

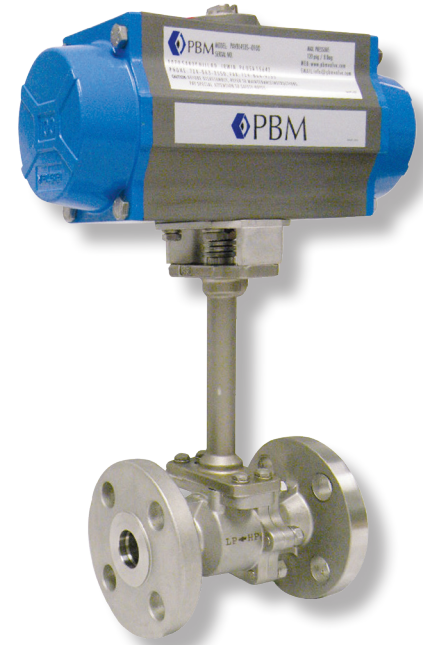
# PBM ANSI 150# & 300# CRYOGENIC VALVES, 2-Way, Full Port, Sizes 3/4" - 4"



www.PBMValve.com

## DESIGN FEATURES:

- Valve meets or exceeds leakage performance per MSS SP-134
- **CN Series Cryogenic valves DO NOT have o-rings.**
- Live-loaded stem packings
- Fire Tested to API-607
- Designed and tested in accordance with ASME B31.1 and B16.34
- Cleaned for oxygen service.
- Optional API-622 Low-e Packing (cannot be LOX cleaned)
- Quarter turn operation
- Locking lever handle or optional oval locking handwheel
- Automation available
- Internal and external grounding
- Uni-directional flow and vented ball
- With or without extended stem



SPECIFICATIONS	CN - 2-Way, Full Port, Split Body Flanged Class 150# or 300#
Sizes	3/4" - 4"
Body, Ball, End Fitting Material	316 Stainless Steel
Stem Material	17-4 PH Stainless Steel
Seats & Lower Stem Packing Material	V-TEF™
Body Gaskets & Upper Stem Packing	Graphite
Handle	300 Stainless Steel
Maximum Working Pressure	275 psig CWP with 150# flanged end connections
Temperatures	400°F (205°C) to -320°F (-200°C)

CV and WEIGHTS			
Size	Cv (gpm)	Weight 150 lbs.	Weight 300 lbs.
3/4"	52	7	10
1"	80	12	15
1-1/2"	190	25	32
2"	400	34	39
3"	1,100	70	92
4"	2,400	118*	156*

CRYOGENIC ALLOWABLE LEAKAGE RATE COMPARISON		
NPS	MSS-SP-134-2010	BS 6364-1984
3/4"	56.25	120
1"	75	150
1-1/2"	112.50	240
2"	150	300
3"	225	480
4"	300	600

\*actuator prepped

## HOW TO ORDER:

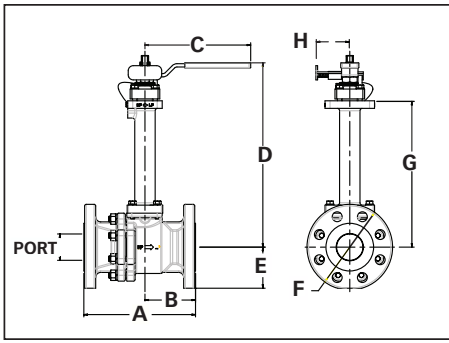
PRODUCT (1-2)			SIZE (5)			END CONN.		SEAT & SEAL		PURGES		BONNET		OPERATOR		OXYGEN CLEAN		
MATERIAL (3-4)			SERIES (6)			(7-8)		(9)		(10-11)		(12)		(13-14)		(15-16)		
CN	H	316 S/S	D	3/4"	6	L	150# RF Flange	G	V-TEF™/Graphite Seals Spiral wound graphite stem packing	--	No Purge Ports	-	Standard Bonnet	04	Locking Lever Handle - Std. 3/4" thru 2" Only	- L	Oxygen Clean Per PBM Procedure "G" seat / seal code only	
Other material options available - Contact PBM.			E	1"		M	300# RF Flange	Z	V-TEF™/Graphite Seals Low Emission graphite stem packing			V	12" Tall Bonnet	09	Locking "I" Handle - Std. 3" Only	--	NO Oxygen Clean "Z" seat / seal code only	
			G	1-1/2"		Note: Valves with "Z" code will not be oxygen cleaned.												
			H	2"														
			K	3"														
			L	4"														
															08	Gear Operator Std. - 4" Only		
															02	No Handle, Stem Actuator Prep		
															20	DA 80psig actuator		
															27	DA 60psig actuator		
															34	SR 80psig actuator		
															41	SR 60psig actuator		

Other operator options available - Contact PBM.

