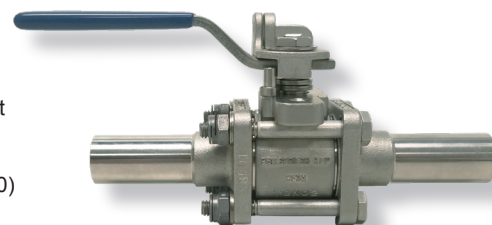


IMI PBM IGENIX® CLEAN STEAM BALL VALVES CS Cast Series 9/Forged Series 8, DIN 11850, DN8 - DN65



DESIGN FEATURES:

- Unique Adjust-O-Seal® feature allows in-line valve adjustment to compensate for normal wear on valve seats
- **CS Series Clean Steam valves have o-rings**
- Valves are a three-piece "swing-out" body design
- 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 (Except DN8 & DN10)
- ASME BPE compliant
- USP Class VI elastomers and FDA compliant materials
- Valves are rated to full vacuum
- Material Test Report (MTRs) provided for wetted components
- Surface finishes are achieved without the use of ADIs (Animal Derived Ingredients)



SPECIFICATIONS	2-Way Valves
Sizes	DN8 - DN150 Series 9, DN15 - DN100 Series 8 (DN8 & DN10 in Series 8 is Ext. tube only)
Material	Low ferrite cast and forged 316L material. Castings (Series 9) comply with A351, Alloy CF3M and/or A479, Alloy S31603. Forgings (Series 8) comply with A182, Alloy F316L/1.4404 and/or A479, Alloy S31603. Also available are Hastelloy™, AL6XN™, others
End Connections	Extended tube, hygienic clamp, please refer to PB-CE89 for compression ends, others available
Seats & Seals	White V-TEF™ standard, others available
Filler / Seat Options	VTFE Cavity Fillers, V-TEF™, S-TEF®, UHMWPE Seats
O-rings	O-ring seal (FKM V1274, EPR E3609, others available)
Body Bolts & Nuts	Locking Lever, 2" Stem Extension, Oval Handwheel, Grounding
Maximum Working Pressure	See table below
Temperatures	up to 232°C depending on seat and seal material
Finish	Standard internal polish of 0.5µm Ra ID Series 8, 0.75µm Ra ID Series 9, other finishes available

CV Values (liters/minute), Series 8/Series 9	
Size	End Connections
	F-
DN 8	18
DN 10	32
DN 15	90
DN 20	170
DN 25	338
DN 32	512
DN 40	722
DN 50	1,532
DN 65	3,184

Polish Options - Standard 0.75µm Ra ID, Series 9, 0.5 µm Ra ID, Series 8	
A* (Cast only)	0.5 µm Ra ID
D	0.375 µm Ra ID
E	0.25 µm Ra ID
F	0.50 µm Ra ID after EP
G	0.375 µm Ra ID after EP
H	0.25 µm Ra ID after EP
M	Electropolish

316L S/S Pressure Ratings at Ambient (BARG)		
SIZE	SERIES 8	SERIES 9
DN 8	41.37	62.05
DN 10	41.37	62.05
DN 15	41.37	62.05
DN 20	41.37	62.05
DN 25	41.37	62.05
DN 40	41.37	49.64
DN 50	41.37	49.64
DN 65	41.37	49.64

DIN 11850 Tube Weld End Dimensions		
DN8 = 10mm OD x 1mm Wall	DN10 = 13mm OD x 1.5mm Wall	DN15 = 19mm OD x 1.5mm Wall
DN20 = 23mm OD x 1.5mm Wall	DN25 = 29mm OD x 1.5mm Wall	DN32 = 35mm OD x 1.5mm Wall
DN40 = 41mm OD x 1.5mm Wall	DN50 = 53mm OD x 1.5mm Wall	DN65 = 70mm OD x 2mm Wall

How To Order:

