

Radial Diaphragm Tank Outlet Valves

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IMI PBM Igenix®
Clean. Reliable. Simple. Versatile

Igenix®
CLEAN
Valve Solutions

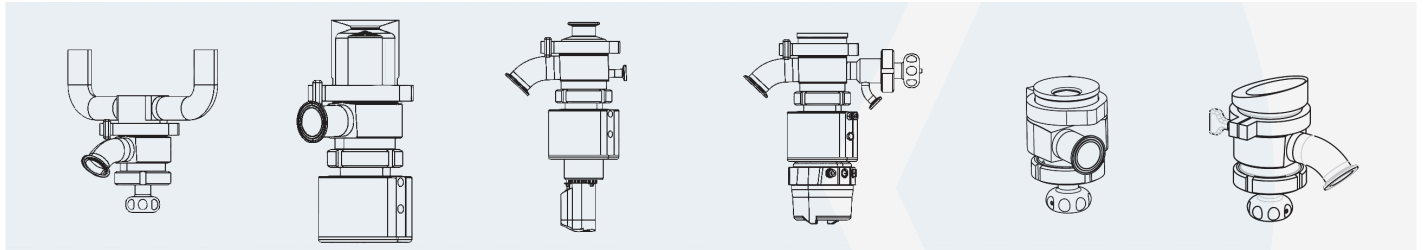
 IMI PBM

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
- ½" - 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" 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

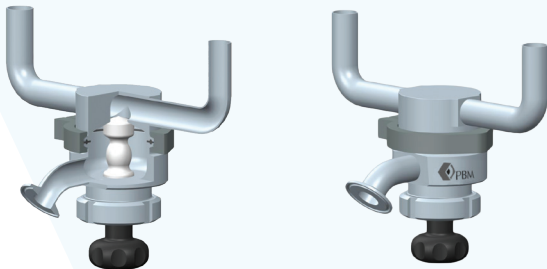
Clamp on
with purge port

Standard Weld
Pad with
satellite valve

Tangential

Point of Use Valve Zero Dead Leg

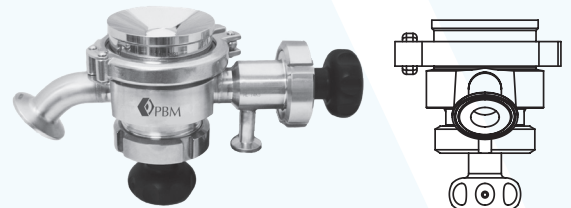
IMI PBM's Igenix® Radial Diaphragm Zero Static Valves eliminate dead-leg on critical process systems including WFI, clean steam and process media. IMI PBM's Radial Diaphragm Zero Static Valves have an advantage over traditional weir type diaphragm valves due to a detachable body connection, using a standard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

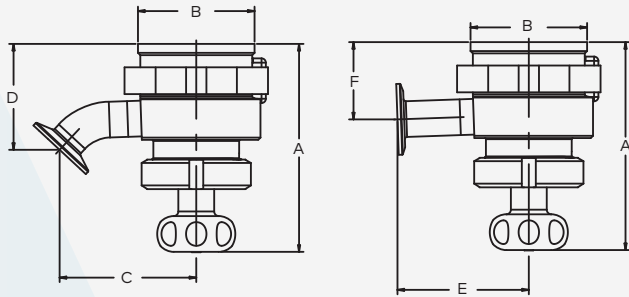
IMI PBM's Igenix® Satellite Valve offers seating against the body of our Radial Diaphragm Valve eliminating dead leg and allowing the introduction of CIP / SIP into the valve.



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Radial Diaphragm Manual Valves

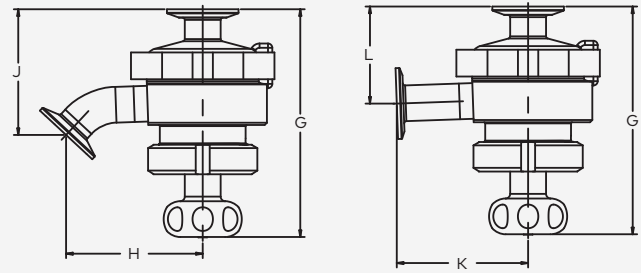
Flush Mounted Radial Diaphragm Valve



Size	Port	A	B	C	D	E	F
1/2"	0.37	5.07	2.25	3.11	2.64	3.18	1.93
3/4"	0.62	5.07	2.25	3.11	2.50	3.18	1.80
1"	0.87	5.82	3.25	3.81	2.95	3.66	2.15
1-1/2"	1.37	6.36	3.25	4.32	3.44	3.66	2.40
2"	1.87	7.14	4.25	5.34	4.05	4.65	2.79
3"	2.87	9.26	6.25	7.34	5.72	5.59	3.98
4"	3.83	10.27	6.25	8.71	6.82	5.70	4.51

Note: Dimension tables are in inches. For metric multiply by 25.4.

