



A MILWAUKEE VALVE PRODUCT FOR POTABLE WATER SERVICE

Ball Valves

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Gate Valves

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Butterball Slo-Close

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UPBA100/100S 1/4"-3"

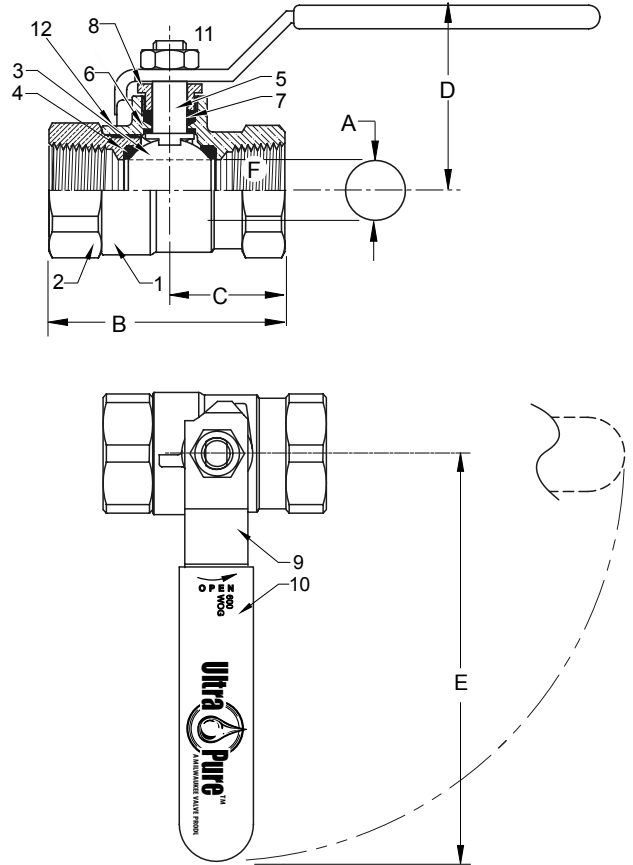


Bronze Ball Valve For Potable Water
Two Piece
Standard Port (1" - 3") Full Port (1/4" - 3/4")
600 psig WOG
Threaded Ends
Blow-Out Proof Stem
Dimensions and Workmanship Conform to MSS SP-110

MATERIAL LIST

ITEM	PART	MATERIAL	ASTM SPEC
1	Body	Cast Bronze	B584 C89833
2	Tailpiece	Cast Bronze	B584 C89833
3	Ball	Brass w/Hard Chrome Plating	B283 C27450
		316 Stainless Steel (1)	A276 S31600
4	Seat	RPTFE, 15% Glass filled	Commercial
5	Stem	Bronze	B584 C89833
		316 Stainless Steel (1)	A276 S31600
6	Thrust Washer	RPTFE, 25% Glass Filled	Commercial
7	Packing	PTFE	Commercial
8	Packing Nut	Brass	B16 C36000
9	Handle	Steel w/Zinc Plating	B633
10	Handle Grip	Vinyl	Commercial
11	Handle Nut	Steel w/Zinc Plating	B633
12*	Body Seal	PTFE	Commercial

(1) Ball and stem are stainless for UPBA100S



DIMENSIONS

	UNITS	1/4" DN6	3/8" DN10	1/2" DN15	3/4" DN20	1" DN25	1-1/4" DN32	1-1/2" DN40	2" DN50	2-1/2" DN65	3" DN80
A (DIA)	INCHES	0.38	0.38	0.50	0.76	0.88	1.06	1.31	1.56	2.00	2.31
	mm	10	10	13	19	22	27	33	40	51	59
B	INCHES	1.86	1.86	2.19	2.64	3.17	3.50	3.96	4.30	5.58	6.17
	mm	46	46	54	65	78	86	97	105	142	157
C	INCHES	1.00	1.00	1.10	1.30	1.58	1.74	1.97	2.15	2.79	3.10
	mm	25	25	27	32	39	43	48	53	71	79
D	INCHES	1.78	1.81	1.91	2.08	2.25	2.66	2.84	3.00	3.44	3.84
	mm	44	44	47	51	55	65	70	74	87	98
E	INCHES	3.81	3.81	3.81	4.56	4.56	6.31	6.31	7.19	7.19	7.19
	mm	93	93	93	112	112	155	155	176	176	176
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.

*2-1/2" & 3" Only.

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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UPBA100/100S* P2 1/2"-3"

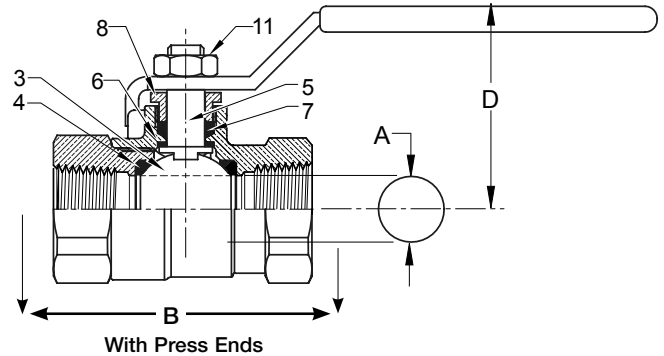
Bronze Ball Valve For Potable Water
Two Piece
Standard Port (1" - 3") Full Port (1/2" - 3/4")
200 psig @ 250°F†
Press x Press Ends
Press x Threaded Ends Available (Consult Factory)
Blow-Out Proof Stem

Dimensions and Workmanship Conform to MSS SP-110

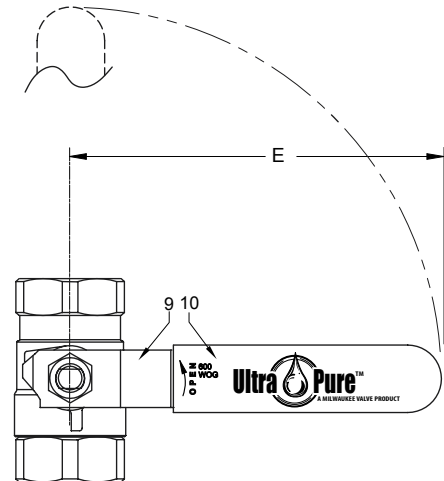
MATERIAL LIST

ITEM	PART	MATERIAL	ASTM SPEC
1	Body	Cast Bronze	B584 C89833
2	Tailpiece	Cast Bronze	B584 C89833
3	Ball	Brass w/Hard Chrome Plating	B283 C27450
		316 Stainless Steel (1)	A276 S31600
4	Seat	RPTFE, 15% Glass filled	
5	Stem	Brass	B21 C46400 H02
		316 Stainless Steel (1)	A276 S31600
6	Thrust Washer	RPTFE, 25% Glass Filled	
7	Packing	PTFE	
8	Packing Nut	Brass	B16 C36000
9	Handle	Steel w/Zinc Plating	Commercial
10	Handle Grip	Vinyl	Commercial
11	Handle Nut	Steel w/Zinc Plating	Commercial
12	Press Adapters	Brass Fitting w/EPDM O-Ring (1/2" - 2")	B283 C27450
		Copper (2 1/2" - 3")	B88
13	O-Ring	EPDM	
14	Backing Seal	Acetal	
15	Backing Ring	304 Stainless Steel	A276

(1) Ball and stem are stainless for UP8503 P2



Note: 2 1/2" & 3" are built from UPBA150/150S

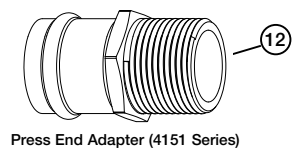


DIMENSIONS

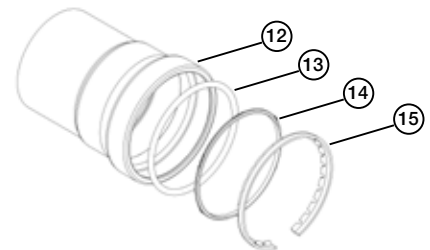
	UNITS	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"
		DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80
A (DIA)	INCHES	0.50	0.76	1.06	1.31	1.56	2.00	2.00	2.31
	mm	13	19	27	33	40	51	51	59
STD Insertion	INCHES	0.87	0.98	0.98	1.02	1.42	1.58	1.80	2.10
	mm	22	25	25	26	36	40	46	53
B	INCHES	5.19	6.22	7.17	7.57	8.44	10.30	12.02	13.94
	mm	132	158	182	192	214	262	305	354
D	INCHES	1.91	2.32	2.68	2.82	3.00	3.36	3.47	3.88
	mm	47	59	68	72	76	85	88	99
E	INCHES	3.82	4.55	6.33	6.33	6.33	7.19	7.19	7.19
	mm	94	116	161	161	161	183	183	183

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

†Non-Shock



Press End Adapter (4151 Series)



*Both the valve and 4151 series press end adapters are approved by IAPMO to NSF / ANSI 372 for "lead free" compliance.

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content $\leq 0.25\%$. Source: California Health and Safety Code (116875).

