



Breakthrough
engineering for
a better world

Process Automation

IMI PBM

DC Cast Series 9 DC Forged Series 8 Size 1/2" to 6"

Diverter Steam Valves

Design Features

- Unique Adjust-O-Seal® feature allows in-line valve adjustment to compensate for normal wear on valve seats
- DI Series Diverter Steam Valves have O-Rings
- Integral side entry or bottom entry common port. Seats shall provide both upstream and downstream bubble-tight seal and be adjustable for inline wear
- A single Diverter Valve can replace two or three 2-Way Valves to reduce cost and space
- Full-port diameters minimize pressure drops (1/2 - 6")
- True-Bore® (tube) for Sanitary Valves
- Stem assembly accommodates IMI PBM Direct Mount Actuation for accurate alignment and increased cycling life
- A Diverter Port Ball Valve can be an economical alternative to a 3-Way Multi-Port Valve depending on the sealing requirements
- Full Port Design
- Valves are rated to full vacuum
- Specify IMI PBM Flow Pattern
- Certified Material Test Report (CMTRs) provided for wetted components
- Surface finishes are achieved without the use of Animal Derived Ingredients (ADIs)

CV Values (gpm)			
Size	L-Port	T-Port	
		Straight	Branch
1/2"	4.0	4.7	3.0
3/4"	12	15	9.0
1"	25	29	18
1-1/2"	68	81	49
2"	133	160	92
3"	324	390	233
4"	590	715	430
6"	1,450	1,750	1,040

ID Surface Finish Ra Readings for Valves per ASME BPE			
Surface Finish	IMI 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 & 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

SPECIFICATIONS

Sizes
Material
Temperatures
End Connections
Seats, Seals and Stem Packings
O-Rings
Body Bolts & Nuts
Maximum Working Pressure
Polish

Igenix® 3-Way Sanitary Diverter Steam Valves

1/2" to 6"
316L Stainless Steel with low controlled ferrite, Hastelloy™ C726 or C22®, others
Ambient for V-TEF™ to 450°F depending on seat and seal material
Extended tube, hygienic clamp or others
V-TEF™ or S-TEF® material
EPDM O-Ring Energizer (Viton V1274-75/80, EPDM E3608-70, other available)
18-8 Stainless Steel
Up to 900 psig CWP depending on valve series, size and temperature
Standard internal polish of 20 Ra ID Series 8, 30 Ra ID Series 9



How To Order:
pbmvalve.com/build-a-part-number

PRODUCT (1-2) MATERIAL (3-4)			SIZE (5) SERIES (6)			END CONNECTION (7-8)		SEAT / SEAL (9)		FLOW PATTERN OPTIONS (10-11)		BALL / STEM OPTIONS (12)	OPERATOR (13- 14)		POLISH OPTIONS (15)			
DC	HL	Cast (Series 9) 316L S / S	C	1/2"	8	X-	Hygienic Clamp	G	V-TEF™ Seats / Seals FKM O-Rings	10	3-Way Side Entry L-Port Ball 90°	-	Standard Ball and Stem	--	W/ Standard Lever Handle (1/2" thru 4")	-	30 Ra ID (Std. Series 9)	
	HF	Forged 316L S / S	D	3/4"	9	F-	Ext. Butt weld for Tube	J	V-TEF™ Seats / Seals / VTFE Cav Fill / FKM O-Rings	03	3-Way Side Entry T-Port Ball 90°	F	Internal / External Grounding	02	W/O Handle W/ Stem Actuator Prep	A	20 Ra ID (Std. Series 8)	
		Other material options available - Contact IMI PBM	E	1"				Z	V-TEF™ Seats / Seals EPDM O-Rings	04	3-Way Side Entry T-Port Ball 90°	G	17-4PH Stem	04	Locking Lever Handle (1/2" thru 4")	D	15 Ra ID	
			G	1-1/2"				2	V-TEF™ Seats / Seals / VTFE Cav Fill / EPDM O-Rings	14	3-Way Btm. Entry L-Port Ball 360°			08	Gear Operator (Req'd for 6")	E	10 Ra ID	
			H	2"				H	S-TEF™ Seats / Seals FKM O-Rings	15	3-Way BTM. Entry L-Port Ball 180°			20	DA 80psig actuator	F	20 Ra ID after Electro Polish	
			K	3"				0	S-TEF™ Seats / Seals EPDM O-Rings	18	3-Way Btm. Entry LL-Port Ball 90°			27	DA 60psig actuator	F	20 Ra ID after Electro Polish	
			L	4"				9	V-TEF™ Seats / Seals FEP Encaps. FKM O-Rings					34	SR 80psig actuator - Fail Position must be specified	G	15 Ra ID after Electro Polish	
			M*	6"										41	SR 60psig actuator - Fail Position must be specified	H	10 Ra ID after Electro Polish	

