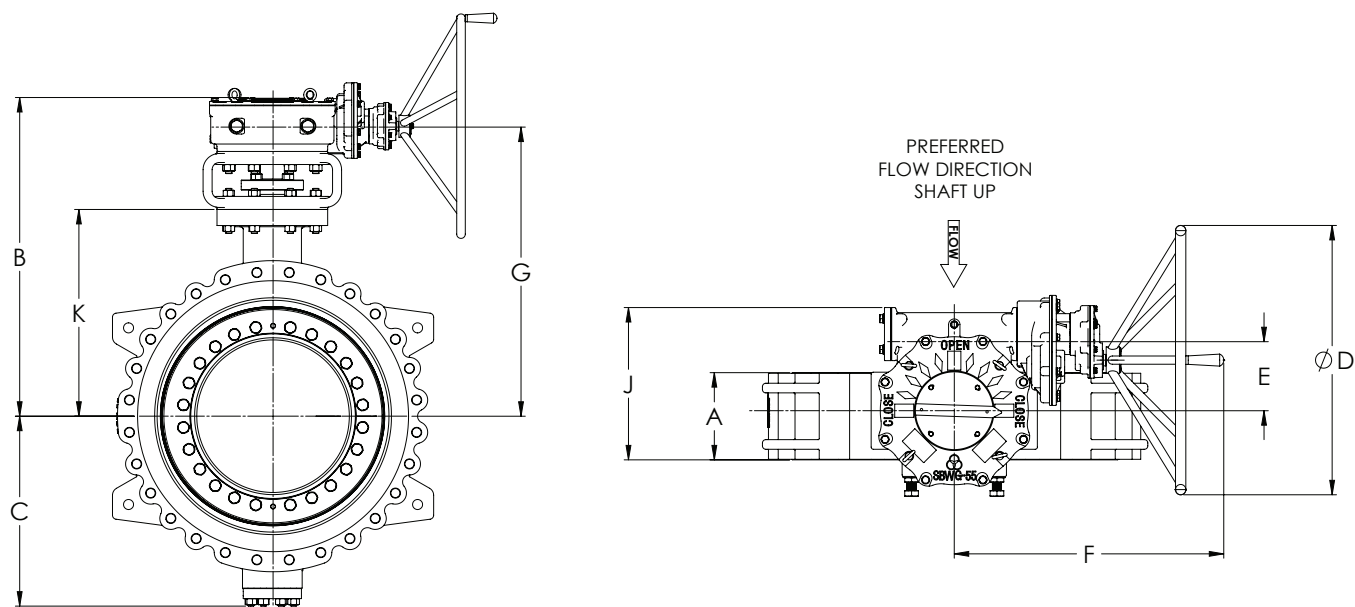
Notes: Flange dimensions per B16.47. Some sizes have tapped holes around the shaft area (top and bottom); consult factory for actual dimensions.

ASME Class 150 (in.)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, lbs
	Lug									Lug
30	9.05	39.95	23.66	27.95	7.95	28.92	36.72	17.97	25.75	2,299
32	9.49	44.92	24.70	31.50	9.06	31.54	41.34	21.03	27.80	3,052
36	10.49	47.87	28.65	31.50	9.06	31.54	44.29	21.53	30.00	3,816
42	11.81	55.69	33.81	35.43	11.04	33.31	51.32	25.02	34.00	5,953
48	13.78	62.69	37.91	39.37	12.84	39.80	57.72	29.73	40.00	8,836
52	14.57	66.09	39.58	39.37	12.84	39.80	61.12	30.12	44.90	10,557
56	15.35	72.00	41.73	39.37	14.92	41.18	66.92	34.76	48.75	11,824
60	16.14	73.50	46.75	39.37	14.92	41.18	68.42	35.16	49.00	14,122