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UPBA100H/UPBA150H 1/2" & 3/4"



Bronze Ball Valve For Potable Water
Two Piece
Full Port
600 WOG
Threaded x 3/4" Hose End (UPBA100H)
Solder x 3/4" Hose End (UPBA150H)
Dust Cap and Chain
Blow-Out Proof Stem

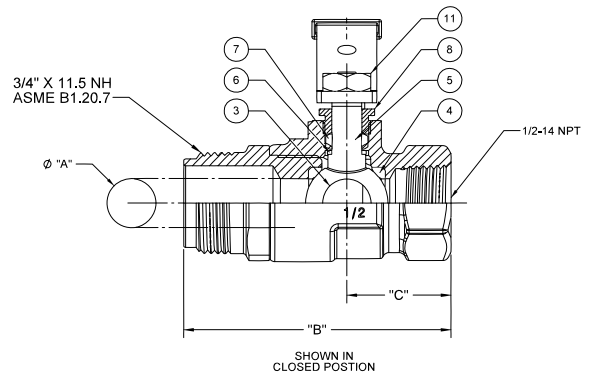
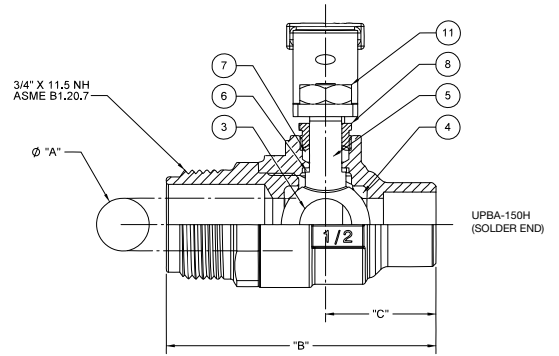
Dimensions and Workmanship Conform to MSS SP-110

MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Cast Bronze	B584 C89833
2	Tailpiece	Brass	B283 C27450
3	Ball	Brass, Chrome Plated	B283 C27450
4	Seat	PTFE (1/2") RPTFE, 15% Glass Filled (3/4")	Commercial
5	Stem	Brass	B21 C6400, H02
6	Thrust Washer	RPTFE, 25% Glass Filled	Commercial
7	Packing	PTFE	Commercial
8	Packing Nut	Brass	B16 C36000
9	Handle	Steel, Zinc Plated	Commercial
10	Handle Grip	Vinyl	Commercial
11	Handle Nut	Steel, Zinc Plated	Commercial
12	Dust Cap	Polypropylene	Commercial
13	Gasket	EDPM	Commercial
14	Chain	Brass Bead	Commercial

Do not pressurize cap.
Pressure not to exceed 40 psi.

Note: Pressure/Temperature rating shown are for VALVE ONLY. Hose side pressure and temperature limit is based on connected hose and is users responsibility



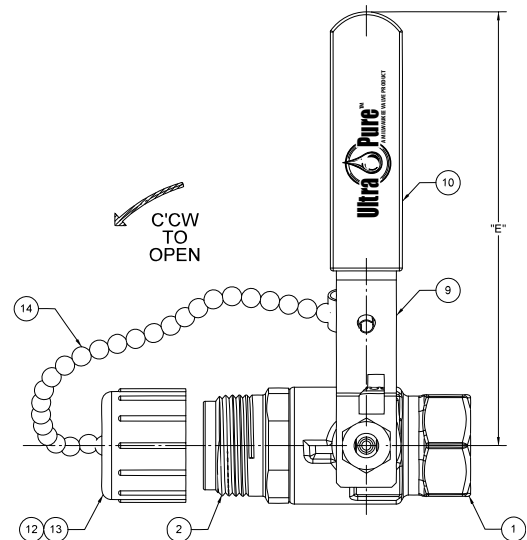
DIMENSIONS

	UNITS	1/2"	3/4"
		DN15	DN20
ØA	INCHES	0.50	0.76
	mm	13	19
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.

Same design as UP8501H/8511H

†Non-Shock



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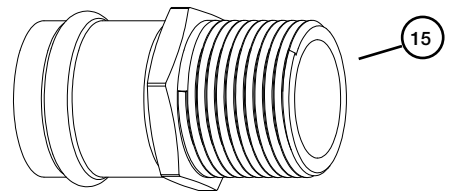
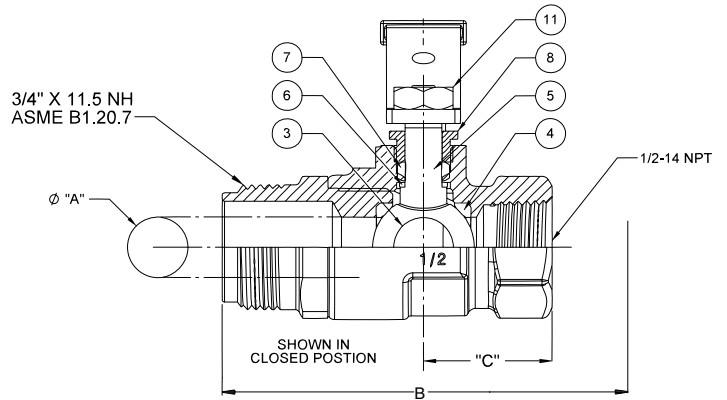
UPBA100H P1* 1/2" & 3/4"

Bronze Ball Valve For Potable Water
Two Piece
Full Port
200 psig @ 250°F†
Press x 3/4" Hose End
Dust Cap and Chain
Blow-Out Proof Stem

Dimensions and Workmanship Conform to MSS SP-110

MATERIAL LIST

ITEM	PART	MATERIAL	ASTM SPEC
1	Body	Cast Bronze	B548 C27450
2	Tailpiece	Brass	B283 C27450
3	Ball	Brass, Chrome Plated	B283 C27450
4	Seat	PRFE (1/2") RPTFE, 15% Glass filled (3/4")	Commercial
5	Stem	Brass	C46400 H02
6	Thrust Washer	RPTFE, 25% Glass Filled	Commercial
7	Packing	PTFE	Commercial
8	Packing Nut	Brass	B16 C36000
9	Handle	Steel, Zinc Plated	Commercial
10	Handle Grip	Vinyl	Commercial
11	Handle Nut	Steel, Zinc Plated	Commercial
12	Dust Cap	Polypropylene	Commercial
13	Gasket	EDPM	Commercial
14	Chain	Brass Bead	Commercial
15	Press Adapter	Brass Fitting w/EPDM O-Ring	B283 C27450



Press End Adapter (4151 Series)

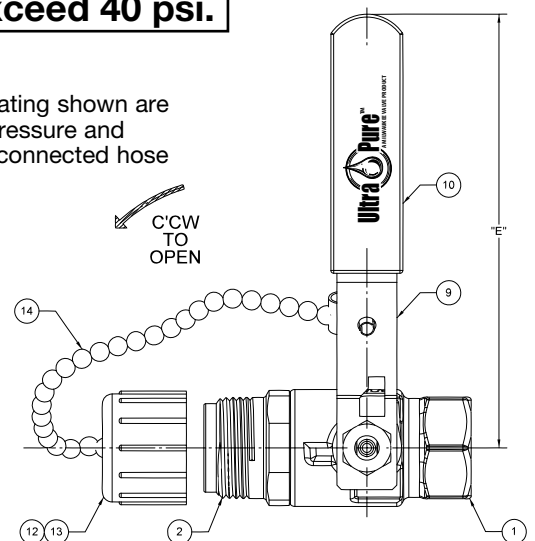
DIMENSIONS

	UNITS	1/2"	3/4"
		DN15	DN20
A	INCHES mm	0.50 13	.76 19
B	INCHES mm	2.70 69	2.90 74
STD INSERTION DEPTH	INCHES mm	.87 22	.98 25
C	INCHES mm	1.10 28	1.30 33
D	INCHES mm	1.88 48	2.14 54
E	INCHES mm	3.81 97	4.62 117
F	THREAD INLET	NPT	NPT
Cv		13	30

Note: DN (Diameter Nominal) = Metric equivalent size.
†Non-Shock

Do not pressurize cap.
Pressure not to exceed 40 psi.

Note: Pressure/Temperature rating shown are for VALVE ONLY. Hose side pressure and temperature limit is based on connected hose and is users responsibility



*Both the valve and 4151 series press end adapters are approved by IAPMO to NSF / ANSI 372 for "lead free" compliance.

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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UPBA150/150S 3/8"-3"

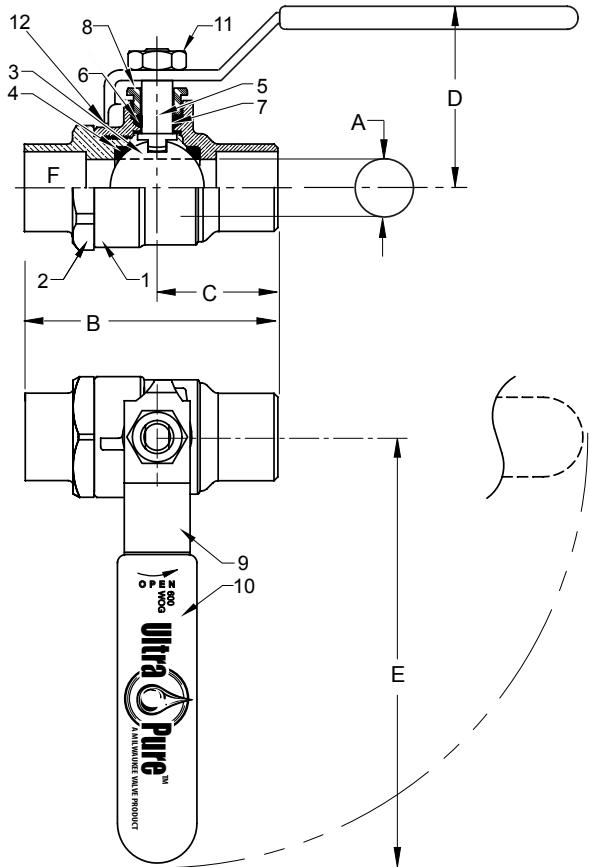


Bronze Ball Valve For Potable Water
Two Piece
Standard Port (1" - 3") Full Port (3/8" - 3/4")
600 psig WOG
Solder Ends
Blow-Out Proof Stem
Dimensions and Workmanship Conform to MSS SP-110

