

Chicago Valves & Controls



SERIES 57

HIGH PERFORMANCE BUTTERFLY VALVE

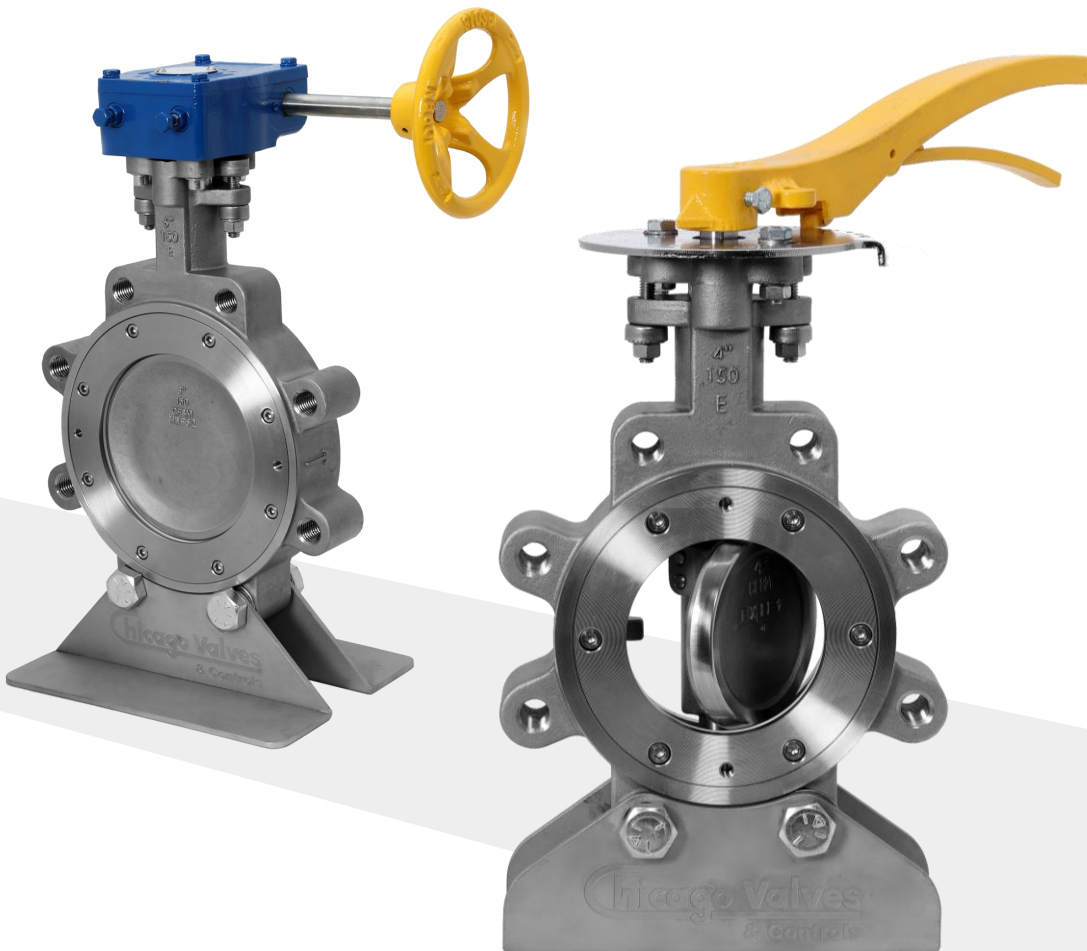
CLASS 150 / 300 / 600

Introduction

Series 57 is a high-performance butterfly valve series, which are designed to regulate and isolate flow in the process industry. These valves are durable, precise, and have the ability to handle high pressure as well as high temperatures. They ensure efficient and reliable operation in critical applications, such as oil and gas, chemicals, and power generation, optimizing performance and reducing downtime.

Main Features

- Wide size range: 2" – 72"
- Classes: Class 150 | Class 300 | Class 600
- Types: Wafer | Lug | Double flange
- Actuation: Handle | Gear box | Pneumatic | Electric
- Standards: NSF 61
NSF 372 } Stainless steel 316 and RTFE seat



Manufacturing standards and design features

Top flange

Top flange is drilled as per ISO 5211 and accommodates direct mount actuators and allows adjustment of gland packing flange while valve is in service without removing actuation or handle.

Stem

17-4PH heat treated per ASTM A564 to meet NACE MR0175, provide maximum strength and stability for high torque applications. Other materials are available upon request.

Blow out proof stem

The blow out proof stem is designed per API 609 standard and is located above the packing area.

Extended Neck

Provides path for heat dissipation and allows space for insulation.

Valve body

One piece wafer, lug, or double flange, body materials include WCB, CF8M, Alloy 20, Duplex 2205 & SMO 254.

Packing

Packing: PTFE is a cup cone system graphite is a compression molded ring positive seals.

Disc

The standard construction is 316 CF8M (also available in other materials), engineered to maximize flow and minimize resistance to provide high flow coefficient and reduce torque and seat wear.

Disc to stem pins

The pins are off set to the center of the stem making it compressed not sheared. This gives them a yield point greater than the stem itself, the pins are welded in place after final assembly and testing.

Seat retainer plate

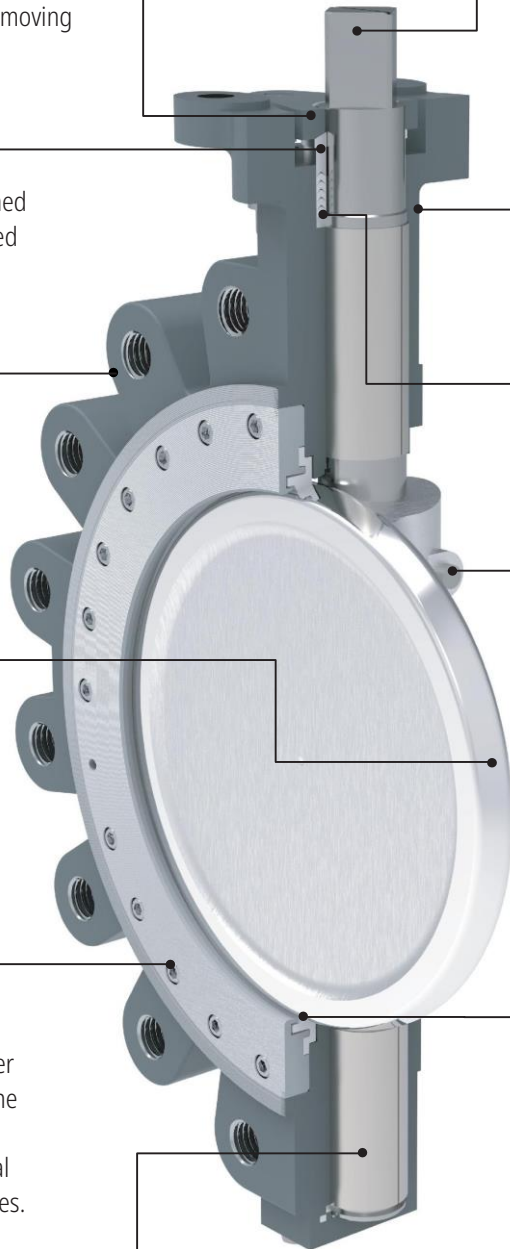
This rugged multi bolt seat retainer is made of the same material as the body and contains and supports bidirectional flow and bidirectional end service for all soft seated valves.

Seat

Advanced free floating pressure assisted solid seat. Design provides interference and pressure assisted sealing for positive seal at low pressure and high pressure. Series 57 seats do not rely on secondary positioning components such as O-Rings, springs, wire straps or metal straps to secure the seat; resulting in longer life and less maintenance.

Bearings

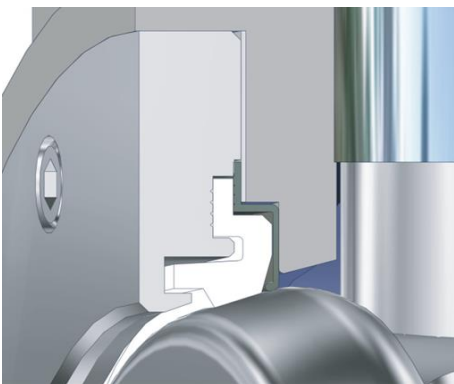
Made of 316 stainless steel with impregnated Reinforced PTFE or impregnated graphite, to ensure long service life.





