



- 200 psi (2" to 12") and 150 psi (14"-30") bubble tight shut-off
- Long stem design allows for 2" insulation
- Valve face-to-face dimensions comply with API 609 & MSS-SP-67
- Completely assembled and tested, ready for installation

### Application

These valves are designed to meet the needs of HVAC and commercial applications requiring bubble tight shut-off for liquids. Typical applications include chiller isolation, cooling tower isolation, change-over systems, large air handler coil control, bypass and process control applications. Designed for use in Victaulic piping systems when mated to Victaulic 41 series flange nipples.

### 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	
Service	chilled, hot water, 60% glycol
Flow characteristic	modified equal percentage
Action	90° rotation
Sizes	2" to 30"
Type of end fitting	for use with ANSI 125/150 flanges
Materials	
Body	ductile iron ASTM A536
Disc	304 stainless steel
Seat	EPDM standard
Shaft	416 stainless steel
O-ring	EPDM
Upper bushing	RPTFE
Middle bushings	RPTFE
Lower bushing	RPTFE
Handle material	mild steel
Gear operator materials	
Housing	ductile iron
Gears	hardened steel
Media temperature range	-22°F to 250°F [-30°C to 120°C]
Operation ambient temperature range	-22°F to 122°F [-30°C to 50°C]
Body pressure rating	ASME/ANSI Class 125/150 (200 psi at -30°F to 275°F)
Close-off pressure	200 psi (2"-12"), 150 psi (14"-30")
Rangeability	10:1 (for 30° to 70° range)
Maximum velocity	12 FPS

C <sub>v</sub> 90°	C <sub>v</sub> 60°	Valve Nominal Size		Type	Manual Operators	
		IN	DN [mm]	2-way	Handle	Gear Wheel OP
115	44	2"	50	F650HD		
196	75	2½"	65	F665HD		
302	116	3"	80	F680HD		
600	230	4"	100	F6100HD		
1022	392	5"	125	F6125HD		
1579	605	6"	150	F6150HD		
3136	1202	8"	200	F6200HD		
5340	2047	10"	250	F6250HD		
8250	3062	12"	300	F6300HD		
11917	4568	14"	350	F6350HD		
16388	6282	16"	400	F6400HD		
21705	8320	18"	450	F6450HD		
27908	10698	20"	500	F6500HD		
43116	16528	24"	600	F6600HD		
73426	28146	30"	750	F6750HD		

Valve	Size	C <sub>v</sub>	10°	20°	30°	40°	50°	60°	70°	80°	90°
F650HD	2"	115	0.06	3	7	15	27	44	70	105	115
F665HD	2-1/2"	196	0.1	6	12	25	45	75	119	178	196
F680HD	3"	302	0.2	9	18	39	70	116	183	275	302
F6100HD	4"	600	0.3	17	36	78	139	230	364	546	600
F6125HD	5"	1022	0.5	29	61	133	237	392	620	930	1022
F6150HD	6"	1579	0.8	45	95	205	366	605	958	1437	1579
F6200HD	8"	3136	2	89	188	408	727	1202	1903	2854	3136
F6250HD	10"	5340	3	151	320	694	1237	2047	3240	4859	5340
F6300HD	12"	8250	4	234	495	1072	1911	3062	5005	7507	8250
F6350HD	14"	11917	6	338	715	1549	2761	4568	7230	10844	11917
F6400HD	16"	16388	8	464	983	2130	3797	6282	9942	14913	16388
F6450HD	18"	21705	11	615	1302	2822	5028	8320	13168	19752	21705
F6500HD	20"	27908	14	791	1674	3628	6465	10698	16931	25396	27908
F6600HD	24"	43116	22	1222	2587	5605	9989	16528	26157	39236	43116
F6750HD	30"	73426	37	2081	4405	9545	17011	28146	44545	66818	73426

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# F6...HD Butterfly Valves 2"–30" Ductile Iron Lug Body

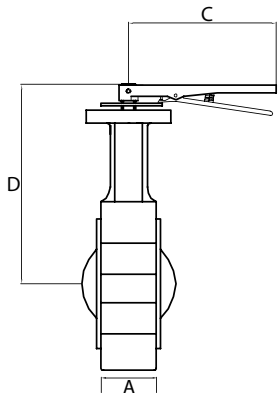
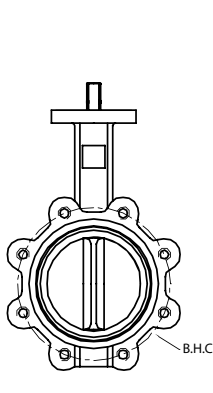
Resilient Seat, 304 Stainless Disc with Manual Handle or Gear Wheel Operator



