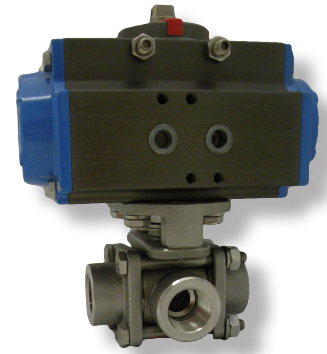


PBM DIVERTER PORT BALL VALVES

3-Way Series 5, 1/2" - 6"

DESIGN FEATURES:

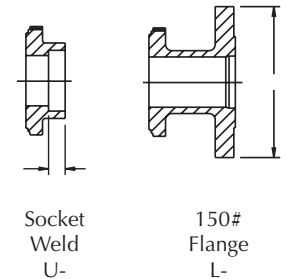
- Unique Adjust-O-Seal® feature allows in-line valve adjustment to compensate for normal wear on valve seats. Note: **DP Series valves DO NOT have o-rings.**
- Integral side-entry or bottom entry common port. Seats shall provide both upstream and downstream bubble-tight seal and be adjustable for inline 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 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 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. PBM recommends Female NPT (Q-) or flanged end fittings for common port connection for ease of valve maintenance.



SPECIFICATIONS	DIVERTER VALVES
Sizes	1/2" - 6" Series 5
Material	316/316L, Hastelloy™ C-276, Carbon Steel, others available
Temperatures	Ambient for V-TEF™ to 400° F, S-TEF® to 450°F
End Connections	Flange, NPT, Socket weld
Seats, Seals and Stem Packings	V-TEF™ and S-TEF®
Body Bolts & Nuts	18-8 Stainless Steel
Maximum Working Pressure	up to 900 psig CWP depending on valve series, size and temperature

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"	NA	11.00



How To Order:

PRODUCT (1-2) MATERIAL (3-4)		SIZE (5) SERIES (6)		END CONN. (7-8)	SEAT & SEAL (9)	FLOW PATTERNS (10-11)	BALL & STEM (12)	OPERATOR (13-14)	POLISH (15-16)	
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" G 1-1/2"			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") 08 Gear Operator (Req'd for 6")	C 20 Ra ID / 32 Ra OD
	Y- Hastelloy C-22	H 2" K 3"				I S-TEF® Seats / Seals VTFE Cavity Fillers	10 3-Way Side Entry L-Port Ball 90°		20 DA 80psig actuator 27 DA 60psig actuator	F 20 Ra ID after Electro Polish
	P- AL6XN	L 4" M 6"				K UHMWPE Seats / Seals	15 3-Way Btm. Entry L-Port Ball 180°		34 SR 80psig actuator - Fail Position must be specified	More polish available - Contact PBM.
						L UHMWPE Seats / Seals VTFE Cavity Fillers	18 3-Way Btm. Entry LL-Port Ball 90°		41 SR 60psig actuator - Fail Position must be specified	

<http://pbmvalve.com/build-a-part-number>

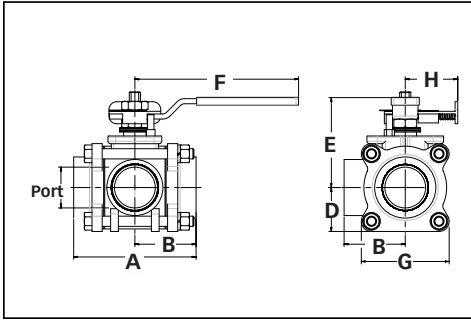
Other seat/seal options available - Contact PBM.

Other Flow Pattern Options available - Contact PBM.

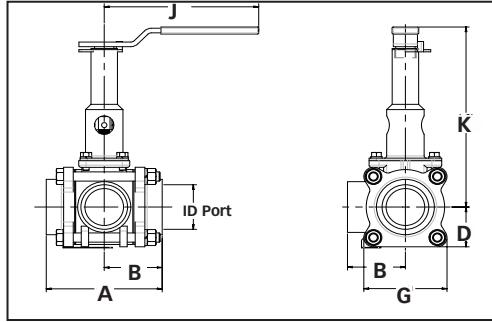
Other operator options available - Contact PBM.

PBM Diverter Port Valves Series 5

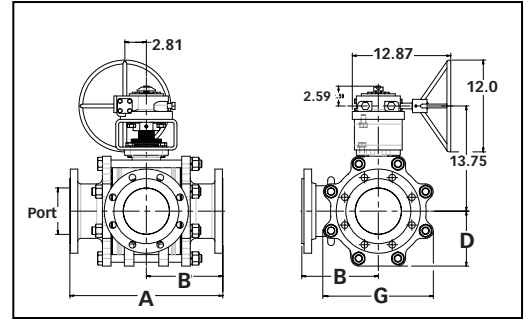
Diverter Port with Locking Handle



Diverter Port with Butt-weld Ends

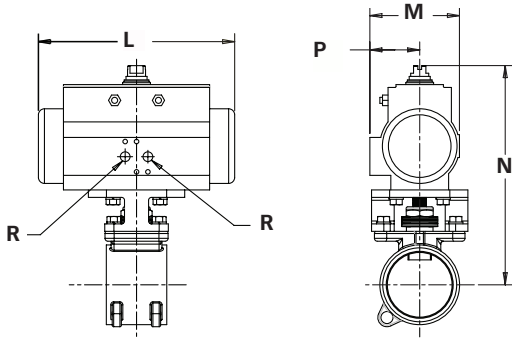


Diverter Port with Gear Operator (6" only)



3-Way Diverter Port Dimensioned valves in inches													Locking Handle		Ext. Locking Handle		
Valve Size	Size Code	Port Dia.	A		B		D	E	F	G	Approx. Weight (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	NA	20.00	NA	10.00	7.18	NA	NA	14.36	NA	378	NA	NA	NA	NA	NA

* Cast Only ** Weight without handle



ACTUATED DIMENSIONS

Unit of Measure = inches
Dimensions based on actuators used with V-TEF™ seats.

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



<http://www.pbmvalve.com/valves/3-way-diverter-port-valve>

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



www.PBMValve.com

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