



- Bubble tight shut-off to ANSI Class 300 Standards
- Long stem design allows for 2" insulation minimum
- Valve face-to-face dimensions comply with API 609 & MSS-SP-68
- Designed to be installed between ASME/ANSI B16.5 Flanges
- Completely assembled and tested, ready for installation

Application

These valves are designed to meet the needs of HVAC and Commercial applications requiring positive shut-off for liquids at higher pressures and temperatures. Typical applications include chiller isolation, cooling tower isolation, change-over systems, large air handler coil control, bypass and process control applications.

Jobsite Note

Valves should be stored in a weather protected area prior to construction. Complete installation recommendations can be found in Belimo's Installation and Maintenance Instructions for F6/F7...HD/HDU Butterfly Valves.

Technical Data	
Media service	chilled, hot water, 60% glycol, steam to 50 psi
Valve service	double dead end service
Flow characteristic	modified equal percentage, unidirectional
Recommended install	SUS (Seat Up Stream)
Action	quarter turn, mechanically limited
Sizes	2" to 24"
Type of end fitting	for use with ASME/ANSI B16.5 flanges
Materials	
Body	carbon steel full lug
Disc	316 stainless steel
Seat	RPTFE
Shaft	17-4 PH stainless
Gland seal	PTFE
Bushings	glass backed PTFE
Handle Material	ductile iron
Gear Operator Materials	
Housing	ductile iron
Gears	hardened steel
Media temperature range	ANSI Class 300 limitations
Operation ambient temperature range	-22°F to 122°F [-30°C to 50°C]
Body pressure rating	ASME/ANSI Class 300 limitations
Close-off pressure	ANSI Class 300 to 725 psi @ 100°F
Rangeability	10:1 (for 30 deg to 70 deg range)
Maximum velocity	32 FPS

C _v 90°	C _v 60°	Valve Nominal Size		Type	Manual Operators	
		IN	DN [mm]	ANSI 300 2-way	Handle	Gear Wheel OP
100	52	2"	50	F650-300SHP	Handle	Gear Wheel OP
143	75	2½"	65	F665-300SHP		
223	117	3"	80	F680-300SHP		
435	228	4"	100	F6100-300SHP		
688	361	5"	125	F6125-300SHP		
1041	546	6"	150	F6150-300SHP		
1911	1001	8"	200	F6200-300SHP		
3194	1673	10"	250	F6250-300SHP		
4428	2319	12"	300	F6300-300SHP		
5702	2986	14"	350	F6350-300SHP		
8243	3988	16"	400	F6400-300SHP		
9712	5088	18"	450	F6450-300SHP		
10658	5775	20"	500	F6500-300SHP		
16205	8855	24"	600	F6600-300SHP		

Valve	Size	C _v	10°	20°	30°	40°	50°	60°	70°	80°	90°
F650-300SHP	2"	100	1.4	6	13	24	36	52	71	95	100
F665-300SHP	2.5"	143	2.1	8	19	34	52	75	102	136	143
F680-300SHP	3"	223	3.2	13	30	53	81	117	159	212	223
F6100-300SHP	4"	435	6.2	25	58	104	157	228	310	414	435
F6125-300SHP	5"	688	10	40	92	165	248	361	491	655	688
F6150-300SHP	6"	1041	15	60	139	250	377	546	744	992	1041
F6200-300SHP	8"	1911	27	109	255	459	692	1001	1365	1820	1911
F6250-300SHP	10"	3194	46	183	426	767	1156	1673	2282	3042	3194
F6300-300SHP	12"	4428	63	253	590	1063	1602	2319	3163	4217	4428
F6350-300SHP	14"	5702	81	326	760	1368	2063	2986	4072	5430	5702
F6400-300SHP	16"	8243	109	435	1015	1827	2755	3988	5438	7850	8243
F6450-300SHP	18"	9712	139	555	1295	2331	3515	5088	6938	9250	9712
F6500-300SHP	20"	10658	158	630	1470	2646	3990	5775	7875	10150	10658
F6600-300SHP	24"	16205	242	966	2254	4057	6118	8855	12075	16100	16205

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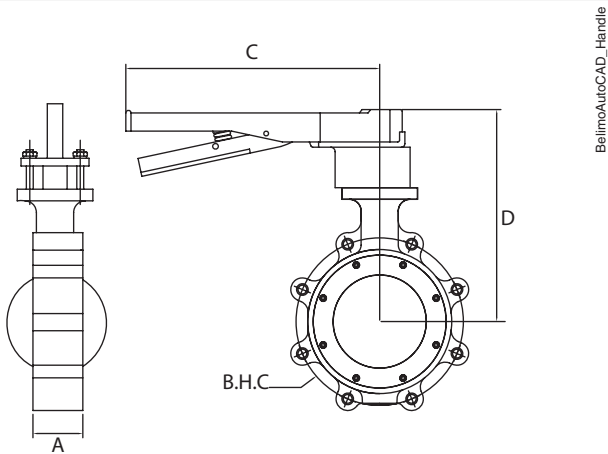
F6 ANSI Class 300

Reinforced PTFE Seat, 316 Stainless Disc with Manual Handle or Gear Wheel Operator