ASME Class 300 (in.)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, lbs
	Lug									Lug
30	12.52	51.31	28.00	39.37	14.02	39.80	46.35	29.10	29.00	4,974
32	12.52	54.04	29.75	39.37	14.02	39.80	49.07	29.10	32.60	5,547
36	12.99	55.85	31.01	39.37	14.92	41.18	50.77	33.58	33.60	7,060
42	12.99	62.43	33.72	39.37	17.66	42.76	56.68	36.32	36.25	8,180
48	15.25	67.03	39.85	39.37	17.66	42.76	61.28	37.45	42.60	11,250
52	16.62	69.08	39.92	39.37	17.66	42.76	63.33	38.13	44.90	11,453
56	17.12	78.11	45.89	39.37	20.20	52.05	70.71	43.64	49.00	17,086
60	17.72	82.26	48.12	39.37	20.20	52.05	74.86	43.94	52.65	18,862

ASME Class 600 (in.)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, lbs
	Lug									Lug
30	15.50	55.50	31.33	39.37	14.92	41.18	50.42	34.84	32.50	7,447
36	15.50	60.68	32.25	39.37	17.66	42.76	54.93	37.57	36.00	10,073
42	17.00	66.36	35.62	39.37	20.20	52.05	58.96	43.58	37.50	12,891

NPS 30 to 60: Lug Series B dimensions — metric



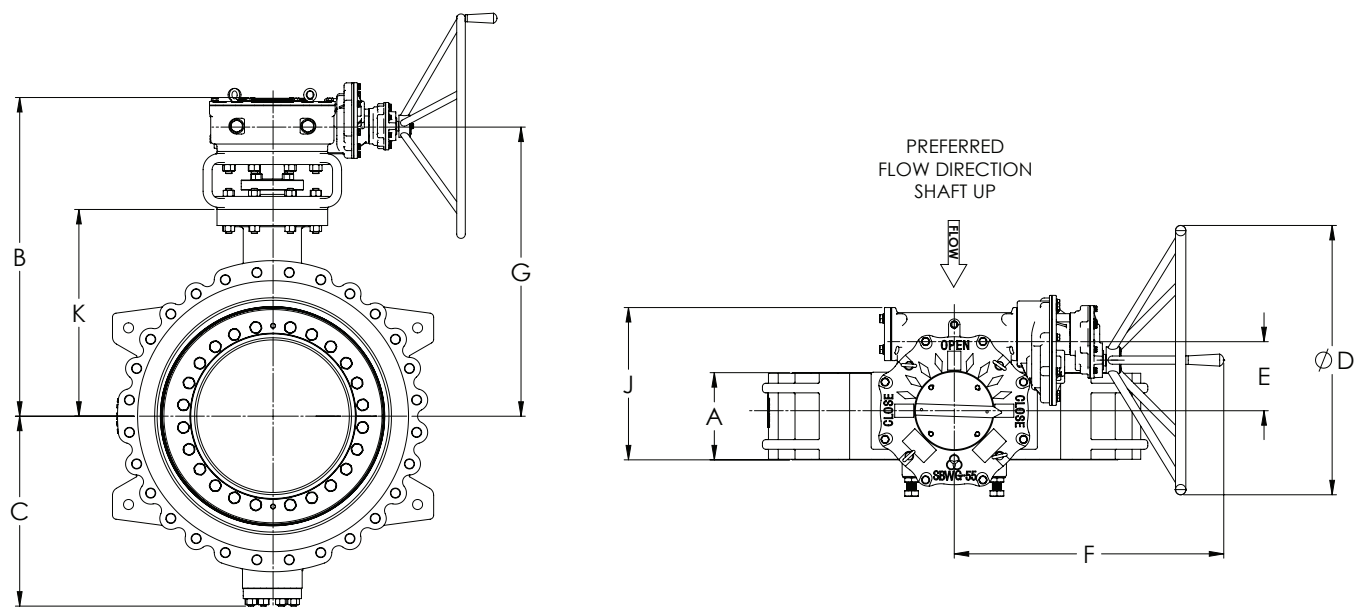
Notes: Flange dimensions per B16.47. Some sizes have tapped holes around the shaft area (top and bottom); consult factory for actual dimensions.