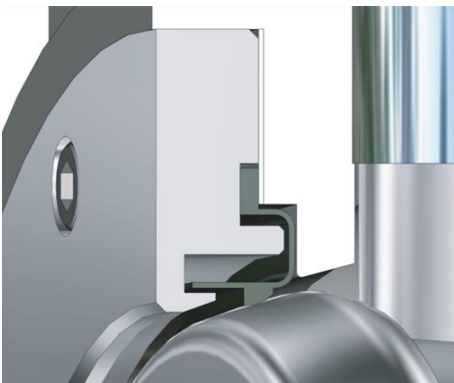
Soft Seat Design

- Solid seat, free floating, pressure assisted seal.
- No extra parts are needed to keep the positive seal.
- The seat is rated for full ASME pressure.
- Seat and seat retainers are designed for bi-directional and double dead-end service.
- Bubble-tight bi-directional shut off.



Fire Safe Seat Design

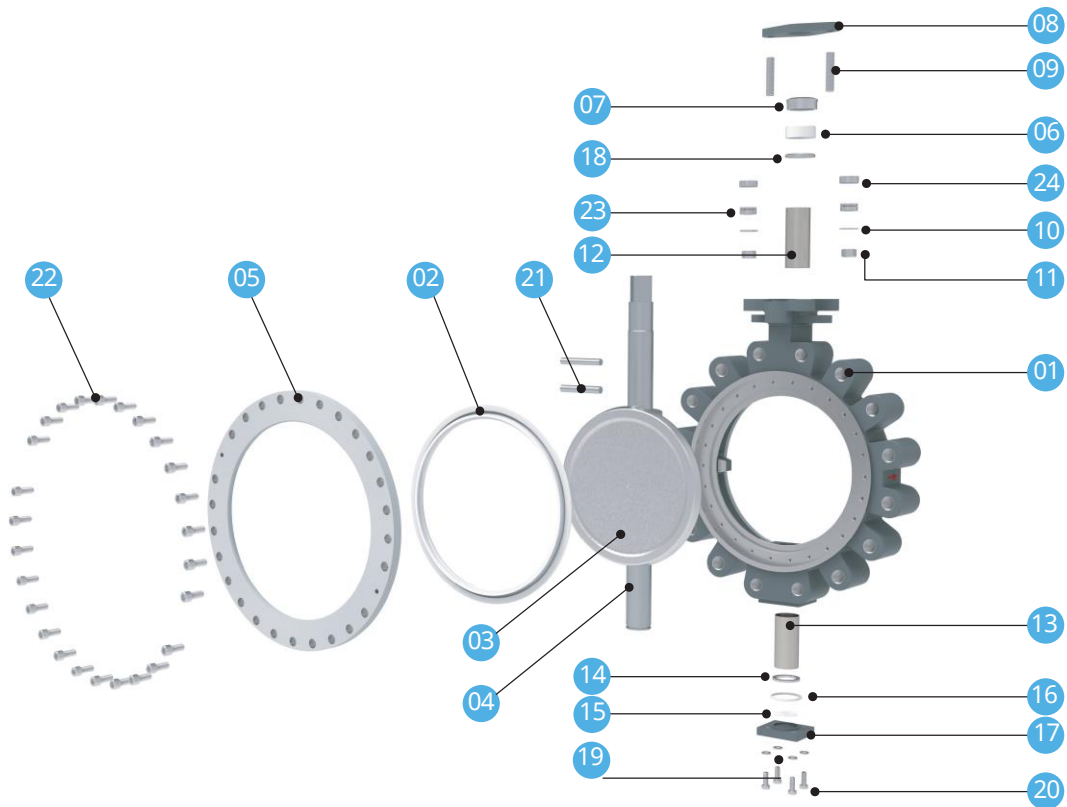
- Solid seat with metal back seat, free floating, pressure assisted seal.
- No additional parts are needed to keep the positive seal.
- Rated for full ASME pressure.
- API607 fire test.
- Class VI: shut-off prior to fire, Class V: shut-off after fire.



Metal Seat Design

- Machined metal seat, free-floating, one-way, pressure-assisted seal.
- Metal seat is rated for full ASME pressure.
- API 607 fire test.
- Five-stage sealing, one-way sealing service.
- Class V - unidirectional shut-off.

Parts List

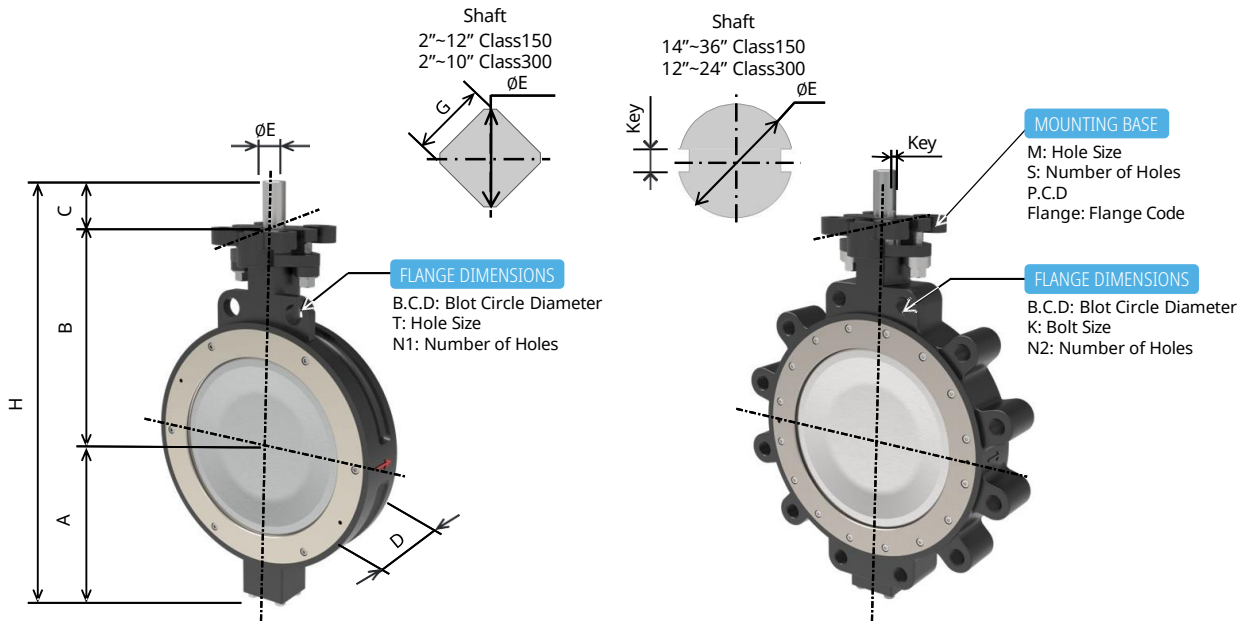


Parts List and Materials

No.	Part Name	QTY	Material
01	Body	1	ASTMA351-CF8M&ASTMA216-WCB *
02	Seat	1	RPTFE
03	Disc	1	ASTMA351-CF8M (S.S. 316) *
04	Stem	1	ASTM A564-630 *
05	Seat Retainer	1	ASTMA351-CF8M&ASTMA216-WCB *
06	Packing	1Set	PTFE
07	Sealing Ring	1	316 Stainless Steel
08	Packing Gland	1	ASTMA351-CF8M&ASTMA216-WCB
09	Packing Gland Bolt	1Set	316 Stainless Steel
10	Washer	1Set	316 Stainless Steel
11	Hex Nut	1Set	316 Stainless Steel
12	Upper Bearing	1Set	316 Stainless Steel+PTFE
13	Lower Bearing	1Set	316 Stainless Steel+PTFE
14	Thrust Bearing	1	316 Stainless Steel
15	Adjustment Washer	1	PTFE
16	Lower End Cap Seal	1	PTFE
17	Lower End Cap	1	ASTMA351-CF8M&ASTMA216-WCB
18	Packing Washer	1	PTFE
19	Spring Washer	1Set	316 Stainless Steel
20	Lower End Cap Bolt	1Set	316 Stainless Steel
21	Tapered Pin	1Set	ASTM A564-630
22	Seat Retainer Bolt	1Set	316 Stainless Steel
23	Disc Spring	1Set	304 Stainless Steel
24	Disc Spring Sleeve	1Set	316 Stainless Steel

