

Radial Diaphragm Tank Outlet Valves

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IMI PBM Igenix®
Clean. Reliable. Simple. Versatile

Igenix®
CLEAN
Valve Solutions

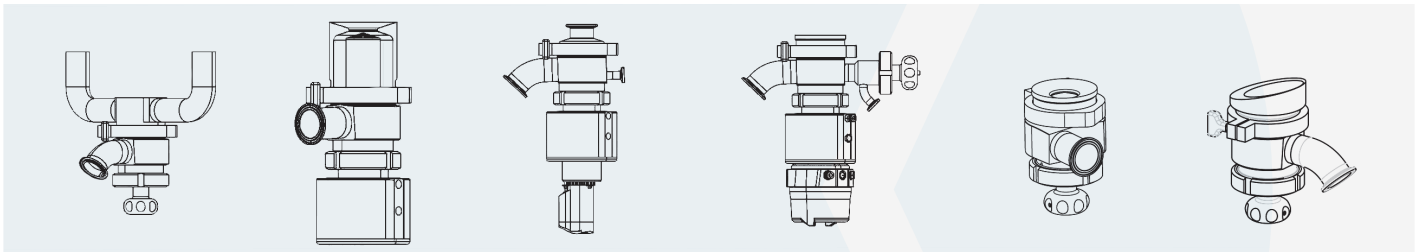
 IMI PBM

IMI PBM Igenix® Radial Diaphragm Tank Outlet Valves

As an ISO 9001:2015 manufacturer, IMI PBM produces standard and custom sanitary valve products for services required to minimize contamination, facilitate CIP/SIP and reduce downtime. IMI 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.

- Lower potential emissions due to less flange connections
- Smooth sloping design for complete drainage
- 1/2" - 4" (DN 15 - DN 100)
- 45° and 2° sloped outlet
- Pressure rating 175 psi/12 bar
- Machined by IMI PBM from wrought material
- Standard finish 15 Ra with EP (BPE SF4)
- Optional purge port and tank connections available
- Body materials - 316L, Hastelloy® C-22®, AL6XN™, & others; Weld pads - any material
- Platinum cured Silicone or V-TEF™ (4" (DN100) only) diaphragms
- Full material traceability and documentation package
- Exceeds performance requirements of ASME-BPE testing
- Optional position switch options including AS-Interface, DeviceNet, Foundation Fieldbus and Modbus
- Approved CRN

RDV CONFIGURATIONS



Point of use

Extended Weld Pad

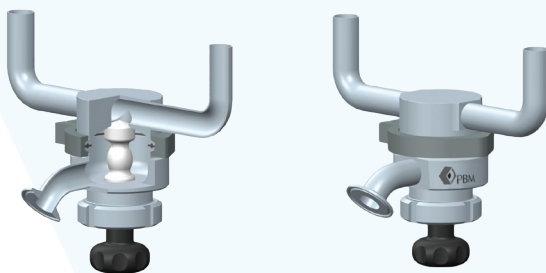
Clamp on with purge port

Standard Weld Pad with satellite valve

Tangential

Point of Use Valve Zero Dead Leg

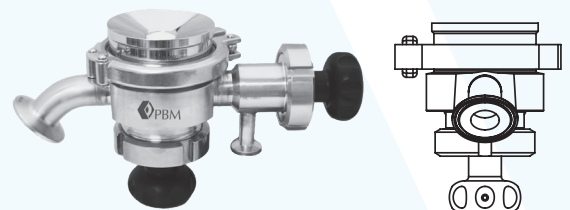
IMI PBM's Igenix® Radial Diaphragm Zero Static Valves eliminate dead-leg on critical process systems including WFI, clean steam and process media. IMI PBM's Radial Diaphragm Zero Static Valves have an advantage over traditional weir type diaphragm valves due to a detachable body connection, using a standard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



Valve Size	Header Size Selection						
	1/2" (DN15)	3/4" (DN20)	1" (DN25)	1-1/2" (DN40)	2" (DN50)	3" (DN80)	4" (DN100)
1/2" (DN15)	*	*	*	*	*	*	*
3/4" (DN20)		*	*	*	*	*	*
1" (DN25)			*	*	*	*	*
1-1/2" (DN40)				*	*	*	*
2" (DN50)					*	*	*
3" (DN80)						*	*

Additional RDV Configurations Satellite Valve

IMI PBM's Igenix® Satellite Valve offers seating against the body of our Radial Diaphragm Valve eliminating dead leg and allowing the introduction of CIP / SIP into the valve.



