

BRONZE BALL VALVES

MILWAUKEE VALVE

BA-100/100S

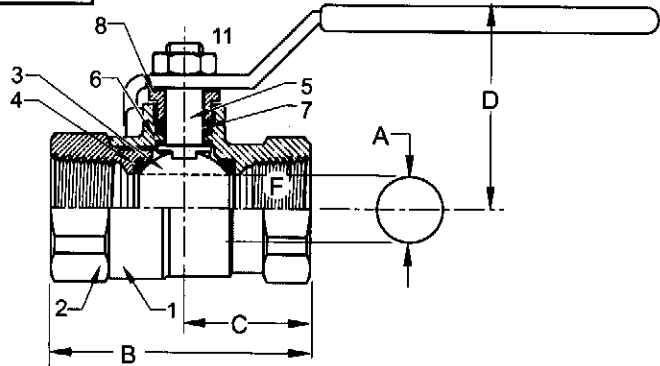
1/4"-3"

**BRONZE BALL VALVE
TWO-PIECE, STANDARD-PORT
600 PSIG WOG / 150 PSIG SWP (1)
THREADED ENDS**

MSS SP-110

MATERIALS LIST

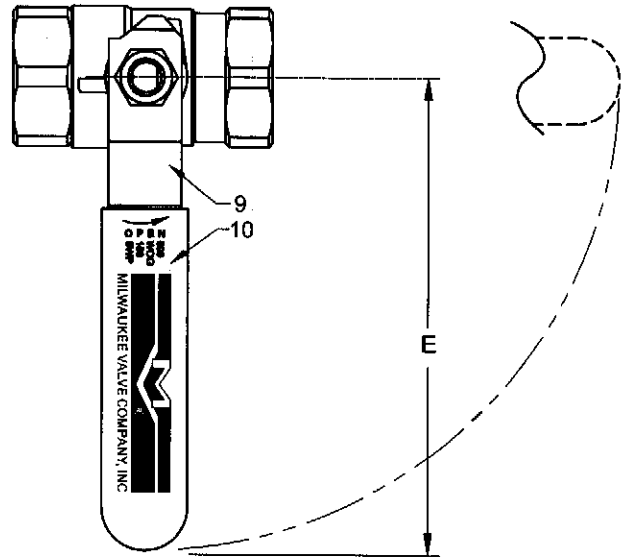
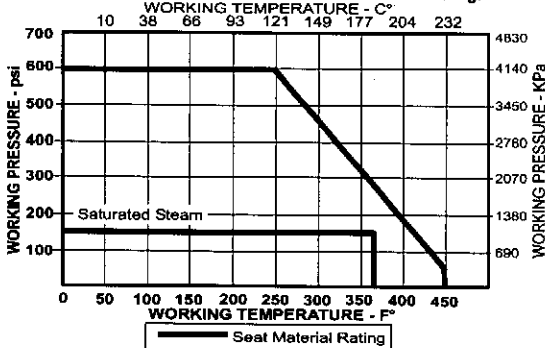
ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Cast Bronze	B584
2	Tailpiece	Brass (3) Cast Bronze (1 1/4" & up)	B16 B584
3	Ball	Brass w/ Hard Chrome Plating 316 Stainless Steel (2)	B16 A276
4	Seat	RPTFE, 15% Glass Filled	
5	Stem	Brass 316 Stainless Steel (2)	B16 A276
6	Thrust Washer	RPTFE, 25% Glass Filled	
7	Packing	PTFE	
8	Packing Nut	Brass	B16
9	Handle	Steel w/ Zinc Plating	Commercial
10	Hand Grip	Vinyl	
11	Handle Nut	Steel w/ Zinc Plating	Commercial



- (1) Milwaukee Valve Company recommends the use of Stainless steel ball and stem for steam applications. Please consult factory for more information.
- (2) Ball and stem are stainless for BA-100S and 2-1/2"-3" BA-100
- (3) All bronze construction available. Please consult factory for more information.

PRESSURE - TEMPERATURE DATA

VALVES RATED FOR VACUUM SERVICE TO 29 INCHES Hg.