* See more options in "how to order", page 17

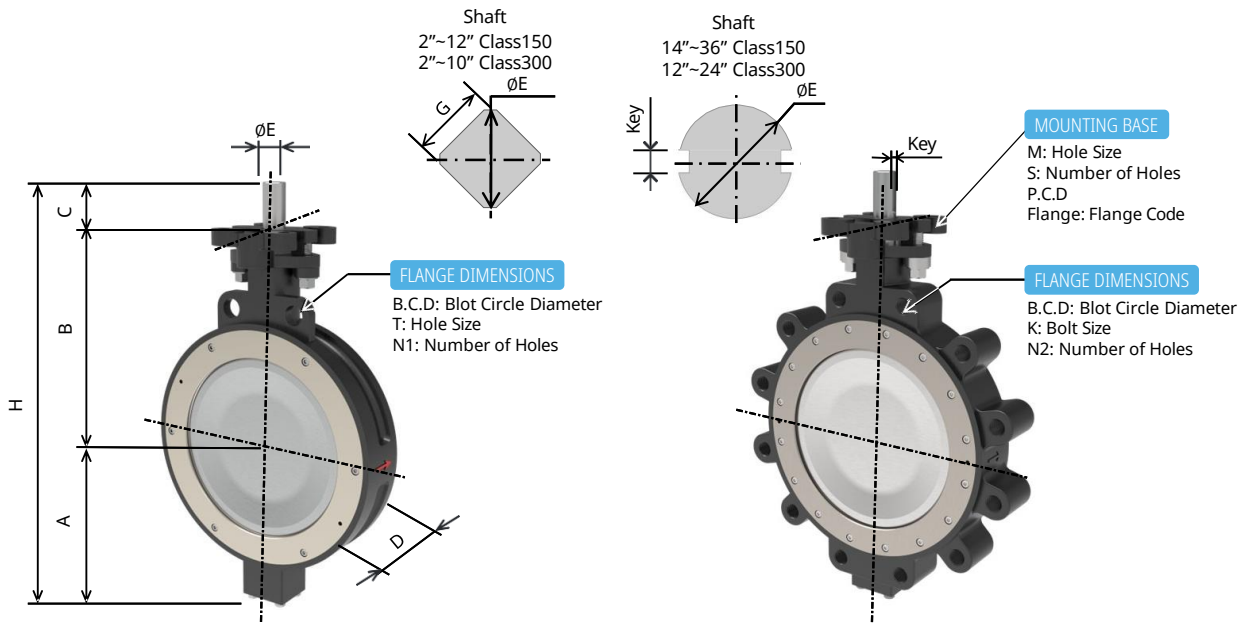
Dimensions



ANSI- Class 150 (ASME B16.5, ASME B16.47 Series A)

Size		Flange Dimensions								Mounting Base								
Inch	DN	A	B	C	D	ØE	G	H	Key	B.C.D	T	K	N1	N2	P.C.D	M	S	Flange
2	50	3.62	5.28	0.94	1.69	0.551	0.433	9.84	--	4.75	0.67	5/8-11UNC	2	4	2.76	0.39	4	F07
2.5	65	4.02	5.79	0.94	1.85	0.551	0.433	10.75	--	5.50	0.75	5/8-11UNC	2	4	2.76	0.39	4	F07
3	80	4.35	6.14	0.94	1.89	0.551	0.433	11.43	--	6.00	0.75	5/8-11UNC	2	4	2.76	0.39	4	F07
4	100	4.78	7.01	0.94	2.13	0.709	0.551	12.73	--	7.50	0.75	5/8-11UNC	2	8	2.76	0.39	4	F07
5	125	5.51	7.60	0.94	2.24	0.866	0.669	14.05	--	8.50	0.87	3/4-10UNC	2	8	2.76	0.39	4	F07
6	150	6.50	8.39	0.94	2.24	0.866	0.669	15.83	--	9.50	0.87	3/4-10UNC	2	8	2.76	0.39	4	F07
8	200	7.17	9.45	1.18	2.52	1.063	0.866	17.80	--	11.75	0.87	3/4-10UNC	2	8	4.92	0.55	4	F12
10	250	8.39	10.83	1.18	2.80	1.102	0.866	20.40	--	14.25	0.98	7/8-9UNC	2	12	4.92	0.55	4	F12
12	300	10.24	12.28	1.18	3.19	1.417	1.063	23.70	--	17.00	0.98	7/8-9UNC	2	12	4.92	0.55	4	F12
14	350	11.81	13.31	2.56	3.62	1.654	--	27.68	0.437	18.75	1.12	1-8UNC	2	12	5.51	0.71	4	F14
16	400	13.31	15.35	3.15	4.02	1.969	--	31.81	0.500	21.25	1.12	1-8UNC	2	16	6.50	0.87	4	F16
18	450	14.80	16.73	3.15	4.49	1.969	--	34.68	0.500	22.75	1.24	1 1/8-8UN	4	16	6.50	0.87	4	F16
20	500	15.75	17.72	3.54	5.00	2.362	--	37.01	0.625	25.00	1 1/8-8UN	1 1/8-8UN	4	20	6.50	0.87	4	F16
24	600	18.62	20.79	4.33	6.06	2.559	--	43.74	0.750	29.50	1 1/4-8UN	1 1/4-8UN	4	20	10.00	0.75	8	F25
30	750	23.23	25.32	4.33	7.48	3.150	--	52.88	0.875	36.00	1 1/4-8UN	1 1/4-8UN	4	28	10.00	0.75	8	F25
36	900	26.58	28.74	4.33	7.99	3.150	--	59.65	0.875	42.75	1 1/2-8UN	1 1/2-8UN	4	32	11.73	0.91	8	F30

Dimensions



ANSI- Class 300 (ASME B16.5)

Size										Flange Dimensions				Mounting Base				
Inch	DN	A	B	C	D	ØE	G	H	Key	B.C.D	T	K	N1	N2	P.C.D	M	S	Flange
2	50	3.62	5.28	0.94	1.69	0.551	0.433	9.84	--	5.00	0.71	5/8-11UNC	2	8	2.76	0.39	4	F07
2.5	65	4.02	5.79	0.94	1.85	0.551	0.433	10.75	--	5.88	0.87	3/4-10UNC	2	8	2.76	0.39	4	F07
3	80	4.33	6.14	0.94	1.89	0.551	0.433	11.41	--	6.62	0.87	3/4-10UNC	2	8	2.76	0.39	4	F07
4	100	4.78	7.01	0.94	2.13	0.709	0.551	12.73	--	7.88	0.87	3/4-10UNC	2	8	2.76	0.39	4	F07
5	125	5.51	7.60	0.94	2.24	0.866	0.669	14.05	--	9.25	0.87	3/4-10UNC	2	8	4.02	0.47	4	F10
6	150	6.50	8.39	0.94	2.32	0.866	0.669	15.83	--	10.62	0.87	3/4-10UNC	2	12	4.02	0.47	4	F10
8	200	8.27	10.16	1.18	2.87	1.102	0.866	19.61	--	13.00	0.98	7/8-9UNC	2	12	4.92	0.55	4	F12
10	250	9.45	11.42	1.18	3.27	1.417	1.063	22.05	--	15.25	1-8UNC	1-8UNC	4	16	4.92	0.55	4	F12
12	300	10.63	12.80	2.56	3.62	1.654	--	25.98	0.437	17.75	1 1/8-8UN	1 1/8-8UN	4	16	5.51	0.71	4	F14
14	350	12.82	14.76	3.15	4.61	1.969	--	30.73	0.500	20.25	1 1/8-8UN	1 1/8-8UN	4	20	6.49	0.87	4	F16
16	400	14.41	16.73	3.15	5.24	1.969	--	34.29	0.500	22.50	1 1/4-8UN	1 1/4-8UN	4	20	6.50	0.87	4	F16
18	450	16.04	18.21	4.33	5.87	2.362	--	38.58	0.625	24.75	1 1/4-8UN	1 1/4-8UN	4	24	10.00	0.75	8	F25
20	500	17.80	19.88	4.33	6.26	2.835	--	42.01	0.750	27.00	1 1/4-8UN	1 1/4-8UN	4	24	10.00	0.75	8	F25
24	600	20.32	22.84	4.33	7.13	3.150	--	47.48	0.875	32.00	1 1/2-8UN	1 1/2-8UN	4	24	10.00	0.75	8	F25