Other material options available - Contact IMI PBM

Other Flow Pattern Options available - Contact IMI PBM

Other Seat/seal options available - Contact IMI PBM

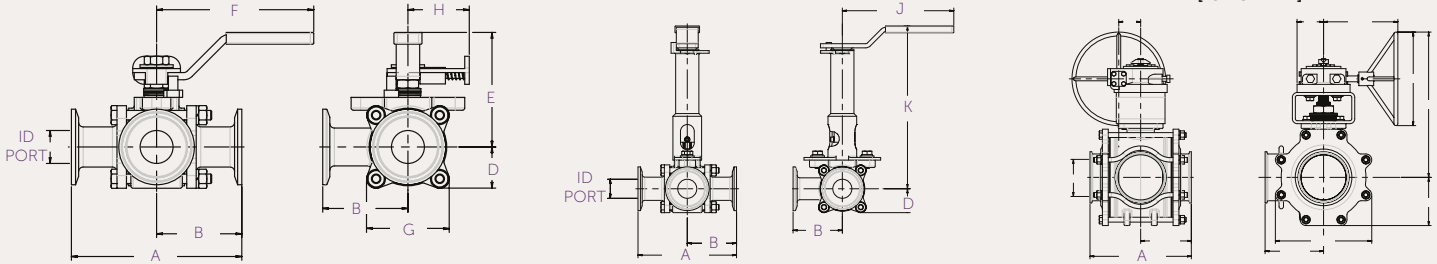
Other operator options available - Contact IMI PBM

More polish options available - Contact IMI PBM

DIVERTER PORT WITH LOCKABLE HANDLE

DIVERTER PORT WITH BUTTWELDED ENDS

DIVERTER PORT WITH GEAR OPERATOR [6" ONLY]



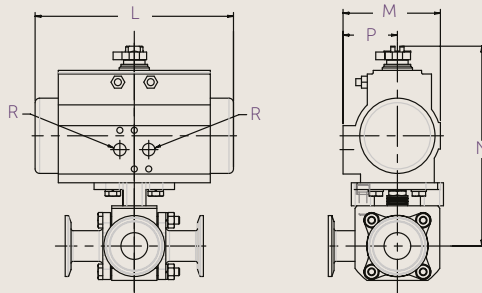
3-Way Diverter Port Dimensioned Valves In Inches												Lockable Handle		Extended Lockable Handle		
Valve Size	Size Code	I.D. Port	A		B		D	E	F	G	~Wt (lbs)	H	Hole Dia. for Lock	J	K	Hole Dia. for Lock
			F-	X-	F-	X-										
1/2"	C	0.37	5.50	3.50	2.75	1.75	0.75	2.05	4.00	1.50	1.6	1.55	.28	5.09	4.00	0.31
3/4"	D	0.62	6.00	4.00	3.00	2.00	0.85	2.23	4.00	1.68	2.0	1.55	.28	5.09	4.14	0.31
1"	E	0.87	6.50	4.50	3.25	2.25	1.09	3.01	4.15	2.18	3.6	1.62	.25	5.09	5.44	0.31
1-1/2"	G	1.37	7.50	5.50	3.75	2.75	1.68	5.02	8.81	3.31	12.0	2.57	.38	8.00	7.46	0.38
2"	H	1.87	8.00	6.25	4.00	3.13	2.15	4.47	8.03	4.30	22.0	2.57	.38	8.00	7.74	0.38
3"	K	2.87	10.50	8.00	5.25	4.00	2.78	6.77	12.06	5.58	33.0	3.47	.38	12.06	11.61	0.44
4"	L	3.84	13.00	10.00	6.50	5.00	3.66	7.53	12.06	7.33	67.0	3.47	.38	12.06	12.38	0.44
*6"	M	5.78	17.00	13.00	8.50	6.50	6.18	N/A	N/A	12.37	**177.0	N/A	N/A	N/A	N/A	N/A

* Series 9 Only ** Weight without handle

ACTUATED DIMENSIONS

Unit of measure = inches

Dimensions based on actuators used with V-TEF® seats



Find out more
pbmvalve.com

Size	80 PSI Spring Return					60 PSI Spring Return					60, 80 PSI Double Acting				
	L	M	N	P	R	L	M	N	P	R	L	M	N	P	R
1/2"	5.55	2.80	5.45	1.61	1/8 NPT	5.55	3.17	5.90	1.77	1/8 NPT	5.55	2.80	5.45	1.61	1/8 NPT
3/4"	5.55	2.80	5.59	1.61	1/8 NPT	6.46	3.17	6.04	1.77	1/8 NPT	5.55	2.80	5.59	1.61	1/8 NPT
1"	6.46	3.17	6.51	1.77	1/8 NPT	8.27	3.72	7.22	2.07	1/8 NPT	5.55	2.80	6.06	1.61	1/8 NPT
1-1/2"	9.47	4.17	9.65	2.30	1/8 NPT	10.83	4.84	9.65	2.68	1/4 NPT	8.27	3.72	9.10	2.07	1/8 NPT
2"	10.83	4.84	10.45	2.68	1/4 NPT	13.11	5.39	11.80	2.87	1/4 NPT	8.27	3.72	9.39	2.07	1/8 NPT
3"	14.65	5.83	14.21	3.15	1/4 NPT	17.13	6.46	15.10	3.44	1/4 NPT	13.11	5.39	13.73	2.87	1/4 NPT
4"	17.13	6.46	15.86	3.44	1/4 NPT	19.69	7.32	16.80	3.90	1/4 NPT	13.11	5.39	14.51	2.87	1/4 NPT
6"	22.78	8.54	23.02	4.29	1/4 NPT	22.64	11.42	27.78	5.71	1/4 NPT	22.78	8.54	23.02	4.29	1/4 NPT

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
3.00	4.08	8.88
4.00	4.35	9.12

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