DIMENSIONS

A (DIA)	UNITS	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"
		DN6	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80
B	INCHES	1.86	1.86	2.19	2.64	3.17	3.50	3.96	4.30	5.56	6.20
	mm	45.6	45.6	53.7	64.7	77.7	85.8	97.0	105.4	136.2	151.9
C	INCHES	1.00	1.00	1.10	1.30	1.58	1.74	1.97	2.15	2.79	3.10
	mm	24.5	24.5	27.0	31.9	38.7	42.6	48.3	52.7	68.4	76.0
D	INCHES	1.78	1.81	1.91	2.08	2.25	2.66	2.84	3.00	3.47	3.90
	mm	43.6	44.3	46.8	51.0	55.1	65.2	69.6	73.5	85.0	95.6
E	INCHES	3.81	3.81	3.81	4.56	4.56	6.31	6.31	7.19	7.19	7.19
	mm	93.3	93.3	93.3	111.7	111.7	154.6	154.6	176.2	176.2	176.2
F	THREAD SIZE	1/4" NPT	3/8" NPT	1/2" NPT	3/4" NPT	1" NPT	1-1/4" NPT	1-1/2" NPT	2" NPT	2-1/2" NPT	3" NPT
Cv		7	7	13	30	38	61	87	121	228	305

Note: DN (Diameter Nominal) = Metric equivalent size.

Rev.11

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BA-150/150S

3/8" - 3"

**BRONZE BALL VALVE
TWO-PIECE, STANDARD-PORT
600 PSIG WOG / 150 PSIG SWP (1)
SOLDER ENDS**

MSS SP-110

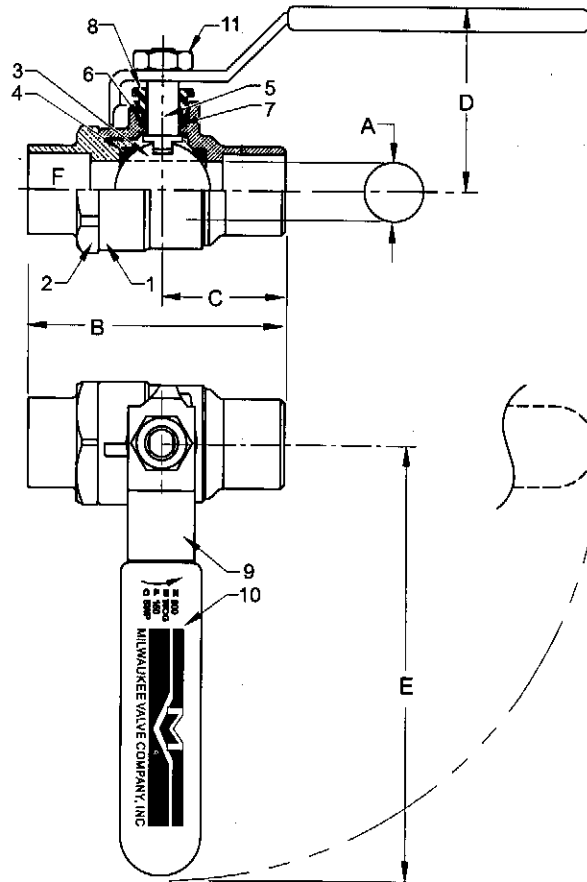
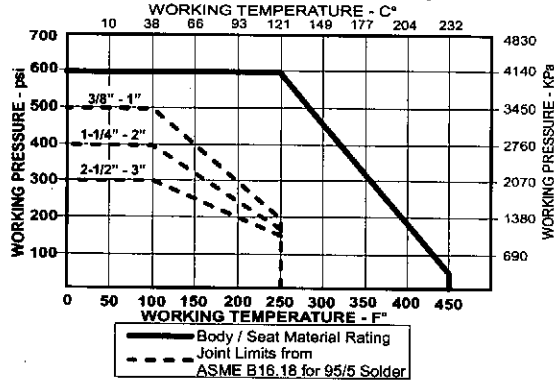
MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Cast Bronze	B584
2	Tailpiece	Brass (3)	B16
		Cast Bronze (1" & up)	B584
3	Ball	Brass w/ Hard Chrome Plating	B16
		316 Stainless Steel (2)	A276
4	Seat	RPTFE, 15% Glass Filled	
5	Stem	Brass	B16
		316 Stainless Steel (2)	A276
6	Thrust Washer	RPTFE, 25% Glass Filled	
7	Packing	PTFE	
8	Packing Nut	Brass	B16
9	Handle	Steel w/ Zinc Plating	Commercial
10	Hand Grip	Vinyl	
11	Handle Nut	Steel w/ Zinc Plating	Commercial

- (1) Please consult factory for more information regarding steam applications.
- (2) Ball and stem are stainless for BA-150S and 2-1/2"-3" BA-150.
- (3) All bronze construction available. Please consult factory for more information.

