

MS11000-xxx Series Reduced Port Valve

Features

- Available in ASME Class 1500 standard; 3200 limited, and 4500 standard
- ISO 5211 Mounting Pad
- Adjustable live-loaded packing
- 100% tested to MSS-SP-61 and API 598
- Floating ball
- Uni-directional sealing
- Forged Body
- Stainless Steel sealing surfaces are chrome carbide coated (HVOF process)

MS11000 Series Metal Seated Valve

The new Marwin Model MS11000 is a robust design to meet higher pressure and temperature applications with metal ball and seal internal trim. The Model MS11000 trim is coated with Chrome Carbide using the High Velocity Oxygen Fueled (HVOF) process. This coating provides customers with a valve highly suitable for erosive and/or corrosive service, such as found in the Power, Refining and Chemical industries.

Industry Applications
Process

Entrained Solids / Slurries
 Steam / Hot Gases

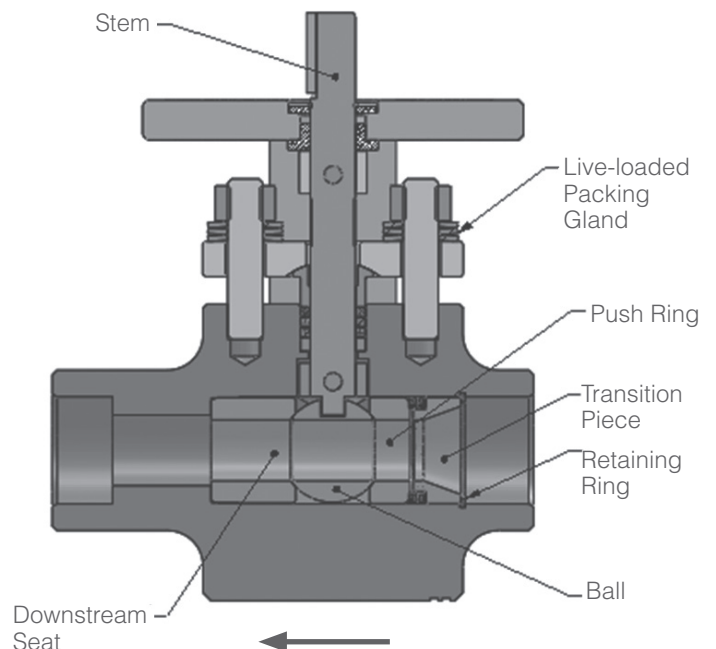
Power Generation

High Pressure / Temperature Drains & Vents
 Blowdown
 Isolation / Stop

Quick Spec	
Product Scope	
Size Range	1/2" – 2-1/2"
Body Type	One Piece
End Connections	FNPT and SW
Pressure Rating	ASME Class 1500, 3200 LTD, 4500
Body Material	A105 Carbon Steel, A182-F316 Gr 316SS A182-F22 21/4 Cr-1Mo Steel, A182-F91 9Cr-1Mo Steel
Trim	410 SS / Inconel 718
Coating	HVOF - Chrome Carbide
Stem Packing	Grafoil
Operator	Manual or Actuated
Testing	API 598 and MSS SP-61
Design	ASME B16.34

Standard Trim Materials	
Push Ring	Type 410 SS*
Spring	Type 286 SS
Transition Piece	Type 410 SS
Ball	Type 410 SS*
Seat	Type 410 SS*
Retaining Ring	Type 286 SS
Stem	Inconel 718
Coatings	HVOF - Chrome Carbide*
Operator	Manual or Actuated
Testing	API 598 and MSS SP-61
Design	ASME B16.34