ASME Class 150 (mm)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, kg
	Lug									Lug
30	230	996	589	710	202	735	914	456	635	891
32	241	1,121	609	800	230	801	1,030	534	686	1,148
36	266	1,216	722	800	230	801	1,125	547	762	1,453
42	300	1,386	829	900	281	846	1,275	635	835	2,281
48	350	1,541	944	1,000	326	1,011	1,415	755	965	3,483
52	370	1,651	966	1,000	326	1,011	1,525	765	1,113	3,971
56	390	1,797	1,026	1,000	379	1,046	1,668	883	1,207	4,407
60	410	1,852	1,177	1,000	379	1,046	1,723	893	1,229	5,202

ASME Class 300 (mm)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, kg
	Lug									Lug
30	318	1,252	698	1,000	356	1,011	1,126	739	686	1,982
32	318	1,353	736	1,000	356	1,011	1,227	739	809	2,301
36	330	1,393	762	1,000	379	1,046	1,264	853	828	2,854
42	330	1,586	841	1,000	449	1,086	1,440	922	921	3,788
48	387	1,728	1,055	1,000	449	1,086	1,582	951	1,107	5,337
52	422	1,755	1,015	1,000	449	1,086	1,609	969	1,140	6,043
56	435	2,009	1,196	1,000	513	1,322	1,821	1,108	1,270	7,935
60	450	2,121	1,257	1,000	513	1,322	1,933	1,116	1,369	9,002

ASME Class 600 (mm)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, kg
	Lug									Lug
30	394	1,327	710	1,000	379	1,046	1,198	913	743	2,952
36	394	1,541	832	1,000	449	1,086	1,395	1,013	914	4,331
42	432	1,686	905	1,000	513	1,322	1,498	1,176	953	5,847

NPS 30 to 60: Lug Series B dimensions — U.S.



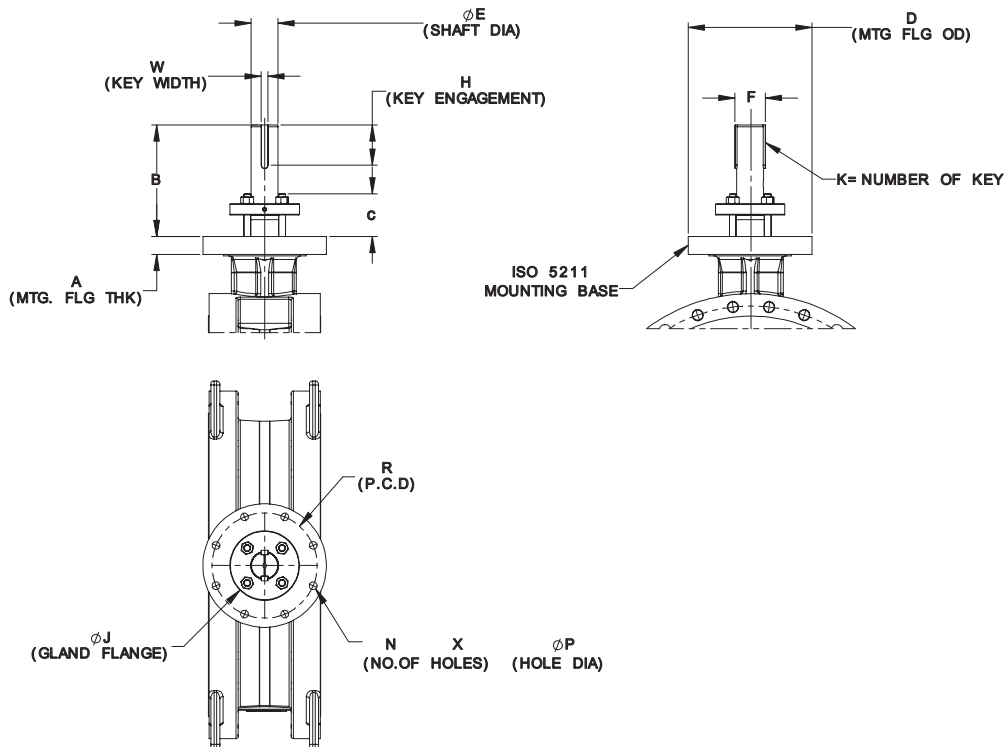
Notes: Flange dimensions per B16.47. Some sizes have tapped holes around the shaft area (top and bottom); consult factory for actual dimensions.

