

PBM Igenix® Radial Diaphragm Tank Outlet Valves

clean. reliable. simple. versatile.

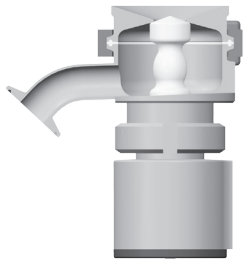
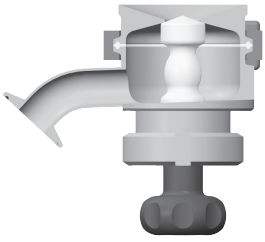


PBM Igenix® Radial Diaphragm Tank Outlet Valve

As an ISO 9001 manufacturer, PBM produces standard and custom sanitary valve products for services required to minimize contamination, facilitate CIP/SIP and reduce downtime. PBM Radial Diaphragm Valves comply with ASME BPE guidelines and offer valve certifications. Our absolute mission is to provide time lasting designs which help our users produce high quality biologicals and pharmaceuticals.

Benefits:

- Smooth sloping design for complete drainage
- Weld pad easily detaches with a simple hygienic clamp
- 1/2" through 3", DIN 10 through DIN 80
- 45° and 2° sloped outlet
- Pressure rating 175 psi/12 bar
- Outlet can be oriented in any position
- Machined by PBM from wrought material
- Standard finish 15 Ra with EP (BPE SF4)
- 316L, Hastelloy™ C-276, C-22, AL6XN™, Duplex, others
- Silicone or TFM™ diaphragms, others available
- Full material traceability and documentation package
- Optional purge port and tank connections available
- Exceeds performance requirements of ASME-BPE testing
- Optional position switch options including AS-Interface, DeviceNet, Foundation Fieldbus and Modbus

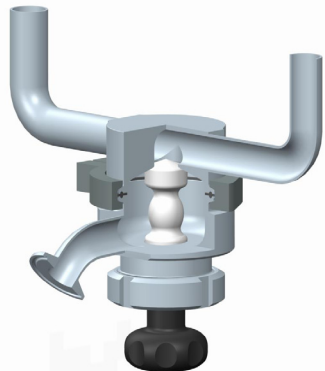


Point of Use Valve - Zero Dead Leg

PBM's Igenix® Radial diaphragm Zero static valves eliminate dead-leg on critical process systems including WFI, clean steam and process media. PBM's Radial diaphragm zero static valves have an advantage over traditional weir type diaphragm valves due to a detachable body connection using a standard hygienic clamp that can be capped during system passivation.

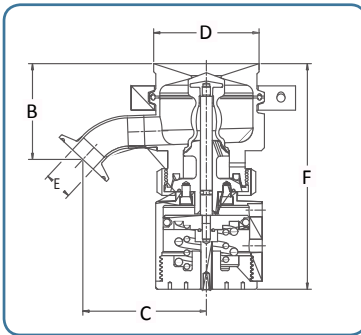
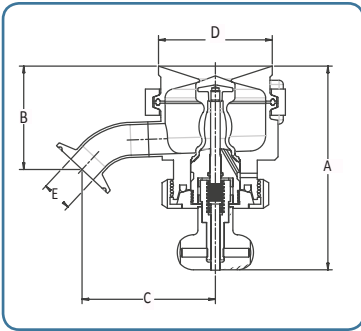


Valve Size	Header Size Selection						
	1/2" DIN 15	3/4" DIN 20	1" DIN 25	1-1/2" DN 40	2" DN 50	3" DN 80	4" DN 100
1/2", DIN 15	*	*	*	*	*	*	
3/4", DIN 20		*	*	*	*	*	
1", DIN 25			*	*	*	*	
1-1/2", DN 40				*	*	*	
2", DN 50					*	*	*
3", DN 80						*	*



