

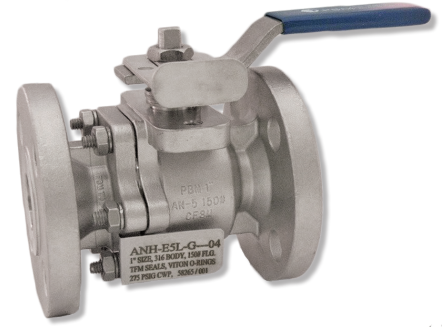
IMI PBM INDUSTRIAL ANSI BALL VALVES

AN Series 5, 1/2" - 6"



DESIGN FEATURES:

- Valves are rated for full vacuum.
- Unique Adjust-O-Seal® feature allows in-line valve adjustment to compensate for normal wear on valve seats.
- **AN Series ANSI valves have o-rings.**
- Valves are a two-piece "split body" design.
- Upstream and downstream bubble-tight sealing capability allows valve body cleaning, purging, and draining.
- Stem assembly accommodates IMI PBM Direct Mount Actuator for accurate alignment and increased cycling life.
- Fire Rated option available
- Optional Purge port and milled ball flats drain holes allow inline CIP to prevent clogging and plug formation.
- Self flushing ball and v-ball options available



SPECIFICATIONS	2-Way Valves
Sizes	1/2" - 6" Series 5
Material	316 Stainless Steel, Hastelloy™ C-276, Carbon Steel, others
Temperatures	20°F to 450°F depending on seat and seal material
End Connections	150# & 300# RF Flange
Seats & Seals	White V-TEF™ standard, others available
O-rings	O-ring seal (FKM V1274-75/80, EPR E3608-70, others available)
Stem Packing Material	V-TEF™ and S-TEF®
Body Bolts & Nuts	B16.34 bolting
Maximum Working Pressure	up to 740 psig CWP depending on valve series, size and temperature



Size	CV Values (gpm)		
	Cv (gpm)	Weight 150 # Class	Weight 300 # Class
1/2"	13	3.5 lbs.	4.8 lbs.
3/4"	52	6.8 lbs.	7.3 lbs.
1"	80	8 lbs.	11 lbs.
1-1/2"	190	16 lbs.	23 lbs.
2"	400	25 lbs.	30 lbs.
3"	1,100	50 lbs.	71 lbs.
4"	2,400	96 lbs.	130 lbs.
6"*	5,600	242 lbs.	326 lbs.

*Valve approximate weight without handle

How To Order:

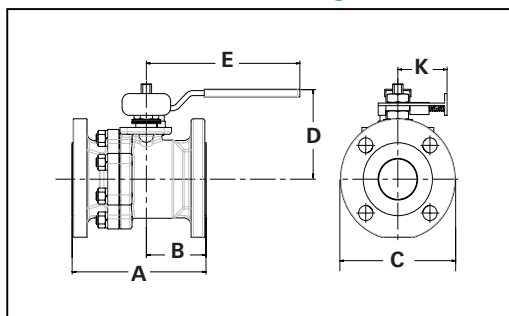
PRODUCT (1-2)		SIZE (5)	ENDS		SEAT & SEAL		PURGES	BALL & STEM	OPERATOR		POLISH						
MATERIAL (3-4)		SERIES	(7-8)		(9)		(10-11)	(12)	(13-14)		(15-16)						
AN	H-	Cast 316/ 316 S / S	C	1/2"	5	L-	150# RF Flange	G	V-TEF™ Seats / Seals FKM O-Ring	--	No Purge Port or Ball Option	-	Standard Ball and Stem	--	W/ Standard Lever Handle	-	125 Ra ID Standard
	E-	Carbon Steel	D	3/4"		M-	300# RF Flange	J	V-TEF™ Seats / Seals / VTFE Cav Fill / FKM O-Ring	- 8	Self Flushing Ball	F	Internal / External Grounding	02	W/O Handle W/ Stem Actuator Prep	A	20 Ra ID
	C-	Hastelloy C-276	E	1"				Z	V-TEF™ Seats / Seals EPR O-Ring	- V	Slotted V-Ball	G	17-4PH Stem	04	Locking Lever Handle	C	20 Ra ID / 32 Ra OD
	Y-	Hastelloy C-22	G	1-1/2"				2	V-TEF™ Seats / Seals / VTFE Cav Fill / EPR O-Ring	- W	30° V-Ball			08	Gear Operator (Req'd for 6")	F	20 Ra ID after Electro Polish
			H	2"						- X	45° V-Ball			18	Extended Handle (1/2" thru 4")		
	P-	AL6XN	K	3"						- Y	60° V-Ball			20	DA 80psig actuator		
		Other material options available - Contact PBM.	L	4"				H	S-TEF® Seats / Seals FKM O-Ring		Other Purge Port & Ball Options - Contact PBM.			27	DA 60psig actuator		More polish available - Contact PBM.
			M	6"				0	S-TEF® Seats / Seals EPR O-Ring					34	SR 80psig actuator		
														41	SR 60psig actuator		