ASME Class 150 (in.)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, lbs
	Lug									Lug
30	9.05	39.20	23.18	27.95	7.95	28.92	35.97	17.97	25.00	1,964
32	9.49	44.12	23.96	31.50	9.06	31.54	40.54	21.03	27.00	2,531
36	10.49	47.87	28.41	31.50	9.06	31.54	44.29	21.53	30.00	3,203
42	11.81	54.56	32.63	35.43	11.04	33.31	50.19	25.02	32.88	5,028
48	13.78	60.69	37.16	39.37	12.84	39.80	55.72	29.73	38.00	7,678
52	14.57	64.99	38.05	39.37	12.84	39.80	60.02	30.12	43.80	8,754
56	15.35	70.75	40.38	39.37	14.92	41.18	65.67	34.76	47.50	9,717
60	16.14	72.90	46.34	39.37	14.92	41.18	67.82	35.16	48.40	11,468

ASME Class 300 (in.)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, lbs
	Lug									Lug
30	12.52	49.31	27.50	39.37	14.02	39.80	44.35	29.10	27.00	4,371
32	12.52	53.29	29.00	39.37	14.02	39.80	48.32	29.10	31.85	5,074
36	12.99	54.85	30.01	39.37	14.92	41.18	49.77	33.58	32.60	6,292
42	12.99	62.43	33.12	39.37	17.66	42.76	56.68	36.32	36.25	8,352
48	15.25	68.03	41.52	39.37	17.66	42.76	62.28	37.45	43.60	11,766
52	16.62	69.08	39.95	39.37	17.66	42.76	63.33	38.13	44.90	13,323
56	17.12	79.11	47.09	39.37	22.00	52.05	71.71	43.64	50.00	17,494
60	17.72	83.51	49.49	39.37	22.00	52.05	76.11	43.94	53.90	19,847

ASME Class 600 (in.)										
Size	A Face-to-face	B	C	Ø D	E	F	G	J	K	Weight, lbs
	Lug									Lug
30	15.50	52.25	27.94	39.37	14.92	41.18	47.17	35.95	29.25	6,507
36	15.50	60.68	32.74	39.37	17.66	42.80	54.93	39.86	36.00	9,549
42	17.00	66.36	35.62	39.37	21.00	52.05	58.96	46.30	37.50	12,891