## Maximum Dimensions (Inches)

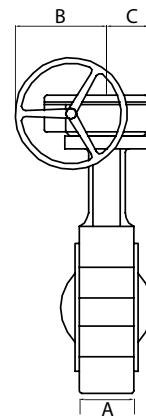
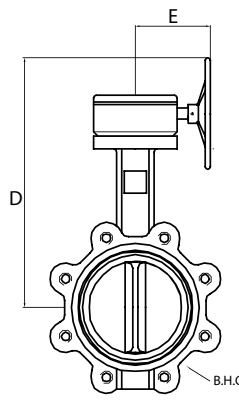
Valve	Size	Cv 90°	Cv 60°	A	B	C	D	E	BHC	No. of Holes	Lug Bolt	Operator	Close-Off (PSI)	Wt. lbs (kg)
F650HD	2"	115	44	1.69	n/a	10.44	7.68	n/a	4.75	4	5/8-11UNC	HND01	200	11.2 [5.1]
F665HD	2½"	196	75	1.81	n/a	10.44	8.27	n/a	5.5	4	5/8-11UNC	HND01	200	13.2 [6.0]
F680HD	3"	302	116	1.81	n/a	10.44	8.54	n/a	6	4	5/8-11UNC	HND01	200	13.2 [6.1]
F6100HD	4"	600	230	2.06	n/a	11.81	9.45	n/a	7.5	8	5/8-11UNC	HND02	200	19.2 [8.7]
F6125HD	5"	1022	392	2.19	n/a	11.81	9.76	n/a	8.5	8	3/4-10UNC	HND02	200	24.2 [11.0]
F6150HD	6"	1579	605	2.19	n/a	11.81	10.2	n/a	9.5	8	3/4-10UNC	HND02	200	29.2 [13.2]
F6200HD	8"	3136	1202	2.38	n/a	14.06	11.93	n/a	11.75	8	3/4-10UNC	HND03	200	43.4 [19.7]
Valve	Size	Cv 90°	Cv 60°	A	B	C	D	E	BHC	No. of Holes	Lug Bolt	Operator	Close-Off (PSI)	Wt. lbs (kg)
F650HD	2"	115	44	1.69	4.70	2.10	10.71	6.45	4.75	4	5/8-11UNC	GW01	200	19 [8.6]
F665HD	2½"	196	75	1.81	4.70	2.10	11.22	6.45	5.5	4	5/8-11UNC	GW01	200	21 [9.5]
F680HD	3"	302	116	1.81	4.70	2.10	11.50	6.45	6	4	5/8-11UNC	GW01	200	21 [9.5]
F6100HD	4"	600	230	2.06	4.70	2.10	12.17	6.45	7.5	8	5/8-11UNC	GW02	200	27 [12.2]
F6125HD	5"	1022	392	2.19	4.70	2.10	12.72	6.45	8.5	8	3/4-10UNC	GW02	200	32 [14.5]
F6150HD	6"	1579	605	2.19	4.70	2.10	13.19	6.45	9.5	8	3/4-10UNC	GW02	200	37 [16.7]
F6200HD	8"	3136	1202	2.38	8.20	3.10	17.50	9.20	11.75	8	3/4-10UNC	GW03	200	58 [26.3]
F6250HD	10"	5340	2047	2.69	8.20	3.10	18.72	9.20	14.25	12	7/8-9UNC	GW03	200	83 [37.6]
F6300HD	12"	8250	3062	3.06	13.00	3.10	20.55	9.20	17	12	7/8-9UNC	GW04	200	130.0 [59.0]
F6350HD	14"	11917	4568	3.06	13.00	3.10	21.77	9.20	18.75	12	1-8UNC	GW04	150	179.5 [81.4]
F6400HD	16"	16388	6282	4.00	13.00	5.00	25.69	11.40	21.25	16	1-8UNC	GW05	150	270 [122.4]
F6450HD	18"	21705	8320	4.50	13.00	5.00	26.56	11.40	22.75	16	1 1/8-7UNC	GW06	150	314 [142.4]
F6500HD	20"	27908	10698	5.00	15.50	6.80	32.99	11.40	25	20	1 1/8-7UNC	GW07	150	477 [216.5]
F6600HD	24"	43116	16528	6.06	16.20	6.80	36.22	12.20	29.5	20	1 1/4-7UNC	GW08	150	725 [329.0]
F6750HD	30"	73426	28146	6.50	17.70	8.10	40.55	13.80	36	28	1 1/4-7UNC	GW09	150	1253 [568.1]

## Dimensions Manual Handle



Belimovalue\_handle\_assyModel

## Dimensions Gear Wheel



Belimovalue\_handle\_assyModel

Dimension "A" is compressed, add 0.125" for relaxed state.

## Application Notes

1. Valves are rated at 200 psi differential pressure in the closed position (SY... 150 psi 14"+).
2. Valves are furnished with lugs tapped for use with ANSI Class 125/150 flanges. Installation flanges and hardware are not included.
3. 2-way assemblies are furnished assembled and tested, ready for installation.