

PBM IGENIX® TWO-WAY BALL VALVES

Fire Rated SI Series 6, 1/2" - 3"



DESIGN FEATURES:

- Fire Rated, tested to API-607
- Valve shall be a three-piece "swing-out" body design
- Upstream and downstream bubble-tight sealing capability allows valve body cleaning and draining.
- Valves meet ASME B16.34
- Full port design
- Valves are rated to full vacuum
- Certified Material Test Report (CMTRS) provided for wetted components
- Surface finishes are achieved without the use of ADIs (Animal Derived Ingredients)
- Optional Fusible Link – A Spring Return Handle unit can be equipped with an optional fusible link specified to a customer's required melt temperature, which closes the valve during fire conditions.
- Direct mount automation with fusible links and/or electro thermal links



SPECIFICATIONS	Fire Rated, 3 piece, 2-Way Valves
Sizes	1/2" - 3"
Material	316L, (ASTM A351 CF3M), Hastelloy® C276 and other ASME B16.34 materials
Temperatures	Ambient for TFM™ to 400° F, S-TEF® to 450°F
End Connections	Extended tube, hygienic clamp, compression ends (1/2" - 1")
Seats & Seals	TFM™ or S-TEF® Seats, Graphite seals, O-rings (EPR, Viton standard)
Stem Packing Material	TFM™ or S-TEF®, Graphite seals
Body Bolts & Nuts	18-8 Stainless Steel, Fully encapsulated
Maximum Working Pressure	up to 720 psig CWP depending on valve series, size and temperature
Temperatures	up to 450°F depending on seat and seal material
Polish	Standard internal polish of 63 Ra ID

CV Values (gpm), Series 6		
Size	End Connections	
	F-	X-
1/2"	7	8
3/4"	24	28
1"	55	60
1-1/2"	160	190
2"	370	420
2-1/2"	700	800
3"	850	1,000

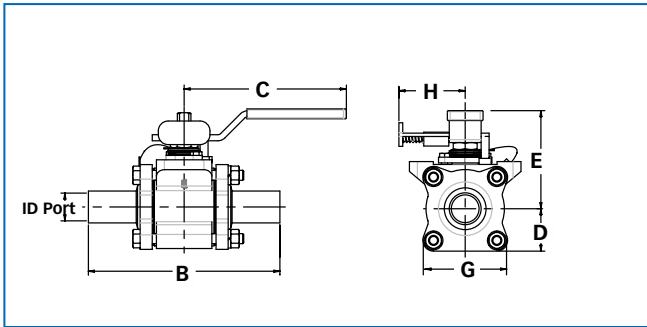
ID Surface Finish, Ra Readings for Valves per ASME BPE			
Surface Finish	PBM Polish Code	µ-in.	µ-m.
Mechanical Polish			
SF 1	A	20 Ra max	0.51
SF 2	A	25 Ra max	0.64
SF 3	-	30 Ra max	0.76
Mechanical Polish and Electropolish			
SF 4	G	15 Ra max	0.38
SF 5	F	20 Ra max	0.51
SF 6	F	25 Ra max	0.64

How To Order:

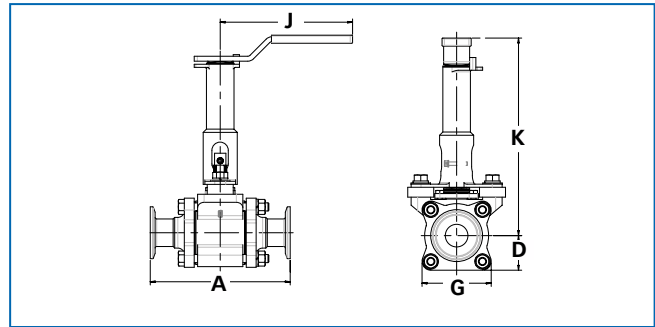
PRODUCT (1-2)		SIZE (5)		END CONNECTIONS		SEAT & SEAL		PURGES		BALL & STEM		OPERATOR		POLISH			
MATERIAL (3-4)		SERIES (6)		(7-8)		(9)		(10-11)		(12)		(13-14)		(15-16)			
SI	H-	Cast 316/316L S / S	C	1/2"	6	F-	Ext. Butt weld for Tube	G	TFM Seats / Graphite Seals / FKM O-Rings	--	No Purge Port or Ball Option	-	Standard Ball and Stem	--	W/ Standard Lever Handle	-	125 Ra ID Standard
	HL	Cast 316L S / S	D	3/4"		FX	Ext. Butt weld for Tube by Hygienic Clamp	J	TFM Seats / Graphite Seals / VTFE Cav Fill / FKM O-Rings	- 8	Self Flushing Ball	G	17-4PH Stem	02	W/O Handle W/ Stem Actuator Prep	A	20 Ra ID
	C-	Hastelloy C-276	E	1"		X-	Hygienic Clamp	Z	TFM Seats / Graphite Seals / EPR O-Rings	- V	Slotted V-Ball			04	Locking Lever Handle	C	20 Ra ID / 32 Ra OD
			G	1-1/2"		SM	Compression (thru 1")			- W	30° V-Ball			18	Extended Handle (1/2" thru 3")		
	Y-	Hastelloy C-22	H	2"		G-	Female Cherry Burrell	2	TFM Seats / Graphite Seals / VTFE Cav Fill / EPR O-Rings	- X	45° V-Ball			20	DA 80psig actuator	F	20 Ra ID after Electro Polish
			J	2-1/2"		H-	Male Cherry Burrell			- Y	60° V-Ball			27	DA 60psig actuator		
	P-	AL6XN	K	3"				H	S-TEF® Seats / Graphite Seals / FKM O-Rings		Other Purge Port & Ball Options - Contact PBM.			34	SR 80psig actuator		More polish available - Contact PBM.
		Other material options available - Contact PBM.															
								0	S-TEF® Seats / Graphite Seals / EPR O-Rings					41	SR 60psig actuator		
								9	TFM® Seats / Seals / FEP Encaps. / FKM O-Rings		Other Seat/seal options available - contact PBM.						