NPS 30 to 60: Topworks dimensions — metric

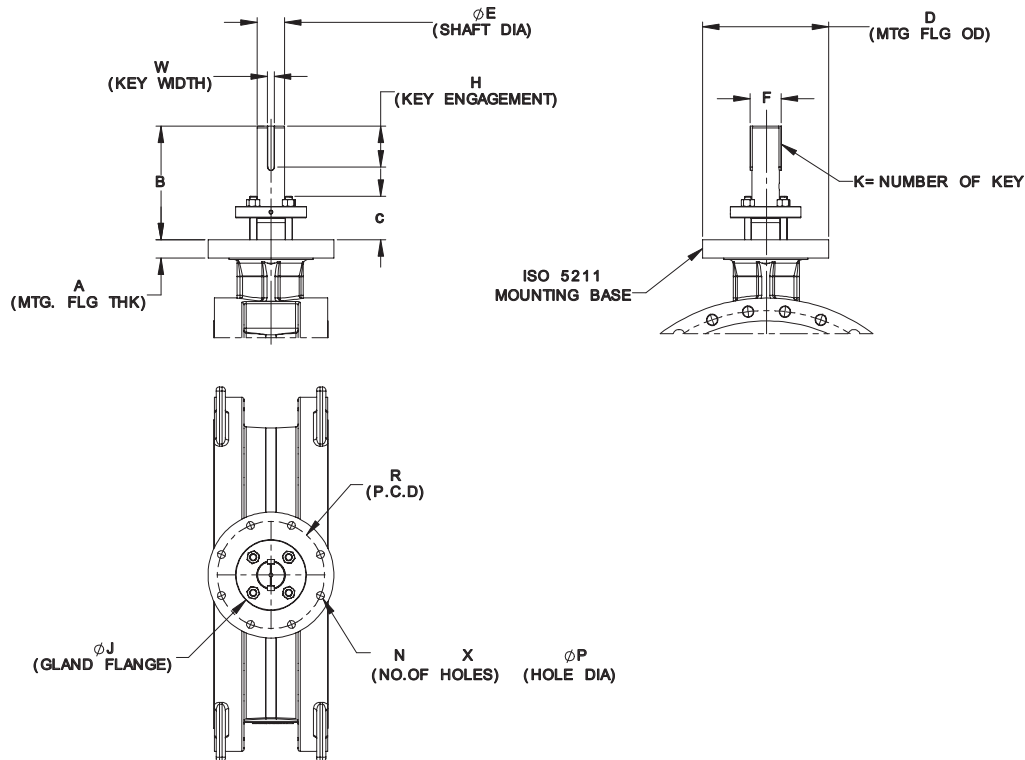


ASME Class 150 (mm)														
Size	ISO Pattern	A	B	C	D	E	F	K	H	W	J	N	P	R
30	F30	51	297	115	350	76	86	2	114.30	19	197	8	22	298
32	F35	53	343	130	415	83	93	2	123.95	19	203	8	32	356
36	F35	51	369	141	415	89	102	2	127.00	22	260	8	32	356
42	F40	83	484	197	475	108	124	2	162.05	25	292	8	38	406
48	F48	79	486	175	560	121	139	2	181.10	32	305	12	38	483
52	F48	83	454	152	560	127	145	2	190.50	32	298	12	38	483
56	F48	70	511	162	560	140	158	2	209.55	32	337	12	38	483
60	F48	83	543	210	560	140	158	2	209.55	32	318	12	38	483

ASME Class 300 (mm)														
Size	ISO Pattern	A	B	C	D	E	F	K	H	W	J	N	P	R
30	F35	54	455	157	415	108	124	2	162	25	268	8	32	356
32	F40	76	441	162	475	114	131	2	171	25	273	8	38	406
36	F48	64	469	159	560	127	145	2	191	32	298	12	38	483
42	F48	57	564	206	560	140	158	2	210	32	343	12	38	483
48	F60	79	547	181	686	171	204	2	257	44	356	20	38	603
52	F60	83	556	171	686	184	217	2	276	44	356	20	38	603
56	F60	83	629	203	686	197	228	2	295	51	406	20	38	603
60	F60	83	670	206	686	210	241	2	314	51	406	20	38	603

ASME Class 600 (mm)														
Size	ISO Pattern	A	B	C	D	E	F	K	H	W	J	N	P	R
30	F48	95	508	191	560	133	152	2	203	32	349	12	38	483
36	F60	89	537	194	686	152	173	2	229	38	356	20	38	603
42	F60	89	636	219	686	168	200	2	252	44	381	20	38	603

NPS 30 to 60: Topworks dimensions – U.S.