ANSI- Class 600 (ASME B16.5)

Size										Flange Dimensions				Mounting Base				
Inch	DN	A	B	C	D	ØE	G	H	Key	B.C.D	T	K	N1	N2	P.C.D	M	S	Flange
3	80	4.78	6.50	0.94	2.13	0.709	0.551	12.22	--	6.62	0.87	3/4-10UNC	2	8	2.76	0.39	4	F07
4	100	5.75	7.72	0.94	2.52	0.866	0.669	14.41	--	8.50	0.98	7/8-9UNC	2	8	4.92	0.55	4	F12
6	150	7.99	9.72	2.17	3.07	1.417	--	19.88	0.375	11.50	1-8UNC	1-8UNC	4	12	4.92	0.55	4	F12
8	200	9.65	11.61	3.15	4.02	1.890	--	24.41	0.500	13.75	1 1/8-8UN	1 1/8-8UN	4	12	6.50	0.91	4	F16
10	250	11.22	13.39	3.15	4.61	1.969	--	27.76	0.500	17.00	1 1/4-8UN	1 1/4-8UN	4	16	6.50	0.91	4	F16
12	300	13.11	15.35	4.33	5.51	2.362	--	32.87	0.625	19.25	1 1/4-8UN	1 1/4-8UN	4	20	10.00	0.71	8	F25

Torques (in-lb)

ANSI- Class 150

Size		Soft Seat				Metal Seat				Fire Safe Seat			
Inch	DN	100 psi	150 psi	200 psi	285 psi	100 psi	150 psi	200 psi	285 psi	100 psi	150 psi	200 psi	285 psi
2	50	177	189	201	221	496	541	586	664	443	490	538	620
2.5	65	204	220	237	266	531	579	627	708	478	526	574	655
3	80	221	245	269	310	655	717	779	885	602	664	726	832
4	100	372	415	458	531	814	893	972	1106	726	802	879	1009
5	125	513	559	604	681	1080	1187	1295	1478	1062	1229	1397	1682
6	150	664	747	831	974	1505	1655	1806	2062	1593	1796	2000	2345
8	200	1283	1534	1786	2213	2283	2513	2743	3133	2567	3117	3667	4602
10	250	2213	2559	2906	3496	3806	4203	4600	5275	3584	4409	5235	6638
12	300	2867	3384	3901	4779	5974	6591	7208	8257	5399	6260	7121	8585
14	350	4868	5681	6494	7877	8717	9609	10502	12018	7124	8452	9779	12036
16	400	6638	7666	8695	10443	11063	12189	13316	15231	9558	10945	12333	14691
18	450	9293	10752	12211	14691	15930	17525	19121	21833	13452	15078	16705	19470
20	500	12390	14327	16265	19559	21683	23735	25787	29276	17523	19484	21446	24780
24	600	19470	22938	26406	32303	31683	34900	38117	43586	26108	29576	33044	38940
30	750	33188	36177	39167	44250	Consult factory							
36	900	47348	55121	62895	76110								

ANSI- Class 300

Size		Soft Seat					Metal Seat					Fire Safe Seat				
Inch	DN	150 psi	300 psi	400 psi	500 psi	740 psi	150 psi	300 psi	400 psi	500 psi	740 psi	150 psi	300 psi	400 psi	500 psi	740 psi
2	50	204	242	267	293	354	575	647	695	743	858	531	599	644	689	797
2.5	65	239	279	306	333	398	620	701	755	809	938	575	650	699	749	867
3	80	266	322	359	397	487	779	873	936	999	1151	726	838	913	988	1168
4	100	443	555	630	705	885	974	1070	1135	1199	1354	885	1031	1129	1226	1460
5	125	602	795	924	1053	1363	1283	1621	1846	2071	2611	1292	1632	1858	2085	2628
6	150	850	1196	1427	1658	2213	1859	2196	2421	2646	3186	1859	2286	2571	2856	3540
8	200	1611	2146	2503	2860	3717	2788	3508	3988	4468	5620	3363	4218	4788	5358	6726
10	250	2522	3535	4210	4885	6505	4691	5791	6524	7258	9018	4691	5973	6828	7683	9735
12	300	3540	5003	5978	6953	9293	7611	9377	10555	11732	14558	6815	8457	9552	10647	13275
14	350	5974	9068	11130	13193	18143	10886	13941	15978	18015	22904	9735	13448	15923	18398	24338
16	400	8363	11862	14195	16527	22125	14426	18203	20722	23240	29285	12656	16638	19293	21948	28320
18	450	11682	16250	19295	22340	29648	19603	26225	30639	35054	45648	17258	24008	28508	33008	43808
20	500	15665	21245	24965	28685	37613	25842	35427	41817	48207	63543	23718	34113	41043	47973	64605
24	600	24780	34754	40595	46436	60623	38763	51957	60753	69549	90659	34958	50820	61395	71970	97350

ANSI- Class 600

Size		Soft Seat						Metal Seat						Fire Safe Seat					
Inch	DN	150 psi	500 psi	800 psi	1000 psi	1200 psi	1480 psi	150 psi	500 psi	800 psi	1000 psi	1200 psi	1480 psi	150 psi	500 psi	800 psi	1000 psi	1200 psi	1480 psi
3	80	354	564	743	863	983	1151	1018	1402	1731	1951	2171	2478	974	1304	1588	1777	1966	2230
4	100	549	987	1362	1612	1862	2213	1859	2883	3762	4347	4933	5753	1637	2045	2394	2627	2860	3186
6	150	938	1739	2426	2884	3342	3983	3540	5822	7779	9083	10387	12213	3363	4155	4834	5286	5739	6372
8	200	1859	3349	4627	5478	6330	7523	5576	8952	11847	13777	15706	18408	6018	8510	10646	12070	13494	15488
10	250	3098	5776	8071	9602	11132	13275	8319	13350	17661	20536	23411	27435	10797	14360	17415	19451	21487	24338
12	300	4602	8794	12387	14783	17178	20532	15488	23522	30409	35001	39592	46020	17612	23737	28987	32487	35987	40887

Flow Coefficient - Cv

ANSI- Class 150

Size		Angle of Opening (Degrees)								
Inch	DN	10°	20°	30°	40°	50°	60°	70°	80°	90°
2	50	1	12	26	40	47	49	50	51	62
2.5	65	3	19	47	63	78	80	84	95	110
3	80	4	25	52	74	87	100	123	145	157
4	100	6	44	82	119	156	196	240	266	284
5	125	14	71	131	168	209	280	368	479	512
6	150	20	108	198	272	380	501	651	803	831
8	200	54	251	390	559	780	1043	1385	1747	1838
10	250	84	382	580	827	1174	1612	2202	2803	2811
12	300	119	553	874	1230	1733	2371	3271	4178	4205
14	350	163	632	955	1383	1813	2855	3944	5219	5564
16	400	250	879	1334	1916	2781	3939	5530	6984	7091
18	450	388	1136	1681	2433	3526	4981	6843	8631	9127
20	500	463	1390	2052	2985	4363	6280	8900	11803	12613
24	600	710	2159	3312	4750	6881	9926	14336	19656	20596
30	750	1107	2602	3603	5556	8721	13216	20376	28285	31500
36	900	1692	3391	4917	7914	12744	20021	31640	45241	51233