Flush Mounted Radial Diaphragm Valves

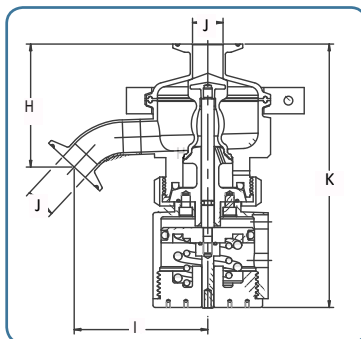
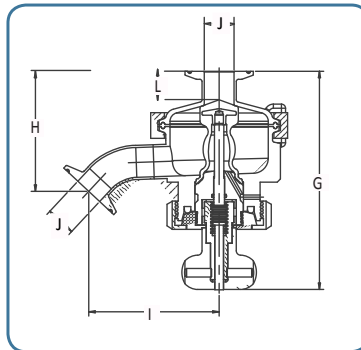
Flush Mounted Dimensions, Cv



Size	Units	A	B	C	D	E	F	Units	CV
1/2" DIN 15	inches	5.11	2.69	3.11	2.25	0.37	6.12	gal./min.	3.30
	mm	129.8	68.3	79.0	57.2	9.4	155.4	liters/min.	12.5
3/4" DIN 20	inches	5.07	2.50	3.11	2.25	0.62	6.08	gal./min.	10.30
	mm	128.8	63.5	79.0	57.2	15.7	154.4	liters/min.	39.0
1" DIN 25	inches	5.82	2.95	3.81	3.25	0.87	6.96	gal./min.	14.60
	mm	147.8	74.9	96.8	82.6	22.1	176.8	liters/min.	55.3
1-1/2" DN 40	inches	6.36	3.44	4.32	3.25	1.37	8.24	gal./min.	48.10
	mm	161.5	87.4	109.7	82.6	34.8	209.3	liters/min.	182.1
2" DN 50	inches	7.14	4.05	5.34	4.25	1.87	9.42	gal./min.	72.20
	mm	181.4	102.9	135.6	108.0	47.5	239.3	liters/min.	273.3
3" DN 80	inches	9.26	5.72	7.34	6.25	2.87	CF	gal./min.	167.70
	mm	235.2	145.3	186.4	158.8	72.9	CF	liters/min.	634.8

Clamp Mounted Radial Diaphragm Valves

Clamp Mounted Dimensions, Cv



Size	Units	G	H	I	J	K	L	Units	CV
1/2" DIN 15	inches	5.7	3.28	3.11	0.37	6.71	.83	gal./min.	3.30
	mm	144.8	83.3	79.0	9.4	170.4	21.1	liters/min.	12.5
3/4" DIN 20	inches	5.82	3.25	3.11	0.62	6.83	.83	gal./min.	10.30
	mm	147.8	82.6	79.0	15.7	173.5	21.1	liters/min.	39.0
1" DIN 25	inches	6.37	3.51	3.81	0.87	7.51	.83	gal./min.	14.60
	mm	161.8	89.2	96.8	22.1	190.8	21.1	liters/min.	55.3
1-1/2" DN 40	inches	6.91	3.99	4.32	1.37	8.79	.75	gal./min.	48.10
	mm	175.5	101.3	109.7	34.8	223.3	19.1	liters/min.	182.1
2" DN 50	inches	7.69	4.6	5.34	1.87	9.97	.65	gal./min.	72.20
	mm	195.3	116.8	135.6	47.5	253.2	16.5	liters/min.	273.3
3" DN 80	inches	9.39	5.84	7.34	2.87	CF	.42	gal./min.	167.70
	mm	238.5	148.3	186.4	72.9	CF	10.7	liters/min.	634.8



Diaphragm Materials

Material		Color	Temperature Range	Data
Silicone	Medical Grade	White	-60° to 275°F	Commonly used in Pharma applications
	Platinum Cured		-50° to 135°C	Ideal for most biological processes Optional clear available Optimal performance
TFM™	TFM™ 1600 PTFE (Polytetrafluoroethylene)	White	32° to 400°F 0° to 204°C	Excellent chemical resistance Good high temperature and steam resistance Higher cost than Silicone



Custom fit Copper chill block fixtures are available to facilitate welding of PBM's Radial Diaphragm tank outlet valve weld pad.

