

# PBM TWO-WAY TANK BOTTOM VALVES

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



### DESIGN FEATURES:

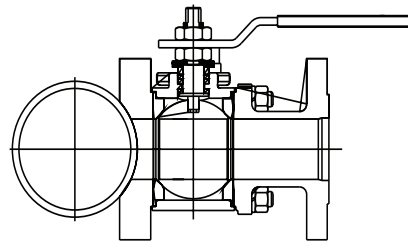
- Unique Adjust-O-Seal® feature allows in-line valve adjustment to compensate for normal wear on valve seats.
- Pad radius facilitates efficient drainage and reduces the pocket area above the ball.
- Upstream and downstream bubble-tight sealing capability allows valve body cleaning, purging, and draining.
- Stem assembly accommodates 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.



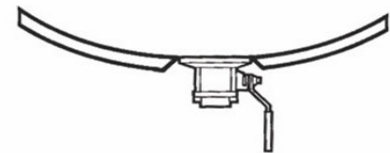
SPECIFICATIONS	2-Way Tank Bottom Valves
Sizes	1/2" - 6" depending on series
Material	316L, Hastelloy™, Carbon Steel, Bronze Alloy 922, others
Temperatures	Ambient for TFM™ to 400° F, S-TEF® to 450°F
End Connections	Buttweld, Flange, NPT, Socket Weld, others
Seats & Seals	White TFM™ standard, others available
Stem Packing Material	TFM™ 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
2-1/2"	600
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.



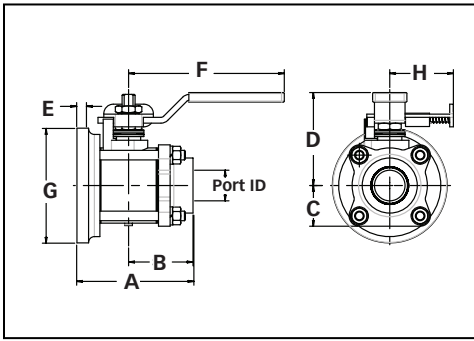
Spherical radius pads or reduced pocket spherical radius pads facilitate efficient drainage and reduces the pocket area above the ball.

### How To Order:

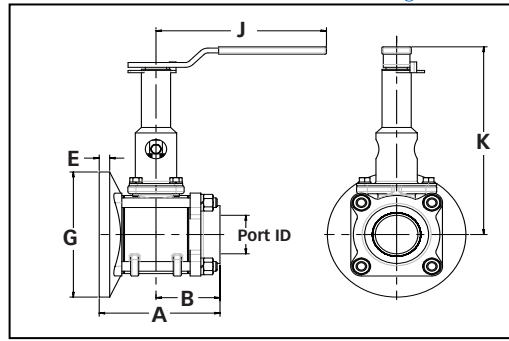
PRODUCT (1-2)		SIZE (5)		END CONN.	SEAT & SEAL	Weld Pad	BALL & STEM	OPERATOR	POLISH								
MATERIAL (3-4)		SERIES (6)		(7-8)	(9)	(10-11)	(12)	(13-14)	(15-16)								
FT	H-	Cast 316/316L S / S	C	1/2"	5	B-	Sch. 40 Butt Weld	G	TFM Seats / Seals	--	Standard Weld Pad	-	Standard Ball and Stem	--	W/ Standard Lever Handle	-	125 Ra ID Standard
	HL	Cast 316L S / S	D	3/4"		D-	Sch. 10 Butt Weld	J	TFM 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			G	17-4PH Stem	04	Locking Lever Handle	C	20 Ra ID / 32 Ra OD
	Y-	Hastelloy C-22	H	2"		M-	300# Flange	I	S-TEF® Seats / Seals VTFE Cavity Fillers		Other Weld Pad Options available - Contact PBM			08	Gear Operator (Req'd for 6")	F	20 Ra ID after Electro Polish
	P-	AL6XN	L	4"		Q-	Female NPT							18	Extended Handle (1/2" thru 4")		
		Other material options available - Contact PBM.	M	6"		U-	Socket Weld	K	UHMWPE Seats / Seals					20	DA 80psig actuator		
								L	UHMWPE Seats / Seals VTFE Cavity Fillers					27	DA 60psig actuator		More polish available - Contact PBM
														34	SR 80psig actuator		
														41	SR 60psig actuator		