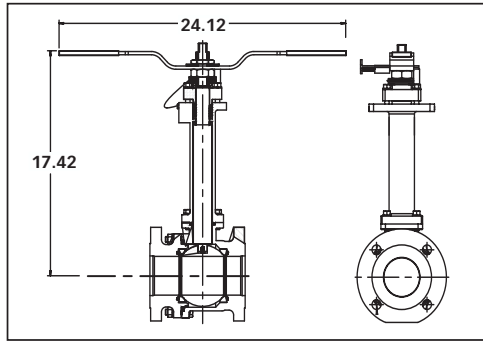
<http://pbmvalve.com/build-a-part-number>

# PBM ANSI 150# & 300# CRYOGENIC BALL VALVE DIMENSIONS

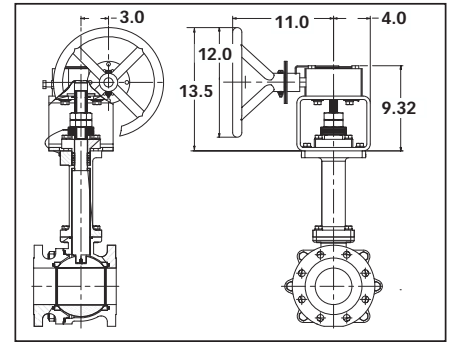
CN with Lever Handle



3" CN with T-Handle



4" CN with Gear Operator

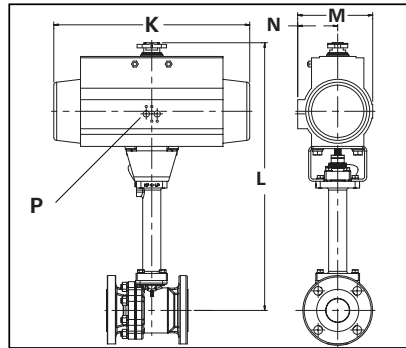


## CN CRYOGENIC VALVES

Size	Port Dia.	Pressure Class	A	B	C	D	E	F	G	H	Hole Dia. for Lock
			Overall Length	CL to End Face	Handle Length	Handle Height Std. Ext.	CL to bottom Flange	Flange Dia.	CL to Top of Bonnet		
3/4"	.75	150#	4.62	2.12	6.15	9.86	1.80	3.88	7.78	1.55	.28
	.75	300#	6.00	2.90	6.15	9.86	2.15	4.62	7.78	1.55	.28
1"	1.00	150#	5.00	2.25	8.09	10.08	2.06	4.25	7.71	1.64	.25
	1.00	300#	6.50	3.15	8.09	10.08	2.38	4.88	7.71	1.64	.25
1-1/2"	2.00	150#	6.50	2.68	18.03	13.70	2.38	5.00	10.81	2.57	.38
	2.00	300#	7.50	3.18	18.03	13.70	3.00	6.12	10.81	2.57	.38
2"	2.00	150#	7.00	3.12	18.03	14.00	2.88	6.00	11.12	2.57	.38
	2.00	300#	8.50	3.84	18.03	14.00	3.12	6.50	11.12	2.57	.38
3"	3.00	150#	8.00	3.57	NA	NA	3.50	7.50	13.41	3.84	.38
	3.00	300#	11.12	5.19	NA	NA	4.00	8.25	13.41	3.84	.38
4"	4.00	150#	9.00	3.84	NA	NA	4.38	9.00	14.83	NA	NA
	4.00	300#	12.00	5.34	NA	NA	4.75	10.00	14.83	NA	NA

## ACTUATED DIMENSIONS

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



Size	60 psi Double Acting					80 psi Double Acting					60 psi Spring Return					80 psi Spring Return				
	K	L	M	N	P	K	L	M	N	P	K	L	M	N	P	K	L	M	N	P
3/4"	6.46	13.73	3.17	1.77	1/8	5.55	13.28	2.79	1.61	1/8	9.48	14.99	4.17	2.30	1/8	8.27	14.44	3.72	2.07	1/8
1"	6.46	14.16	3.17	1.77	1/8	6.46	14.16	3.17	1.77	1/8	10.83	15.92	4.85	2.68	1/4	9.48	15.42	4.17	2.30	1/8
1-1/2"	10.83	20.02	4.85	2.68	1/4	9.48	19.52	4.17	2.30	1/8	14.65	21.86	5.83	3.15	1/4	13.12	21.38	5.39	2.87	1/4
2"	13.12	21.69	5.39	2.87	1/4	10.83	20.33	4.85	2.68	1/4	19.68	24.00	7.36	3.90	1/4	17.13	23.06	6.45	3.44	1/4
3"	14.65	25.46	5.83	3.15	1/4	13.12	24.98	5.39	2.87	1/4	22.78	29.54	8.54	4.29	1/4	19.68	27.29	7.36	3.90	1/4
4"	22.78	32.96	8.54	4.29	1/4	22.78	32.96	8.54	4.29	1/4	26.46	35.04	11.42	5.71	1/4	26.46	35.04	11.42	5.71	1/4



<http://pbmvalve.com/valves/cryogenic-valves>

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



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

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