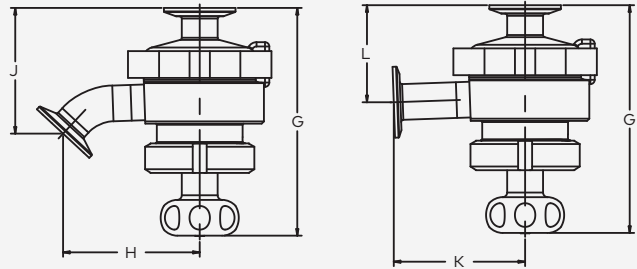
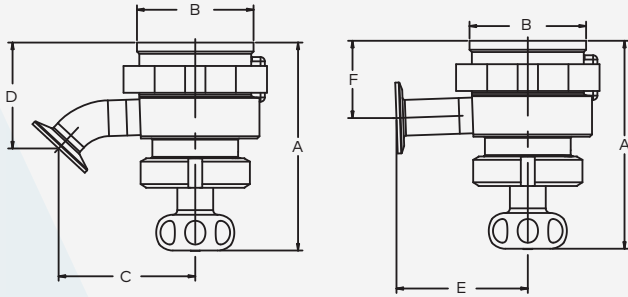
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IMI PBM Radial Diaphragm Manual Valves



Flush Mounted Radial Diaphragm Valve

Clamp Mounted Radial Diaphragm Valve



Size	Port		A		B		C		D		E		F	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
1/2" (DN15)	0.37	9.40	5.07	128.78	2.25	57.15	3.11	78.99	2.64	67.06	3.18	80.77	1.93	49.02
3/4" (DN20)	0.62	15.75	5.07	128.78	2.25	57.15	3.11	78.99	2.50	63.50	3.18	80.77	1.80	45.72
1" (DN25)	0.87	22.10	5.82	147.83	3.25	82.55	3.81	96.77	2.95	74.93	3.66	92.96	2.15	54.61
1-1/2" (DN40)	1.37	34.80	6.36	161.54	3.25	82.55	4.32	109.73	3.44	87.38	3.66	92.96	2.40	60.96
2" (DN50)	1.87	47.50	7.14	181.36	4.25	107.95	5.34	135.64	4.05	102.87	4.65	118.11	2.79	70.87
3" (DN80)	2.87	72.90	9.26	235.20	6.25	158.75	7.34	186.44	5.72	145.29	5.59	141.99	3.98	101.09
4" (DN100)	3.83	97.28	10.27	260.86	6.25	158.75	8.71	221.23	6.82	173.23	5.70	144.78	4.51	114.55