MATERIAL LIST

ITEM	PART	MATERIAL	ASTM SPEC
1	Body	Cast Bronze	B584 C89833
2	Tailpiece	Cast Bronze	B584 C89833
3	Ball	Brass w/Hard Chrome Plating	B283 C27450
		316 Stainless Steel (1)	A276 S31600
4	Seat	RPTFE, 15% Glass filled	
5	Stem	Brass	B21 C46400, H02
		316 Stainless Steel (1)	A276 S31600
6	Thrust Washer	RPTFE, 25% Glass Filled	Commercial
7	Packing	PTFE	Commercial
8	Packing Nut	Brass	B16 C36000
9	Handle	Steel w/Zinc Plating	Commercial
10	Handle Grip	Vinyl	Commercial
11	Handle Nut	Steel w/Zinc Plating	Commercial
12*	Body Seal	PTFE	Commercial

(1) Ball and stem are stainless for UPBA150S



DIMENSIONS

	UNITS	3/8" DN10	1/2" DN15	3/4" DN20	1" DN25	1-1/4" DN32	1-1/2" DN40	2" DN50	2-1/2" DN65	3" DN80
A (DIA)	INCHES	0.38	0.50	0.76	0.88	1.06	1.31	1.56	2.00	2.31
	mm	10	13	19	22	27	33	40	51	59
B	INCHES	1.86	2.19	2.64	3.17	3.50	3.96	4.30	7.36	8.09
	mm	46	54	65	78	86	97	105	187	206
C	INCHES	1.00	1.10	1.30	1.58	1.74	1.97	2.15	3.67	3.98
	mm	25	27	32	39	43	48	53	93	101
D	INCHES	1.81	1.91	2.08	2.25	2.66	2.84	3.00	3.44	3.90
	mm	44	47	51	55	65	70	74	87	99
E	INCHES	3.81	3.81	4.56	4.56	6.31	6.31	7.19	7.19	7.19
	mm	93	93	112	112	155	155	176	176	176
F	TUBE SIZEØ	0.51	0.63	0.88	1.13	1.38	1.63	2.13	2.63	3.13
Cv		7	13	35	38	61	87	121	196	231

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

*2-1/2" & 3" Only.

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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UPBA300/300S 1/4"-3"



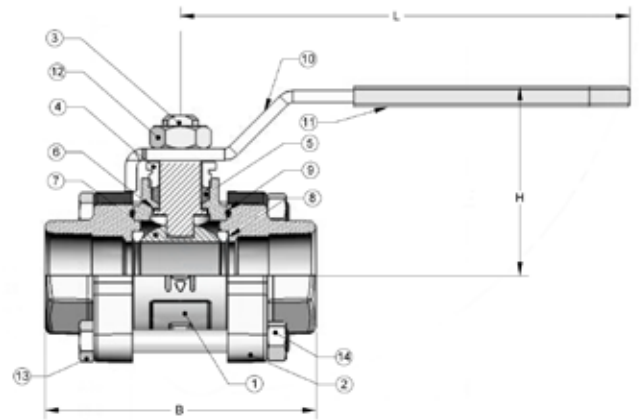
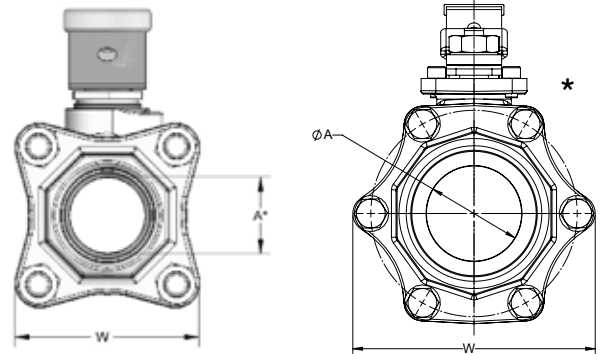
Bronze Ball Valve For Potable Water
Three Piece
Full Port
600 psig WOG
Threaded Ends
Blow-Out Proof Stem

Dimensions and Workmanship Conform to MSS SP-110

MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Cast Bronze	B584 C89833
2	End Cap	Cast Bronze	B584 C89833
3	Stem	Brass	B21 C46400, H02
		316 Stainless Steel (1)	A276
4	Packing Nut	Brass	B16
5	Packing	PTFE	Commercial
6	Thrust Washer	RPTFE, 25% Glass Reinforced	Commercial
7	Ball	Brass w/Hard Chrome Plating	B283 C27450
		316 Stainless Steel (1)	A276 531600
8	Seat	RPTFE, 15% Glass Filled	Commercial
9	O-Ring	Viton	Commercial
10	Handle	Steel w/Zinc Plating	Commercial
11	Handle Grip	Vinyl	Commercial
12	Handle Nut	Steel w/Zinc Plating	Commercial
13	Bolt	Steel w/Zinc Plating	Commercial
14	Nut	Steel w/Zinc Plating	Commercial

(1) Ball and stem are stainless for UPBA300



DIMENSIONS

	UNITS	1/4" DN6	3/8" DN10	1/2" DN15	3/4" DN20	1" D25	1-1/4" D32	1-1/2" D40	2" D50	2-1/2" DN 65	3" * DN 80
A	INCHES	0.50	0.50	0.50	0.75	1.00	1.25	1.50	DN50	DN65	DN80
	mm	13	13	13	19	25	32	38	2.00	2.50	2.50
B	INCHES	3.03	3.03	3.03	3.65	3.82	4.86	5.06	51	64	64
	mm	77	77	77	90	97	123	129	6.00	6.84	6.84
H	INCHES	1.65	1.65	1.65	2.24	2.65	2.86	3.03	152	174	174
	mm	42	42	42	57	67	73	77	3.26	4.09	4.09
L	INCHES	4.03	4.03	4.06	4.58	6.30	6.32	7.20	83	104	104
	mm	102	102	103	116	160	161	183	183	203	203
W	INCHES	1.95	1.95	1.95	2.19	2.48	3.00	3.13	3.78	6.25	6.25
	mm	50	50	50	56	63	76	80	96	159	159
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	17	31	60	110	185	360	390	390

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

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content $\leq 0.25\%$. Source: California Health and Safety Code (116875).

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UPBA300/300S P2* 1/2"-2"

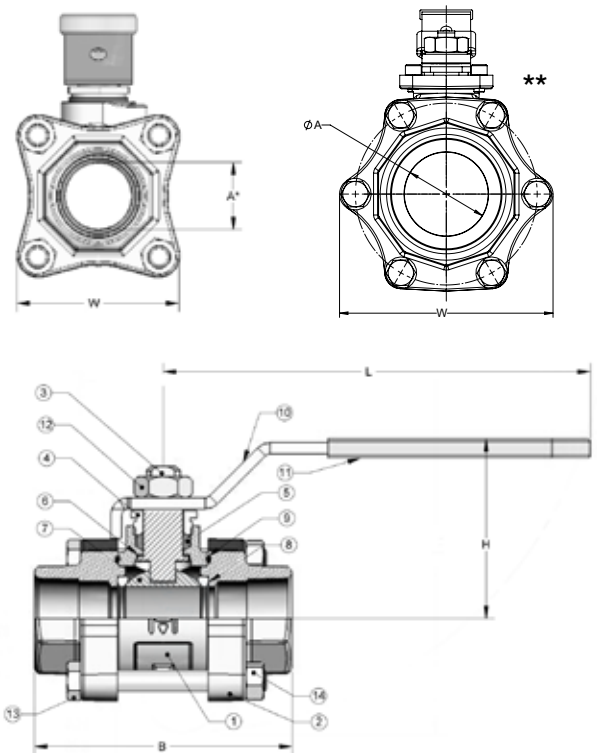
Bronze Ball Valve For Potable Water
Three Piece
Full Port
200 psig @ 250°F†
Press x Press Ends
Blow-Out Proof Stem

Dimensions and Workmanship Conform to MSS SP-110

MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Cast Bronze	B584 C89833
2	End Cap	Cast Bronze	B584 C89833
3	Stem	Brass	B21 C46400, H02
		316 Stainless Steel (1)	A276 S31600
4	Packing Nut	Brass	B16 C363000
5	Packing	PTFE	Commercial
6	Thrust Washer	RPTFE, 25% Glass Reinforced	Commercial
7	Ball	Brass w/Hard Chrome Plating	B283 C27450
		316 Stainless Steel (1)	A276 S36000
8	Seat	RPTFE, 15% Glass Filled	Commercial
9	O-Ring	Viton	Commercial
10	Handle	Steel w/Zinc Plating	Commercial
11	Handle Grip	Vinyl	Commercial
12	Handle Nut	Steel w/Zinc Plating	Commercial
13	Bolt	Steel w/Zinc Plating	Commercial
14	Nut	Steel w/Zinc Plating	Commercial
15	Press Adaptor	Brass Fitting w/EPDM O-Ring	B283 C27450

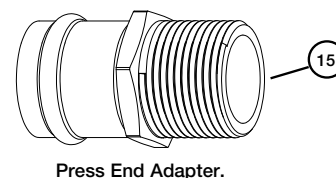
(1) Ball and stem are stainless for UPBA300S



DIMENSIONS

	UNITS	1/2" DN15	3/4" DN20	1" DN25	1-1/4" DN32	1-1/2" DN40	2" DN50
A	INCHES	0.50	0.75	1.00	1.25	1.50	2.00
	mm	13	19	25	32	38	51
STD INSERTION DEPTH	INCHES	0.87	0.98	0.98	1.02	1.42	1.58
	mm	22	25	25	26	36	40
B	INCHES	3.03	3.65	3.82	4.86	5.06	6.00
	mm	77	90	97	123	129	152
H	INCHES	1.65	2.24	2.65	2.86	3.03	3.26
	mm	42	57	67	73	77	83
L	INCHES	4.06	4.58	6.30	6.32	7.20	7.20
	mm	103	116	160	161	183	183
W	INCHES	1.95	2.19	2.48	3.00	3.13	3.78
	mm	50	56	63	76	80	96
F	THREAD SIZE	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
		NPT	NPT	NPT	NPT	NPT	NPT
Cv	INCHES	17	31	60	110	185	360

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



Press End Adapter.