ANSI- Class 300

Size		Angle of Opening (Degrees)								
Inch	DN	10°	20°	30°	40°	50°	60°	70°	80°	90°
2	50	1	12	26	40	47	49	50	51	62
2.5	65	3	19	47	63	78	80	84	95	110
3	80	4	25	52	74	87	100	123	145	157
4	100	6	44	82	119	156	196	240	266	284
5	125	14	71	131	168	209	280	368	479	512
6	150	20	108	198	272	380	501	651	803	831
8	200	47	206	319	420	595	843	1106	1463	1502
10	250	81	344	524	720	1014	1399	1821	2205	2413
12	300	117	506	728	1019	1449	2044	2717	3456	3575
14	350	161	603	898	1208	1754	2493	3294	4129	4603
16	400	164	766	1172	1560	2275	3287	4301	5550	6647
18	450	274	809	1320	1791	2803	4051	5603	7193	8946
20	500	318	1100	1624	2274	3392	5075	6818	8906	11003
24	600	394	1728	2462	3518	5222	7613	10323	13596	16430

ANSI- Class 600

Size		Angle of Opening (Degrees)								
Inch	DN	10°	20°	30°	40°	50°	60°	70°	80°	90°
3	80	2	25	61	82	84	89	94	107	126
4	100	6	42	96	138	140	149	163	197	230
6	150	17	110	225	281	291	336	402	497	578
8	200	43	231	424	524	528	621	731	913	1076
10	250	61	335	597	772	876	1049	1281	1623	1891
12	300	82	484	875	1108	1223	1498	1821	2341	2740

Note:

Cv is defined as the volume of water in U.S.G.P.M. that will flow through a given restriction or valve opening with a pressure drop of one (1) PSI at room temperature. Recommended control angles are between 25°-70° open. Preferred angle for control valve sizing is 60°-65° open. This chart is calculated and is to be used as a guide only.

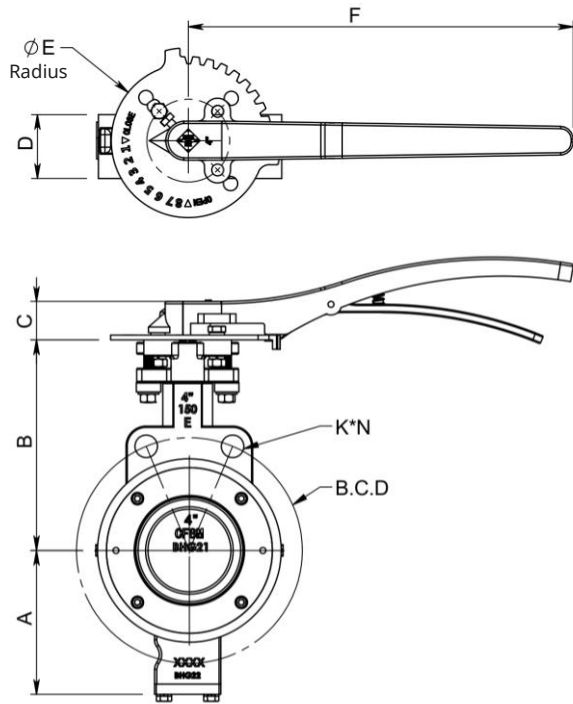
Weight (lb.)

Size		Class 150				Class 300				Class 600			
Inch	DN	Valve type				Valve type				Valve type			
		Wafer	Lug	Gear	Handle	Wafer	Lug	Gear	Handle	Wafer	Lug	Gear	Handle
2	50	9.26	11.02	10.47	2.20	9.3	12.13	10.47	2.20	--	--	--	--
2.5	65	11.68	13.01	10.47	2.20	11.7	15.43	10.47	2.20	--	--	--	--
3	80	12.35	14.11	10.47	2.20	12.4	17.64	10.47	2.20	17.64	22.05	10.47	--
4	100	17.86	23.59	10.47	3.20	18.0	25.57	10.47	3.20	31.08	39.90	30.20	--
5	125	24.03	31.08	10.47	3.20	25.3	34.83	19.75	2.98	--	--	--	--
6	150	30.64	37.92	10.47	3.20	32.4	46.74	19.75	2.98	70.55	89.29	56.35	--
8	200	46.74	56.22	20.00	11.46	60.0	82.67	29.76	11.02	135.58	165.34	55.05	--
10	250	68.56	86.42	19.75	11.46	96.8	129.41	29.23	--	194.22	271.60	93.63	--
12	300	104.28	132.94	29.23	11.46	143.4	188.93	55.75	--	316.36	440.92	209.37	--
14	350	138.67	183.20	55.75	--	218.0	324.96	54.83	--	--	--	--	--
16	400	206.79	273.59	54.83	--	309.1	444.00	54.83	--	--	--	--	--
18	450	278.88	340.61	54.83	--	438.8	634.70	91.98	--	--	--	--	--
20	500	357.14	440.70	53.48	--	575.0	782.63	206.86	--	--	--	--	--
24	600	574.29	709.44	87.70	--	840.2	1201.94	204.74	--	--	--	--	--
30	750	1108.91	1371.25	388.07	--	--	--	--	--	--	--	--	--
36	900	1638.01	2105.38	387.63	--	--	--	--	--	--	--	--	--

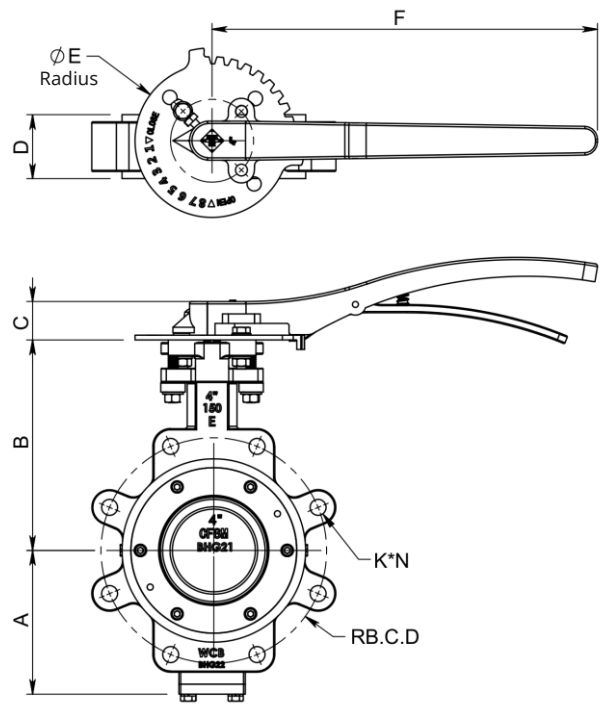
Note: 8"-12" Class150 handle use please consult factory.