Clamp Mounted Radial Diaphragm Valve



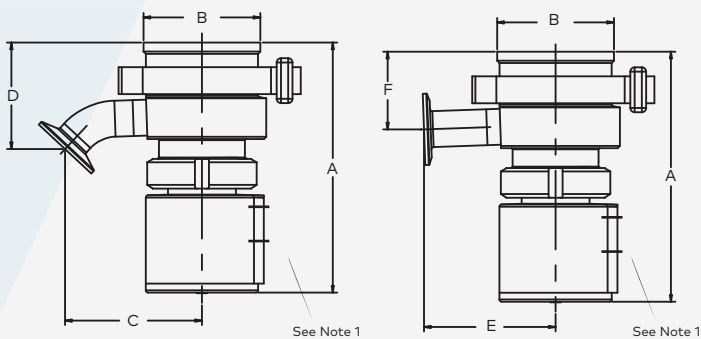
Size	Port	G	H	J	K	L
1/2"	0.37	5.82	3.11	3.39	3.18	2.68
3/4"	0.62	5.82	3.11	3.25	3.18	2.55
1"	0.87	6.37	3.81	3.51	3.66	2.61
1-1/2"	1.37	6.91	4.32	3.99	3.66	2.86
2"	1.87	7.69	5.34	4.60	4.65	3.34
3"	2.87	9.39	7.34	5.85	5.59	4.11
4"	3.83	10.40	8.71	6.95	5.70	4.63



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Radial Diaphragm Actuated Valves

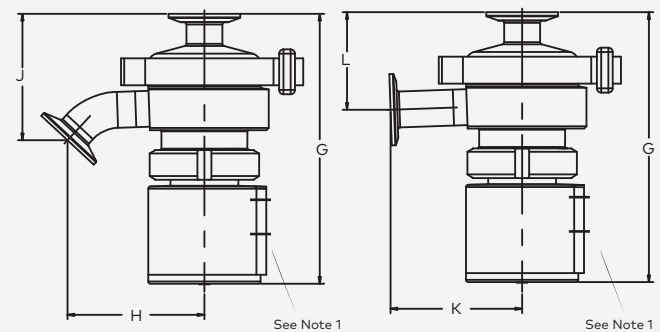
Actuated Flush Mounted Radial Diaphragm Valve



Size	Port	A	B	C	D	E	F
1/2"	0.37	6.08	2.25	3.11	2.64	3.18	1.93
3/4"	0.62	6.08	2.25	3.11	2.50	3.18	1.80
1"	0.87	6.96	3.25	3.81	2.95	3.66	2.15
1-1/2"	1.37	8.24	3.25	4.32	3.44	3.66	2.40
2"	1.87	9.42	4.25	5.34	4.05	4.65	2.79
3"	2.87	13.42	6.25	7.34	5.72	5.59	3.98
4"	3.83	14.50	6.25	8.71	6.82	5.70	4.51

Note 1: Air connection on actuator is 1/8" F.N.P.T.
Dimension tables are in inches. For metric multiply by 25.4.

Actuated Clamp Mounted Radial Diaphragm Valve



Size	Port	G	H	J	K	L
1/2"	0.37	6.83	3.11	3.39	3.18	2.69
3/4"	0.62	6.83	3.11	3.25	3.18	2.55
1"	0.87	7.51	3.81	3.51	3.66	2.61
1-1/2"	1.37	8.79	4.32	3.99	3.66	2.86
2"	1.87	9.97	5.34	4.60	4.65	3.34
3"	2.87	13.62	7.34	5.84	5.59	4.11
4"	3.83	14.63	8.71	6.95	5.70	4.63