ASME Class 150 (in.)														
Size	ISO Pattern	A	B	C	D	E	F	K	H	W	J	N	P	R
30	F30	2.00	11.71	4.51	13.79	3.00	3.40	2	4.50	0.75	7.75	8	0.85	11.73
32	F35	2.10	13.49	5.13	16.35	3.25	3.66	2	4.88	0.75	8.00	8	1.25	14.02
36	F35	2.00	14.54	5.55	16.35	3.50	4.01	2	5.00	0.88	10.25	8	1.25	14.02
42	F40	3.25	19.06	7.74	18.70	4.25	4.88	2	6.38	1.00	11.50	8	1.50	15.98
48	F48	3.10	19.15	6.87	22.00	4.75	5.46	2	7.13	1.25	12.00	12	1.50	19.00
52	F48	3.25	17.87	6.00	22.00	5.00	5.72	2	7.50	1.25	11.75	12	1.50	19.00
56	F48	2.75	20.11	6.37	22.00	5.50	6.22	2	8.25	1.25	13.25	12	1.50	19.00
60	F48	3.25	21.39	8.25	22.00	5.50	6.22	2	8.25	1.25	12.50	12	1.50	19.00

ASME Class 300 (in.)														
Size	ISO Pattern	A	B	C	D	E	F	K	H	W	J	N	P	R
30	F35	2.13	17.92	6.18	16.35	4.25	4.88	2	6.38	1.00	10.55	8	1.25	14.00
32	F40	3.00	17.37	6.38	18.70	4.50	5.14	2	6.75	1.00	10.75	8	1.50	16.00
36	F48	2.50	18.48	6.25	22.00	5.00	5.71	2	7.50	1.25	11.75	12	1.50	19.00
42	F48	2.25	22.19	8.12	22.00	5.50	6.22	2	8.25	1.25	13.50	12	1.50	19.00
48	F60	3.10	21.54	7.12	27.00	6.75	8.02	2	10.13	1.75	14.00	20	1.50	23.75
52	F60	3.25	21.91	6.75	27.00	7.25	8.54	2	10.87	1.75	14.00	20	1.50	23.75
56	F60	3.25	24.77	7.99	27.00	7.75	8.98	2	11.62	2.00	16.00	20	1.50	23.75
60	F60	3.25	26.39	8.12	27.00	8.25	9.50	2	12.37	2.00	16.00	20	1.50	23.75

ASME Class 600 (in.)														
Size	ISO Pattern	A	B	C	D	E	F	K	H	W	J	N	P	R
30	F48	3.75	20.00	7.50	22.00	5.25	5.97	2	8.00	1.25	13.75	12	1.50	19.00
36	F60	3.50	21.13	7.62	27.00	6.00	6.81	2	9.00	1.50	14.00	20	1.50	23.75
42	F60	3.50	25.00	8.62	27.00	6.63	7.89	2	9.93	1.75	15.00	20	1.50	23.75

NPS 3 to 24: Flow coefficients

Size	Class 150, Rated Cv		Class 300, Rated Cv		Class 600, Rated Cv	
	Shaft Upstream	Shaft Downstream	Shaft Upstream	Shaft Downstream	Shaft Upstream	Shaft Downstream
3	132	132	132	132	132	132
4	228	223	228	223	220	220
6	800	800	650	650	590	587
8	1,411	1,317	1,310	1,310	1,081	1,040
10	2,630	2,630	2,430	2,430	1,720	1,720
12	3,808	3,520	3,673	3,445	2,650	2,623
14	5,240	5,240	4,750	4,750	4,070	4,070
16	7,120	7,120	6,360	6,360	4,757	4,477
18	9,180	9,180	8,420	8,420	7,475	7,475
20	11,368	11,329	10,550	10,550	9,830	9,830
24	17,680	17,680	15,800	15,200	12,750	12,750