Other operator options available -
Contact PBM.

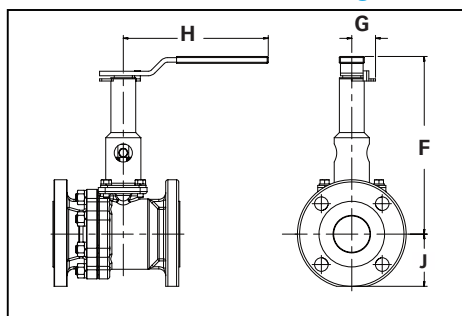
Other seat/seal options available -
Contact PBM.

IMI PBM Industrial ANSI Ball Valves Manual

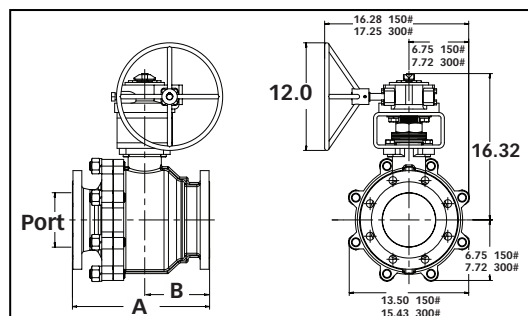
ANSI Valve with Locking Handle



ANSI Valve with Ext. Locking Handle



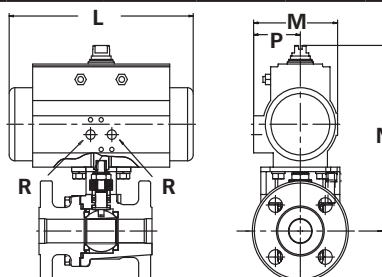
ANSI Valve with Gear Operator (6" only)



Valve Size	Size Code	Port Dia.	A		B		C		D	E	J		Ext. Locking Handle			Locking Handle	
			Overall Length		¢ to End		Flange Diameter				¢ to Bottom		F	G	H	K	Hole Dia. for Lock
			150#	300#	150#	300#	150#	300#			150#	300#					
1/2"	C	0.5	4.25	5.50	1.85	2.52	3.50	3.75	2.66	4.15	1.62	1.75	7.19	1.00	5.09	1.62	.25
3/4"	D	0.75	4.62	6.00	2.12	2.90	3.88	4.62	2.78	4.15	1.80	2.15	7.34	1.00	5.09	1.62	.25
1"	E	1.00	5.00	6.50	2.25	3.15	4.25	4.88	3.09	5.06	2.06	2.38	7.63	1.00	5.09	2.08	.28
1-1/2"	G	1.50	6.50	7.50	2.68	3.18	5.00	6.12	4.16	8.03	2.38	3.00	9.50	1.31	8.00	2.58	.38
2"	H	2.00	7.00	8.50	3.12	3.84	6.00	6.50	4.46	8.03	2.88	3.12	9.81	1.31	8.00	2.58	.38
3"	K	3.00	8.00	11.12	3.57	5.19	7.50	8.25	7.00	12.06	3.50	4.00	11.69	1.50	12.06	3.47	.38
4"	L	4.00	9.00	12.00	3.84	5.34	9.00	10.00	7.39	24.06	4.38	4.75	13.03	3.50	24.06	NA	NA
6"	M	6.07	15.50	15.88	7.33	7.70	11.00	12.50	NA	NA	NA	NA	NA	NA	NA	NA	NA