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 psig/12 bar
Diaphragm/Gasket Materials	Silicone or V-TEF™/PTFE
Temperatures	Silicone to -60°F to 275°F (-50°C to 135°C), V-TEF™ +32°F to 300°F (0°C to 149°C)

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



WEIGHTS										CV Values (gpm)			
Size	Valve, manual		Valve + actuator		Valve + clamp, manual		Valve + Clamp + actuator		Size	DN	gal./min.	liter/min.	
	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				
3/4"	DN20	3.17	1.4	4.32	2.0	3.00	1.4	4.15	1.9				
1"	DN25	7.10	3.2	9.50	4.3	6.53	3.0	8.90	4.0				
	DN40	8.56	3.9	14.20	6.4	9.16	4.2	14.00	6.4				
2"	DN50	15.90	7.2	21.90	9.9	15.10	6.8	21.00	9.5				
3"	DN80	31.80	14.4	62.80	28.5	27.70	12.6	59.70	27.1				
4"	DN100	39.02	17.70	71.99	32.65	34.92	15.84	68.47	31.06				

SILICONE Diaphragm

V-TEF™ Diaphragm



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) (15-16)		
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 El (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 El
	Y-	Hastelloy [®] C-22 [®]	E	1"				3	Tangential 2 deg slope W/ Straight Outlet	H	V-TEF [™] /EPDM	CX	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	(1) 1/2" Satellite Valve - 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.				

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Polymer Radial Diaphragm Tank Outlet Valves

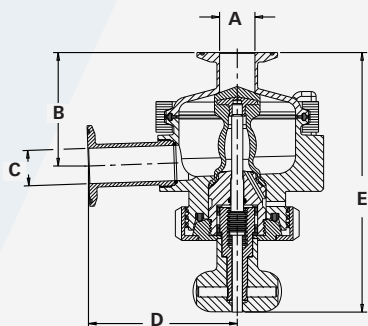
- Smooth sloping design for complete drainage
- 2° sloped outlet
- Machined from polypropylene or PVDF material
- Outlet sizes can be customized upon request - Contact IMI PBM
- Diaphragm seal easily removed for quick change-out
- Silicone diaphragm is medical grade platinum cured
- Full material traceability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

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

WEIGHTS						CV Values (gpm)		
Size		Valve, manual		Valve + actuator		Size	gal./min.	liter/min.
		lb.	kg.	lb.	kg.			
1"	DN25	4.7	2.13	5.8	2.63	1"	DN25	14.60
1-1/2"	DN40	6.0	2.72	9.0	4.08	1-1/2"	DN40	48.10
2"	DN50	9.2	4.17	13.4	6.08	2"	DN50	72.20



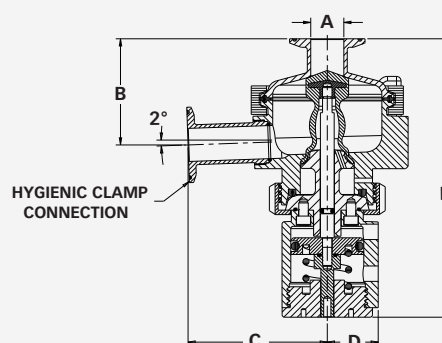
Manual Clamp Mounted Radial Diaphragm



Size	A	B	C	D	E (OPEN)	E (OPEN)
1"	0.87	2.79	0.87	3.66	6.69	6.38
1-1/2"	1.37	3.08	1.37	3.65	9.25	8.75
2"	1.87	3.40	1.87	4.65	10.11	9.51

Note: Dimension tables are in inches. For metric multiply by 25.4.

Actuated Clamp Mounted Radial



Size	A	B	C	D	E (OPEN)	E (OPEN)
1"	0.87	2.79	0.87	3.66	7.63	7.32
1-1/2"	1.37	3.08	1.37	3.65	9.25	8.75
2"	1.87	3.40	1.87	4.65	10.11	9.51

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		(1) 1/2" Satellite Valve - Hygienic Clamp - Manual	23	SR80 psig actr & GP Limit switch & 120VAC Solenoid
												R	(1) 1/2" Satellite Valve - Manual	56	SR80 psig actr & GP Limit switch & 24VDC Solenoid
												S	(1) 1/2" Satellite Valve - Ext. Butt Weld - Tube - Manual		

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Other purge port / satellite valve options - Consult factory.



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