

# F7 Series 3-Way, ANSI Class 300 Butterfly Valve Reinforced Teflon Seat, 316 Stainless Disc



- 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 16.5 Flanges
- Completely assembled and tested, ready for installation
- Tees comply with ASME/ANSI 16.5 Class 250/300 Flanges

## 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. The large C<sub>v</sub> values provide for an economical control valve solution for larger flow applications.

## Dead End Service

Utilizes larger retainer ring set screws to allow the valve to be placed at the end of the line without a down stream flange in either flow direction while still holding full pressure.

Technical Data	
Service	chilled, hot water, 60% glycol, steam to 50 psi
Flow characteristic	modified equal percentage, unidirectional
Controllable flow range	82°
Sizes	2" to 12"
Type of end fitting	ANSI 300 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
Media temperature range	-20°F to 400°F [-30°C to 204°C]
Body pressure rating	ANSI Class 300
Close-off pressure	740 psi
Rangeability	100:1 (for 30 deg to 70 deg range)
Maximum velocity	32 FPS
Leakage	bubble tight

C <sub>v</sub> 90°	C <sub>v</sub> 60°	3-way Valves		Suitable Actuators			
		Valve Nominal Size	ANSI 300 3-way	Non Fail-Safe		Electronic Fail-Safe	
		Inches			300		300
102	56	2	F750-300SHP		GM Series		GK Series
146	80	2½	F765-300SHP				
228	125	3	F780-300SHP		PR Series		PKR
451	248	4	F7100-300SHP				
714	392	5	F7125-300SHP		SY Series (2 Year Warranty)		
1103	607	6	F7150-300SHP				
2064	1135	8	F7200-300SHP				
3517	1934	10	F7250-300SHP				
4837	2660	12	F7300-300SHP				

Valve	Size	C <sub>v</sub>	MOD									ON/OFF
			10°	20°	30°	40°	50°	60°	70°	80°	90°	
F750-300SHP	2"	102	1.50	6.10	14	26	39	56	77	99	102	
F765-300SHP	2½"	146	2.20	8.80	20	37	55	80	110	142	146	
F780-300SHP	3"	228	3.40	14	32	57	87	125	171	221	228	
F7100-300SHP	4"	451	6.80	27	63	114	171	248	338	437	451	
F7125-300SHP	5"	714	11	43	100	180	271	393	536	693	714	
F7150-300SHP	6"	1103	17	66	154	278	419	607	827	1070	1103	
F7200-300SHP	8"	2064	31	124	289	520	784	1135	1548	2002	2064	
F7250-300SHP	10"	3517	53	211	492	886	1336	1934	2638	3411	3517	
F7300-300SHP	12"	4837	73	290	677	1219	1838	2660	3628	4692	4837	

### Maximum Dimensions (Inches)

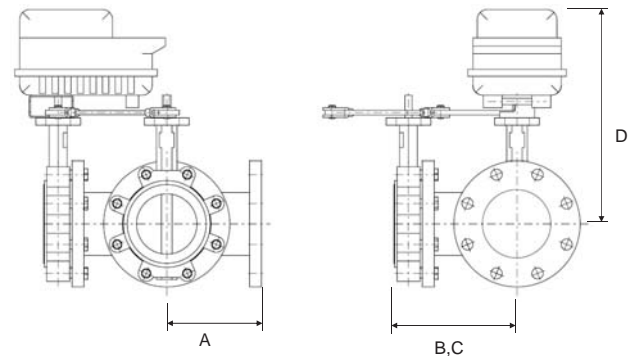
Valve	Size	C <sub>v</sub> 90°	A	B	C	D(Max)	BHC	No. of Holes	Lug Bolt	Actuator	Close-Off (PSI)	
F750-300SHP	2"	102	5.00	6.75	6.75	15.50	5.00	8	5/8-11 UNC	2*GK	285	Electronic Fail-Safe
F765-300SHP	2½"	146	5.50	7.38	7.38	16.00	5.88	8	3/4-10 UNC		285	
F780-300SHP	3"	228	6.00	7.92	7.92	16.25	6.63	8	3/4-10 UNC		285	
F7100-300SHP	4"	451	7.00	9.13	9.13	18.00	7.88	8	3/4-10 UNC		150	
F750-300SHP	2"	102	5.00	6.75	6.75	15.50	5.00	8	5/8-11 UNC	2*GM	285	Electronic Fail-Safe
F765-300SHP	2½"	146	5.50	7.38	7.38	16.00	5.88	8	3/4-10 UNC		285	
F780-300SHP	3"	228	6.00	7.92	7.92	16.25	6.63	8	3/4-10 UNC		285	
F7100-300SHP	4"	451	7.00	9.13	9.13	18.00	7.88	8	3/4-10 UNC		150	
F750-300SHP	2"	102	5.00	6.75	6.75	14.00	4.75	8	5/8-11 UNC	PR/PK	600	Non-Spring Return Electronic Fail-Safe (K)
F765-300SHP	2½"	146	5.50	7.38	7.38	14.50	5.50	8	3/4-10 UNC		600	
F780-300SHP	3"	228	6.00	7.92	7.92	15.00	6.00	8	3/4-10 UNC		600	
F7100-300SHP	4"	451	7.00	9.13	9.13	16.00	7.50	8	3/4-10 UNC		400	
F7125-300SHP	5"	714	8.00	10.25	10.25	24.25	8.50	8	3/4-10 UNC	SY4...	600	Non-Spring Return Electronic Fail-Safe (K)
F7150-300SHP	6"	1103	8.50	10.79	10.79	24.75	9.50	12	3/4-10 UNC		600	
F7200-300SHP	8"	2064	10.00	12.88	12.88	32.00	11.75	12	7/8-9 UNC	SY4...	400	Non-Spring Return Electronic Fail-Safe (K)
										SY5...	600	
										SY7...	600	
F7250-300SHP	10"	3517	11.50	14.75	14.75	33.00	14.25	16	1-8 UNC	SY4...	150	Non-Spring Return Electronic Fail-Safe (K)
										SY7...	400	
F7300-300SHP	12"	4837	13.00	16.62	16.62	35.00	17.00	16	1 1/8-8 UNC	SY7...	400	Non-Spring Return Electronic Fail-Safe (K)
										SY8...	600	

Dimensions "A, B and C" do not include flange gaskets. (3 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.
- 3-way assemblies are furnished assembled with Tee, calibrated and tested, ready for installation. All 3 way assemblies require the customer to specify the 3-way configuration code prior to order entry to guarantee correct placement of valves and actuator(s) on the assembly.
- Dimension "D" allows for actuator(s) removal without the need to remove the valve from the pipe.
- Weather shields are available, dimensional data furnished upon request.
- Dual actuated valves have single actuators mounted on each valve shaft.
- Flange gaskets (3 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.

### Dimensions



D104