

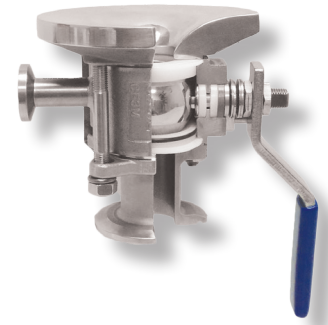
IMI PBM IGENIX® TWO-WAY BALL VALVES

Tank Bottom Series 9 Cast/Forged Series 8 , 1/2" - 6"



DESIGN FEATURES:

- Unique Adjust-O-Seal® feature allows in-line valve adjustment to compensate for normal wear on valve seats. Note: **FI Series Tank Bottom DO NOT have o-rings.**
- Pad radius facilitates efficient drainage and reduces the pocket area above the ball.
- Upstream and downstream bubble-tight sealing capability allows valve body cleaning, purging, and draining.
- Stem assembly accommodates IMI PBM Direct Mount Actuation for accurate alignment and increased cycling life.
- Forged and cast valves are low-controlled ferrite.
- True-Bore® (valve bore same as connecting tubing) – no puddling
- ASME BPE compliant
- Available in Angle Stem versions for applications where automation may interfere with tank head or jacket.
- Valves are rated to full vacuum.
- Certified Material Test Report (CMTRS) provided for wetted components.
- Surface finishes are achieved without the use of ADIs (Animal Derived Ingredients).



SPECIFICATIONS	Sanitary Tank Bottom Valves
Sizes	1/2" - 6" Series 9, 1/2" - 4" Series 8
Material	316L, low ferrite cast and forged, Hastelloy™, AL6XN™, others
Temperatures	Ambient for V-TEF™ to 400° F, S-TEF® to 450° F
End Connections	Extended tube, hygienic clamp, compression ends (1/2" - 1")
Seats & Seals	White V-TEF™ standard, others available
Stem Packing Material	V-TEF™ and S-TEF®
Body Bolts & Nuts	18-8 Stainless Steel
Maximum Working Pressure	up to 600 psig CWP depending on valve series, size and temperature
Temperatures	up to 450° F depending on seat and seal material
Polish	Standard internal polish of 20 Ra ID Series 8, 30 Ra ID Series 9

CV Values (gpm), FI Series 8/Series 9	
Size	End Connection
	X-
1/2"	8.9
3/4"	34
1"	62
1-1/2"	175
2"	480
2-1/2"	870
3"	1,550
4"	3,750
6"	5,000

ID Surface Finish, Ra Readings for Valves per ASME BPE			
Surface Finish	IMI PBM Polish Code	μ-in.	μ-m.
Mechanical Polish			
SF 1	A	20 Ra max	0.51
SF 2	A	25 Ra max	0.64
SF 3	-	30 Ra max	0.76
Mechanical Polish and Electropolish			
SF 4	G	15 Ra max	0.38
SF 5	F	20 Ra max	0.51
SF 6	F	25 Ra max	0.64

How To Order:

PRODUCT (1-2) MATERIAL (3-4)		SIZE (5) SERIES (6)		END CONN. (7-8)		SEAT & SEAL (9)		WELD PAD (10-11)		BALL & STEM (12)		OPERATOR (13-14)		POLISH (15-16)	
FI	HL Cast (Ser. 9) 316L S / S	C	1/2"	8	F- Ext. Butt-weld for Tube	G	V-TEF™ Seats / Seals	--	Standard Weld Pad	-	Standard Ball and Stem	--	W/ Standard Lever Handle	-	30 Ra ID (Std. Series 9)
	HF Forged 316L S / S	D	3/4"	9	X- Hygienic Clamp	J	V-TEF™ Seats / Seals VTFE Cavity Fillers	02	w/o weld pad w/ shipping pad	F	Internal / External Grounding	02	W/O Handle W/ Stem Actuator Prep	A	20 Ra ID (Std. Series 8)
	Other material options available - Contact PBM.	E	1"		G- Female Cherry Burrell	H	S-TEF® Seats / Seals		Other Weld Pad Options available - Contact PBM.	G	17-4PH Stem	04	Locking Lever Handle	D	15 Ra ID
		G	1-1/2"		H- Male Cherry Burrell			08		Gear Operator (Req'd for 6")	E	10 Ra ID			
		H	2"			I	S-TEF® Seats / Seals VTFE Cavity Fillers	18		Extended Handle (2-1/2" thru 4")	F	20 Ra ID after Electro Polish			
		K	3"			K	UHMWPE Seats / Seals	71		Extended Handle (1/2" thru 2")					
		L	4"			L	UHMWPE Seats / Seals VTFE Cavity Fillers	20		DA 80psig actuator	G	15 Ra ID after Electro Polish			
		M*	6"		* Not available in forged.			27	DA 60psig actuator						
								34	SR 80psig actuator	H	10 Ra ID after Electro Polish				
								41	SR 60psig actuator						