PRESSURE - TEMPERATURE DATA

VALVES RATED FOR VACUUM SERVICE TO 29 INCHES Hg.



DIMENSIONS

	UNITS	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"
		DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80
A (DIA)	INCHES	0.38	0.50	0.76	0.88	1.06	1.31	1.56	2.00	2.31
	mm	9.7	12.7	19.3	22.4	26.9	33.3	39.6	51.0	58.7
B	INCHES	2.10	2.39	3.05	3.71	4.54	5.00	6.25	7.34	8.16
	mm	51.5	58.6	74.7	90.9	111.2	122.5	153.1	179.8	199.9
C	INCHES	0.90	1.07	1.56	1.76	2.27	2.50	3.13	3.67	4.07
	mm	22.1	26.2	38.2	43.1	55.6	61.3	76.7	89.9	99.7
D	INCHES	1.80	1.89	2.13	2.29	2.67	2.85	3.02	3.47	3.88
	mm	44.1	46.3	52.2	56.1	65.4	69.8	74.0	85.0	95.1
E	INCHES	3.81	3.81	4.56	4.56	6.31	6.31	7.19	7.19	7.19
	mm	93.3	93.3	111.7	111.7	154.6	154.6	176.2	176.2	176.2
F	TUBE SIZE	.51	.63	.88	1.13	1.38	1.63	2.13	2.63	3.13
	SIZE Ø									
Cv		7	13	35	38	61	87	121	228	305

Note: DN (Diameter Nominal) = Metric equivalent size.

Rev. 12

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BA-100H/150H

1/2" - 3/4"

**BRONZE BALL VALVE, HOSE END,
DUST CAP and CHAIN
TWO-PIECE, FULL PORT
THREADED x 3/4" HOSE END (BA100H)
SOLDER x 3/4" HOSE END (BA150H)**

MSS SP-110

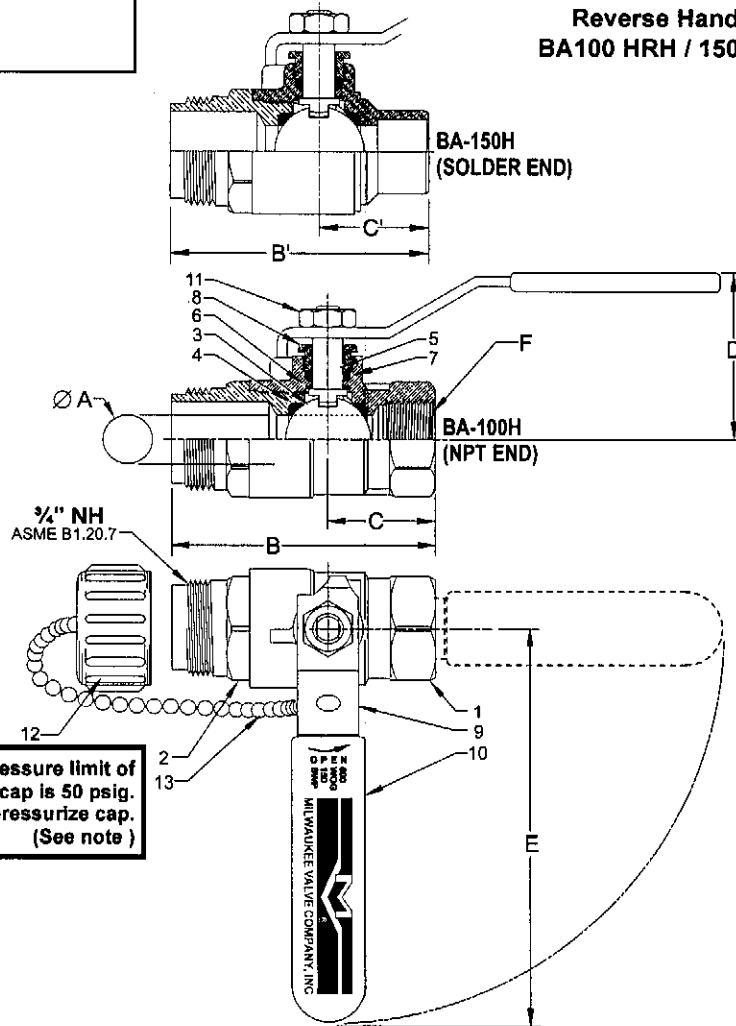
Available with
Reverse Handle
BA100 HRH / 150HRH