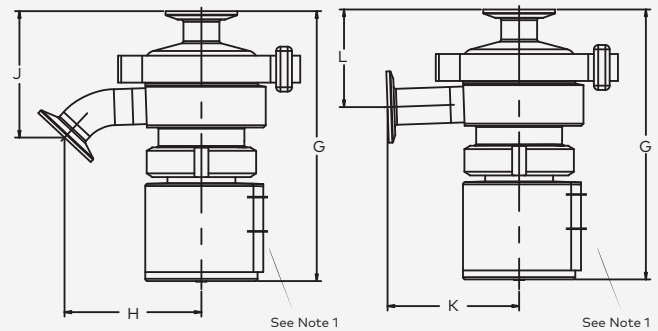
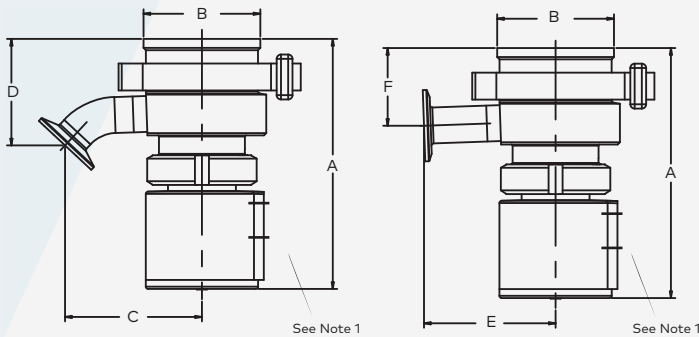
Size	Port		G		H		J		K		L	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
1/2" (DN15)	0.37	9.40	5.82	147.83	3.11	78.99	3.39	86.12	3.18	80.77	2.68	68.07
3/4" (DN20)	0.62	15.75	5.82	147.83	3.11	78.99	3.25	82.55	3.18	80.77	2.55	64.77
1" (DN25)	0.87	22.10	6.37	161.80	3.81	96.77	3.51	89.15	3.66	92.96	2.61	66.29
1-1/2" (DN40)	1.37	34.80	6.91	175.51	4.32	109.73	3.99	101.35	3.66	92.96	2.86	72.64
2" (DN50)	1.87	47.50	7.69	195.33	5.34	135.64	4.60	116.84	4.65	118.11	3.34	84.84
3" (DN80)	2.87	72.90	9.39	238.51	7.34	186.44	5.85	148.59	5.59	141.99	4.11	104.39
4" (DN100)	3.83	97.28	10.40	264.16	8.71	221.23	6.95	176.53	5.70	144.78	4.63	117.60

IMI PBM Radial Diaphragm Actuated Valves



Actuated Flush Mounted Radial Diaphragm Valve

Actuated Clamp Mounted Radial Diaphragm Valve



Size	Port		A		B		C		D		E		F	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
1/2" (DN15)	0.37	9.40	6.08	154.43	2.25	57.15	3.11	78.99	2.64	67.06	3.18	80.77	1.93	49.02
3/4" (DN20)	0.62	15.75	6.08	154.43	2.25	57.15	3.11	78.99	2.50	63.50	3.18	80.77	1.80	45.72
1" (DN25)	0.87	22.10	6.96	176.78	3.25	82.55	3.81	96.77	2.95	74.93	3.66	92.96	2.15	54.61
1-1/2" (DN40)	1.37	34.80	8.24	209.30	3.25	82.55	4.32	109.73	3.44	87.38	3.66	92.96	2.40	60.96
2" (DN50)	1.87	47.50	9.42	239.27	4.25	107.95	5.34	135.64	4.05	102.87	4.65	118.11	2.79	70.87
3" (DN80)	2.87	72.90	13.42	340.87	6.25	158.75	7.34	186.44	5.72	145.29	5.59	141.99	3.98	101.09
4" (DN100)	3.83	97.28	14.50	368.30	6.25	158.75	8.71	221.23	6.82	173.23	5.70	144.78	4.51	114.55

Size	Port		G		H		J		K		L	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
1/2" (DN15)	0.37	9.40	6.83	173.48	3.11	78.99	3.39	86.12	3.18	80.77	2.68	68.07
3/4" (DN20)	0.62	15.75	6.83	173.48	3.11	78.99	3.25	82.55	3.18	80.77	2.55	64.77
1" (DN25)	0.87	22.10	7.51	190.75	3.81	96.77	3.51	89.15	3.66	92.96	2.61	66.29
1-1/2" (DN40)	1.37	34.80	8.79	223.27	4.32	109.73	3.99	101.35	3.66	92.96	2.86	72.64
2" (DN50)	1.87	47.50	9.97	253.24	5.34	135.64	4.60	116.84	4.65	118.11	3.34	84.84
3" (DN80)	2.87	73.90	13.62	345.95	7.34	186.44	5.85	148.59	5.59	141.99	4.11	104.39
4" (DN100)	3.83	97.28	14.63	371.60	8.71	221.23	6.95	176.53	5.70	144.78	4.63	117.60

Note 1: Air connection on actuator is 1/8" F.N.P.T.