*Both the valve and 4151 series press end adapters are approved by IAPMO to NSF / ANSI 372 for "lead free" compliance.
†Non-Shock

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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UPBA350/350S 3/8"-3"



Tested and Certified by IAPMO R&T to NSF/ANSI 372 for lead free compliance.

Bronze Ball Valve For Potable Water
Three Piece
Full Port
600 psig WOG
Solder Ends
Blow-Out Proof Stem

Dimensions and Workmanship Conform to MSS SP-110

MATERIALS LIST

ITEM	PART	MODEL/SIZE	MATERIALS	ASTM SPEC.
1	Body	UPBA350 & UPBA350S	Cast Bronze	B584 C89833
2	Tailpiece	UPBA350 & UPBA350S	Cast Bronze	B584 C89833
3	Ball	UPBA350	Brass w/Hard Chrome Plating	B283 C27450
		UPBA350S	316 Stainless Steel	A276 S31630
4	Stem	UPBA350	Brass	B21 C46400, H02
		UPBA350S	316 Stainless Steel	A276 S31630
5	O-Ring	UPBA350 & UPBA350S	Viton	Commercial
6	Seat	UPBA350 & UPBA350S	15 % Glass RPTFE	Commercial
7	Thrust, Washer	UPBA350 & UPBA350S	25% Glass RPTFE	Commercial
8	Packing Male	2- 1/2"-3"	PTFE	Commercial
	Packing	3/8"-2"	PTFE	Commercial
9	Packing, "V"	UPBA350 & UPBA350S	PTFE	Commercial
10	Packing, Female	UPBA350 & UPBA350S	PTFE	Commercial
11	Packing Follower	UPBA350 & UPBA350S	Brass	B16 C36000
12	Hex Jam Nut	UPBA350 & UPBA350S	Stainless Steel	Commercial
13	Nut Locker	UPBA350 & UPBA350S	Stainless Steel TYP. 301/302	Commercial
14	Washer, Internal Tooth	UPBA350 & UPBA350S	Stainless Steel	Commercial
15	Belleville, Washer	UPBA350 & UPBA350S	Stainless Steel 17-7 PH	Commercial
16	Hex Head Cap Screw	UPBA350 & UPBA350S	Steel	SAE, Grade 8
17	Socket Head Cap Screw	2-1/2"-3"	Carbon Steel	Commercial
18	Handle Assy	UPBA350 & UPBA350S		
19	Gland Nut	3/8"-2"	Brass	B16 C36000
20	Hex Nut	3/8"-2"	Steel	SAE 5140

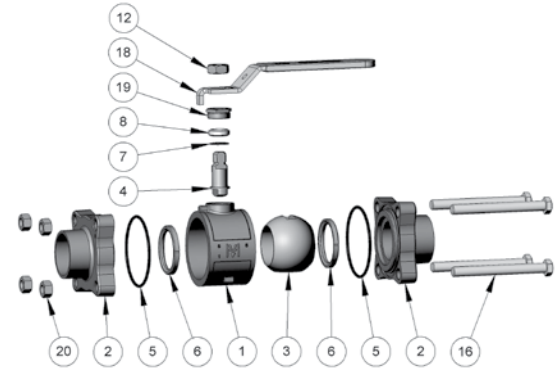
(1) Ball and stem are stainless for UPBA350S

DIMENSIONS

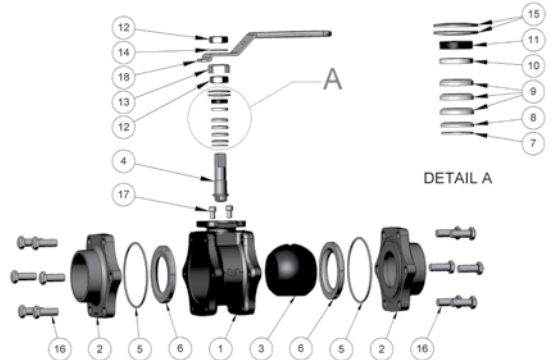
	UNITS	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"
		DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80
A	INCHES	2.68	3.02	3.56	3.81	4.66	5.00	5.70	7.01	7.01
	mm	68	77	90	97	118	127	145	178	178
B	INCHES	0.44	0.51	0.76	0.92	0.98	1.10	1.35	1.48	1.67
	mm	11	13	19	23	25	28	34	38	42
C	INCHES	1.85	1.85	2.20	2.65	2.79	2.97	3.47	5.44	5.44
	mm	47	47	56	67	71	75	88	138	138
D	INCHES	0.45	0.50	0.75	1.00	1.25	1.50	2.00	2.50	2.50
	mm	11	13	19	25	32	38	51	64	64
E	INCHES	1.32	1.32	2.13	2.41	2.94	3.13	3.86	5.74	5.74
	mm	34	34	54	61	75	80	98	146	146
F	INCHES	3.80	3.80	4.55	6.32	6.32	6.32	7.20	8.10	8.10
	mm	96	96	116	160	160	160	183	206	206
G	INCHES	1.92	1.92	2.13	2.41	2.94	3.13	3.86	6.31	6.31
	mm	49	49	54	61	75	80	98	160	160
Cv		7	17	31	60	110	185	360	390	390

*3" is standard Port.

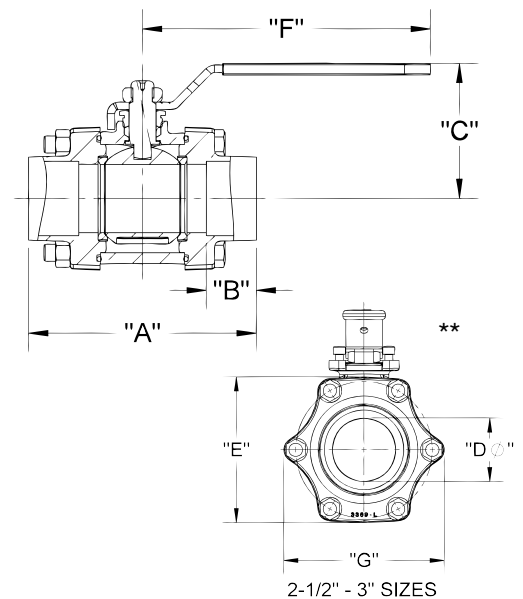
**2-1/2" & 3" Only.



3/8" THRU 2"



2-1/2" THRU 3"



Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content $\leq 0.25\%$. Source: California Health and Safety Code (116875).

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UPBA400/400S 1/4"-2"



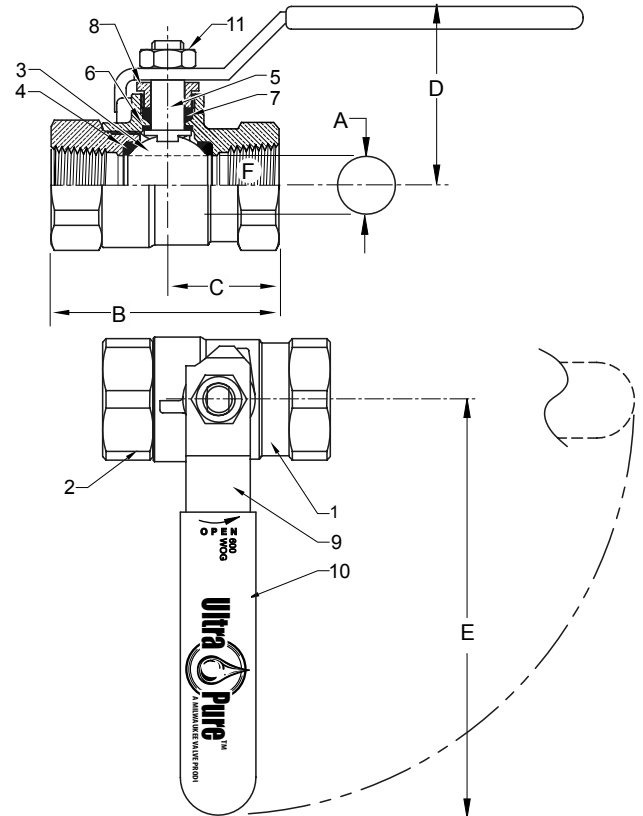
Bronze Ball Valve For Potable Water
Two Piece
Full Port
600 psig WOG
Threaded Ends
Blow-Out Proof Stem

Dimensions and Workmanship Conform to MSS SP-110

MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Cast Bronze	B584 C89833
2	Tailpiece	Cast Bronze	B584 C89833
3	Ball	Brass w/Hard Chrome Plating	B283 C27450
		316 Stainless Steel (1)	A276 S31600
4	Seat	RPTFE, 15% Glass Filled	Commercial
5	Stem	Brass	B21 C46400, H02
		316 Stainless Steel (1)	A276 S31600
6	Thrust Washer	RPTFE, 25% Glass Filled	Commercial
7	Packing	PTFE	Commercial
8	Packing Nut	Brass	B16 C36000
9	Handle	Steel w/Zinc Plating	Commercial
10	Hand Grip	Vinyl	Commercial
11	Handle Nut	Steel w/Zinc Plating	Commercial

(1) Ball and stem are stainless for UPBA400S



DIMENSIONS

	UNITS	1/4" DN10	3/8" DN10	1/2" DN15	3/4" DN20	1" DN25	1-1/4" DN32	1-1/2" DN40	2" DN50
A (DIA)	INCHES	0.38	0.38	0.50	0.76	1.06	1.31	1.56	2.00
	mm	10	10	13	19	27	33	40	51
B	INCHES	1.86	1.86	2.19	2.59	3.32	3.77	4.28	5.10
	mm	46	46	54	66	84	96	109	130
C	INCHES	1.00	1.00	1.10	1.30	1.59	1.81	2.06	2.37
	mm	25	25	27	33	40	46	52	60
D	INCHES	1.78	1.81	1.91	2.32	2.68	2.82	3.00	3.36
	mm	44	44	47	59	68	72	76	85
E	INCHES	3.82	3.82	3.82	4.55	6.33	6.33	6.33	7.19
	mm	94	94	94	116	161	161	161	183
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
Cv		7	7	13	30	61	110	185	360

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

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content $\leq 0.25\%$. Source: California Health and Safety Code (116875).