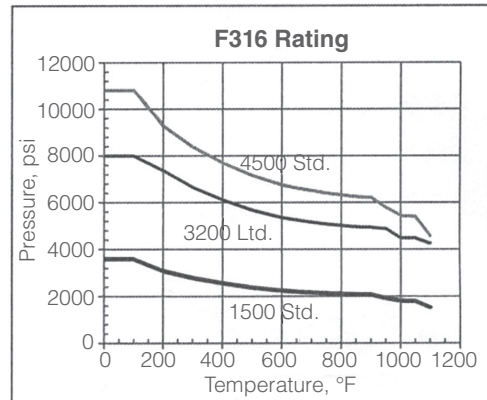
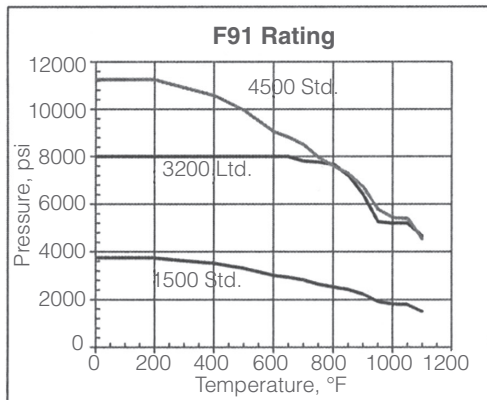
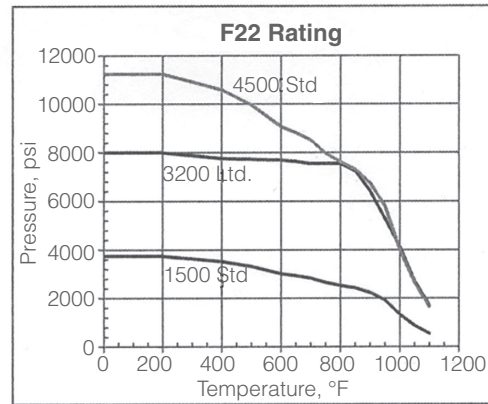
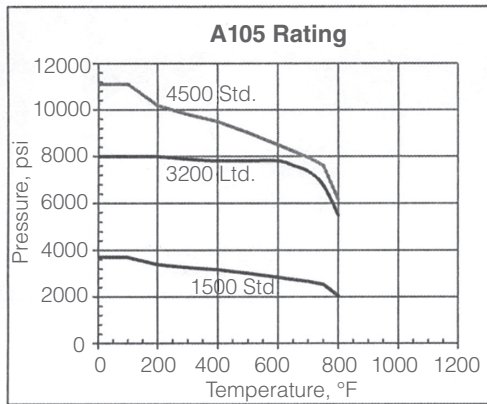
* Consult factory for other materials