NPS 30 to 60: Flow coefficients

Size	Class 150, Rated Cv		Class 300, Rated Cv		Class 600, Rated Cv	
	Series A	Series B	Series A	Series B	Series A	Series B
30	30,726	23,638	26,426	23,556	20,100	15,136
32	31,490	30,348	27,958	23,486	-	-
36	39,266	35,340	41,724	35,418	29,485	27,356
42	-	-	-	-	38,698	38,698
48	82,573	61,725	61,725	69,900	-	-
52	101,983	83,169	71,619	68,992	-	-
56	123,321	98,750	91,488	95,111	-	-
60	153,058	148,520	98,225	113,796	-	-

Durco TX3 valve model code (ordering information)

	Valve Size		Model	Body Style	End Connection Option	Pressure Class		Body Material	Disc Material	Shaft Material	Bearing Material	Packing Style	Packing Material	Seal Ring	Body Seat Surface		Operator	Options (two digits)	
NPS 3	03	-		-			-								-			N5	NACE MR0175
NPS 4	04	-		-			-								-			O ₂	O ₂ cleaned
NPS 6	06	-		-			-								-			CL	Cl cleaned
NPS 8	08	-		-			-								-			CR	Cryogenic stem extension
NPS 10	10	-		-			-								-			TS	Travel stop arrangement
NPS 12	12	-		-			-								-	1			Enclosed gear
NPS 14	14	-		-			-								-	Z			Bare stem
NPS 16	16	-		-			-												
NPS 18	18	-		-			-								N	-			Alloy 21 hardfaced
NPS 20	20	-		-			-								S	-			Alloy 6 hardfaced
NPS 24	24	-		-			-								H				Laminated duplex 31803/Graphite
NPS 30	30	-		-			-								W				Laminated Inconel/Graphite
NPS 32	32	-		-			-								J				Laminated Monel/Graphite
NPS 36	36	-		-			-								K				Laminated Hastelloy/Graphite
NPS 42	42	-		-			-								9				304 SS (hardface)
NPS 48	48	-		-			-								1				316 SS (hardface)
NPS 52	52	-		-			-								R				XM19 (hardface)
NPS 56	56	-		-			-								6				Hastelloy
NPS 60	60	-		-			-								G				Graphite rib braid (fire-safe)
	Standard		TX3	-			-								B				Braided PTFE
			Flanged (short)	F			-						1						Single set
			Flanged (long)	G			-						2						Double set
			Lug	L			-						3						Live-loaded single set
			Wafer	W			-						4						Live-loaded double set
			Buttweld	B			-						5						Double set ported for vacuum
			Raised face		0		-												
			Flat face		F		-						1						316 SS/Nitrided
			RTJ		R		-						2						316 SS/MBDP
			Schedule 40 BW		4		-						B						316 SS/Alloy 6
			Schedule 80 BW		8		-						S						Alloy 6
			Class 150		1		-						4						410 SS
			Class 300		3		-						R						XM 19
			Class 600		6		-						1						17-4PH
			Class 900		9		-						N						Inconel 718
			Class 1500		5		-						3						Monel
			Class 2500		2		-												
			WCB		B								F						F6A class 4
			WCC		A														WCB (ENP)
			LCC		C														WCC (ENP)
			CF8M		1														LCC (ENP)
			CF3M		L														CF8M
			Inconel		N														CF3M
			CE3MN		M														Inconel
			Monel		3														CE3MN
			Hastelloy C		6														Monel
			Alloy 20		2														Hastelloy C
																			Alloy 20

Example:

08-TX3-F03-B1412GHN-1N5

Refers to an 8 in. Durco TX3 triple offset butterfly valve, with short flange, raised face, Class 300, carbon steel (WCB) body, stainless (CF8M) disc, stainless (410) shaft, 316 SS Nitrided bearing, double set Graphite packing, laminated duplex 31803/Graphite seal ring, Alloy 21 overlay seat surface, gear operator, with special materials meeting NACE MR0175 requirements. Other options available upon request. Please contact factory for availability.



Flowserve Corporation
5215 North O'Connor Blvd.
Suite 700
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