PBM Fire Rated SI Series 6, Manual

2-Way Fire Rated Valve with Locking Handle



2-Way Fire Rated Valve with Extended Locking Handle



2-Way Sanitary Fire Rated Valve Dimensioned valves in inches										Locking Handle		Ext. Locking Handle		
Valve Size	Size Code	ID Port	Tubing Gauge	A Clamp	B Weld	C	D	E	Approx. Wgt (lbs)	H	Hole Dia. for Lock	J	K	Hole Dia. for Lock
1/2"	C	0.37	16 ga.	3.50	5.50	4.15	0.92	2.63	1.6	1.62	.28	5.09	4.00	0.31
3/4"	D	0.62	16 ga.	4.00	5.50	4.15	0.92	2.63	1.6	1.62	.28	5.09	4.14	0.31
1"	E	0.87	16 ga.	5.37	6.00	5.09	1.33	3.03	4.5	1.62	.25	5.09	5.44	0.31
1-1/2"	G	1.37	16 ga.	5.50	7.50	8.03	1.78	4.10	10	2.57	.38	8.00	7.46	0.38
2"	H	1.87	16 ga.	6.25	8.00	8.03	2.15	4.41	15.3	2.57	.38	8.00	9.76	0.38
2-1/2"	J	2.37	16 ga.	8.00	11.50	12.06	2.79	6.51	36	3.47	.38	12.06	11.36	0.38
3"	K	2.87	16 ga.	9.00	13.50	12.06	3.14	6.78	49	3.47	.38	12.06	11.69	0.44

Manual Valves with Tube Ends when used with insulation		
Tube OD	Insulation max with no extension	Insulation max with extension
0.50	0.76	2.68
0.75	0.79	2.72
1.00	1.45	3.88
1.50	3.10	5.57
2.00	2.31	5.60
2.50	4.00	8.88
3.00	4.08	8.88

ACTUATED DIMENSIONS

Unit of Measure = inches
Dimensions based on actuators used with TFM™ seats.

Size	80 PSI Spring Return					60 PSI Spring Return					80 PSI Double Acting					60 PSI Double Acting				
	L	M	N	P	R	L	M	N	P	R	L	M	N	P	R	L	M	N	P	R
1/2"	5.55	2.80	5.84	1.61	1/8	6.46	3.17	6.27	1.77	1/8	5.55	2.80	5.84	1.61	1/8	5.55	2.80	5.84	1.61	1/8
3/4"	6.46	3.17	6.44	1.77	1/8	6.46	3.17	6.44	1.77	1/8	5.55	2.80	5.99	1.61	1/8	5.55	2.80	5.99	1.61	1/8
1"	8.27	3.72	7.80	2.07	1/8	8.27	3.72	7.80	2.07	1/8	5.55	2.80	6.64	1.61	1/8	5.55	2.80	6.64	1.61	1/8
1-1/2"	10.83	4.84	10.16	2.68	1/4	10.83	4.84	10.16	2.68	1/4	6.46	3.17	8.39	1.77	1/8	8.27	3.72	9.10	2.07	1/8
2"	10.83	4.84	10.47	2.68	1/4	13.11	5.39	11.82	2.87	1/4	8.27	3.72	9.41	2.07	1/8	8.27	3.72	9.41	2.07	1/8
2-1/2"	10.83	4.84	10.47	2.68	1/4	13.11	5.39	11.82	2.87	1/4	13.11	5.39	13.48	2.87	1/4	13.11	5.39	13.48	2.87	1/4
3"	14.65	5.83	14.29	3.15	1/4	17.13	6.46	15.18	3.44	1/4	13.11	5.39	13.81	2.87	1/4	13.11	5.39	13.81	2.87	1/4



<http://pbmvalve.com/valves/fire-rated-valves-0>

<http://pbmvalve.com/maintenance-instructions>

www.PBMValve.com

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