

# **76-100 Series**

### Stainless Steel Ball Valve

Threaded, 1/4" to 1" 2000 psig WOG, 1-1/4" to 2" 1500 psig WOG, 2-1/2" to 3" 1000 psig WOG. (See referenced P/T chart) Cold Non-Shock. 150 psig Saturated Steam, Vacuum Service to 29 inches Hg. Federal Specification: WW-V-35C, Type: II, Composition: SS, Style: 3.

MSS SP-110; Ball Valves Threaded, Socket-Welding, Solder Joint, Grooved and Flared Ends.

#### **FEATURES**

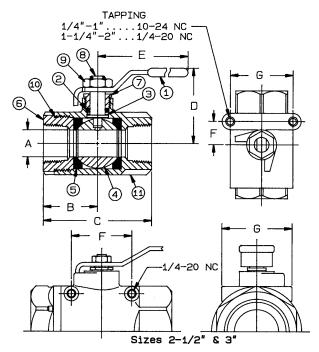
- Investment cast components
- RPTFE seats and stuffing box ring
- Mounting pad for easy actuator mounting
- Blow-out-proof stem design

- Adjustable packing gland
- Meets NACE MR-01-75
- SS lever and nut (-24) 1/4" to 2" Certified to API 607, 4th Edition, Class 600 burn

### STANDARD MATERIAL LIST

1. Lever and grip 2. Stem packing 3. Stem bearing 4. Ball 5. Seat (2)	304 SS w/viny RPTFE RPTFE A276-316 RPTFE
6. Retainer	A351-CF8M

7. Gland nut	A276-316
8. Stem	A276-316
9. Lever nut	18-8 SS
l0. Body seαl	PTFE
ll. Bodv	A351-CF8M



#### STAINLESS STEEL BALL VALVE

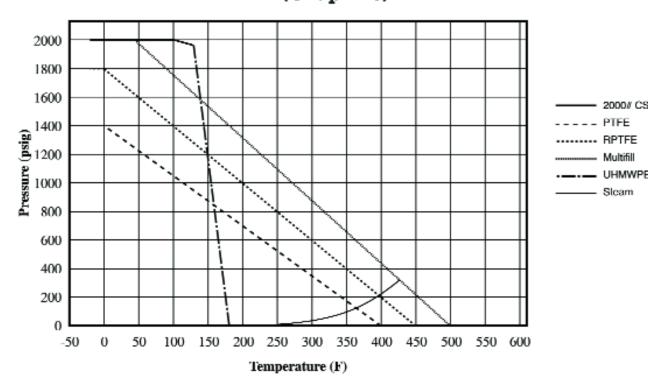
NUMBER	SIZE	A	В	С	D	Е	F	G	Wt.
76-101-01A	1/4"	.37	1.03	2.06	1.75	3.87	.50	1.12	.58
76-102-01A	3/8"	.37	1.03	2.06	1.75	3.87	.50	1.12	.54
76-103-01A	1/2"	.50	1.12	2.25	1.81	3.87	.50	1.12	.63
76-104-01A	3/4"	.68	1.50	3.00	2.12	4.87	.87	1.37	1.27
76-105-01A	1"	.87	1.68	3.37	2.25	4.87	.87	1.37	1.63
76-106-01	1-1/4"	1.00	2.00	4.00	2.62	5.50	.93	1.50	3.06
76-107-01	1-1/2"	1.25	2.18	4.37	3.05	8.00	.93	1.50	4.04
76-108-01	2"	1.50	2.75	5.50	3.24	8.00	.93	1.50	6.05
76-109-01	2-1/2"	2.50	3.37	6.75	4.12	8.00	2.75	3.37	15.57
76-100-01	3"	2.50	3.37	6.75	4.12	8.00	2.75	3.37	16.79