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

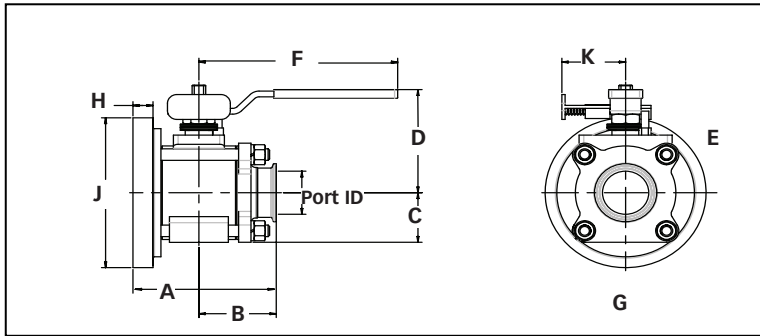
Other seat/seal options available - Contact PBM.

Other operator options available - Contact PBM.

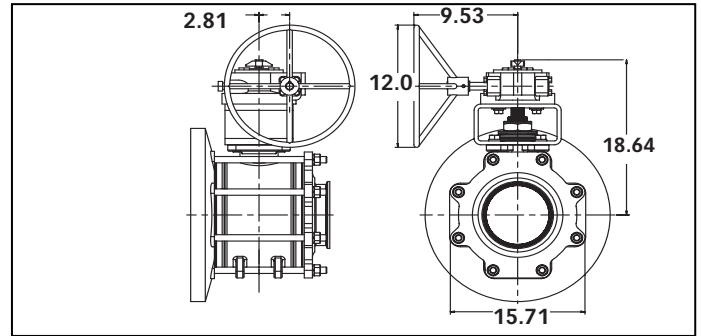
More polish available - Contact PBM.

IMI PBM Igenix® Flush Tank Steam Valves, Manual

Flush Tank Valve with Locking Handle



Flush Tank Valve with Gear Operator (6" only)

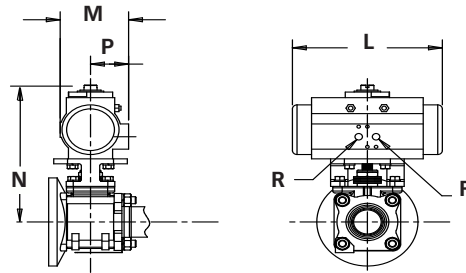


Flush Tank Sanitary Dimensioned valves in inches													Locking Handle	
Valve Size	Size Code	I.D. Port	A	B	C	D	E	F	G	H	J	Approx. Wgt (lbs)	K	Hole Dia. for Lock
1/2"	C	0.37	2.83	1.75	1.70	0.75	2.05	4.00	1.50	0.30	2.75	1.6	1.55	.28
3/4"	D	0.62	3.16	2.00	1.86	0.85	2.23	4.00	1.68	0.30	3.00	2	1.55	.28
1"	E	0.87	3.70	2.25	2.38	1.09	3.01	4.15	2.18	0.42	3.75	3.6	1.62	.25
1-1/2"	G	1.37	4.98	2.75	3.89	1.68	5.07	8.81	3.31	0.62	5.50	12	2.57	.38
2"	H	1.87	5.79	3.12	4.67	2.15	4.51	8.03	4.30	0.71	6.50	22	2.57	.38
3"	K	2.87	7.52	4.00	6.76	2.77	6.76	12.06	5.54	0.98	9.00	33	3.47	.38
4"	L	3.84	9.59	5.00	7.53	3.66	7.53	12.06	7.33	0.96	11.50	94	3.47	.38
6"*	M	5.78	12.78	6.50	12.14	6.18	NA	NA	12.36	1.34	17.00	164	NA	NA

*Cast Series 9 Only

ACTUATED DIMENSIONS

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



Size	80 PSI Spring Return					60 PSI Spring Return					60, 80 PSI Double Acting				
	L	M	N	P	R	L	M	N	P	R	L	M	N	P	R
1/2"	5.55	2.80	5.45	1.61	1/8 NPT	5.55	3.17	5.90	1.77	1/8 NPT	5.55	2.80	5.45	1.61	1/8 NPT
3/4"	5.55	2.80	5.59	1.61	1/8 NPT	6.46	3.17	6.04	1.77	1/8 NPT	5.55	2.80	5.59	1.61	1/8 NPT
1"	6.46	3.17	6.51	1.77	1/8 NPT	8.27	3.72	7.22	2.07	1/8 NPT	5.55	2.80	6.06	1.61	1/8 NPT
1-1/2"	9.47	4.17	9.65	2.30	1/8 NPT	10.83	4.84	9.65	2.68	1/4 NPT	8.27	3.72	9.10	2.07	1/8 NPT
2"	10.83	4.84	10.45	2.68	1/4 NPT	13.11	5.39	11.80	2.87	1/4 NPT	8.27	3.72	9.39	2.07	1/8 NPT
2-1/2"	13.11	5.39	13.48	2.87	1/4 NPT	14.65	5.83	13.96	3.15	1/4 NPT	13.11	5.39	13.48	2.87	1/4 NPT
3"	14.65	5.83	14.21	3.15	1/4 NPT	17.13	6.46	15.10	3.44	1/4 NPT	13.11	5.39	13.73	2.87	1/4 NPT
4"	17.13	6.46	15.86	3.44	1/4 NPT	19.69	7.32	16.80	3.90	1/4 NPT	13.11	5.39	14.51	2.87	1/4 NPT
6"	22.78	8.54	23.02	4.29	1/4 NPT	22.64	11.42	27.78	5.71	1/4 NPT	22.78	8.54	23.02	4.29	1/4 NPT