Specifications, Weights, CV

SPECIFICATIONS	RD VALVE
Sizes	1/2" - 3" (DN15 - DN80)
Body and Weld pad	316L Stainless, Hastelloys, AL6XN, & more
Maximum Working Pressure	175 psi / 12 bar CWP
Diaphragm/Gasket Materials	Silicone or V-TEF™/PTFE
Temperatures	Silicone to -20°F to 275°F at 0 PSI (-28.9°C to 135°C), V-TEF™ +32°F to 300°F at 0 PSI (+0°C to 148.9°C)

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



Size	WEIGHTS								CV Values		
	Valve, manual		Valve + actuator		Valve + clamp, manual		Valve + clamp + actuator		Size	Cv	Kv
	lb.	kg.	lb.	kg.	lb.	kg.	lb.	kg.			
1/2" DN15	3.14	1.4	4.46	2.0	2.87	1.3	4.20	1.9	1/2" DN15	3.30	2.9
3/4" DN20	3.17	1.4	4.32	2.0	3.00	1.4	4.15	1.9	3/4" DN20	10.30	8.9
1" DN25	7.10	3.2	9.50	4.3	6.53	3.0	8.90	4.0	1" DN25	14.60	12.6
1-1/2" DN40	8.56	3.9	14.20	6.4	9.16	4.2	14.00	6.4	1-1/2" DN40	48.10	41.6
2" DN50	15.90	7.2	21.90	9.9	15.10	6.8	21.00	9.5	2" DN50	72.20	62.5
3" DN80	31.80	14.4	62.80	28.5	27.70	12.6	59.70	27.1	3" DN80	167.70	145.1
4" DN100	39.02	17.70	71.99	32.65	34.92	15.84	68.47	31.06	4" DN100	240.0	207.6

SILICONE Diaphragm



V-TEF™ Diaphragm



How to Order

PRODUCT (1-2)		SIZE (5)		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) (15-16)			
RD	HL	316L Stainless	C	1/2"	1	F	Extended Butt Weld	1	2 Degree Slope W/ Straight Outlet	B	Silicone/Silicone	--	Standard Weld Pad	-	No purge option(s) selected	--	w/Manual Knob	G	15Ra ID / 63Ra OD after EP (Standard)
	C	Hastelloy® C-276	D	3/4"	X	Hygienic Clamp		2	2 Degree Slope W/ 45 Degree Outlet	G	V-TEF™/PTFE	LP	Less Weld Pad	A	(1) 1/2" clamp on center opposite outlet	20	SR80 psig actr (Actuated for 80 psig diff.)	H	10Ra ID / 63Ra OD after EP
	Y-	Hastelloy® C-22	E	1"				3	Tangential 2 deg slope W/ Straight Outlet	H	V-TEF™/EPDM	OX	1/2" Clamp Inlet	B	(1) 1/2" BWTE on center opposite outlet	21	SR80 psig actr & GP LS (Actuated for 80 psig diff.)	O	15Ra ID / 32Ra OD / EP
	P-	AL6XN	G	1-1/2"				4	Tangential 2 deg slope W/ 45 Degree Outlet	I	V-TEF™/FKM	DX	3/4" Clamp Inlet	R	(1) 1/2" Satellite Valve - Hygienic Clamp - Manual	23	SR80 psig actr & GP Limit Switch & 120VAC Solenoid (Actuated for 80 psig diff.)	S	10Ra ID / 32Ra OD / EP
			H	2"								EX	1" Clamp Inlet	S	Ext. Butt Weld - Tube - Manual	34	SR80 psig actr (Actuated for 175 psig diff.)		
			K	3"								GX	1-1/2" Clamp Inlet			35	SR80 psig actr & GP LS (Actuated for 175 psig diff.)		
			L	4"								HX	2" Clamp Inlet			37	SR80 psig actr & GP Limit switch & 120VAC Solenoid (Actuated for 175 psig diff.)		
												KX	3" Clamp Inlet			56	SR80 psig actr & GP Limit switch & 24VDC Solenoid (Actuated for 80 psig diff.)		
																64	SR80 psig actr & GP Limit switch & 24VDC Solenoid (Actuated for 175 psig diff.)		

Other purge port / satellite valve options - Consult factory.