Dimensions

Wafer Type Handle



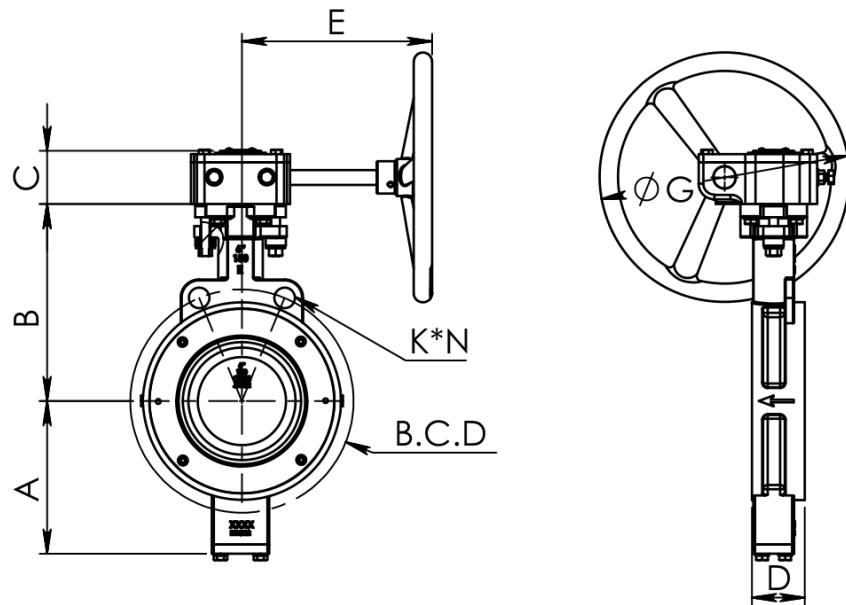
Lug Type Handle



Size (in)	Class	A	B	C	D	E	F	B.C.D	K	N	K (LUG)	N (LUG)
2	150	3.62	5.28	1.14	1.69	2.13	8.82	4.75	0.67	2	5/8-11UNC	4
2.5	150	4.02	5.79	1.14	1.85	2.13	8.82	5.50	0.75	2	5/8-11UNC	4
3	150	4.35	6.14	1.14	1.89	2.13	8.82	6.00	0.75	2	5/8-11UNC	4
4	150	4.78	7.01	1.28	2.13	2.56	12.8	7.50	0.75	2	5/8-11UNC	8
5	150	5.51	7.60	1.28	2.24	2.56	12.8	8.50	0.87	2	3/4-10UNC	8
6	150	6.50	8.39	1.28	2.24	2.56	12.8	9.50	0.87	2	3/4-10UNC	8
8	150	7.17	9.45	2.17	2.52	3.25	22.0	11.75	0.87	2	3/4-10UNC	8
2	300	3.62	5.28	1.14	1.69	2.13	8.82	5.00	0.71	2	5/8-11UNC	8
2.5	300	4.02	5.79	1.14	1.85	2.13	8.82	5.88	0.87	2	3/4-10UNC	8
3	300	4.33	6.14	1.14	1.89	2.13	8.82	6.62	0.87	2	3/4-10UNC	8
4	300	4.78	7.01	1.28	2.13	2.56	12.8	7.88	0.87	2	3/4-10UNC	8
5	300	5.51	7.60	1.28	2.24	3.03	12.8	9.25	0.87	2	3/4-10UNC	8
6	300	6.50	8.39	1.28	2.32	3.03	12.8	10.62	0.87	2	3/4-10UNC	12
3	600	4.78	6.50	1.28	2.13	2.56	12.8	6.62	0.87	2	3/4-10UNC	8

Dimensions

Wafer Type Handle



Class	Size	A	B	C	D	E	G	B.C.D	K	N
150	2	3.62	5.28	2.31	1.69	8.78	5.91	4.75	0.67	2
150	2.5	4.02	5.79	2.31	1.85	8.78	5.91	5.50	0.75	2
150	3	4.35	6.14	2.31	1.89	8.78	5.91	6.00	0.75	2
150	4	4.78	7.01	2.31	2.13	8.78	5.91	7.50	0.75	2
150	5	5.51	7.60	2.31	2.24	8.78	5.91	8.50	0.87	2
150	6	6.5	8.39	2.31	2.24	8.78	5.91	9.50	0.87	2
150	8	7.17	9.45	2.67	2.52	10.86	11.81	11.75	0.87	2
150	10	8.39	10.83	2.67	2.80	10.86	11.81	14.25	0.98	2
150	12	10.24	12.28	3.44	3.19	12.8	11.81	17.0	0.98	2
150	14	11.81	13.31	4.02	3.62	12.72	15.75	18.75	1.12	2
150	16	13.31	15.35	4.02	4.02	12.72	15.75	21.25	1.12	2
150	18	14.80	16.73	4.02	4.49	12.72	15.75	22.75	1.24	4
150	20	15.75	17.72	4.02	5.00	12.72	15.75	25.00	1 1/8-8UN	4
150	24	18.62	20.79	5.06	6.06	12.76	15.75	29.50	1 1/4-8UN	4
150	30	23.23	25.32	6.62	7.48	18.89	23.62	36.00	1 1/4-8UN	4
150	36	26.58	28.74	8.14	7.99	20.91	23.62	42.75	1 1/2-8UN	4

Dimensions

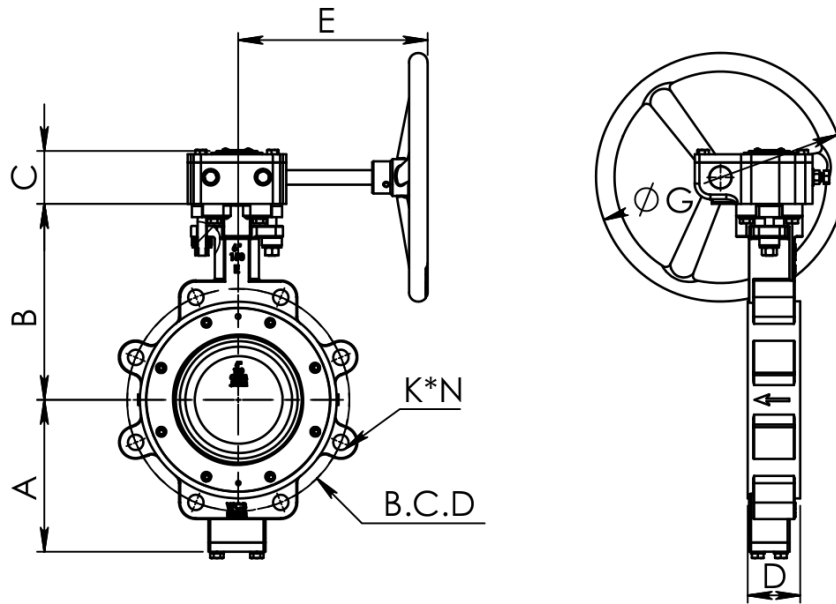
Wafer Type Handle

Class	Size	A	B	C	D	E	G	B.C.D	K	N
300	2	3.62	5.28	2.31	1.69	8.78	5.91	5.00	0.71	2
300	2.5	4.02	5.79	2.31	1.85	8.78	5.91	5.88	0.87	2
300	3	4.33	6.14	2.31	1.89	8.78	5.91	6.62	0.87	2
300	4	4.78	7.01	2.31	2.13	8.78	5.91	7.88	0.87	2
300	5	5.51	7.6	2.67	2.24	10.86	11.81	9.25	0.87	2
300	6	6.50	8.39	2.67	2.32	10.86	11.81	10.62	0.87	2
300	8	8.27	10.16	3.44	2.87	12.8	11.81	13.00	0.98	2
300	10	9.45	11.42	3.44	3.27	12.8	11.81	15.25	1-8UNC	4
300	12	10.63	12.8	4.02	3.62	12.72	15.75	17.75	1 1/8-8UN	4
300	14	12.82	14.76	4.02	4.61	12.72	15.75	20.25	1 1/8-8UN	4
300	16	14.41	16.73	4.02	5.24	12.72	15.75	22.50	1 1/4-8UN	4
300	18	16.04	18.21	5.06	5.87	12.76	15.75	24.75	1 1/4-8UN	4
300	20	17.80	19.88	6.62	6.26	18.89	23.62	27.00	1 1/4-8UN	4
300	24	20.32	22.84	6.62	7.13	18.89	23.62	32.00	1 1/2-8UN	4

Class	Size	A	B	C	D	E	G	B.C.D	K	N
600	3	4.78	6.5	2.31	2.13	8.78	5.91	6.62	0.87	2
600	4	5.75	7.72	2.67	2.52	10.86	11.81	8.50	0.98	2
600	6	7.99	9.72	3.44	3.07	12.8	11.81	11.5	1-8UNC	4
600	8	9.65	11.61	4.02	4.02	12.72	15.75	13.75	1 1/8-8UN	4
600	10	11.22	13.39	4.02	4.61	12.72	15.75	17.00	1 1/4-8UN	4
600	12	13.11	15.35	6.62	5.51	18.89	23.62	19.25	1 1/4-8UN	4