#### **OPTIONS AVAILABLE:**

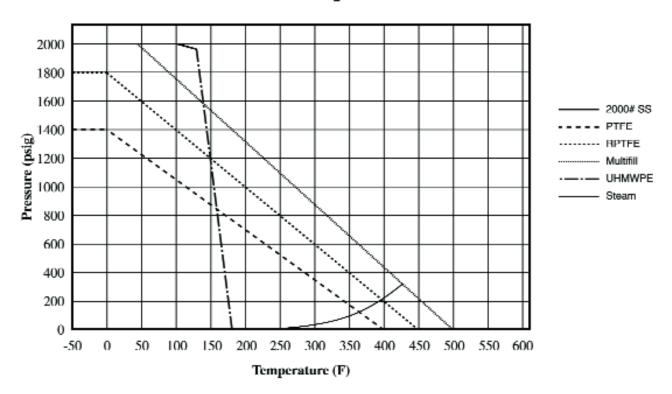
(SUFFIX)	OPTION	SIZES
-02-	Stem Grounded	1/4" to 3"
-03-	1-1/4" CS Stem Extension	1/4" to 3"
-04-	2-1/4" CS Stem Extension	1/4" to 3"
-07-	Steel Tee Handle	1/4" to 2"
-08-	90° Reversed Stem	1/4" to 3"
-14-	Side Vented Ball (Uni-Directional)	1/4" to 2"
-15-	Wheel Handle, Steel	1/4" to 2"
-16-	Chain Lever - Vertical	3/4" to 2"
-19-	Lock Plate	1/4" to 2"
-21-	UHMWPE Trim (Non-PTFE)	1/4" to 3"
-24-	Graphite Packing	1/4" to 3"
-27-	SS Latch-Lock Lever & Nut	1/4" to 3"
-30-	Cam-Lock and Grounded	1/4" to 2"
-32-	SS Tee Handle & Nut	1/4" to 2"
-35-	VTFE Trim	1/4" to 3"
-39-	SS Hi-Rise Locking Wheel Handle, SS Nut	1/4" to 2"
-40-	Cyl-Loc and Grounded	1/4" to 2"
-44-	Seal Welded	1/4" to 2"
-45-	Less Lever & Nut	1/4" to 3"
-46-	Latch Lock Lever - Lock in Closed Position Only	1/4" to 3"
-47-	SS Latch Lock Oval Handle	1/4" to 1"
-48-	SS Oval Handle (No Latch) & Nut	1/4" to 2"
-49-	Assembled Dry	1/4" to 3"
-50-	2-1/4" CS Locking Stem Extension	1/4" to 3"
-57-	Oxygen Cleaned	1/4" to 3"
-58-	Chain Lever - Horizontal	3/4" to 2"
-60-	Static Grounded Ball & Stem	1/4" to 3"
-64-	250# Steam Trim	1/4" to 3"
-P01-	BSPP (Parallel) Thread Connection	1/4" to 3"
-T01-	BSPT (Tapered) Thread Connection	1/4" to 3"

For Pressure/Temperature Ratings, Refer to Page M-12, Graph No. 14 (1/4" to 1")Refer to Page M-11, Graph No. 12 (1-1/4" to 2")Refer to Page M-10, Graph No. 8 (2-1/2" to 3")

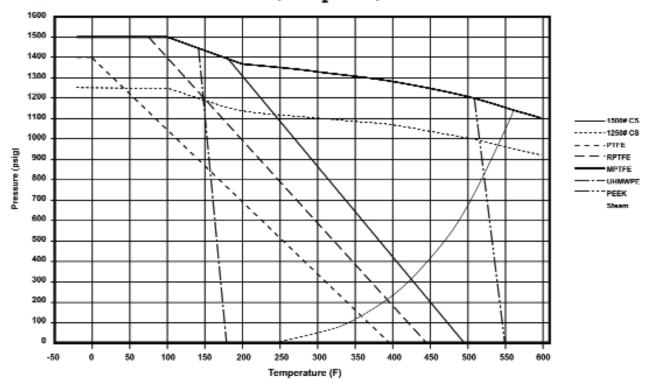
### 2000# CS P-T Rating (Graph 13)



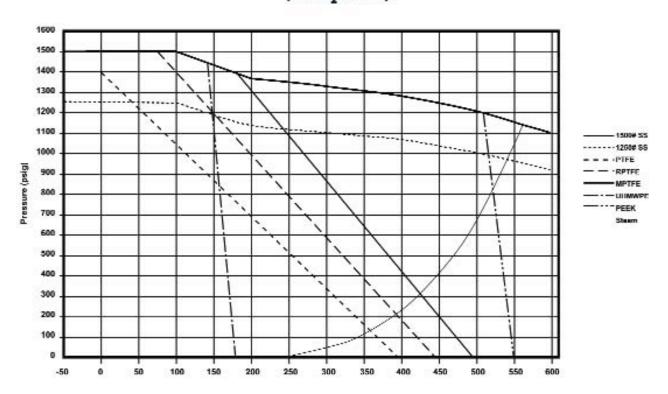
### 2000# SS P-T Rating (Graph 14)