PRODUCT (1-2) MATERIAL (3-4)			SIZE (5) SERIES			END CONN. (7-8)			SEAT & SEAL (9)			PURGES (10-11)			BALL & STEM (12)			OPERATOR (13-14)			POLISH (15-16)							
PRODUCT (1-2) MATERIAL (3-4)			SIZE (5) SERIES (6)			END CONNECTION (7-8)			SEAT / SEAL / O-RING (9)			PURGE PORT BALL OPTIONS (10-11)			BALL / STEM OPTIONS (12)			OPERATOR (13- 14)			POLISH OPTIONS (15)							
CS	HF	F316L Forged Low Ferrite F316L / DIN 1.4404	1	8	8	F -	Ext. Butt weld for Tube	G	V-TEF™ Seats / Seals FKM O-Rings			--	No Purge Port or Ball Option			-	Standard Ball and Stem			--	W/ Standard Lever Handle			-	0.75 µm ID (Std. Series 9)			
			2	10	9			J	V-TEF™ Seats / Seals / VTFE Cav Fill / FKM O-Rings			- 8	Self Flushing Ball			F	Internal / External Grounding			02	W/O Handle W/ Stem Actuator Prep			A	0.50 µm ID (Std. Series 8)			
			3	15				Z	V-TEF™ Seats / Seals EPR O-Rings			- V	Slotted V-Ball			G	17-4PH Stem			04	Locking Lever Handle			D	0.375 µm ID			
	35	316L Cast Body, 1.4435 Weld Ends, Low Ferrite	4	20				2	V-TEF™ Seats / Seals / VTFE Cav Fill / EPR O-Rings			- W	30° V-Ball						18	Extended Handle (DN65)			F	0.50 µm ID after Electro Polish				
			5	25							- X	45° V-Ball						71	Extended Handle (DN8 thru DN50)									
			6	32							- Y	60° V-Ball						20	DA 80psig actuator			G	0.375 µm ID after Electro Polish					
			7	40				H	S-TEF® Seats / Seals FKM O-Rings			Other Purge Port & Ball Options - Contact IMI PBM.						27	DA 60psig actuator									
			8	50				0	S-TEF® Seats / Seals EPR O-Rings									34	SR 80psig actuator			H	0.25 µm ID after Electro Polish					
			9	65														41	SR 60psig actuator									
										9	V-TEF™ Seats / Seals FEP Encaps. FKM O-Rings			Other Seat/seal options available - Contact IMI PBM.						Other operator options available - Contact IMI PBM.						More polish available - Contact IMI PBM.		

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

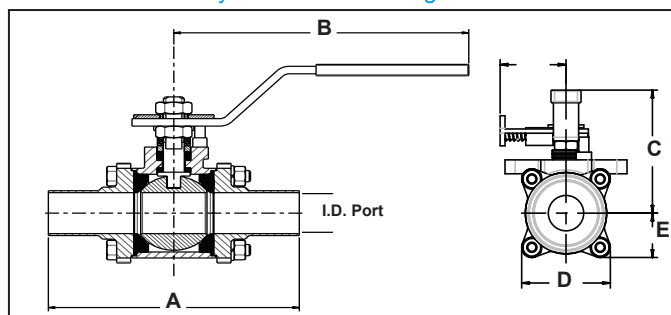
<http://pbmvalve.com/build-a-part-number>

Other operator options available - Contact IMI PBM.

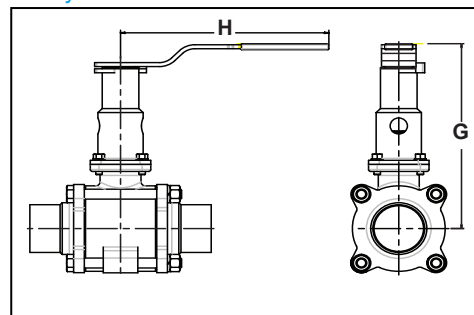
More polish available - Contact IMI PBM.