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UPBA400/400S* P2 1/2"-2"

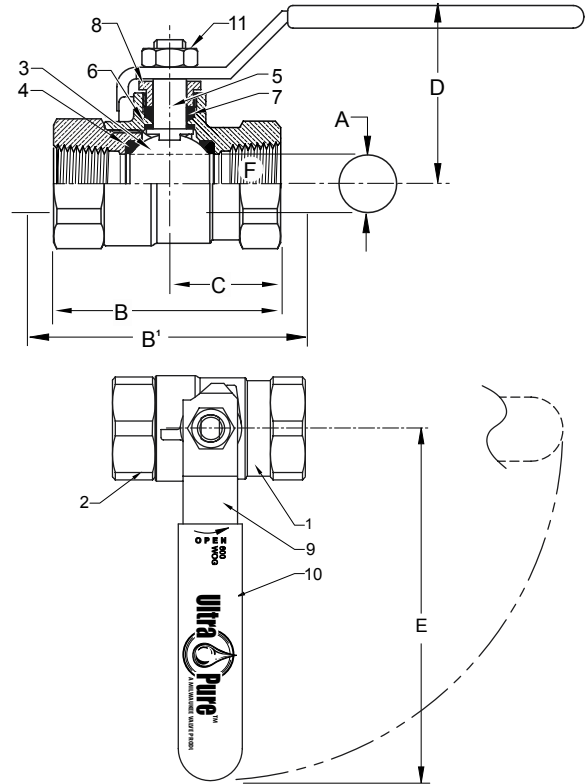
Bronze Ball Valve For Potable Water
Two Piece
Full Port
200 psig @ 250°F†
Press x Press Ends
Blow-Out Proof Stem

Dimensions and Workmanship Conform to MSS SP-110

MATERIAL LIST

ITEM	PART	MATERIAL	ASTM SPEC
1	Body	Cast Bronze	B584 C89833
2	Tailpiece	Cast Bronze	B584 C89833
3	Ball	Brass w/Hard Chrome Plating	B283 C27450
		316 Stainless Steel (1)	A276 S31600
4	Seat	RPTFE, 15% Glass Filled	Commercial
5	Stem	Brass	B21 C46400
		316 Stainless Steel (1)	A276 S31600
6	Thrust Washer	RPTFE, 25% Glass Filled	Commercial
7	Packing	PTFE	Commercial
8	Packing Nut	Brass	B16 C36000
9	Handle	Steel w/Zinc Plating	Commercial
10	Handle Grip	Vinyl	Commercial
11	Handle Nut	Steel w/Zinc Plating	Commercial
12	Press Adapters	Brass Fitting w/EPDM O-Ring	B283 C27450

(1) Ball and stem are stainless for UPBA400S

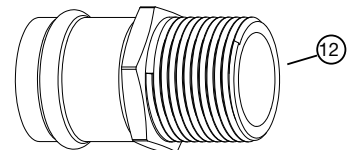


DIMENSIONS

	UNITS	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
		DN15	DN20	DN25	DN32	DN40	DN50
A (DIA)	INCHES	0.50	0.76	1.06	1.31	1.56	2.00
	mm	13	19	27	33	40	51
STD INSERTION DEPTH	INCHES	0.87	0.98	0.98	1.02	1.42	1.58
	mm	22	25	25	26	36	40
B	INCHES	2.19	2.59	3.32	3.77	4.28	5.10
	mm	54	66	84	96	109	130
B1	INCHES	5.19	6.17	7.32	7.84	8.76	11.10
	mm	132	157	186	199	228	282
C	INCHES	1.10	1.30	1.59	1.81	2.06	2.37
	mm	27	33	40	46	52	60
D	INCHES	1.91	2.32	2.68	2.82	3.00	3.36
	mm	47	59	68	72	76	85
E	INCHES	3.82	4.55	6.33	6.33	6.33	7.19
	mm	94	116	161	161	161	183
F	THREAD SIZE	1/2" NPT	3/4" NPT	1" NPT	1-1/4" NPT	1-1/2" NPT	2" NPT
Cv		13	30	61	110	185	360

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

†Non-Shock



Press End Adapter.

Available with Press x Threaded Ends
 (Order UPBA400P1/
 UPBA400SP1)

*Both the valve and 4151 series press end adapters are approved by IAPMO to NSF / ANSI 372 for "lead free" compliance.

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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UPBA450/450S 1/2"-2"



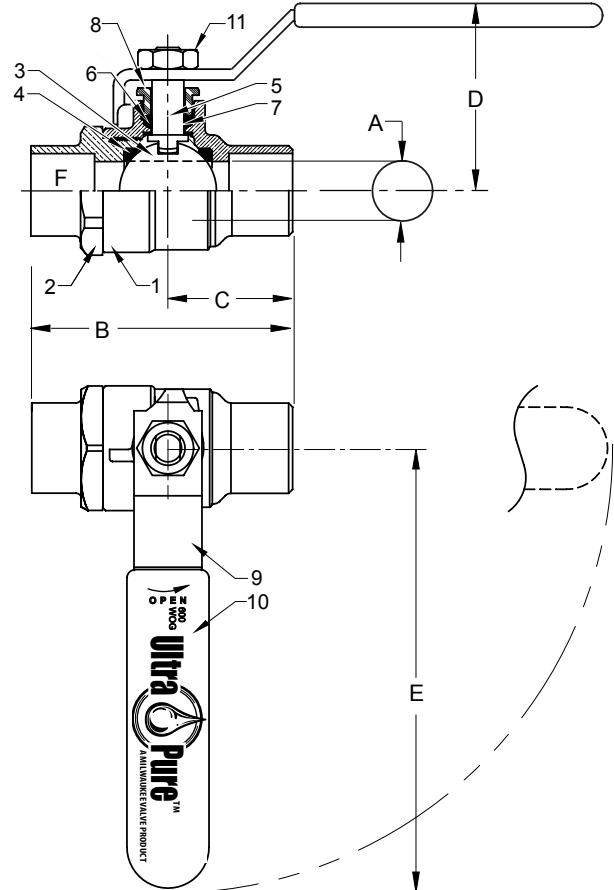
Bronze Ball Valve For Potable Water
Two Piece
Full Port
600 psig WOG
Solder Ends
Blow-Out Proof Stem

Dimensions and Workmanship Conform to MSS SP-110

MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Cast Bronze	B584 C89833
2	Tailpiece	Cast Bronze	B584 C89833
3	Ball	Brass w/Hard Chrome Plating	B283 C27450
		316 Stainless Steel (1)	A276 S31600
4	Seat	RPTFE, 15% Glass Filled	Commercial
5	Stem	Brass (2" only)	B21 C46400
		316 Stainless Steel (1)	A276 S31600
6	Thrust Washer	RPTFE, 25% Glass Filled	Commercial
7	Packing	PTFE	Commercial
8	Packing Nut	Brass	B16 C36000
9	Handle	Steel w/Zinc Plating	Commercial
10	Handle Grip	Vinyl	Commercial
11	Handle Nut	Steel w/Zinc Plating	Commercial

(1) Ball and stem are stainless for UPBA450S



DIMENSIONS

	UNITS	1/2" DN15	3/4" DN20	1" DN25	1-1/4" DN32	1-1/2" DN40	2" DN50
A (DIA)	INCHES	0.50	0.76	1.06	1.31	1.56	2.00
	mm	13	19	27	32	40	51
B	INCHES	2.39	3.17	3.75	5.00	6.00	6.75
	mm	59	81	95	127	152	172
C	INCHES	1.07	1.50	1.79	2.49	3.00	3.37
	mm	27	38	46	63	76	86
D	INCHES	1.87	2.19	2.67	2.82	2.99	3.51
	mm	46	56	68	72	76	89
E	INCHES	3.80	4.56	6.31	6.31	6.31	7.19
	mm	97	116	160	160	160	183
F	TUBE SIZEØ	0.63	0.88	1.13	1.38	1.63	2.13
	Cv	15	35	60	110	185	360

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

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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UPBA-475B 1/4"-3"



Tested and Certified by IAPMO R&T to NSF/ANSI 61 and NSF/ANSI 372 for Lead Free Compliance.