Dimensions

Lug Type Gear



Class	Size	A	B	C	D	E	G	B.C.D	K	N
150	2	3.62	5.28	2.31	1.69	8.78	5.91	4.75	5/8-11UNC	4
150	2.5	4.02	5.79	2.31	1.85	8.78	5.91	5.50	5/8-11UNC	4
150	3	4.35	6.14	2.31	1.89	8.78	5.91	6.00	5/8-11UNC	4
150	4	4.78	7.01	2.31	2.13	8.78	5.91	7.50	5/8-11UNC	8
150	5	5.51	7.6	2.31	2.24	8.78	5.91	8.50	3/4-10UNC	8
150	6	6.5	8.39	2.31	2.24	8.78	5.91	9.50	3/4-10UNC	8
150	8	7.17	9.45	2.67	2.52	10.86	11.81	11.75	3/4-10UNC	8
150	10	8.39	10.83	2.67	2.8	10.86	11.81	14.25	7/8-9UNC	12
150	12	10.24	12.28	3.44	3.19	12.80	11.81	17.00	7/8-9UNC	12
150	14	11.81	13.31	4.02	3.62	12.72	15.75	18.75	1-8UNC	12
150	16	13.31	15.35	4.02	4.02	12.72	15.75	21.25	1-8UNC	16
150	18	14.8	16.73	4.02	4.49	12.72	15.75	22.75	1 1/8-8UN	16
150	20	15.75	17.72	4.02	5	12.72	15.75	25.00	1 1/8-8UN	20
150	24	18.62	20.79	5.06	6.06	12.76	15.75	29.50	1 1/4-8UN	20
150	30	23.23	25.32	6.62	7.48	18.89	23.62	36.00	1 1/4-8UN	28
150	36	26.58	28.74	8.14	7.99	21.10	23.62	42.75	1 1/2-8UN	32

Dimensions

Lug Type Gear

Class	Size	A	B	C	D	E	G	B.C.D	K	N
300	2	3.62	5.28	2.31	1.69	8.78	5.91	5.00	5/8-11UNC	8
300	2.5	4.02	5.79	2.31	1.85	8.78	5.91	5.88	3/4-10UNC	8
300	3	4.33	6.14	2.31	1.89	8.78	5.91	6.62	3/4-10UNC	8
300	4	4.78	7.01	2.31	2.13	8.78	5.91	7.88	3/4-10UNC	8
300	5	5.51	7.60	2.67	2.24	10.86	11.81	9.25	3/4-10UNC	8
300	6	6.50	8.39	2.67	2.32	10.86	11.81	10.62	3/4-10UNC	12
300	8	8.27	10.16	3.44	2.87	12.8	11.81	13.00	7/8-9UNC	12
300	10	9.45	11.42	3.44	3.27	12.8	11.81	15.25	1-8UNC	16
300	12	10.63	12.80	4.02	3.62	12.72	15.75	17.75	1 1/8-8UN	16
300	14	12.82	14.76	4.02	4.61	12.72	15.75	20.25	1 1/8-8UN	20
300	16	14.41	16.73	4.02	5.24	12.72	15.75	22.5	1 1/4-8UN	20
300	18	16.04	18.21	5.06	5.87	12.76	15.75	24.75	1 1/4-8UN	24
300	20	17.80	19.88	6.62	6.26	18.89	23.62	27.00	1 1/4-8UN	24
300	24	20.32	22.84	6.62	7.13	18.89	23.62	32.00	1 1/2-8UN	24

Class	Size	A	B	C	D	E	G	B.C.D	K	N
600	3	4.78	6.50	2.31	2.13	8.78	5.91	6.62	3/4-10UNC	8
600	4	5.75	7.72	2.67	2.52	10.86	11.81	8.50	7/8-9UNC	8
600	6	7.99	9.72	3.44	3.07	12.8	11.81	11.50	1-8UNC	12
600	8	9.65	11.61	4.02	4.02	12.72	15.75	13.75	1 1/8-8UN	12
600	10	11.22	13.39	4.02	4.61	12.72	15.75	17.00	1 1/4-8UN	16
600	12	13.11	15.35	6.62	5.51	18.89	23.62	19.25	1 1/4-8UN	20

Manufacturing Standards & Design Standards

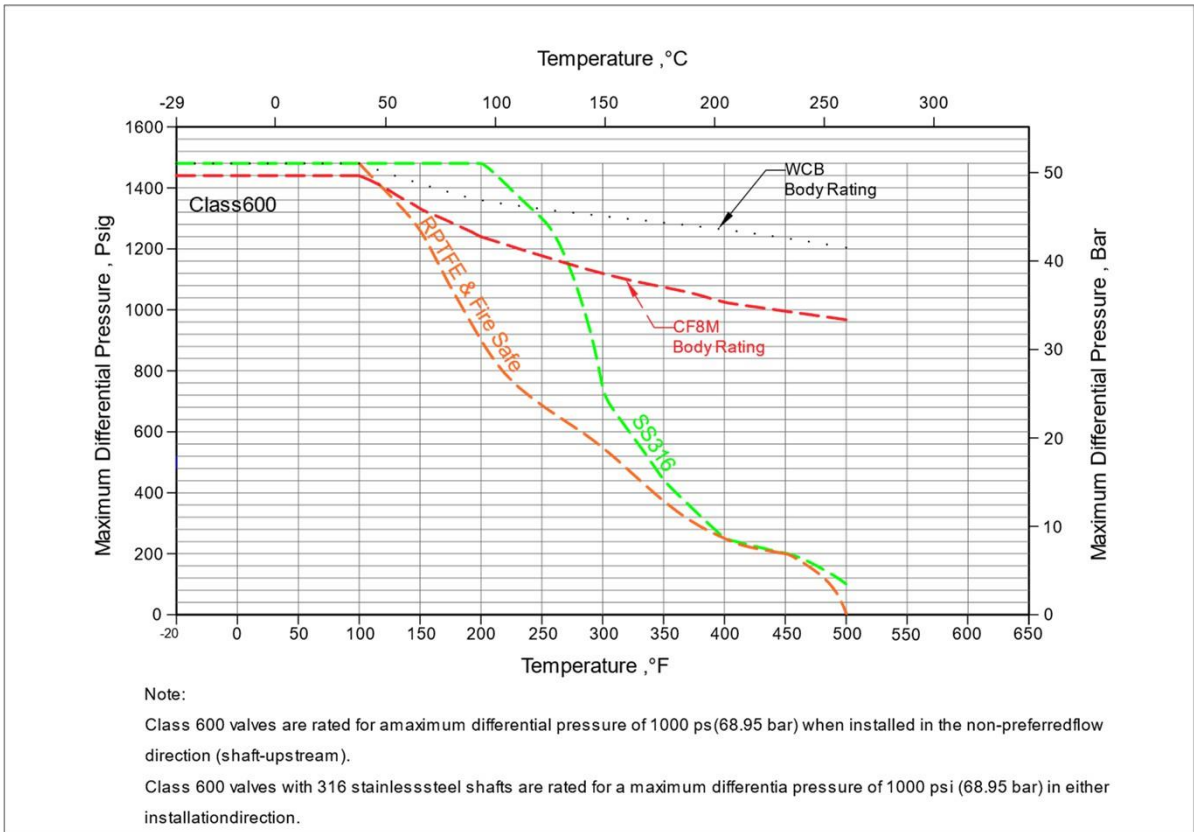
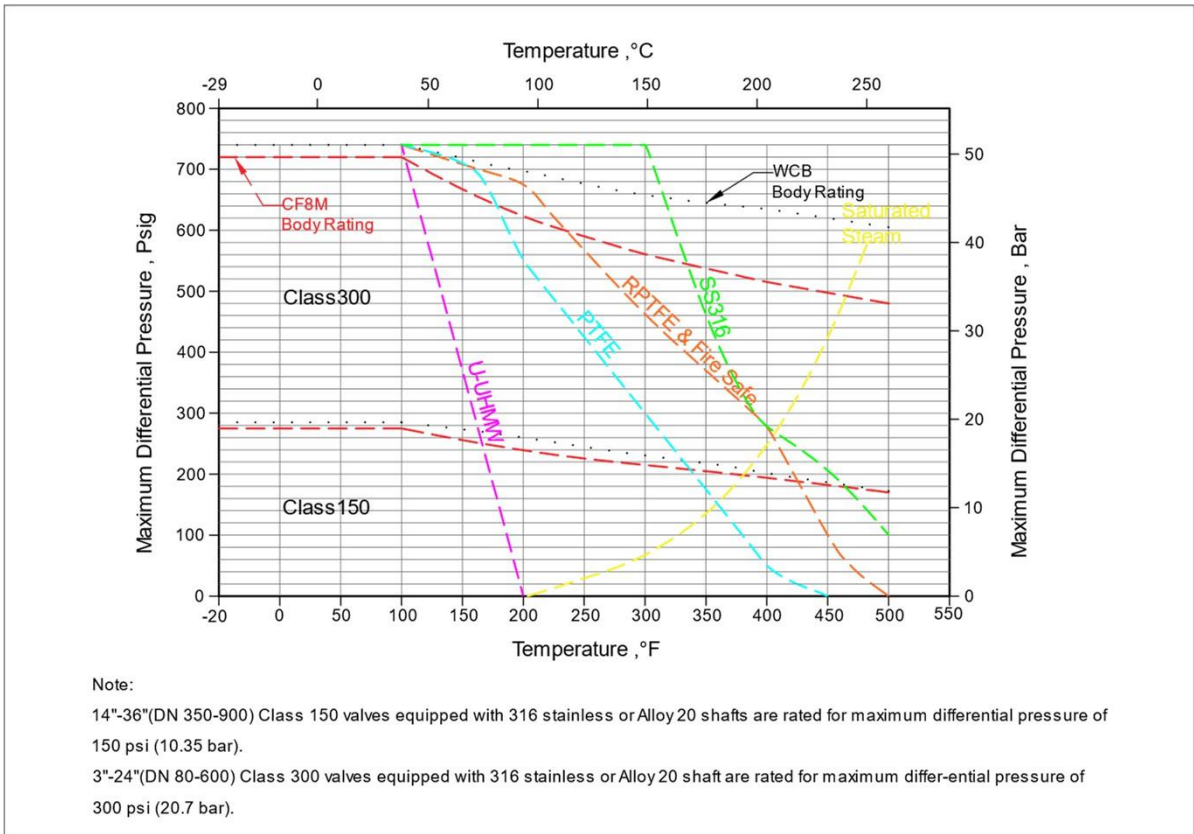
Design Standard	Standard	API 609 Category-B API607
	Optional Configurations	BS 5155
Face-to-Face	Standard	API 609 Category-B MISS-SP-68 Table 1 ASME B16.10 Table 8 ISO 5752 Series 20
	Optional Configurations	DIN 3202 BS 5155
Flange Connection	Standard	ASME B16.5(CL150,CL300,CL600) ASME B16.47 Series A(CL150,CL300) AWWA C207 Class E MISS-SP-44(CL150,CL300,CL600)
	Optional Configurations	JIS B 2210(10K,16K,20K,30K,40K) ISO 7005-1 and DIN 2501 (PN10,PN16,PN20,PN40)
Test	Standard	API 598 API 607 BS 1560 BS 5155 FCI 70-2
	Optional Configurations	JIS B 2203,2201 DIN3230 MISS-SP-61 ISO 10497