IMI PBM Igenix® Clean Steam Cast Series 9/Forged Series 8

2-Way Valve with Locking Handle



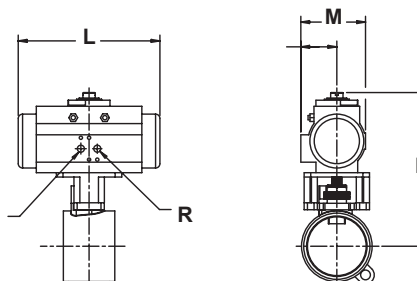
2-Way Valve with Extended Lockable Handle



CS DIN Valve Dimensions (mm)									Locking Handle		Ext. Locking Handle		
Valve Size	Size Code	I.D. Port	A	B	C	D	E	Approx. Wgt (kg)	F	Hole Dia. for Lock	G	H	Hole Dia. for Lock
DN 8	1	8.0	139.7	101.6	52.1	38.1	19.1	0.5	39.4	7.1	101.6	129.3	7.9
DN 10	2	10.0	139.7	101.6	52.1	38.1	19.1	0.5	39.4	7.1	101.6	129.3	7.9
DN 15	3	16.0	152.4	101.6	56.4	42.9	21.6	0.6	39.4	7.1	105.7	129.3	7.9
DN 20	4	20.0	165.1	105.4	76.2	55.4	27.7	1.4	41.1	6.4	138.2	129.3	7.9
DN 25	5	26.0	190.5	223.8	124.7	84.2	42.1	4.0	65.3	9.7	189.5	203.2	9.7
DN 32	6	32.0	190.5	223.8	124.7	84.2	42.1	4.0	65.3	9.7	189.5	203.2	9.7
DN 40	7	38.0	190.5	223.8	124.7	84.2	42.1	4.0	65.3	9.7	189.5	203.2	9.7
DN 50	8	50.0	200.0	204.0	118.6	109.2	54.6	7.1	65.5	9.7	196.6	203.2	9.7
DN 65	9	66.0	292.1	306.3	165.5	141.7	70.9	16.5	88.1	9.7	288.5	306.3	9.7

ACTUATED DIMENSIONS

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



80 PSI Spring Return						60 PSI Spring Return					60, 80 PSI Double Acting				
Size	L	M	N	P	R	L	M	N	P	R	L	M	N	P	R
DN 8	141.0	70.9	138.4	40.9	1/8 NPT	164.1	80.5	149.9	45.0	1/8 NPT	141.0	70.9	138.4	40.9	1/8 NPT
DN 10	141.0	70.9	138.4	40.9	1/8 NPT	164.1	80.5	149.9	45.0	1/8 NPT	141.0	70.9	138.4	40.9	1/8 NPT
DN 15	141.0	70.9	142.0	40.9	1/8 NPT	164.1	80.5	153.4	45.0	1/8 NPT	141.0	70.9	142.0	40.9	1/8 NPT
DN 20	164.1	80.5	165.4	45.0	1/8 NPT	210.1	94.5	183.4	52.6	1/8 NPT	141.0	70.9	153.9	40.9	1/8 NPT
DN 25	240.8	105.9	245.1	58.4	1/8 NPT	275.1	122.9	257.9	68.1	1/4 NPT	210.1	94.5	231.1	52.6	1/8 NPT
DN 32	240.8	105.9	245.1	58.4	1/8 NPT	275.1	122.9	257.9	68.1	1/4 NPT	210.1	94.5	231.1	52.6	1/8 NPT
DN 40	240.8	105.9	245.1	58.4	1/8 NPT	275.1	122.9	257.9	68.1	1/4 NPT	210.1	94.5	231.1	52.6	1/8 NPT
DN 50	275.1	122.9	265.4	68.1	1/4 NPT	333.0	136.9	299.7	72.9	1/4 NPT	210.1	94.5	238.5	52.6	1/8 NPT
DN 65	333.0	136.9	342.4	72.9	1/4 NPT	372.1	148.1	354.6	80.0	1/4 NPT	333.0	136.9	342.4	72.9	1/4 NPT

Manual Valves with Tube Ends when used with insulation		
Tube OD	Insulation max with no extension	Insulation max with extension
12.7	19.3	68.1
19.1	20.1	69.1
25.4	36.8	98.6
38.1	78.7	141.5
50.8	58.7	142.2
63.5	101.6	225.6
76.2	103.6	225.6
101.6	110.5	231.6