ANSI Z 21.158 ASME B16.44



UL 125 US UL 842 **



APPROVED 1140

1/4" through 2" Only

Brass Ball Valve For Potable Water
Two Piece
Full Port
600 psig WOG (1/4" - 2")
400 psig WOG (2 1/2" - 3")
Threaded Ends
Blow-Out Proof Stem

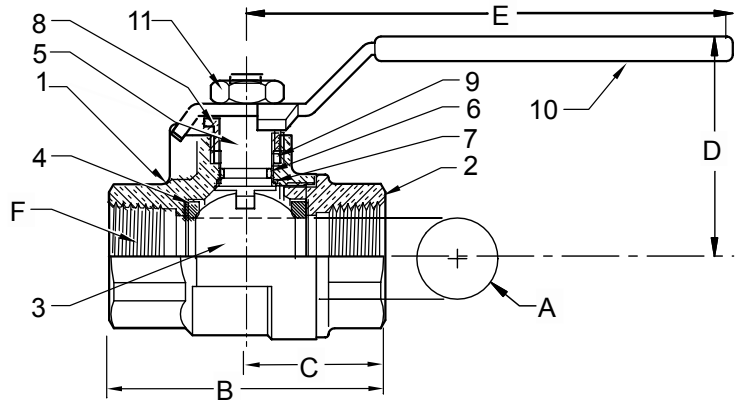
Dimensions and Workmanship Conform to MSS SP-110,

Also Available UPBA475B-LL

**** Additional body/tailpiece seal for 2 1/2" & 3" sizes only (Not Pictured).**

MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Brass, Forged	B283 C27450
2	Tailpiece	Brass, Forged	B283 C27450
3	Ball	Brass w/Chrome Plating	B283 C27450
4	Ball Seat	PTFE	Commercial
5	Stem	Brass	B124 C27450
6	O-Ring	Buna-N	D2006
7	Thrust Washer	PTFE	Commercial
8	Gland Nut	Brass	B16 C36000
9	Packing	PTFE	Commercial
10	Handle	Zinc Plated Steel	Commercial
11	Handle Nut	Zinc Plated Steel	Commercial
12	Seal	PTFE (2 1/2" & 3")**	Commercial



DIMENSIONS

	UNITS	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"
A	INCHES	0.39	0.39	0.51	0.76	1.00	1.26	1.50	2.00	2.48	2.95
	mm	10	10	13	19	25	32	38	51	63	75
B	INCHES	1.87	1.87	2.25	2.62	3.06	3.50	3.75	4.38	5.16	6.00
	mm	47	47	57	67	78	89	95	111	131	152
C	INCHES	0.95	0.95	1.12	1.31	1.91	2.21	1.87	2.19	2.58	3.00
	mm	24	24	61	33	49	56	47	56	66	76
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	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	200	200
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	307	323

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content $\leq 0.25\%$. Source: California Health and Safety Code (116875).

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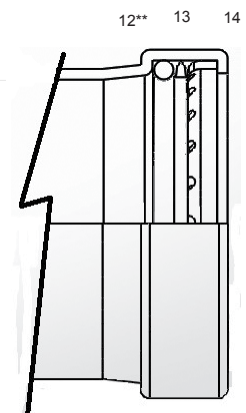
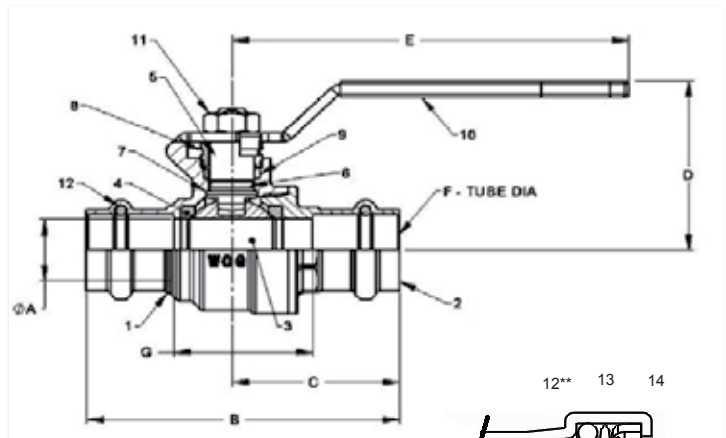




MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Brass, Forged	B283 C27450
2	Tailpiece	Brass, Forged	B283 C27450
3	Ball	Brass, Chrome Plating	B283 C27450
4	Ball Seat (1/2"-2")	PTFE	Commercial
	Ball Seat (2 1/2"-4")	RPTFE	
5	Stem	Brass, Forged	B283-C27450
6	Stem O-Ring	Buna-N	D2000
7	Thrust Washer	PTFE	Commercial
8	Gland Nut	Brass	B124
9	Packing	PTFE	Commercial
10	Handle	Zinc Plated Steel	Commercial
11	Handle Nut	Zinc Plated Steel	Commercial
12	Backing Ring	EPDM	Commercial
13**	Backing Spacer	PTFE	Commercial
14**	Backing Retainer	Stainless Steel	Commercial

*Ultra Press Valves are designed and qualified for use in copper tubing systems only, Types K, L, & M per ASTM B88



** 2-1/2", 3", & 4" Requires XLC installation jaws.

DIMENSIONS

	UNITS	1/2" DN15	3/4" DN20	1" DN25	1-1/4" DN32	1-1/2" DN40	2" DN50	2-1/2" DN65	3" DN80	4" DN100
A-PORT DIA	INCHES	0.51	0.76	0.98	1.26	1.50	2.01	2.48	2.95	3.94
	mm	13	19	25	32	38	51	63	75	100
B	INCHES	3.16	3.71	4.28	5.20	6.31	7.44	8.23	9.13	11.42
	mm	80	94	109	132	160	189	209	232	290
C	INCHES	1.63	1.92	2.18	2.75	3.40	3.96	4.33	4.80	6.06
	mm	41	49	55	70	86	101	110	122	154
D	INCHES	1.62	2.01	2.21	2.46	2.62	3.13	3.86	4.21	6.06
	mm	41	51	56	63	67	80	98	107	154
E	INCHES	3.15	4.33	4.33	5.12	5.12	6.89	7.87	7.87	9.65
	mm	80	110	110	130	130	175	200	200	245
G	INCHES	1.52	1.73	2.31	3.16	3.49	4.28	3.98	4.76	6.14
	mm	39	44	59	80	89	109	101	121	156
Cv		18	40	72	112	161	287	448	645	700

†Non-Shock

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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UPBA-480S* 1/2"-2"

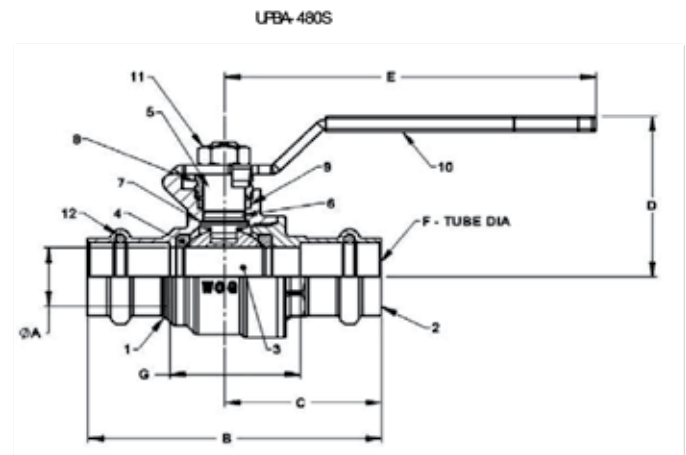


Brass Ball Valve For Potable Water
Two Piece
Full Port
200 psig @ 250°F†
Press x Press Ends
Blow-Out Proof Stem

MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Brass, Forged	B283 C27450
2	Tailpiece	Brass, Forged	B283 C27450
3	Ball	316 Stainless Steel	A276 S31600
4	Ball Seat	PTFE	Commercial
5	Stem	316 Stainless Steel	A276 S31600
6	Stem O-Ring	Buna-N	D2000
7	Thrust Washer	PTFE	Commercial
8	Gland Nut	Brass	B124
9	Packing	PTFE	Commercial
10	Handle	Zinc Plated Steel	Commercial
11	Handle Nut	Zinc Plated Steel	Commercial
12**	Backing Ring	Plastic	Commercial

*Ultra Press Valves are designed and qualified for use in copper tubing systems only, Types K, L, & M per ASTM B88. For Installation Instructions please see engineering section on website.



DIMENSIONS

	UNITS	1/2" DN15	3/4" DN20	1" DN25	1-1/4" DN32	1-1/2" DN40	2" DN50
A-PORT DIA	INCHES	0.51	0.76	0.98	1.26	1.50	2.01
	mm	13	19	25	32	38	51
B	INCHES	3.16	3.71	4.28	5.20	6.31	7.44
	mm	80	94	109	132	160	189
C	INCHES	1.63	1.92	2.18	2.75	3.40	3.96
	mm	41	49	55	70	86	101
D	INCHES	1.62	2.01	2.21	2.46	2.62	3.13
	mm	41	51	56	63	67	80
E	INCHES	3.15	4.33	4.33	5.12	5.12	6.89
	mm	80	110	110	130	130	175
G	INCHES	1.52	1.73	2.31	3.16	3.49	4.28
	mm	39	44	59	80	89	109
Cv		18	40	40	72	112	161

†Non-Shock

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content $\leq 0.25\%$. Source: California Health and Safety Code (116875).

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UPBA-480BH* 1/2" & 3/4"



Brass Ball Valve For Potable Water
Two Piece
Full Port
200 psig @ 250°F†
Press x 3/4" Hose End
Dust Cap and Chain
Blow-Out Proof Stem

MATERIALS LIST

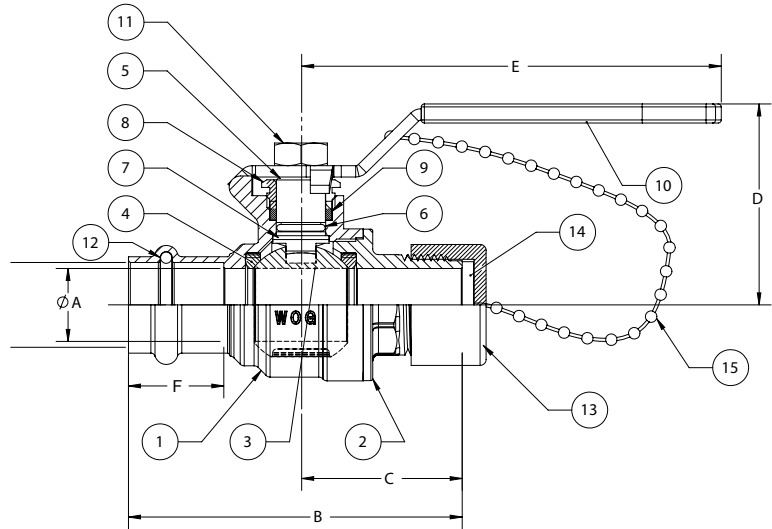
ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Brass, Forged	B283 C27450
2	Tailpiece	Brass, Forged	B283 C27450
3	Ball	Brass, Chrome Plating	B283 C27450
4	Ball Seat	PTFE	Commercial
5	Stem	Brass, Forged	B283 C27450
6	Stem O-Ring	Buna-N	D2000
7	Thrust Washer	PTFE	Commercial
8	Gland Nut	Brass	B124
9	Packing	PTFE	Commercial
10	Handle	Zinc Plated Steel	Commercial
11	Handle Nut	Zinc Plated Steel	Commercial
12	Tube O-Ring	EPDM	D2000 NSF61
13	Hose Cap	Polypropylene	Commercial
14	Cap Gasket	EPDM	Commercial
15	Chain	Brass Bead	Commercial

*Ultra Press Valves are designed and qualified for use in copper tubing systems only, Types K, L, & M per ASTM B88.