<http://www.pbmvalve.com/valves/tank-bottom-valve>

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

www.PBMValve.com

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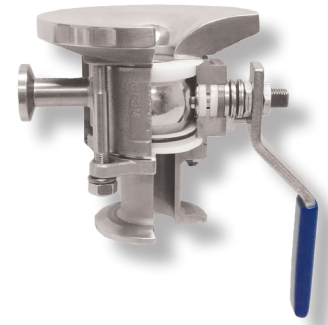
IMI PBM IGENIX® TWO-WAY BALL VALVES

Tank Bottom Steam Valves, FC Series 8 & 9, 1/2" - 6"



DESIGN FEATURES:

- Unique Adjust-O-Seal® feature allows in-line valve adjustment to compensate for normal wear on valve seats. Note: **FC Series Flush Tank Steam valves have o-rings.**
- Pad radius facilitates efficient drainage and reduces the pocket area above the ball.
- Upstream and downstream bubble-tight sealing capability allows valve body cleaning, purging, and draining.
- Stem assembly accommodates IMI PBM Direct Mount Actuation for accurate alignment and increased cycling life.
- Forged and cast valves are low-controlled ferrite.
- True-Bore® (valve bore same as connecting tubing) – no puddling
- ASME BPE compliant
- Available in Angle Stem versions for applications where automation may interfere with tank head or jacket.
- Valves are rated to full vacuum.
- Certified Material Test Report (CMTRS) provided for wetted components.
- Surface finishes are achieved without the use of ADIs (Animal Derived Ingredients).



SPECIFICATIONS	Flush Tank Steam Valves
Sizes	1/2" - 6" Series 9, 1/2" - 4" Series 8
Material	316L, low ferrite cast and forged, Hastelloy™, AL6XN™, others
Temperatures	Ambient for V-TEF™ to 400° F, S-TEF® to 450° F
End Connections	Extended tube, hygienic clamp, compression ends (1/2" - 1")
Seats & Seals	White V-TEF™ standard, others available
O-rings	EPR O-ring energizer (Viton V1274-75/80, EPR E3608-70, others available)
Stem Packing Material	V-TEF™ and S-TEF®
Body Bolts & Nuts	18-8 Stainless Steel
Maximum Working Pressure	up to 600 psig CWP depending on valve series, size and temperature
Temperatures	up to 450° F depending on seat and seal material
Polish	Standard internal polish of 20 Ra ID Series 8, 30 Ra ID Series 9

CV Values (gpm), FC Series 8/Series 9	
Size	End Connection
	X-
1/2"	8.9
3/4"	34
1"	62
1-1/2"	175
2"	480
2-1/2"	870
3"	1,550
4"	3,750
6"	5,000

ID Surface Finish, Ra Readings for Valves per ASME BPE			
Surface Finish	IMI PBM Polish Code	μ-in.	μ-m.
Mechanical Polish			
SF 1	A	20 Ra max	0.51
SF 2	A	25 Ra max	0.64
SF 3	-	30 Ra max	0.76
Mechanical Polish and Electropolish			
SF 4	G	15 Ra max	0.38
SF 5	F	20 Ra max	0.51
SF 6	F	25 Ra max	0.64

How To Order:

PRODUCT (1-2)		SIZE (5)		END CONN. (7-8)		SEAT & SEAL (9)		WELD PAD (10-11)		BALL & STEM (12)		OPERATOR (13-14)		POLISH (15-16)			
FC	HL	Cast (Ser. 9) 316L S / S	C	1/2"	8	F -	Ext. Butt weld for Tube	G	V-TEF™ Seats / Seals FKM O-Rings	--	Standard Weld Pad	-	Standard Ball and Stem	--	W/ Standard Lever Handle	-	30 Ra ID (Std. Series 9)
	HF	Forged 316L S / S	D	3/4"	9	X-	Hygienic Clamp	J	V-TEF™ Seats / Seals / VTFE Cav Fill / FKM O-Rings	02	w/o weld pad w/ shipping pad	F	Internal / External Grounding	02	W/O Handle W/ Stem Actuator Prep	A	20 Ra ID (Std. Series 8)
		Other material options available - Contact PBM.	E	1"		G-	Female Cherry Burrell	Z	V-TEF™ Seats / Seals EPR O-Rings			G	17-4PH Stem	04	Locking Lever Handle	D	15 Ra ID
			G	1-1/2"		H-	Male Cherry Burrell	2	V-TEF™ Seats / Seals / VTFE Cav Fill / EPR O-Rings		Other Weld Pad Options available - Contact PBM.			08	Gear Operator (Req'd for 6")	E	10 Ra ID
			H	2"				H	S-TEF® Seats / Seals FKM O-Rings					18	Extended Handle (2-1/2" thru 4")	F	20 Ra ID after Electro Polish
			K	3"				0	S-TEF® Seats / Seals EPR O-Rings					71	Extended Handle (1/2" thru 2")		
			L	4"				9	V-TEF™ Seats / Seals FEP Encaps. FKM O-Rings					20	DA 80psig actuator	G	15 Ra ID after Electro Polish
			M*	6"										27	DA 60psig actuator		
														34	SR 80psig actuator	H	10 Ra ID after Electro Polish
														41	SR 60psig actuator		

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

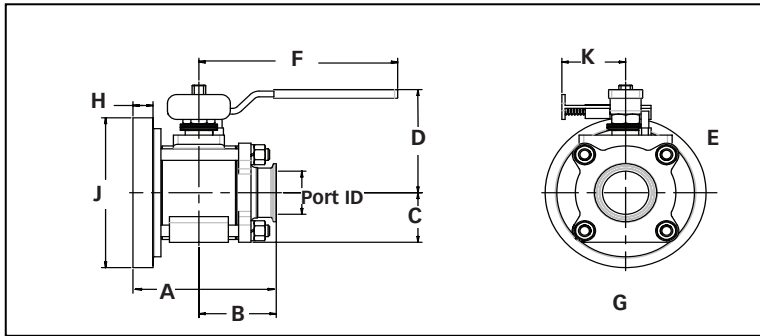
Other Seat/seal options available - Contact PBM.

Other operator options available - Contact PBM.

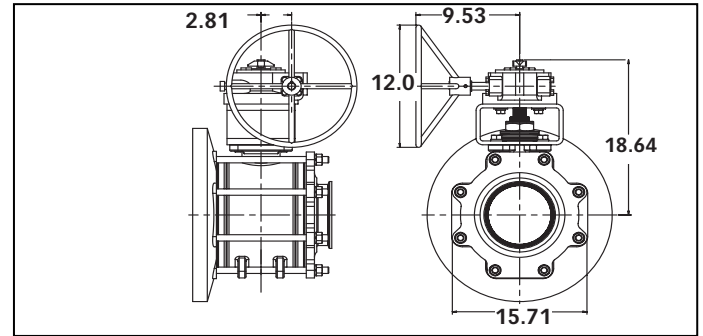
More polish available - Contact PBM.

IMI PBM Igenix® Flush Tank Steam Valves, Manual

Flush Tank Valve with Locking Handle



Flush Tank Valve with Gear Operator (6" only)

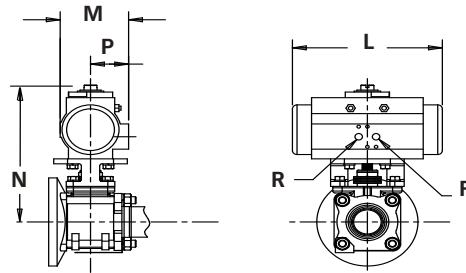


Flush Tank Sanitary Dimensioned valves in inches													Locking Handle	
Valve Size	Size Code	I.D. Port	A	B	C	D	E	F	G	H	J	Approx. Wgt (lbs)	K	Hole Dia. for Lock
1/2"	C	0.37	2.83	1.75	1.70	0.75	2.05	4.00	1.50	0.30	2.75	1.6	1.55	.28
3/4"	D	0.62	3.16	2.00	1.86	0.85	2.23	4.00	1.68	0.30	3.00	2	1.55	.28
1"	E	0.87	3.70	2.25	2.38	1.09	3.01	4.15	2.18	0.68	3.75	3.6	1.62	.25
1-1/2"	G	1.37	4.98	2.75	3.89	1.68	5.07	8.81	3.31	0.31	5.50	12	2.57	.38
2"	H	1.87	5.79	3.12	4.67	2.15	4.51	8.03	4.30	0.49	6.50	22	2.57	.38
3"	K	2.87	7.52	4.00	6.76	2.77	6.76	12.06	5.54	0.85	9.00	33	3.47	.38
4"	L	3.84	9.59	5.00	7.53	3.66	7.53	12.06	7.33	1.18	11.50	94	3.47	.38
6"*	M	5.78	12.78	6.50	12.14	6.18	NA	NA	12.36	1.34	17.00	164	NA	NA