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 ¢ to Bottom					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"	5.50	2.79	5.84	1.61	1/8	5.50	2.79	5.84	1.61	1/8	5.50	2.79	5.84	1.61	1/8	5.50	2.79	5.84	1.61	1/8
3/4"	6.38	3.17	6.44	1.77	1/8	6.38	3.17	6.44	1.77	1/8	6.38	3.17	6.44	1.77	1/8	6.38	3.17	6.44	1.77	1/8
1"	5.55	2.8	6.71	1.61	1/8	5.55	2.8	6.71	1.61	1/8	8.27	3.72	7.87	2.07	1/8	8.27	3.72	7.87	2.07	1/8
1-1/2"	6.46	3.17	8.44	1.77	1/8	8.27	3.72	9.15	2.07	1/8	10.83	4.84	10.2	2.68	1/4	10.83	4.84	10.2	2.68	1/4
2"	8.27	3.72	9.46	2.07	1/8	8.27	3.72	9.46	2.07	1/8	10.83	4.84	10.51	2.68	1/4	13.11	5.39	11.87	2.87	1/4
3"	13.11	5.39	13.81	2.87	1/4	13.11	5.39	13.81	2.87	1/4	14.65	5.83	14.29	3.15	1/4	17.13	6.46	15.18	3.44	1/4
4"	17.13	6.46	17.34	3.44	1/4	17.13	6.46	17.34	3.44	1/4	19.69	7.36	18.28	3.94	1/4	22.78	7.36	20.53	3.94	1/4
6"	22.78	8.58	24.11	4.29	1/4	22.78	8.58	24.11	4.29	1/4	22.78	8.58	24.11	4.29	1/4	26.46	11.42	28.87	5.71	1/4

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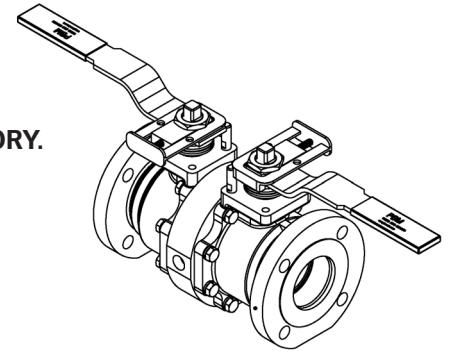


IMI PBM ANSI DOUBLE BLOCK & BLEED VALVES AN/TN SERIES 5, Sizes 1/2" - 12"



DESIGN FEATURES:

- End Connection design and fabrication flexibility
- **AN SERIES 5 DBB VALVES MAY HAVE O-RINGS. CONSULT FACTORY.**
- Full and reduced port designs
- Customizable end connections
- Quarter turn operation
- Bleed or gauge ports available
- Bolted Body
- API-641 Low-E, standard temperature limitations apply



The high temperature valve version consists of carbide coating on the ball and seats.

SPECIFICATIONS	AN SERIES 5 DOUBLE BLOCK & BLEED VALVES
Sizes	1/2" - 12" CL150 & CL300
Material	316 Stainless Steel, Hastelloys, Duplex SS, Carbon Steels, Monel, others available
Temperatures	Ambient to 800°F depending on material
End Connections	ANSI RF Flange, others available
Seats & Seals	V-TEF™, C-TEF™, S-TEF® . PEEK®, Stellite, Tungsten or Chrome Carbide Coated S/S Balls & Seats
Stem Packing Material	V-TEF™, C-TEF™ or S-TEF®, Graphite
Maximum Working Pressure	In accordance with ASME B16.34