DIMENSIONS

	UNITS	1/2"	3/4"
		DN15	DN20
Ø A	INCHES	0.50	0.76
	mm	12.7	19.3
B (BA-100)	INCHES	2.70	2.90
	mm	69	74
B' (BA-150)	INCHES	2.55	3.05
	mm	65	78
C (BA-100)	INCHES	1.10	1.30
	mm	28	33
C' (BA-150)	INCHES	1.10	1.45
	mm	28	37
D	INCHES	1.88	2.14
	mm	48	54
E	INCHES	3.81	4.62
	mm	97	117
F	THREADED INLET	NPT	NPT
	Cv	13	30

Note: DN (Diameter Nominal) =
Metric equivalent size.

Rev. 12



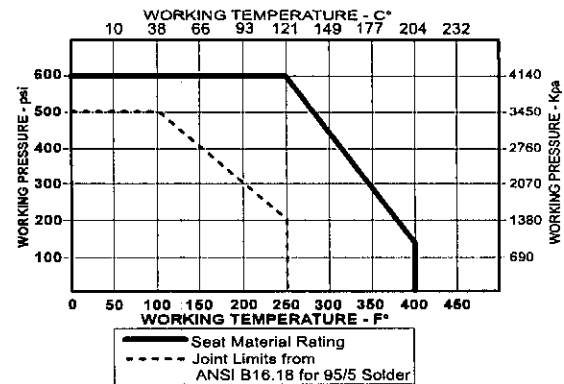
**Pressure limit of
cap is 50 psig.
Do not over pressurize cap.
(See note)**

MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Bronze	B584
2	Tailpiece	Brass	B16
3	Ball	Brass, Chrome Plated	B16
4	Seat	RPTFE, 15% Glass Filled	
5	Stem	Brass	B16
6	Thrust Washer	RPTFE, 25% Glass Filled	
7	Packing	PTFE	
8	Packing Nut	Brass	B16
9	Handle	Steel, Zinc Plated	Commercial
10	Hand Grip	Vinyl	
11	Handle Nut	Steel, Zinc Plated	Commercial
12	Dust Cap	Polypropylene	
13	Gasket	EPDM	
14	Chain	Brass Bead	

NOTE: Pressure / Temperature ratings shown are for valve only. Hose side pressure and temperature limit is based on connected hose and is the users responsibility. Maximum pressure for the cap is 50 psig.

PRESSURE - TEMPERATURE DATA (See Note)



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BA-200

1/4"-4"