DIMENSIONS

	UNITS	1/2" DN15	3/4" DN20
	A-PORT DIA	INCHES	0.51
	mm	13	19
B	INCHES	3.09	3.50
	mm	78	90
C	INCHES	1.55	1.70
	mm	39	43
D	INCHES	1.62	2.01
	mm	41	51
E	INCHES	3.15	4.33
	mm	80	110
F TUBE DIA	INCHES	0.82	0.99
	mm	21	25
G	INCHES	0.83	0.98
	mm	21	25
Cv		18	40

†Non-Shock



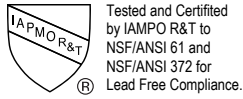
Do not pressurize cap.
Pressure not to exceed 40 psi.

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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UPBA-480SH* 1/2" & 3/4"



Brass Ball Valve For Potable Water
Two Piece
Full Port
200 psig @ 250°F†
Press x 3/4" Hose End
Dust Cap and Chain
Blow-Out Proof Stem

MATERIALS LIST

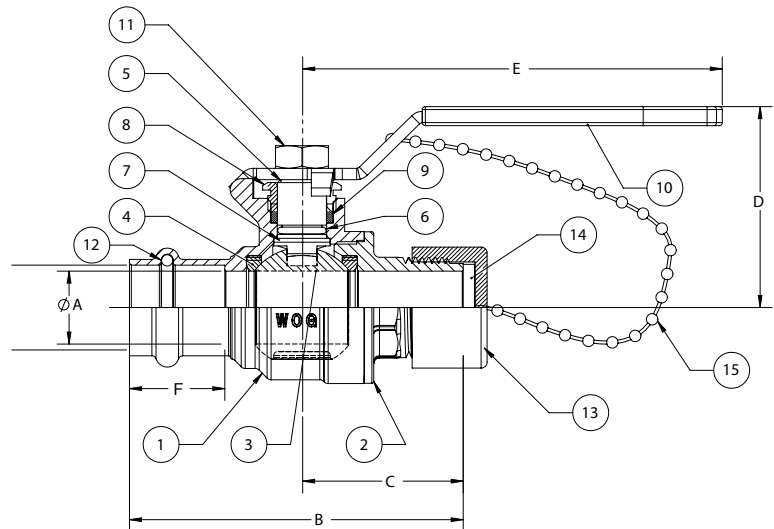
ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Brass, Forged	B283 C27450
2	Tailpiece	Brass, Forged	B283 C27450
3	Ball	316 Stainless Steel	A276 S31600
4	Ball Seat	PTFE	Commercial
5	Stem	316 Stainless Steel	A276 S31600
6	Stem O-Ring	Buna-N	D2000
7	Thrust Washer	PTFE	Commercial
8	Gland Nut	Brass	B124
9	Packing	PTFE	Commercial
10	Handle	Zinc Plated Steel	Commercial
11	Handle Nut	Zinc Plated Steel	Commercial
12	Tube O-Ring	EPDM	D2000
13	Hose Cap	Polypropylene	Commercial
14	Cap Gasket	EPDM	Commercial
15	Chain	Brass Bead	Commercial

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DIMENSIONS

A-PORT DIA	UNITS	1/2" DN15	3/4" DN20
	INCHES	0.51	0.76
B	INCHES	3.09	3.50
	mm	78	90
C	INCHES	1.55	1.70
	mm	39	43
D	INCHES	1.62	2.01
	mm	41	51
E	INCHES	3.15	4.33
	mm	80	110
F TUBE DIA	INCHES	0.82	0.99
	mm	21	25
G	INCHES	0.83	0.98
	mm	21	25
Cv		18	40

†Non-Shock



Do not pressurize cap.
Pressure not to exceed 40 psi.

Note: Pressure/Temperature rating shown are for VALVE ONLY. Hose side pressure and temperature limit is based on connected hose and is users responsibility

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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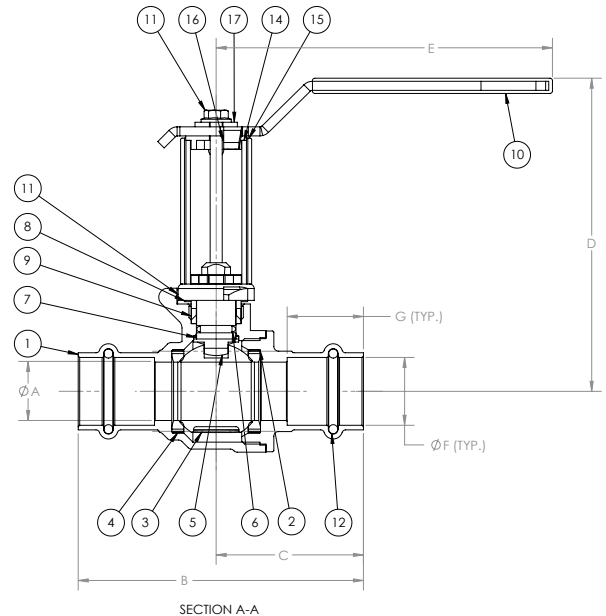




MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Brass, Forged	B283 C27450
2	Tailpiece	Brass, Forged	B283 C27450
3	Ball	Brass, Chrome Plated	B283 C27450
4	Ball Seat	PTFE	Commercial
5	Stem	Brass, Forged	B283 C27450
6	Stem O-Ring	Buna-N	D2000
7	Thrust Washer	PTFE	Commercial
8	Gland Nut	Brass	B124
9	Packing	PTFE	Commercial
10	Handle	Zinc Plated Steel	Commercial
11	Handle Bolt	Zinc Plated Steel	Commercial
12	Tube O-Ring	EPDM	D2000
13	Stem Stop Plate	Zinc Plated Steel	Commercial
14	Internal Extension Tube	Zinc Plated Steel	Commercial
15	External Extension Tube	Zinc Plated Steel	Commercial
16	Upper Stem Adaptor	Zinc Plated Steel	Commercial
17	Memory Stop	Zinc Plated Steel	Commercial

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DIMENSIONS

	UNITS	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
		DN15	DN20	DN25	DN32	DN40	DN50
A	INCHES	0.51	0.76	0.98	1.26	1.50	2.01
	mm	13	19	25	32	38	51
B	INCHES	3.16	3.71	4.28	5.20	6.31	7.44
	mm	80	94	109	132	160	189
C	INCHES	1.63	1.92	2.18	2.75	3.40	3.96
	mm	41	49	55	70	86	101
D	INCHES	3.87	4.26	4.46	4.71	4.87	5.38
	mm	98	108	113	120	124	137
E	INCHES	3.15	4.33	4.33	5.12	5.12	6.89
	mm	80	110	110	130	130	175
G	INCHES	1.52	1.73	2.31	3.16	3.49	4.28
	mm	39	44	59	80	89	109
Cv		18	40	72	112	161	287

†Non-Shock

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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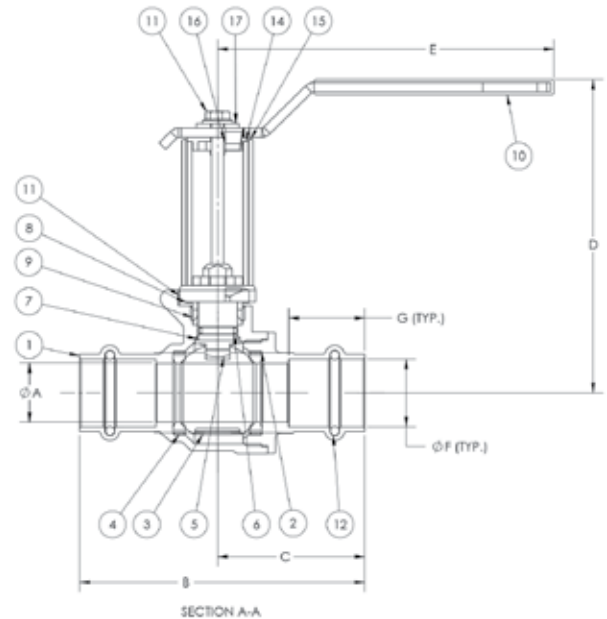




MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Brass, Forged	B283 C27450
2	Tailpiece	Brass, Forged	B283 C27450
3	Ball	316 Stainless Steel	A276 S31600
4	Ball Seat	PTFE	Commercial
5	Stem	316 Stainless Steel	A276 S31600
6	Stem O-Ring	Buna-N	D2000
7	Thrust Washer	PTFE	Commercial
8	Gland Nut	Brass	B124
9	Packing	PTFE	Commercial
10	Handle	Zinc Plated Steel	B633
11	Handle Bolt	Zinc Plated Steel	Commercial
12	Tube O-Ring	EPDM	D2000
13	Stem Stop Plate	Zinc Plated Steel	Commercial
14	Internal Extension Tube	Zinc Plated Steel	Commercial
15	External Extension Tube	Zinc Plated Steel	Commercial
16	Upper Stem Adaptor	Zinc Plated Steel	Commercial
17	Memory Stop	Zinc Plated Steel	Commercial