*Cast Series 9 Only

ACTUATED DIMENSIONS

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



Size	80 PSI Spring Return					60 PSI Spring Return					60, 80 PSI Double Acting				
	L	M	N	P	R	L	M	N	P	R	L	M	N	P	R
1/2"	5.55	2.80	5.45	1.61	1/8 NPT	5.55	3.17	5.90	1.77	1/8 NPT	5.55	2.80	5.45	1.61	1/8 NPT
3/4"	5.55	2.80	5.59	1.61	1/8 NPT	6.46	3.17	6.04	1.77	1/8 NPT	5.55	2.80	5.59	1.61	1/8 NPT
1"	6.46	3.17	6.51	1.77	1/8 NPT	8.27	3.72	7.22	2.07	1/8 NPT	5.55	2.80	6.06	1.61	1/8 NPT
1-1/2"	9.47	4.17	9.65	2.30	1/8 NPT	10.83	4.84	9.65	2.68	1/4 NPT	8.27	3.72	9.10	2.07	1/8 NPT
2"	10.83	4.84	10.45	2.68	1/4 NPT	13.11	5.39	11.80	2.87	1/4 NPT	8.27	3.72	9.39	2.07	1/8 NPT
2-1/2"	13.11	5.39	13.48	2.87	1/4 NPT	14.65	5.83	13.96	3.15	1/4 NPT	13.11	5.39	13.48	2.87	1/4 NPT
3"	14.65	5.83	14.21	3.15	1/4 NPT	17.13	6.46	15.10	3.44	1/4 NPT	13.11	5.39	13.73	2.87	1/4 NPT
4"	17.13	6.46	15.86	3.44	1/4 NPT	19.69	7.32	16.80	3.90	1/4 NPT	13.11	5.39	14.51	2.87	1/4 NPT
6"	22.78	8.54	23.02	4.29	1/4 NPT	22.64	11.42	27.78	5.71	1/4 NPT	22.78	8.54	23.02	4.29	1/4 NPT



<http://www.pbmvalve.com/valves/tank-bottom-valve>

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

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IMI PBM TWO-WAY TANK BOTTOM VALVES

Tank Bottom Series 5, 1/2" - 6"



DESIGN FEATURES:

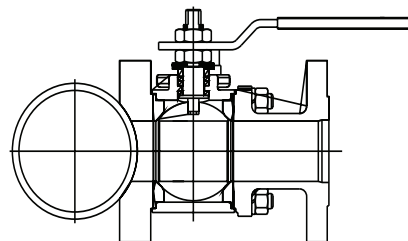
- Unique Adjust-O-Seal® feature allows in-line valve adjustment to compensate for normal wear on valve seats.
- **FT Series Tank Bottom valves DO NOT have o-rings.**
- Pad radius facilitates efficient drainage and reduces the pocket area above the ball.
- Upstream and downstream bubble-tight sealing capability allows valve body cleaning, purging, and draining.
- Stem assembly accommodates IMI PBM Direct Mount Actuation for accurate alignment and increased cycling life.
- Available in Angle Stem versions for applications where automation may interfere with tank head or jacket.
- Valves are rated for full vacuum.
- Standard bottom-entry stem provides protection from inadvertent stem removal. Engagement between the slot and ball is specially designed for high torque applications.



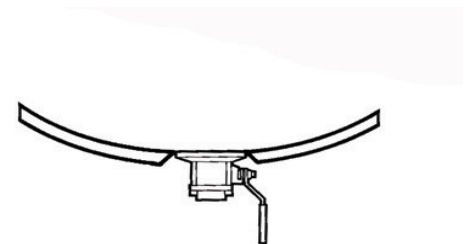
SPECIFICATIONS	2-Way Tank Bottom Valves
Sizes	1/2" - 6" depending on series
Material	316L, Hastelloy™, AL6XN, others
Temperatures	Ambient for V-TEF™ to 400° F, S-TEF® to 450°F
End Connections	Buttweld, Flange, NPT, Socket Weld, others
Seats & Seals	White V-TEF™ standard, others available
Stem Packing Material	V-TEF™ and S-TEF®
Body Bolts & Nuts	18-8 Stainless Steel
Maximum Working Pressure	up to 720 psig (49.6 bar) depending on valve series, size and temperatures
Temperatures	up to 450°F (232.2°C), depending on seat and seal material

CV Values (gpm), FT Series 5	
Size	End Connection
1/2"	14
3/4"	42
1"	70
1-1/2"	190
2"	370
3"	900
4"	1,650
6"	3,900

Custom pads for special applications



Cylindrical radius pads or reduced pocket cylindrical radius pads accommodate customer-specified or existing valve products.