**FORGED BRASS BALL VALVE
TWO PIECE, STANDARD PORT
400 PSIG WOG / 150 PSIG SWP *
THREADED ENDS**

ASME A112.4.14
NSF61-8

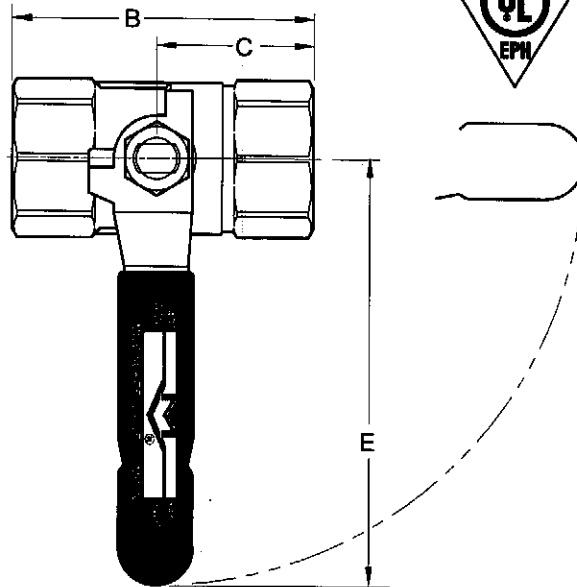
MSS-SP110



MATERIALS LIST

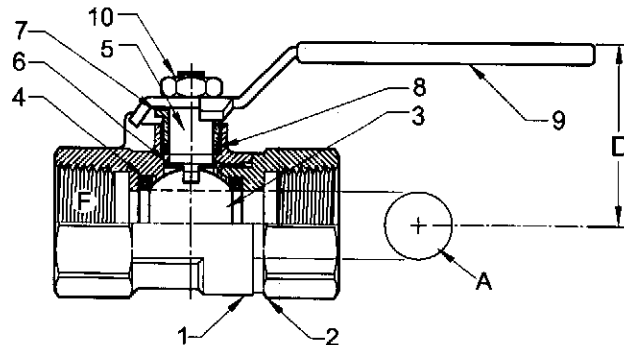
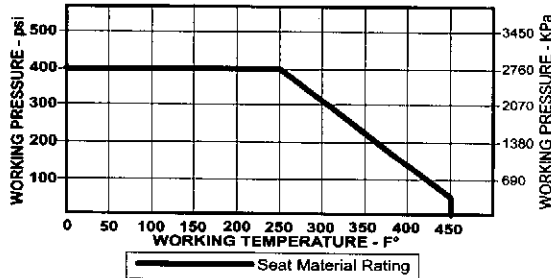
ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Brass, Forged	B283
2	Tailpiece	Brass, Forged	B283
3	Ball	Brass, Cast	B16 B584
4	Seat	PTFE	
5	Stem	Brass	B16
6	Thrust Washer	PTFE	
7	Gland Nut	Brass	B16
8	Gland Packing	PTFE	
9	Handle	Steel w/ Zinc Plating	Commercial
10	Handle Nut	Brass	B16

* Please consult factory for more information regarding steam applications.



PRESSURE - TEMPERATURE DATA

VALVES RATED FOR VACUUM SERVICE TO 29 INCHES Hg.
WORKING TEMPERATURE - C°
10 38 66 93 121 149 177 204 232



DIMENSIONS

	UNITS	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
		DN6	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
A (DIA)	INCHES	0.31	0.31	0.39	0.59	0.76	0.98	1.26	1.50	2.00	2.52	2.95
	mm	7.9	7.9	9.9	15.0	19.3	25.0	32.0	38.1	51.0	64.0	74.9
B	INCHES	1.65	1.65	2.30	2.55	3.05	3.43	3.76	4.21	5.50	6.22	7.31
	mm	41.9	41.9	58.4	64.8	77.5	87.1	96.5	106.9	139.8	158.0	185.5
C	INCHES	0.83	0.83	1.15	1.28	1.53	1.72	1.88	2.11	2.75	3.11	3.66
	mm	21.1	21.1	5.6	32.5	38.9	43.7	47.8	53.6	69.9	79.6	93.0
D	INCHES	1.38	1.38	1.50	1.61	2.00	2.17	2.72	2.87	3.66	4.02	4.33
	mm	35.1	35.1	38.1	40.9	50.8	55.1	69.1	72.9	93.0	102.1	110.0
E	INCHES	3.31	3.31	3.31	3.31	4.65	4.65	5.28	5.28	7.87	7.87	7.87
	mm	84.1	84.1	84.1	84.1	118.1	118.1	134.1	134.1	199.9	199.9	199.9
F	THREAD SIZE	1/4" NPT	3/8" NPT	1/2" NPT	3/4" NPT	1" NPT	1-1/4" NPT	1-1/2" NPT	2" NPT	2-1/2" NPT	3" NPT	4" NPT
Cv		9	9	12	18	40	72	112	161	287	448	645

Note: DN (Diameter Nominal) = Metric equivalent size.