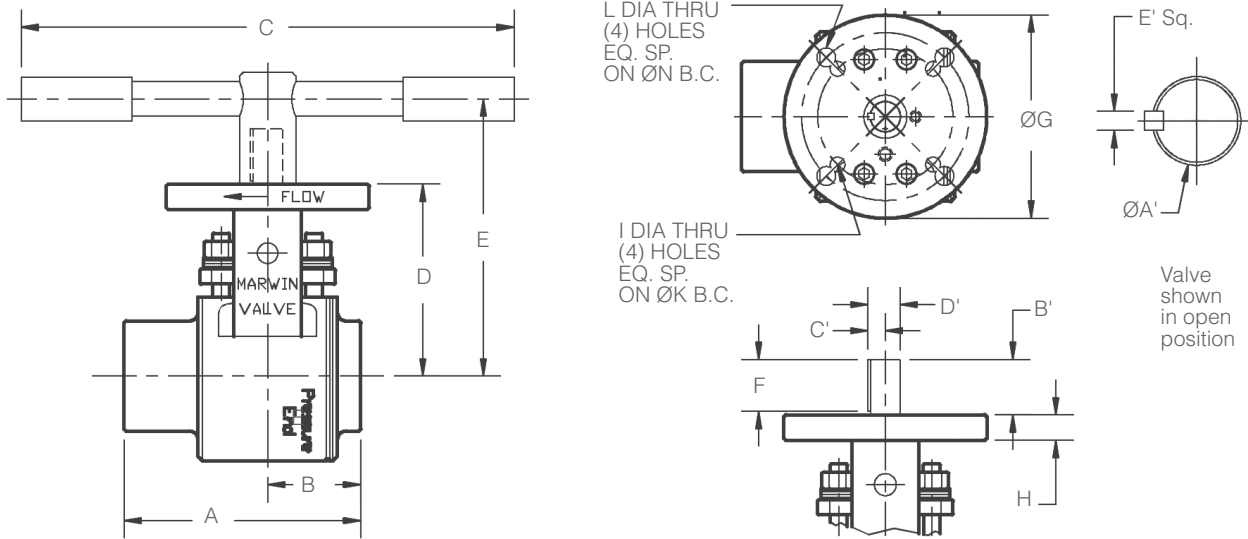


Technical Information

Size	Port	Rating		Cv		Operating Torque, in-lb, @ CWP ²		
		FSW	FNPT	Sch 160	Sch XXS	1500	3200 LTD	4500
1/2"	0.56	1500 STD, 3200 LTD	1500 LTD	5.5	4.5	555	931	--
1/2"	0.65	4500 STD	--	--	6	--	--	2628
3/4"	0.56	1500 STD, 3200 LTD	1500 LTD	19	13	555	931	--
3/4"	0.65	4500 STD	--	--	7	--	--	2598
1"	0.56	1500 STD, 3200 LTD	1500 LTD	15	32	555	931	--
1"	0.65	4500 STD	--	--	56	--	--	2598
1"	0.76	1500 STD, 3200 LTD	1500 LTD	55	35	721	1706	--
1-1/2"	0.65	4500 STD	--	--	15	--	--	2598
1-1/2"	0.76	1500 STD, 3200 LTD	1500 LTD	21	27	721	1706	--
1-1/2"	1.12	1500 STD, 3200 LTD	1500 LTD	86	194	1812	3719	--
2"	0.65	4500 STD	--	--	13	--	--	2598
2"	1.12	1500 STD, 3200 LTD	1500 LTD	40	49	1812	3719	--
2"	1.25	4500 STD	--	--	103	--	--	10881
2"	1.40	3200 LTD	--	132	202	2967	6588	--
2-1/2"	1.25	4500 STD	--	--	72	--	--	10881
2-1/2"	1.40	1500 STD, 3200 LTD	1500 LTD	63	89	2967	6888	--

- Notes:
 1) STD =ASME B16.34 Standard Class Rating; LTD = ASME B16.34 Limited Class Rating
 2) Operating torques given at maximum CWP for each size and class; and include normal recommended service factory (generally 1.3). Consult factory for operating torques at pressures less than maximum CWP.





Art 1154

Valve Overall Dimensions, Inches								
Size	Port	Class	A	B	C	D	E	Wt
1/2", 3/4", 1" SW; 1" NPT	0.56	1500	6.00	2.25	15.0	4.36	6.16	19
1/2", 3/4", 1", 1-1/2", 2" SW	0.65	4500	7.25	2.63	18.0	5.38	7.18	35
1", 1-1/2" SW; 1-1/2" NPT	0.76	1500	6.00	2.50	15.0	4.36	6.16	16
1", 1-1/2" SW		3200	6.00	2.50	18.0	4.45	6.25	18
1-1/2", 2" SW; 2" NPT	1.12	1500	7.25	2.75	18.0	5.43	7.23	31
1-1/2", 2" SW		3200	7.25	2.75	18.0	5.66	7.86	35
2", 2-1/2" SW	1.25	4500	8.25	3.25	*	7.15	*	69
2", 2-1/2" SW; 2-1/2" NPT	1.40	1500	8.25	3.25	18.0	6.07	8.27	45
2", 2-1/2" SW		3200	8.25	3.25	18.0	6.53	8.73	58