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

IMI PBM

Polymer Radial Diaphragm Tank Outlet Valves

- Smooth sloping design for complete drainage
- 2° sloped outlet
- Machined from polypropylene or PVDF material
- Outlet sizes can be customized upon request - Contact IMI PBM
- Diaphragm seal easily removed for quick change-out
- Silicone diaphragm is medical grade platinum cured
- Full material traceability and documentaton package
- Exceeds performance requirements of ASME-BPE testing

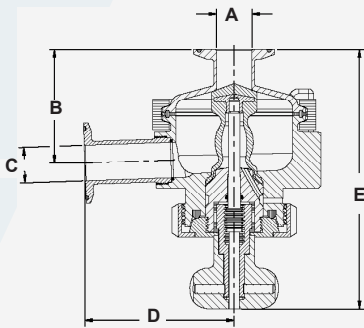


SPECIFICATIONS	RD VALVE
Sizes	1" - 2" (DN25 - DN50)
Maximum Working Pressure	10 psi / 0.69 bar CWP
Diaphragm/Gasket Materials	Silicone or V-TEF™
Maximum Service Temp.	Polypropylene (104°C / 220°F) PVDF (110°C / 230°F)

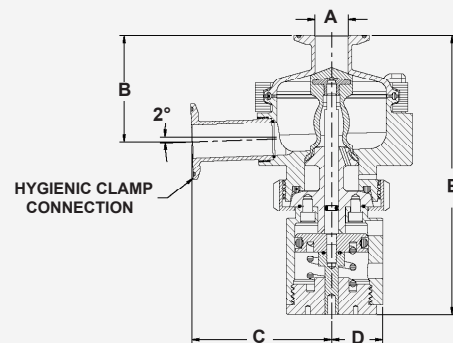
Size	WEIGHTS				CV Values		
	Valve, manual		Valve + actuator		Size	CV	KV
	lb.	kg.	lb.	kg.			
1" DN25	4.7	2.13	5.8	2.63	1" DN25	14.60	12.6
1-1/2" DN40	6.0	2.72	9.0	4.08	1-1/2" DN40	48.10	41.6
2" DN50	9.2	4.17	13.4	6.08	2" DN50	72.20	62.5

Manual Clamp Mounted Radial Diaphragm Valves

Actuated Clamp Mounted Radial Diaphragm Valves



Size	A		B		C		D		E (OPEN)		E (CLOSED)	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
	1" (DN25)	0.87	22.10	2.79	70.87	0.87	22.10	3.66	92.96	6.69	169.93	6.38
1-1/2" (DN40)	1.37	34.80	3.08	78.23	1.37	34.80	3.65	92.71	9.25	234.95	8.75	222.25
2" (DN50)	1.87	47.50	3.40	86.36	1.87	47.50	4.65	118.11	10.11	256.79	9.51	241.55



Size	A		B		C		D		E (OPEN)		E (CLOSED)	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
	1" (DN25)	0.87	22.10	2.79	70.87	0.87	22.10	3.66	92.96	7.63	193.80	7.32
1-1/2" (DN40)	1.37	34.80	3.08	78.23	1.37	34.80	3.65	92.71	9.25	234.95	8.75	222.25
2" (DN50)	1.87	47.50	3.40	86.36	1.87	47.50	4.65	118.11	10.11	256.79	9.51	241.55

How to Order

PRODUCT (1-2) MATERIAL (3-4)			SIZE (5) SERIES (6)		OUTLET END CONNECTION (7)		OUTLET ORIENTATION CONNECTION (8)		DIAPHRAGM /GASKET (9)		PURGE PORTS (12)		OPERATOR (13-14)		
RD	PP	Polypropylene	E	1"	1	X	Hygienic Clamp	1	2° Slope W/ Straight Outlet	B	Silicone/ Silicone	-	No purge option(s) selected	--	w/Manual Knob
			G	1-1/2"				3	Tangential 2° slope W/ Straight Outlet	G	V-TEF™	A	(1) 1/2" clamp on center opposite outlet	20	SR80 psig actr
			H	2"						H	V-TEF™/EPDM	B	(1) 1/2" BWTE on center opposite outlet	21	SR80 psig actr & GP LS
										I	V-TEF™/FKM	R	(1) 1/2" Satellite Valve - Hygienic Clamp - Manual	23	SR80 psig actr & GP Limit switch & 120VAC Solenoid
												S	(1) 1/2" Satellite Valve - Ext. Butt Weld - Tube - Manual	56	SR80 psig actr & GP Limit switch & 24VDC Solenoid

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



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