Rev. 7

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BA-250

3/8" - 3"

**FORGED BRASS BALL VALVE
TWO PIECE, STANDARD PORT
400 PSIG WOG / 150 PSIG SWP *
SOLDER ENDS**

NSF61-8
ASME A112.4.14

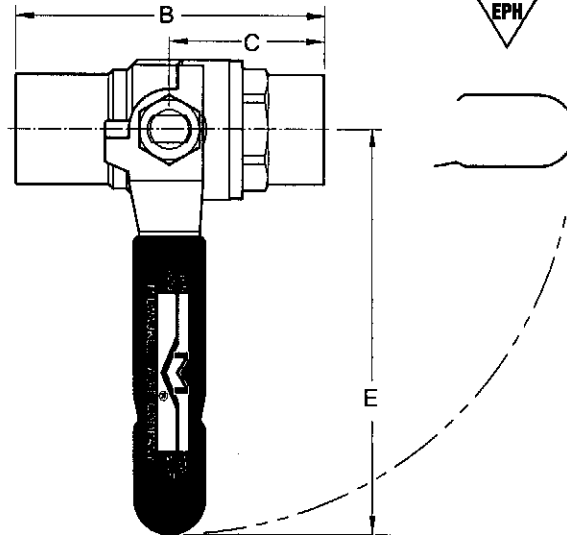
MSS-SP110



MATERIALS LIST

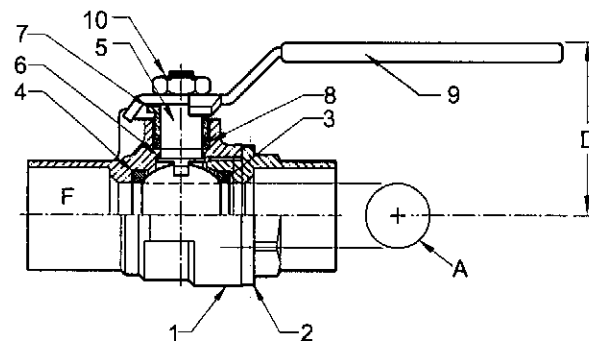
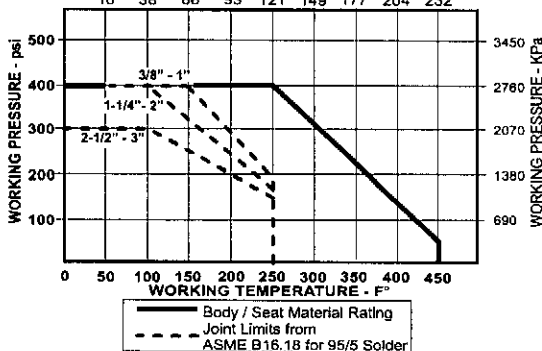
ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Brass, Forged	B283
2	Tailpiece	Brass, Forged	B283
3	Ball	Brass	B16
4	Seat	Brass, Cast	B584
5	Stem	PTFE	
6	Thrust Washer	Brass	B16
7	Gland Nut	PTFE	
8	Gland Packing	Brass	B16
9	Handle	Steel w/ Zinc Plating	Commercial
10	Handle Nut	PTFE	B16

* Please consult factory for more information regarding steam applications.



PRESSURE - TEMPERATURE DATA

VALVES RATED FOR VACUUM SERVICE TO 29 INCHES Hg.
WORKING TEMPERATURE - C°
10 38 66 93 121 149 177 204 232



DIMENSIONS

UNITS	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"
	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80
A (DIA)	INCHES	0.31	0.39	0.59	0.78	0.98	1.26	1.50	2.52
	mm	7.9	9.9	15.0	19.3	25.0	32.0	38.1	64.0
B	INCHES	1.75	2.19	2.83	3.44	3.85	4.43	5.23	6.97
	mm	44.5	55.6	71.9	87.4	97.8	112.5	132.8	177.0
C	INCHES	0.88	1.14	1.42	1.72	1.93	2.23	2.62	3.49
	mm	22.2	29.0	36.1	43.7	49.0	56.6	66.5	88.6
D	INCHES	1.38	1.50	1.81	2.00	2.17	2.72	2.87	4.02
	mm	35.1	38.1	40.9	50.8	55.1	69.1	72.9	102.1
E	INCHES	3.31	3.31	3.31	4.65	4.65	5.28	5.28	7.87
	mm	84.1	84.1	84.1	118.1	118.1	134.1	134.1	199.9
F	TUBE SIZE Ø	.51	.63	.88	1.13	1.38	1.63	2.13	3.13
	Cv	9	12	18	40	72	112	161	448

Note: DN (Diameter Nominal) = Metric equivalent size.