* Requires Worm Gear

Actuator Mounting Dimensions (inches)																
Size	Port	Class	A'	B'	C'	D'	E' (Sq)	F	G	H	ISO	I	K	ISO	L	N
1/2", 3/4", 1"	0.56	1500/3200	0.563/0.561	1.09	0.337	0.618	0.125/0.123	1.00	5.00	0.50	F07	0.38	2.76	F10	0.44	4.02
1/2", 3/4", 1", 1-1/2", 2"	0.65	4500	0.750/0.748	1.31	0.457	0.832	0.188/0.186	1.19	6.00	0.75	F10	0.44	4.02	F12	0.56	4.92
1", 1-1/2"	0.76	1500	0.563/0.561	1.09	0.337	0.618	0.125/0.123	1.00	5.00	0.50	F07	0.38	2.76	F10	0.44	4.02
		3200	0.688/0.686	1.31	0.425	0.769	0.188/0.186	1.19	5.00	0.50	F07	0.38	2.76	F10	0.44	4.02
1-1/2", 2"	1.12	1500	0.750/0.748	1.31	0.457	0.832	0.188/0.186	1.19	6.00	0.75	F10	0.44	4.02	F12	0.56	4.92
		3200	0.875/0.873	1.63	0.521	0.959	0.188/0.186	1.50	6.00	0.75	F10	0.44	4.02	F12	0.56	4.92
2", 2-1/2"	1.25	4500	1.188/1.186	1.66	0.705	1.299	0.250/0.248	1.50	6.50	1.00	F12	0.56	4.92	-	-	-
2", 2-1/2"	1.40	1500	0.875/0.873	1.63	0.521	0.959	0.188/0.186	1.50	6.00	0.75	F10	0.44	4.02	F12	0.56	4.92
		3200	1.063/1.061	1.66	0.642	1.173	0.250/0.248	1.50	6.50	1.00	F12	0.56	4.92	-	-	-

Series		Port		Size (Ends) NPS	
MS11001	Class 1500	A	0.56 in.	050	1/2" SW
				075	3/4" SW
				100	1" NPT
		C	0.76 in.	100	1" SW
				150	1-1/2" SW, NPT
				200	2" SW, NPT
		D	1.12 in.	200	2" SW
				250	2-1/2" SW, NPT
MS11002	Class 3200 Limited	A	0.56 in.	050	1/2" SW
				075	3/4" SW
				100	1" SW
		C	0.76 in.	100	1" SW
				150	1-1/2" SW
				200	2" SW
		D	1.12 in.	200	2" SW
				250	2-1/2" SW
MS11003	Class 4500	B	0.65 in.	050	1/2" SW
				075	3/4" SW
				100	1" SW
				150	1-1/2" SW
				200	2" SW
		E	1.25 in.	200	2" SW
				250	2-1/2" SW

Notes:

1) ZZ non-standard options must be specified on purchase order or inquiry

How to Order					
Series	Port	Size (NPS)	Body Material	Ends/Seat/Trim/Packing	Operator
MS11001	A = 0.56"	050 = 1/2"	CS = A105	SW= FSW (Std) (410 / Ch-Cr Ball & Seat, Inconel Stem, Grafoil)	HL (Std)
MS11002	B = 0.65"	075 = 3/4"	S6 = 316SS		NN = None
MS11003	C = 0.76"	100 = 1"	F2 = F22 Cr Mo	PT = (non-std) (410 / Ch-Cr Ball & Seat, Inconel Stem, Grafoil)	ZZ = Gear Op. or Automated (specify)
	D = 1.12"	150 = 1-1/2"	F9 = F91 Cr Mo		
	E = 1.25"	200 = 2"			
	H = 1.40"	250 = 2-1/2"			

Sample Ordering Schematic

Series	Port	Size (NPS)	Body Material	Ends/Seat/Trim/Packing	Operator
MS11001	C	100	CS	SW	HL

1" SW x 0.76 Port, Class 1500, A105 body, 410 SS Ball & Seats Ch Cr Coated, Inconel 718 Stem, Graphoil Packing, Lever Op.

Series	Port	Size (NPS)	Body Material	Ends/Seat/Trim/Packing	Operator
MS11002	D	150	S6	SW	HL

1-1/2" SW x 1.12 Port, Class 3200 LTD, A182 F316 Body, 410 SS Ball & Seats Ch Cr Coated, Inconel 718 Stem, Graphoil Packing, Lever Op.

Series	Port	Size (NPS)	Body Material	Ends/Seat/Trim/Packing	Operator
MS11003	E	250	F2	SW	ZZ Gear Op

2-1/2" SW x 1.25 Port, Class 4500, A182 F22 Body, 410 SS Ball & Seats Ch Cr Coated, Inconel 718 Stem, Graphoil Packing, Gear Op.