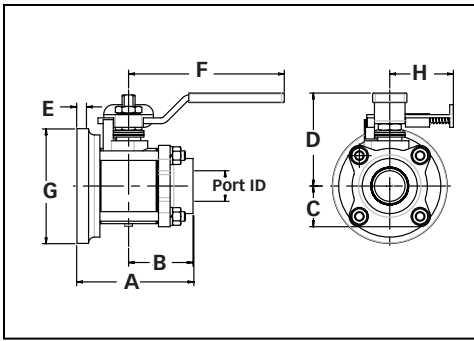
Spherical radius pads or reduced pocket spherical radius pads facilitate efficient drainage and reduces the pocket area above the ball.

How To Order:

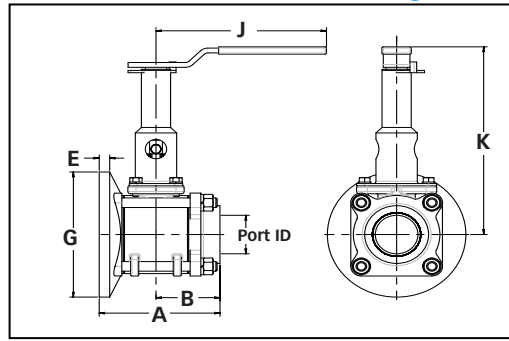
PRODUCT (1-2)		SIZE (5)		END CONN.		SEAT & SEAL		Weld Pad		BALL & STEM		OPERATOR		POLISH			
MATERIAL (3-4)		SERIES (6)		(7-8)		(9)		(10-11)		(12)		(13-14)		(15-16)			
FT	H-	Cast 316/316L S / S	C	1/2"	5	B-	Sch. 40 Butt Weld	G	V-TEF™ Seats / Seals	--	Standard Weld Pad	-	Standard Ball and Stem	--	W/ Standard Lever Handle	-	125 Ra ID Standard
	HL	Cast 316L S / S	D	3/4"		D-	Sch. 10 Butt Weld	J	V-TEF™ Seats / Seals VTFE Cavity Fillers	02	w/o weld pad w/ shipping pad	F	Internal / External Grounding	02	W/O Handle W/ Stem Actuator Prep	A	20 Ra ID
	C-	Hastelloy C-276	E	1"		L-	150# Flange	H	S-TEF® Seats / Seals	Other Weld Pad Options available - Contact PBM.		G	17-4PH Stem	04	Locking Lever Handle	C	20 Ra ID / 32 Ra OD
			G	1-1/2"		M-	300# Flange	I	S-TEF® Seats / Seals VTFE Cavity Fillers			18	Extended Handle (1/2" thru 4")	F	20 Ra ID after Electro Polish		
	Y-	Hastelloy C-22	H	2"		Q-	Female NPT					20	DA 80psig actuator				
	P-	AL6XN	L	4"		U-	Socket Weld					27	DA 60psig actuator				
		Other material options available - Contact PBM.	M	6"				K	UHMWPE Seats / Seals					34	SR 80psig actuator		
								L	UHMWPE Seats / Seals VTFE Cavity Fillers					41	SR 60psig actuator		

IMI PBM Flush Tank Series 5 Manual

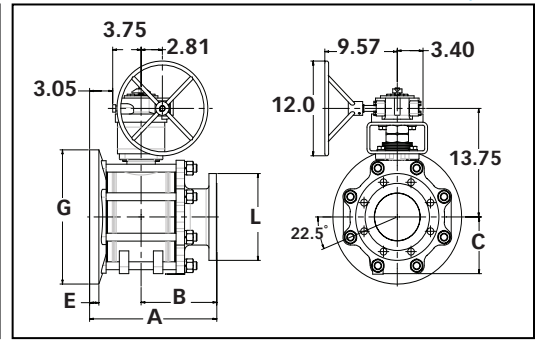
Flush Tank Valve with Locking Handle



Flush Tank Valve with Ext. Locking Handle



Flush Tank Valve with Gear Operator (6" only)



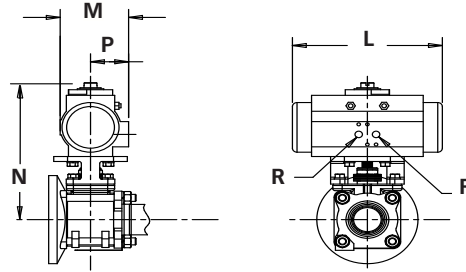
Industrial Flush Tank Dimensioned Valves in inches