ALLOWABLE WORKING PRESSURES/TEMPERATURES (psig/barg)						
ANSI CL150 FLANGED						
VALVE MATERIAL	-20° TO 100°F	-28.9° to 37.8°C	300°F	148.9°C	450°F	232.2°C
C-276	230	15.9	200	13.8	180	12.4
316/316L S/S	275	19.0	215	14.8	180	12.4
Carbon Steel	285	19.7	230	15.9	185	12.8
ANSI CL300 FLANGED						
C-276	600	41.4	520	35.9	475	32.8
316/316L S/S	720	49.6	560	38.6	495	34.1
Carbon Steel	740	51.0	655	45.2	620	42.7

How To Order:

PRODUCT (1-2) MATERIAL (3-4)	TYPE/CLASS (5) SERIES (6)	HP UPSTREAM LP DOWNSTREAM		SEAT/ SEAL (9)	HP UPSTREAM LP DOWNSTREAM		BLEED PORT OPTIONS (12)	OPERATOR OPTIONS (13-14)	BLEED VALVE OPTIONS (15)	
		1ST END CONN. TYPE (7)	2ND END CONN. TYPE (8)		1ST END CONN. SIZE (10)	2ND END CONN. SIZE (11)				
AN H- Cast 316/ 316L S/S	K Double Block 150# Class	5	L RF Flange	L RF Flange	G V-TEF™ Seats / Seals FKM O-Ring	1 1/2" Full Port	1 1/2" Full Port	A (1) 1/4" FNPT Bleed Port 90° from Stem	-- W/ Standard Lever Handle	A 1/4" FNPT Ball Valve
TN E- Carbon Steel 150# Class Only	L Double Block 300# Class		W RTJ Flange	W RTJ Flange	J V-TEF™ Seats / Seals / VTFE Cav Fill / FKM O-Ring	E 3/4" Full Port	E 3/4" Full Port	B (1) 1/4" FNPT Bleed Port 180° from Stem	02 W/O Handle W/ Stem Actuator Prep	B 3/8" FNPT Ball Valve
					Z V-TEF™ Seats / Seals EPR O-Ring	4 1" Full Port	4 1" Full Port	C (1) 3/8" FNPT Bleed Port 90° from Stem	04 Locking Lever Handle	C 1/2" FNPT Ball Valve
					z V-TEF™ Seats / Seals / VTFE Cav Fill / EPR O-Ring	H 2" Full Port	H 2" Full Port	D (1) 3/8" FNPT Bleed Port 180° from Stem	08 Gear Operator (Req'd for 6")	D 3/4" FNPT Ball Valve
					H S-TEF® Seats / Seals FKM O-Ring	J 2-1/2" Full Port	J 2-1/2" Full Port	E (1) 1/2" FNPT Bleed Port 90° from Stem	18 Extended Handle (1/2" thru 4")	E 1" FNPT Ball Valve
					0 S-TEF® Seats / Seals EPR O-Ring	K 3" Full Port	K 3" Full Port	F (1) 1/2" FNPT Bleed Port 180° from Stem	20 DA 80psig actuator	L 1/4" Welded Ball Valve
						L 4" Full Port	L 4" Full Port	G (1) 3/4" FNPT Bleed Port 90° from Stem	27 DA 60psig actuator	M 3/8" Welded Ball Valve
						M 6" Full Port	M 6" Full Port	H (1) 3/4" FNPT Bleed Port 180° from Stem	34 SR 80psig actuator	N 1/2" Welded Ball Valve
								J (1) 1/4" Socket Weld Bleed Port 90° from Stem	41 SR 60psig actuator	P 3/4" Welded Ball Valve
								K (1) 1/4" Socket Weld Bleed Port 180° from Stem		Q 1" Welded Ball Valve
								L (1) 3/8" Socket Weld Bleed Port 90° from Stem		
								M (1) 3/8" Socket Weld Bleed Port 180° from Stem		
								N (1) 1/2" Socket Weld Bleed Port 90° from Stem		
								P (1) 1/2" Socket Weld Bleed Port 180° from Stem		
								Q (1) 3/4" Socket Weld Bleed Port 90° from Stem		
								R (1) 3/4" Socket Weld Bleed Port 180° from Stem		

Other material options available - Contact PBM.