Rev. 5

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"BA-475B"

1/4" - 3"

<p>BRASS BALL VALVE TWO-PIECE, FULL-PORT 600 WOG / 150 SWP THREADED ENDS*</p>	<p>MSS-SP110 ASME A112.4.14 FED. SPEC. WW-V-35C, II, BZ, 3, C</p>	<p style="text-align: center;">    </p> <p style="text-align: center;"> <small>ANSI Z 21.15-2001, CGA 9.1-2001 ASME B16.44-2002, CR91-002-1992</small> </p> <p style="text-align: center;"> <small>UL 125 UL 842</small> </p> <p style="text-align: center;"> <small>APPROVED 1146</small> </p> <p style="text-align: center;">1/4" through 2" Only</p>
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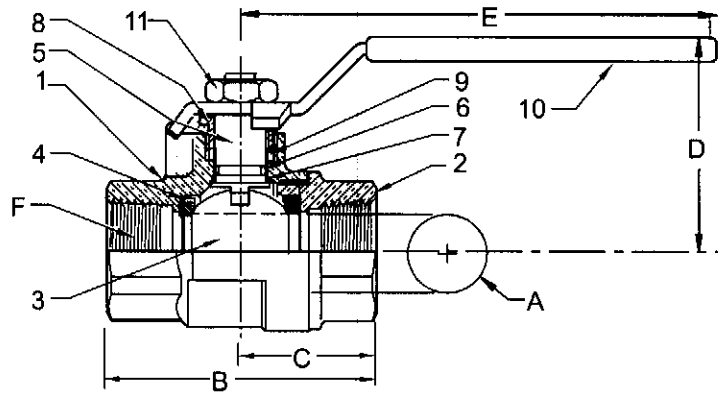
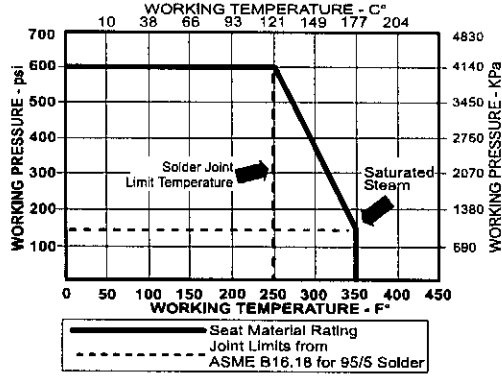
MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Brass, Forged	B283
2	Tailpiece	Brass, Forged	B283
3	Ball	Brass w/Chrome Plating	B584
4	Ball Seal	PTFE	Commercial
5	Stem	Brass	B16
6	O-Ring	Buna-N	D2006
7	Thrust Washer	PTFE	Commercial
8	Gland Nut	Brass	B16
9	Packing	PTFE	Commercial
10	Handle	Zinc Plated Steel	Commercial
11	Handle Nut	Zinc Plated Steel	Commercial

* Also Available BA-475B-LL
 (Locks Only In Closed Position)



PRESSURE - TEMPERATURE CHART



DIMENSIONS

Valve Size	UNITS	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"
A	INCHES	.39	.39	.51	.76	1.00	1.26	1.80	2.00	2.48	2.95
	mm	9.9	9.9	12.7	19.3	25.0	32.0	38.1	51.0	63	74.9
B	INCHES	1.87	1.87	2.25	2.62	3.06	3.5	3.75	4.38	5.16	6
	mm	47	47	57	67	78	89	95	111	131.1	152.4
C	INCHES	0.95	0.95	1.12	1.31	1.91	2.21	1.87	2.19	2.58	3
	mm	24	24	61	33	49	56	47	56	65.5	78.2
D	INCHES	1.42	1.42	1.46	1.93	2.10	2.33	2.52	2.96	3.94	4.37
	mm	36	36	37	49	53	59	64	75	100.1	111
E	INCHES	3.14	3.14	3.14	4.35	4.35	5.00	5.00	6.90	7.87	7.87
	mm	80	80	80	110	110	127	127	175	199.9	199.9
F	THREAD SIZE	1/4" NPT	3/8" NPT	1/2" NPT	3/4" NPT	1" NPT	1-1/4" NPT	1-1/2" NPT	2" NPT	2-1/2" NPT	3" NPT
	Cv	12	12	18	40	72	112	161	287	448	645
TORQUE	ln-lb	16	16	19	58	89	89	124	210	445	563
	N.m	1.8	1.8	2.1	6.5	7.8	10	14	24		
WEIGHT	lbs	0.33	0.34	0.47	0.89	1.24	1.86	2.34	4.94	7.4	10.47
	Kg	.149	.155	.213	.403	.565	.755	1.064	2.245	3.35	4.75