Valve Size	Size Code	I.D. Port	A		B		Ç to Bottom	Ç to Top	Pad Thick.	Length from Ç	Pad Dia.	End Fitting	Locking Handle		Ext Lock Handle		Approx Weight	
			Q-	L-	Q-	L-	C	D	E	F	G	L	Q-	Hole Dia.	J	K	Q-	L-
1/2"	C	0.5	2.83	4.02	1.56	2.75	0.98	2.63	0.28	4.15	2.75	3.50	2.75	.25	7.19	5.09	2 lbs.	3 lbs.
3/4"	D	0.75	3.07	4.23	1.72	2.88	1	2.78	0.31	4.15	3	3.88	3	.25	7.19	5.09	2.5 lbs.	4 lbs.
1"	E	1.0	3.84	4.96	2.13	3.25	1.33	3.1	0.32	5.09	3.75	4.25	3.75	.28	7.34	5.09	5 lbs.	7 lbs.
1-1/2"	G	1.5	5.07	6.32	2.75	4.00	1.78	4.41	0.46	8.68	5.5	5.00	5.5	.38	7.62	5.09	13 lbs.	16 lbs.
2"	H	2.0	5.66	7.54	3.00	4.88	2.2	4.7	0.49	8.68	6.5	6.00	6.5	.38	9.76	8.00	19 lbs.	25 lbs.
3"	K	3.0	8.38	10.26	4.50	6.38	3.1	6.78	0.77	12.44	9	7.50	9	.38	11.69	12.06	57 lbs.	68 lbs.
4"	L	4.0	10.81	12.31	6.00	7.50	4.9	7.34	0.9	24.44	11.5	9.00	11.5	.44	13.97	24.06	120 lbs.	133 lbs.
6"	M	6.0	NA	16.80	NA	10.00	7.2	Note 2	1.23	CF	17	11.00	17	NA	NA	NA	CF	CF

*Weight with gear operator.

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



<http://www.pbmvalve.com/valves/tank-bottom-valve-0>

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

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E-mail: info.pbmvalve@imi-critical.com



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IMI PBM IND. TANK BOTTOM STEAM VALVES

FD Series 5, 1/2" - 6"



DESIGN FEATURES:

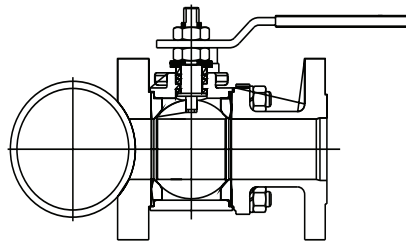
- Unique Adjust-O-Seal® feature allows in-line valve adjustment to compensate for normal wear on valve seats. Note: **FD Series Tank Bottom Steam valves have o-rings.**
- Pad radius facilitates efficient drainage and reduces the pocket area above the ball.
- Upstream and downstream bubble-tight sealing capability allows valve body cleaning, purging, and draining.
- Stem assembly accommodates IMI PBM Direct Mount Actuation for accurate alignment and increased cycling life.
- Available in Angle Stem versions for applications where automation may interfere with tank head or jacket.
- Valves are rated for full vacuum.
- Standard bottom-entry stem provides protection from inadvertent stem removal. Engagement between the slot and ball is specially designed for high torque applications.



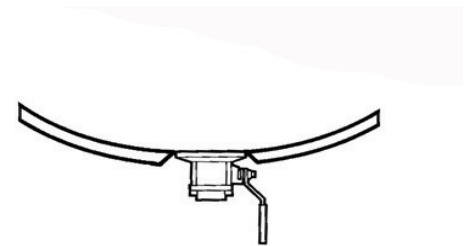
SPECIFICATIONS	2-Way Tank Bottom Valves
Sizes	1/2" - 6" depending on series
Material	316L, Hastelloy™, AL6XN, others
Temperatures	Ambient for V-TEF™ to 400° F, S-TEF® to 450°F
End Connections	Buttweld, Flange, NPT, Socket Weld, others
Seats & Seals	White V-TEF™ standard, others available
Stem Packing Material	V-TEF™ and S-TEF®
O-rings	EPR O-ring energizer (Viton V1274-75/80, EPR E3608-70, others available)
Body Bolts & Nuts	18-8 Stainless Steel
Maximum Working Pressure	up to 720 psig (49.6 bar) depending on valve series, size and temperatures
Temperatures	up to 450°F (232.2°C), depending on seat and seal material

CV Values (gpm), FD Series 5	
Size	End Connection
1/2"	14
3/4"	42
1"	70
1-1/2"	190
2"	370
3"	900
4"	1,650
6"	3,900

Custom pads for special applications



Cylindrical radius pads or reduced pocket cylindrical radius pads accommodate customer-specified or existing valve products.



Spherical radius pads or reduced pocket spherical radius pads facilitate efficient drainage and reduces the pocket area above the ball.

