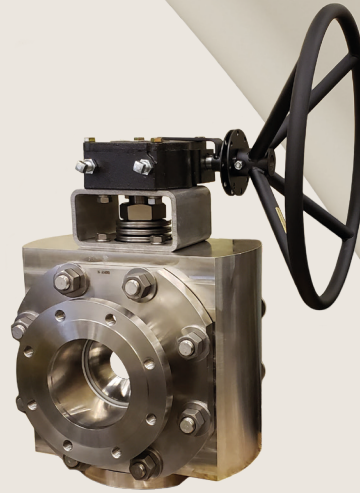




Breakthrough engineering for a better world

# Process Automation

IMI PBM



## DP Series 5 Size 1/2" to 6"

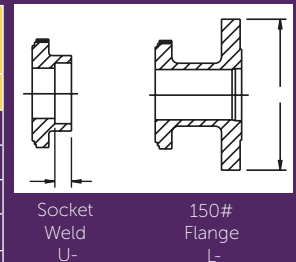
# Diverter Port Ball Valves

### Design Features

- Unique Adjust-O-Seal® feature allows in-line valve adjustment to compensate for normal wear on valve seats
- DP Series Valves do not 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")
- 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
- Valves are rated to full vacuum
- Specify IMI PBM flow pattern
- Using a welded connection on the common port of a DP Valve may complicate maintenance. Provisions must be made to allow removal of end fittings and body from the line. IMI PBM recommends Female NPT (Q-) or flanged end fittings for common port connection for ease of valve maintenance.

CV Values (gpm)			
Size	L-Port	T-Port	
		Straight	Branch
1/2"	6.6	7.4	5.2
3/4"	17	20	13
1"	33	39	24
1-1/2"	79	93	58
2"	149	180	110
3"	350	415	250
4"	640	770	465
6"	1,550	1,860	1,110

Socket Weld Depth or Flange Diameter		
Size	U-	L-
1/2"	0.41	3.50
3/4"	0.53	3.88
1"	0.53	4.25
1-1/2"	0.53	5.00
2"	0.66	6.00
3"	0.69	7.50
4"	0.81	9.00
6"	N/A	11.00



### SPECIFICATIONS

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

### 3-Way Diverter Port Valves

1/2" to 6" - Series 5  
316/316L, Hastelloy™ C726, Carbon Steel, others available  
Ambient for V-TEF™ to 400°F, S-TEF to 450°F  
Extended tube, hygienic clamp, or others  
V-TEF™ or S-TEF®  
18-8 Stainless Steel  
Up to 900 psig CWP depending on valve series, size and temperature



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

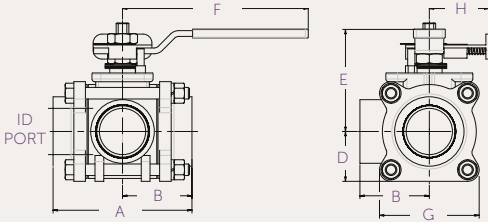
PRODUCT (1-2) MATERIAL (3-4)			SIZE (5) SERIES (6)			END CONNECTION (7-8)		SEAT / SEAL (9)		FLOW PATTERN OPTIONS (10-11)			BALL / STEM OPTIONS (12)		OPERATOR (13- 14)		POLISH OPTIONS (15)	
DP	H-	Cast 316/316L S / S	C	1/2"	5	L-	150# Flange	G	V-TEF™ Seats / Seals	03	3-Way Side Entry T-Port Ball 90°	-	Standard Ball and Stem	--	W/ Standard Lever Handle	-	125 Ra ID Standard	
	HL	Cast 316L S / S	D	3/4"		Q-	Female NPT	J	V-TEF™ Seats / Seals VTFE Cavity Fillers	04	3-Way Side Entry T-Port Ball 90°	F	Internal / External Grounding	02	W/O Handle W/ Stem Actuator Prep	A	20 Ra ID	
	C-	Hastelloy C-276	E	1"		U-	Socket Weld	H	S-TEF® Seats / Seals	06	3-Way Side Entry T-Port Ball 180°	G	17-4PH Stem	04	Locking Lever Handle (1/2" thru 2")	C	20 Ra ID / 32 Ra OD	
	Y-	Hastelloy C-22	H	2"				I	S-TEF® Seats / Seals VTFE Cavity Fillers	10	3-Way Side Entry L-Port Ball 90°			08	Gear Operator (Req'd for 6")		20 Ra ID after Electro Polish	
	P-	AL6XN	L	4"				K	UHMWPE Seats / Seals	15	3-Way Btm. Entry L-Port Ball 180°			20	DA 80psig actuator	F	20 Ra ID after Electro Polish	
		Other material options available - Contact IMI PBM	M	6"				L	UHMWPE Seats / Seals VTFE Cavity Fillers	18	3-Way Btm. Entry LL-Port Ball 90°			27	DA 60psig actuator		More polish available - Contact IMI PBM	
														34	SR 80psig actuator - Fail Position must be specified			
														41	SR 60psig actuator - Fail Position must be specified			