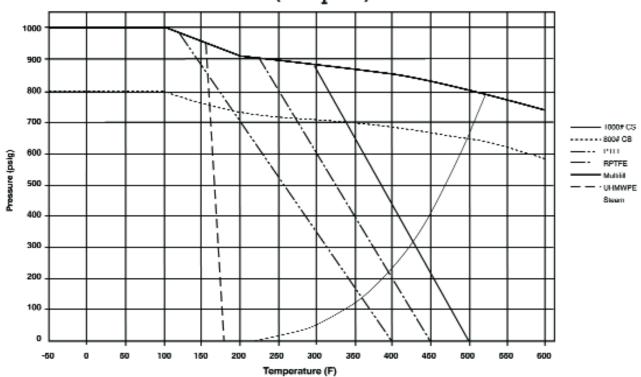
### 1500# CS P-T Rating (Graph 11)



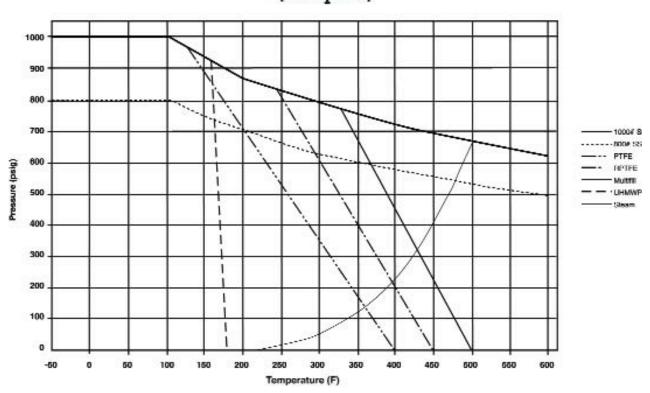
### 1500# SS P-T Rating (Graph 12)



### 1000# CS P-T Rating (Graph 7)



### 1000# SS P-T Rating (Graph 8)



## FLOW DATA

### For Apollo® and Saturn® Ball Valves

The listed Cv "factors" are derived from actual flow testing, in the Apollo® Ball Valve Division, Conbraco Industries, Inc., Pageland, South Carolina. These tests were completed using standard "off the shelf" valves with no special preparation and utilizing standard schedule 40 pipe. It should be understood that these factors are for the valve only and also include the connection configuration. The flow testing is done utilizing water as a fluid media and is a direct statement of the gallons of water flowed per minute with a 1 psig pressure differential across the valve/connection unit. Line pressure is not a factor. Because the Cv is a factor, the formula can be used to estimate flow of most media for valve sizing.

#### Flow of Liquid Flow of Gas Where: Where: Q = flow in US gpmQ = flow in SCFH $\Delta P = \text{pressure drop}$ $\Delta P = pressure drop$ (psi g) (psig) SpGr = specific gravity at SpGr = specifi c gravity flowing tempera-(based on air = (SpGr) or $\Delta P = (Q)^2 (SpGr)$ 1.0) (T) Cv = valve constant $P_1 = outlet$ pres sure-psia (psig + 14.7)T = (temp. °F + 460) or $\Delta P =$ 5.4 x 10-7 (SpGr)

#### Cv FACTORS SERIES: 70-100, 71-100, 71AR, 73A-100, 74-100, 76-100, 80-100 81-100, 89-100

SIZE	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
<b>OPEN</b>   90°	8.4	7.2	15	30	43	48	84	108	503	370	670

#### Cv FACTORS 76F,77,77AR,77D SERIES

SIZE		1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"
OPEN	90°	8.1	15	15	51	68	125	177	389	503

#### Cv FACTORS 82-100/200, 83R-100/200/700.86R-100/200/700.83-500/600,86-500/600/900 SERIES

		,					,	,				
SIZE		1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
OPEN	90°	8.1	14	26	51	68	120	170	376	510	996	1893

#### Cv FACTORS 83A/83B, 86A/86B SERIES

SIZE		1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
OPEN	90°	8.1	14	26	51	68	120	170	376