How To Order:

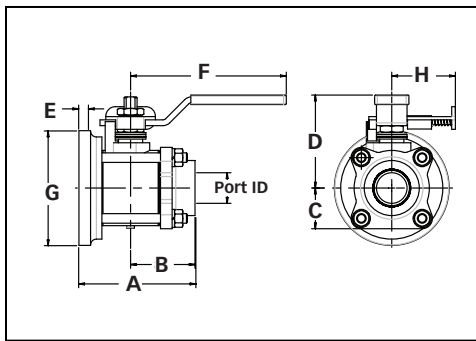
PRODUCT (1-2) MATERIAL (3-4)		SIZE (5) SERIES (6)		END CONN. (7-8)	SEAT & SEAL (9)	Weld Pad (10-11)	BALL & STEM (12)	OPERATOR (13-14)	POLISH (15-16)							
FD	H- Cast 316/316L S / S	C	1/2"	5	B- Sch. 40 Butt Weld	G	V-TEF™ Seats / Seals FKM O-Rings	--	Standard Weld Pad	-	Standard Ball and Stem	--	W/ Standard Lever Handle	-	125 Ra ID Standard	
	HL Cast 316L S / S	D	3/4"		D- Sch. 10 Butt Weld	J	V-TEF™ Seats / Seals / VTFE Cav Fill / FKM O-Rings	02	w/o weld pad w/ shipping pad	F	Internal / External Grounding	02	W/O Handle W/ Stem Actuator Prep	A	20 Ra ID	
	C- Hastelloy C-276	E	1"		L- 150# Flange	Z	V-TEF™ Seats / Seals EPR O-Rings	Other Weld Pad Options available - Contact PBM.			G	17-4PH Stem	04	Locking Lever Handle	C	20 Ra ID / 32 Ra OD
	Y- Hastelloy C-22	H	2"		M- 300# Flange	2	V-TEF™ Seats / Seals / VTFE Cav Fill / EPR O-Rings				18	Extended Handle (1/2" thru 4")	20	DA 80psig actuator	F	20 Ra ID after Electro Polish
	P- AL6XN	L	4"		Q- Female NPT	2	S-TEF® Seats / Seals FKM O-Rings	27	DA 60psig actuator	34	SR 80psig actuator	41	SR 60psig actuator		More polish available - Contact PBM.	
	Other material options available - Contact PBM.	M	6"		U- Socket Weld	H	S-TEF® Seats / Seals EPR O-Rings	0	S-TEF® Seats / Seals EPR O-Rings	9	V-TEF™ Seats / Seals FEP Encaps. FKM O-Rings	Other operator options available - Contact PBM.				

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

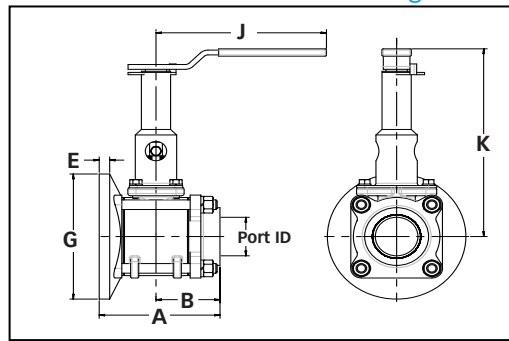
Other Seat/seal options available - contact PBM.

IMI PBM Flush Tank Steam Valves Series 5 Manual

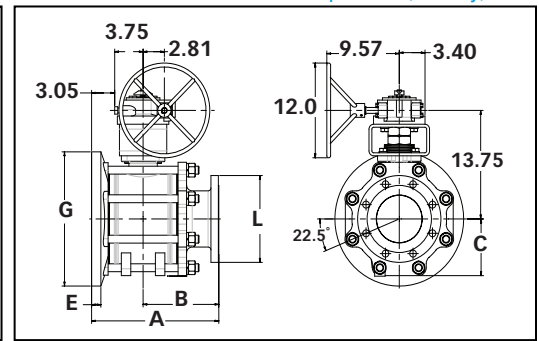
Flush Tank Valve with Locking Handle



Flush Tank Valve with Ext. Locking Handle



Flush Tank Valve with Gear Operator (6" only)



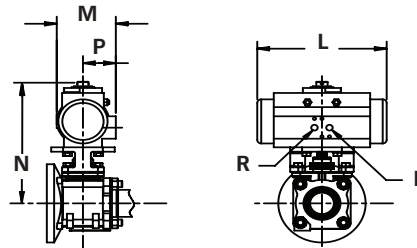
Industrial Flush Tank Dimensioned Valves in inches

Valve Size	Size Code	I.D. Port	A		B		Q to Bottom	Q to Top	Pad Thick.	Length from Q	Pad Dia.	End Fitting	Locking Handle		Ext Lock Handle		Approx Weight	
			Q-	L-	Q-	L-	C	D					Q-	Hole Dia.	J	K	Q-	L-
1/2"	C	0.5	2.83	4.02	1.56	2.75	0.98	2.63	0.28	4.15	2.75	3.50	2.75	.25	7.19	5.09	2 lbs.	3 lbs.
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1-1/2"	G	1.5	5.07	6.32	2.75	4.00	1.78	4.41	0.46	8.68	5.5	5.00	5.5	.38	7.62	5.09	13 lbs.	16 lbs.
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*Weight with gear operator.

ACTUATED DIMENSIONS

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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



<http://www.pbmvalve.com/valves/tank-bottom-valve-0>

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

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