Rev. 19

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"BA-485B"

1/2" - 3"

**BRASS BALL VALVE
TWO PIECE, FULL PORT
600 PSIG WOG / 150 PSIG SWP *
SOLDERED ENDS**

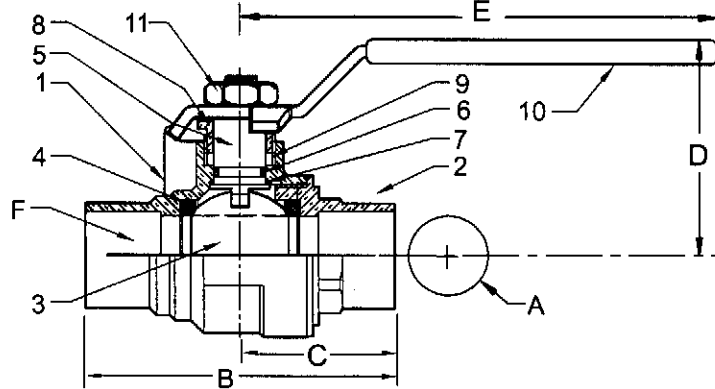
FED. SPEC. WW-V-35C II, BZ, 3, c
MSS SP-110
ASME A112.4.14



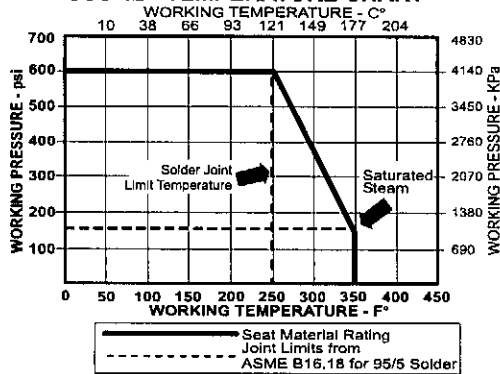
NSF 61

MATERIALS LIST

ITEM	PART	MATERIALS	ASTM/SPEC
1	Body	Brass, Forged	B283
2	Tailpiece	Brass, Forged	B283
3	Ball	CP Brass Ball	B584
4	Ball Seal	PTFE	Commercial
5	Stem	Brass	B16
6	O-Ring	Buna-N	D2006
7	Thrust Washer	PTFE	Commercial
8	Gland Nut	Brass	B16
9	Packing	PTFE	Commercial
10	Handle	Zinc Plated Steel	Commercial
11	Handle Nut	Zinc Plated Steel	Commercial



PRESSURE - TEMPERATURE CHART



VACUUM SERVICE TO 29 INCHES Hg.

DIMENSIONS

Valve Size	UNITS	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"
A	INCHES	.50	.76	1.00	1.26	1.50	2.00	2.48	2.95
	mm	12.7	19.3	25.0	32.0	38.1	51.0	63.0	74.9
B	INCHES	2.28	3.1	3.56	4.13	4.64	5.75	7.25	8.25
	mm	58	79	90	105	118	146	131.1	152.4
C	INCHES	1.14	1.55	1.78	2.06	2.32	2.87	3.62	4.12
	mm	29	39	45	52	59	73	92.1	104.7
D	INCHES	1.46	1.93	2.10	2.33	2.52	2.96	3.94	4.37
	mm	37	49	53	59	64	75	100.1	111.0
E	INCHES	3.14	4.35	4.35	5.00	5.00	6.90	7.87	7.87
	mm	80	110	110	127	127	175	199.9	199.9
F	TUBE SIZE	.63	.88	1.13	1.38	1.63	2.13	2.63	3.13
	Cv	18	40	72	112	161	287	448	645
TORQUE	In-lb	19	58	69	89	124	210	445	563
	N.m	2.1	6.5	7.8	10	14	24		
WEIGHT	lbs	0.40	0.82	1.15	1.53	2.23	4.61	10.00	13.00
	Kg	.180	.370	.521	.696	1.012	2.092	4.54	5.90

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The information presented on this sheet is correct at the time of publication. Milwaukee Valve reserves the right to change design, and/or material specifications without notice. For the most current information access www.milwaukeevalve.com