Other seat/seal options available - Contact IMI PBM

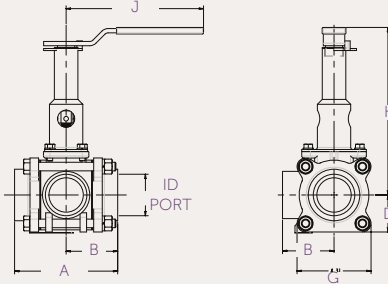
Other Flow Pattern Options available - Contact IMI PBM

Other operator options available - Contact IMI PBM

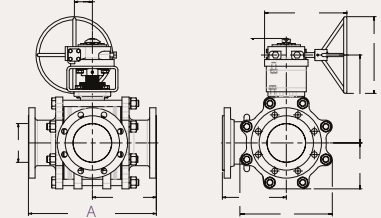
DIVERTER PORT WITH LOCKABLE HANDLE



DIVERTER PORT WITH BUTTWELD ENDS



DIVERTER PORT WITH GEAR OPERATOR [ 6" ONLY ]



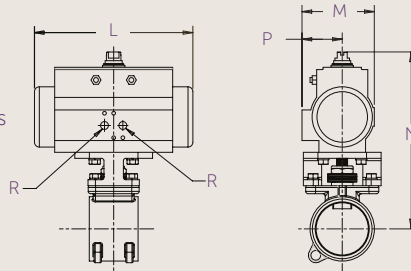
3-Way Diverter Port Dimensioned Valves in Inches													Lockable Handle		Extended Lockable		
Valve Size	Size Code	Port Dia.	A		B		D	E	F	G	~Wt (lbs.)		H	Hole Dia. for Lock	J	K	Hole Dia. for Lock
			Q-, U-	L-	Q-, U-	L-					Q-, U-	L-					
1/2"	C	0.50	3.12	5.50	1.56	2.75	.92	2.63	4.15	1.84	2	5.2	1.55	.28	5.09	7.18	0.31
3/4"	D	0.75	3.44	5.75	1.72	2.88	1.0	2.78	4.15	2.00	2.5	7	1.55	.28	5.09	7.34	0.31
1"	E	1.00	4.25	6.50	2.13	3.25	1.33	3.03	5.09	2.66	5.0	11	1.62	.25	5.09	7.62	0.31
1 1/2"	G	1.50	5.50	8.00	2.75	4.00	1.78	4.10	8.68	3.56	11.5	21.5	2.57	.38	8.00	9.45	0.38
2"	H	2.00	6.00	9.75	3.00	4.88	2.15	4.41	8.68	4.38	16.5	33	2.57	.38	8.00	9.76	0.38
3"	K	3.00	9.00	12.75	4.50	6.38	3.14	6.78	12.44	6.28	50.0	80.0	3.47	.38	12.06	11.69	0.44
4"	L	4.00	12.00	15.00	6.00	7.50	4.91	7.34	24.40	9.82	123	155	3.47	.38	24.06	13.97	0.44
6*"	M	6.00	N/A	20.00	N/A	10.00	7.18	N/A	N/A	14.36	N/A	**378	N/A	N/A	N/A	N/A	N/A

\* Cast 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 Double Acting					60 PSI Double Acting					80 PSI Spring Return					60 PSI Spring Return				
	L	M	N	P	R	L	M	N	P	R	L	M	N	P	R	L	M	N	P	R
1/2"	5.55	2.79	5.84	1.61	1/8	6.46	3.17	6.29	1.77	1/8	5.55	2.79	5.84	1.61	1/8	5.55	2.79	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	2.79	5.99	1.61	1/8	5.55	2.79	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	2.79	6.64	1.61	1/8	5.55	2.79	6.64	1.61	1/8
1 1/2"	10.83	4.85	10.16	2.68	1/4	10.83	4.85	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	4.85	10.47	2.68	1/4	13.12	5.39	11.82	2.87	1/4	8.27	3.72	9.42	2.07	1/8	8.27	3.72	9.42	2.07	1/8
2 1/2"	13.12	5.39	13.48	2.87	1/4	14.65	5.83	13.96	3.15	1/4	13.12	5.39	13.48	2.87	1/4	13.12	5.39	13.48	2.87	1/4
3"	14.65	5.83	14.29	3.15	1/4	17.13	6.46	15.16	3.44	1/4	13.12	5.39	13.81	2.87	1/4	13.12	5.39	13.81	2.87	1/4
4"	17.15	6.46	17.34	3.44	1/4	17.15	6.46	17.34	3.44	1/4	19.69	7.36	18.28	4.29	1/4	19.69	7.36	18.28	4.29	1/4
6"	22.78	8.58	24.13	3.94	1/4	22.78	8.58	24.13	3.94	1/4	22.78	8.58	24.13	5.71	1/4	22.78	11.42	28.89	5.71	1/4



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