Weights

Size	Weld pad only		Valve + pad, manual		Valve + pad + actuator	
	lb.	kg	lb.	kg	lb.	kg
1/2"	0.56	0.25	4.27	1.6	5.42	2
3/4"	0.46	0.21	4.18	1.6	5.28	2
1"	1.18	0.54	7.09	2.6	9.49	3.5
1-1/2"	1.09	0.49	8.83	3.3	14.17	5.3
2"	1.74	0.79	16.47	6.1	21.83	8.1
3"	6.33	2.87	37.96	17.22	N/A	N/A

How to Order

PRODUCT (1-2)	MATERIAL (3-4)	SIZE (5)	SERIES (6)	OUTLET END CONNECTION (7)	OUTLET ORIENTATION CONNECTION (8)	DIAPHRAGM / GASKET (9)	TANK PAD OPTIONS* (10-11)	PURGE PORTS/ SATELLITE VALVE (12)	OPERATOR (13-14)	POLISH (MECH. UNLESS NOTED) (15)	MISCELLANEOUS (16)									
RD Radial Diaphragm Valve	HL 316L Stainless	C	1	RD	F	Ext Butt Weld-Tube	1	2 Degree Slope W/ Straight Outlet	B	Silicon	--	Standard Weld Pad	-	No purge option(s) selected	--	w/Manual Knob	G	15Ra ID / 63Ra OD after EP (Standard)	-	No Options
	C- Hastelloy® C-276	D			X	Hygienic Clamp-Tube	2	2 Degree Slope W/ 45° Outlet	G	TFM™	LP	Less Weld Pad	A	(1) 1/2" clamp on center opposite outlet	34	SR80 psig actr	H	10Ra ID / 63Ra OD after EP	L	Oxygen Clean per PBM Procedure
	Y- Hastelloy® C-22®	E								CX	1/2" Clamp Inlet	B	(1) 1/2" BWTE on center opposite outlet	35	SR80 psig actr & GP LS	O	15Ra ID / 32Ra OD / EP			
	P- AL6XN	G								DX	3/4" Clamp Inlet	R	(1) 1/2" Satellite Valve Hygienic Clamp - Manual	38	SR80 psig actr & XP LS	S	10Ra ID / 32Ra OD / EP			
	22 Duplex 2205	H								EX	1" Clamp Inlet	S	(1) 1/2" Satellite Valve Ext. Butt Weld - Tube	110	VAC Solenoid & Limit Switch					
		K								GX	1-1/2" Clamp Inlet	T	(1) 1/2" Satellite Valve Hygienic Clamp - Auto.**	36	SR80 psig actr & GP Sol					
										HX	2" Clamp Inlet	U	(1) 1/2" Satellite Valve - Ext. Butt Weld - Tube - Auto.	37	SR80 psig actr & GP LS & Sol					
										KX	3" Clamp Inlet		**Automation matches main valve.	39	SR80 psig actr & XP Sol					
										LX	4" Clamp Inlet			40	SR80 psig actr & XP LS & Sol					
										MX	6" Clamp Inlet			24	VDC Solenoid & Limit Switch					
							W4	1/2" Thick Weld Pad*			63	SR80 psig actr & GP Sol								
							W6	3/4" Thick Weld Pad*			64	SR80 psig actr & GP LS & Sol								
											65	SR80 psig actr & XP Sol								
											66	SR80 psig actr & XP LS & Sol								

*Consult PBM for RDV Adapter Pads for Series 8/9 Flush Tank Weld

*Polypropylene Pads Available.

*1/2" -2"
only

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To find your local PBM representative or for more information about PBM valves, visit www.pbmvalve.com or call us at 1-800-967-4PBM.

Participating member of the ASME Bioprocessing Equipment (BPE) Standards Committee



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