Optional Materials for Pressure Parts

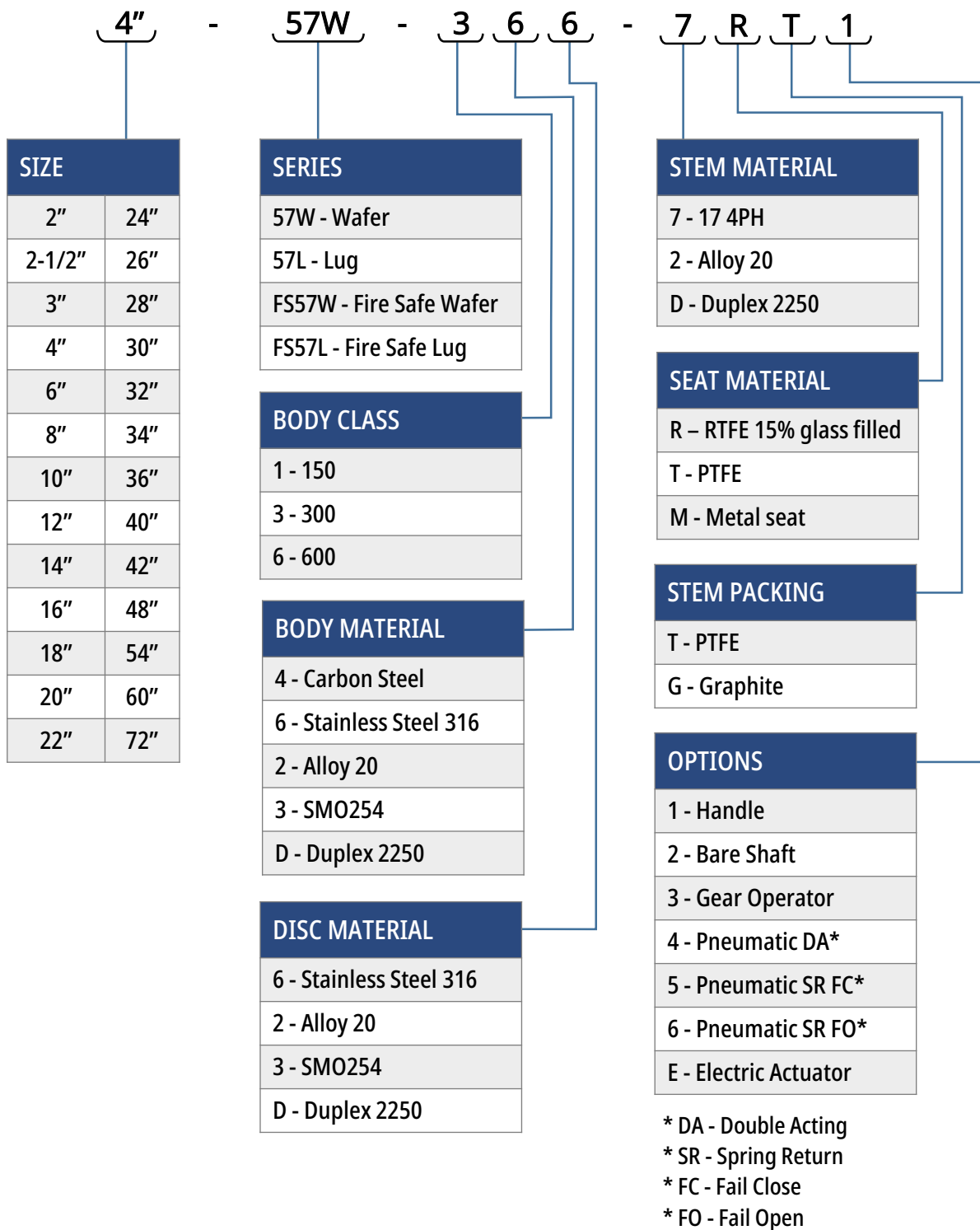
Part Name	Material	ASTM No.
Valve body	Hastelloy alloy C	Hastelloy C276
	CN7M (alloy 20)	ASTM A351
	M35-1(Monel)	ASTM A494
	CD3MN (Duplex Stainless Steel)	ASTM A995
	CF3M (316L)	ASTM A351
Seat	Inconel X718 U-UHMW Polyethylene	
End Cap Grand Flange	Hastelloy alloy C	Hastelloy C276
	CN7M (alloy 20)	ASTM A351
	M35-1 (Monel)	ASTM A494
	CD3MN (Duplex Stainless Steel)	ASTM A995
	CF3M (316L)	ASTM A351
Disc	Hastelloy alloy C	Hastelloy C276
	CN7M (alloy 20)	ASTM A351
	M35-1(Monel)	ASTM A494
	CD3MN (Duplex Stainless Steel)	ASTM A351
	CF3M (316L)	ASTM A351
Shaft	2205 Duplex Stainless Steel	SAF 2205
	316L Stainless Steel	ASTM A276
	Monel K400	ASME SB-127
	Hastelloy alloy C	Hastelloy C276
	Alloy 20	ASTM B462



Valve Ratings



How to order



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