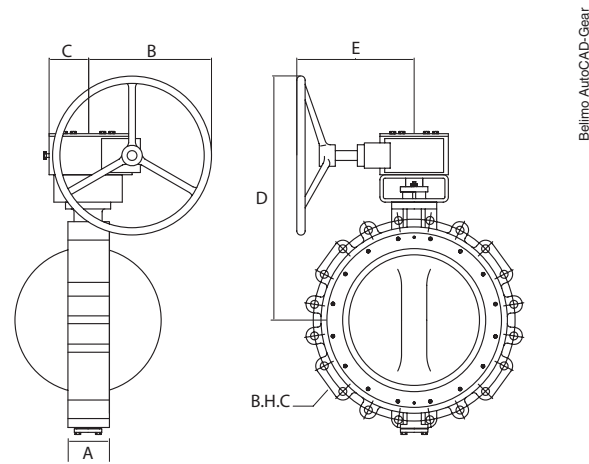
Maximum Dimensions (Inches)													
Valve	Size	Cv 90°	A	B	C	D	E	BHC	No. of Holes	Lug Bolt	Operator	Wt. lbs (kg)	Close-Off (PSI)
F650-300SHP	2"	100	1.75	n/a	10.90	9.50	n/a	4.75	8	5/8-11 UNC	HND05	15 [6.8]	ANSI Class 300 Limitations
F665-300SHP	2.5"	143	1.88	n/a	10.90	9.50	n/a	5.5	8	3/4-10 UNC	HND05	15 [6.8]	
F680-300SHP	3"	223	1.92	n/a	10.90	10.50	n/a	6	8	3/4-10 UNC	HND06	21 [9.5]	
F6100-300SHP	4"	435	2.13	n/a	10.90	11.10	n/a	7.5	8	3/4-10 UNC	HND06	29 [13.2]	
F6125-300SHP	5"	688	2.25	n/a	15.10	12.20	n/a	8.5	8	3/4-10 UNC	HND07	38 [17.2]	
F6150-300SHP	6"	1041	2.29	n/a	24.10	11.30	n/a	9.5	12	3/4-10 UNC	HND07	62 [28.1]	
Valve	Size	Cv 90°	A	B	C	D	E	BHC	No. of Holes	Lug Bolt	Operator	Wt. lbs (kg)	Close-Off (PSI)
F650-300SHP	2"	100	1.75	6.50	2.50	11.60	6.50	4.75	8	5/8-11 UNC	GW10	23 [10.4]	ANSI Class 300 Limitations
F665-300SHP	2.5"	143	1.88	6.50	2.50	11.60	6.50	5.5	8	3/4-10 UNC	GW10	23 [10.4]	
F680-300SHP	3"	223	1.92	6.50	2.50	12.30	6.50	6	8	3/4-10 UNC	GW11	29 [13.2]	
F6100-300SHP	4"	435	2.13	6.50	2.50	13.10	6.50	7.5	8	3/4-10 UNC	GW11	35 [15.9]	
F6125-300SHP	5"	688	2.25	6.50	2.50	14.30	6.50	8.5	8	3/4-10 UNC	GW12	41 [18.6]	
F6150-300SHP	6"	1041	2.29	6.50	2.50	14.80	6.50	9.5	12	3/4-10 UNC	GW13	63 [28.6]	
F6200-300SHP	8"	1911	2.88	6.50	2.50	15.90	6.50	11.75	12	7/8-9 UNC	GW14	93 [42.2]	
F6250-300SHP	10"	3194	3.25	9.23	4.40	19.60	12.50	14.25	16	1-8 UNC	GW16	150 [68.0]	
F6300-300SHP	12"	4428	3.62	9.23	4.40	23.00	15.00	17	16	1 1/8-8 UNC	GW18	230 [104.3]	
F6350-300SHP	14"	5702	4.62	15.23	4.40	30.40	12.50	18.75	20	1 1/8-8 UNC	GW20	360 [163.3]	
F6400-300SHP	16"	8243	5.25	15.23	4.40	31.90	12.50	21.25	20	1 1/4-8 UNC	GW22	435 [197.3]	
F6450-300SHP	18"	9712	5.88	16.66	6.50	34.20	17.50	22.75	24	1 1/4-8 UNC	GW24	610 [276.7]	
F6500-300SHP	20"	10658	6.31	16.66	6.50	37.70	17.50	25	24	1 1/4-8 UNC	GW26	915 [415.0]	
F6600-300SHP	24"	16205	7.19	20.75	7.30	42.80	19.50	29.5	24	1 1/2-8 UNC	GW28	1200 [544.3]	

Dimensions Manual Handle



BelimoAutoCAD_Handle

Dimensions Gear Wheel



Belimo AutoCAD-Gear

Dimension "A" does not include flange gaskets. (2 required per valve)

Application Notes

- Valves are rated at 725 psi differential pressure in the closed position @ 100°F media temperature.
- Valves are furnished with lugs tapped for use between ANSI Class 250/300 flanges conforming to ANSI B16.5 Standards.
- 2-way assemblies are furnished assembled and ready for installation.
- Flange gaskets (2 required, not provided with valve) MUST be used between valve and ANSI flange.
- Flange bolts are not included with the valve. These are furnished by others.

SHP series valves have a preferred flow direction.

SERIAL NO. _____
 FIGURE NO. _____
 SIZE/CLASS _____
 STEM/PINS _____
 SEAT _____
 BODY COLD WORKING PRESSURE _____ PSI
 MAX SHUT-OFF PRESS. @ 100 °F _____ PSI
 TAG NO. _____

PreferredFlowrate

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