# PBM Flush Tank Series 5 Manual

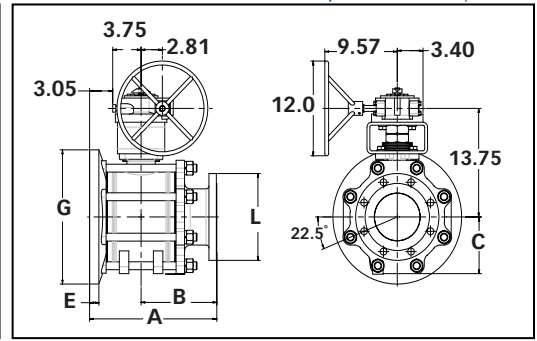
Flush Tank Valve with Locking Handle



Flush Tank Valve with Ext. Locking Handle



Flush Tank Valve with Gear Operator (6" only)



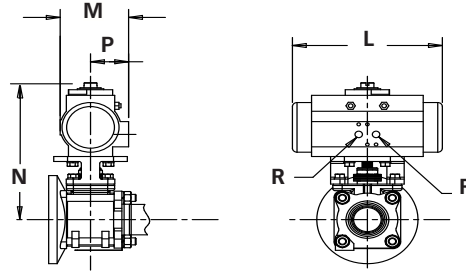
## Industrial Flush Tank Dimensioned Valves in inches

Valve Size	Size Code	I.D. Port	A		B		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					E	F	G	L	Q-	Hole Dia.
1/2"	C	0.37	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	0.62	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	0.87	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	1.37	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	1.87	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	2.87	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	3.84	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	5.78	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 TFM™ seats.



Size	80 PSI Spring Return					60 PSI Spring Return					80 PSI Double Acting					60 PSI Double Acting				
	L	M	N	P	R	L	M	N	P	R	L	M	N	P	R	L	M	N	P	R
1/2"	5.55	2.8	5.84	1.61	1/8 NPT	6.46	3.17	6.29	1.77	1/8 NPT	5.55	2.8	5.84	1.61	1/8 NPT	5.55	2.8	5.84	1.61	1/8 NPT
3/4"	6.46	3.17	6.44	1.77	1/8 NPT	6.46	3.17	6.44	1.77	1/8 NPT	5.55	2.8	5.99	1.61	1/8 NPT	5.55	2.8	5.99	1.61	1/8 NPT
1"	8.27	3.72	7.8	2.07	1/8 NPT	8.27	3.72	7.8	2.07	1/8 NPT	5.55	2.8	6.64	1.61	1/8 NPT	5.55	2.8	6.64	1.61	1/8 NPT
1-1/2"	10.83	4.84	10.15	2.68	1/4 NPT	10.83	4.84	10.15	2.68	1/4 NPT	6.46	3.17	8.39	1.77	1/8 NPT	8.27	3.72	9.1	2.07	1/8 NPT
2"	10.83	4.84	10.46	2.68	1/4 NPT	13.11	5.39	11.82	2.87	1/4 NPT	8.27	3.72	9.41	2.07	1/8 NPT	8.27	3.72	9.41	2.07	1/8 NPT
3"	14.65	5.83	14.29	3.15	1/4 NPT	17.15	6.46	15.18	3.44	1/4 NPT	13.11	5.39	13.81	2.87	1/4 NPT	13.11	5.39	13.81	2.87	1/4 NPT
4"	19.69	7.36	18.28	3.94	1/4 NPT	19.69	7.36	18.28	3.94	1/4 NPT	17.15	6.46	17.34	3.44	1/4 NPT	17.15	6.46	17.34	3.44	1/4 NPT
6"	22.78	8.58	24.13	4.29	1/4 NPT	26.46	11.42	28.89	5.71	1/4 NPT	22.78	8.58	24.13	4.29	1/4 NPT	22.78	8.58	24.13	4.29	1/4 NPT



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

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

[www.PBMValve.com](http://www.PBMValve.com)

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