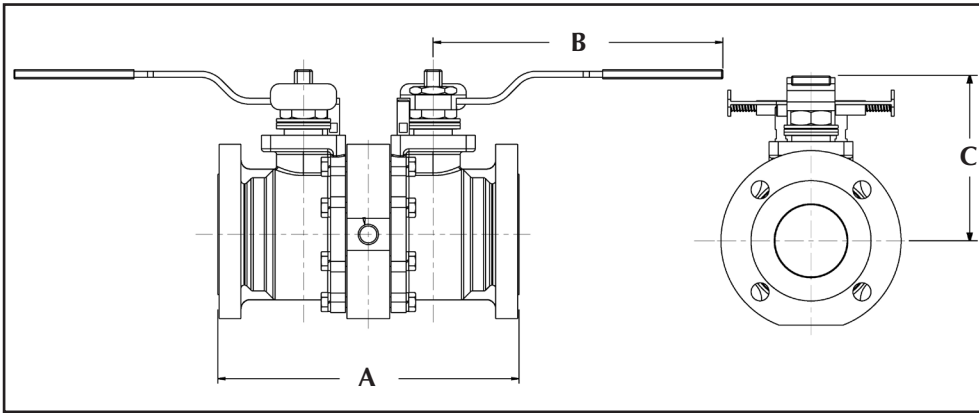
Other seat/seal options available - Contact PBM.

Note: End Connections are always the same size.

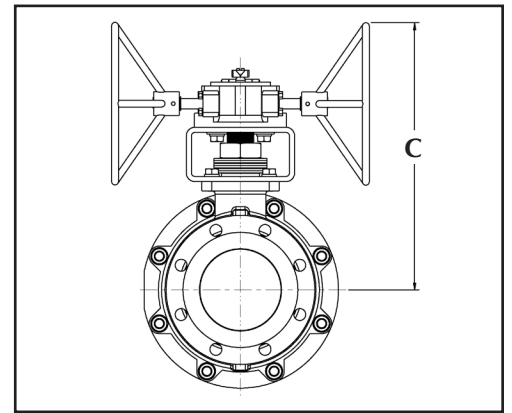
Other operator options available - Contact PBM.

IMI PBM AN/TN SERIES 5 DOUBLE BLOCK & BLEED VALVES

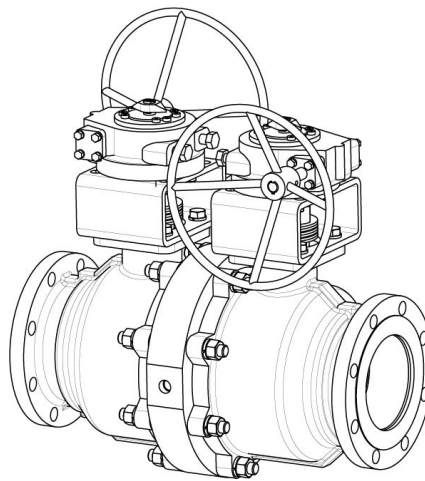
Double Block & Bleed with Locking Handle



Double Block & Bleed with Gear Operator



AN Series 5 DBB Dimensioned valves in inches						
Valve Size	A		B		C	
	CL150	CL300	CL150	CL300	CL150	CL300
1/2"	CF	CF	4.15	4.15	2.66	2.66
3/4"	CF	CF	4.15	4.15	2.81	2.81
1"	9.04	10.84	5.09	5.09	3.09	3.09
1-1/2"	11.57	12.57	8.03	8.03	4.43	4.43
2"	12.60	14.04	8.03	8.03	4.74	4.74
3"	12.54	15.78	12.06	12.06	6.85	6.85
4"	14.72	17.72	24.06	24.06	9.00	9.00
6"	24.46	29.19	GEAR OP	GEAR OP	19.75	19.75
8"	34.30	42.00	GEAR OP	GEAR OP	23.10	28.63
10"	47.13	N/A	GEAR OP	N/A	32.91	N/A
12"	53.13	N/A	GEAR OP	N/A	33.48	N/A



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