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DIMENSIONS

	UNITS	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
		DN15	DN20	DN25	DN32	DN40	DN50
A	INCHES	0.51	0.76	0.98	1.26	1.50	2.01
	mm	13	19	25	32	38	51
B	INCHES	3.16	3.71	4.28	5.20	6.31	7.44
	mm	80	94	109	132	160	189
C	INCHES	1.63	1.92	2.18	2.75	3.40	3.96
	mm	41	49	55	70	86	101
D	INCHES	3.87	4.26	4.46	4.71	4.87	5.38
	mm	98	108	113	120	124	137
E	INCHES	3.15	4.33	4.33	5.12	5.12	6.89
	mm	80	110	110	130	130	175
G	INCHES	1.52	1.73	2.31	3.16	3.49	4.28
	mm	39	44	59	80	89	109
Cv		18	40	72	112	161	287

†Non-Shock

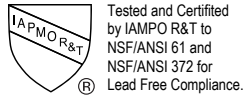
Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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UPBA485B 1/2"-3"



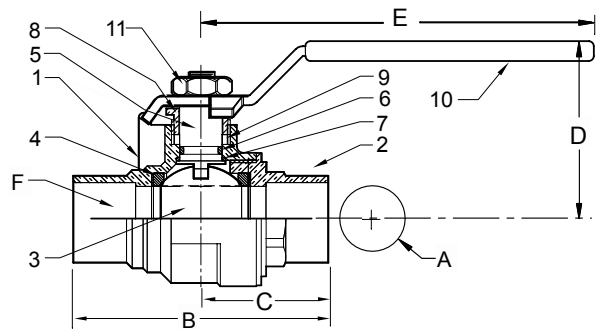
Brass Ball Valve For Potable Water
Two Piece
Full Port
600 psig WOG (1/2" - 2") 400 psig WOG (2 1/2" - 3")
Solder Ends

Blow-Out Proof Stem
Dimensions and Workmanship Conform to MSS SP-110

Also Available UPBA485B-LL

MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Brass, Forged	B283 C27450
2	Tailpiece	Brass, Forged	B283 C27450
		Brass	B283 C27450
3	Ball	Brass w/Chrome Plating	B283 C27450
4	Ball Seat	PTFE	Commercial
5	Stem	Brass	B283 C27450
6	O-Ring	Buna-N	D2006
7	Thrust Washer	PTFE	Commercial
8	Gland Nut	Brass	B16 C3600
9	Packing	PTFE	Commercial
10	Handle	Zinc Plated Steel	Commercial
11	Handle Nut	Zinc Plated Steel	Commercial



DIMENSIONS

	UNITS	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"
	A	INCHES	0.50	0.76	1.00	1.26	1.50	2.00	2.48
	mm	13	19	25	32	38	51	63	75
B	INCHES	2.28	3.10	3.56	4.13	4.64	5.75	7.25	8.25
	mm	58	79	90	105	118	146	131	152
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	105
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	111
E	INCHES	3.14	4.35	4.53	5.00	5.00	6.90	7.87	7.87
	mm	80	110	110	127	127	175	200	200
F	TUBE SIZE	0.63	0.88	1.13	1.38	1.63	2.13	2.63	3.13
	Cv	18	40	72	112	161	287	307	323

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content $\leq 0.25\%$. Source: California Health and Safety Code (116875).

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UPBA-490B* 1/2"-2"

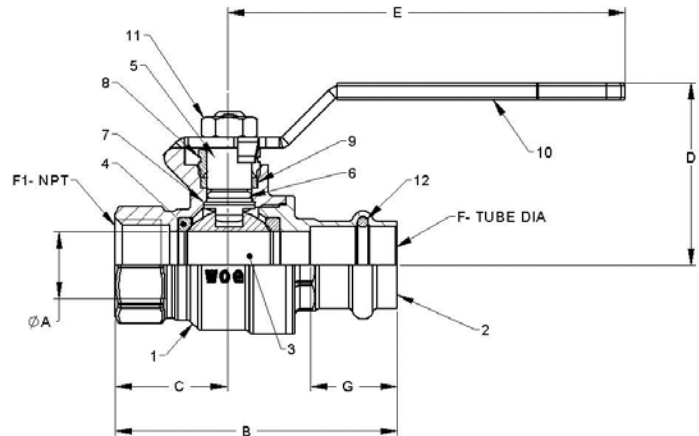


Brass Ball Valve For Potable Water
Two Piece
Full Port
200 psig @ 250°F†
Press x Threaded Ends
Blow-Out Proof Stem

MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Brass, Forged	B283 C27450
2	Tailpiece	Brass, Forged	B283 C27450
3	Ball	Brass, Chrome Plating	B283 C27450
4	Ball Seat	PTFE	Commercial
5	Stem	Brass, Forged	B283 C27450
6	Stem O-Ring	Buna-N	D2000
7	Thrust Washer	PTFE	Commercial
8	Gland Nut	Brass	B124
9	Packing	PTFE	Commercial
10	Handle	Zinc Plated Steel	Commercial
11	Handle Nut	Zinc Plated Steel	Commercial
12	Tube O-Ring	EPDM	D2000

*Ultra Press Valves are designed and qualified for use in copper tubing systems only, Types K, L, & M per ASTM B88.



DIMENSIONS

	UNITS	1/2" DN15	3/4" DN20	1" DN25	1-1/4" DN32	1-1/2" DN40	2" DN50
	A-PORT DIA	INCHES	0.51	0.76	0.98	1.26	1.50
	mm	13	19	25	32	38	51
B	INCHES	2.77	3.23	3.71	4.12	4.86	6.14
	mm	70	82	94	105	123	156
C	INCHES	1.14	1.31	1.53	1.71	1.88	2.19
	mm	29	33	39	43	48	56
D	INCHES	1.46	1.93	2.10	2.33	2.52	2.96
	mm	37	49	53	59	64	75
E	INCHES	3.14	4.35	4.35	5.00	5.00	6.90
	mm	80	110	110	127	127	175
F-TUBE DIA	INCHES	0.63	0.88	1.13	1.38	1.63	2.13
	mm	15	20	25	32	40	50
F1 NPT		1/2"-14	3/4"-14	1"-11.5	1 1/4"-11.5	1 1/2"-11.5	2"-11.5
G	INCHES	0.83	1.00	1.00	1.02	1.42	1.57
	mm	21	25	25	26	36	40
Cv		18	40	72	112	161	287

†Non-Shock

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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UPBA-490S* 1/2"-2"

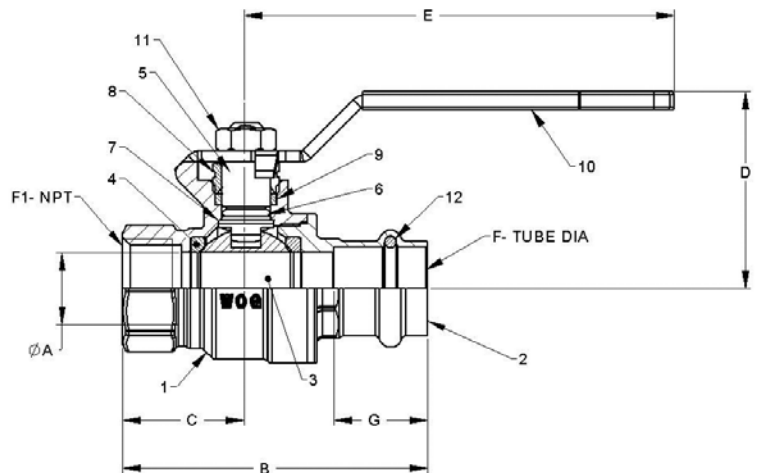


Brass Ball Valve For Potable Water
Two Piece
Full Port
200 psig @ 250°F†
Press x Threaded Ends
Blow-Out Proof Stem

MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Brass, Forged	B283 C27450
2	Tailpiece	Brass, Forged	B283 C27450
3	Ball	316 Stainless Steel	A276 S31600
4	Ball Seat	PTFE	Commercial
5	Stem	316 Stainless Steel	A276 S31600
6	Stem O-Ring	Buna-N	D2000
7	Thrust Washer	PTFE	Commercial
8	Gland Nut	Brass	B124
9	Packing	PTFE	Commercial
10	Handle	Zinc Plated Steel	Commercial
11	Handle Nut	Zinc Plated Steel	Commercial
12	Tube O-Ring	EPDM	D2000

*Ultra Press Valves are designed and qualified for use in copper tubing systems only, Types K, L, & M per ASTM B88.



DIMENSIONS

	UNITS	1/2" DN15	3/4" DN20	1" DN25	1-1/4" DN32	1-1/2" DN40	2" DN50
A-PORT DIA	INCHES	0.51	0.76	0.98	1.26	1.50	2.00
	mm	13	19	25	32	38	51
B	INCHES	2.77	3.23	3.71	4.12	4.86	6.14
	mm	70	82	94	105	123	156
C	INCHES	1.14	1.31	1.53	1.71	1.88	2.19
	mm	29	33	39	43	48	56
D	INCHES	1.46	1.93	2.10	2.33	2.52	2.96
	mm	37	49	53	59	64	75
E	INCHES	3.14	4.35	4.35	5.00	5.00	6.90
	mm	80	110	110	127	127	175
F-TUBE DIA	INCHES	0.63	0.88	1.13	1.38	1.63	2.13
	mm	15	20	25	32	40	50
F1 NPT		1/2"-14	3/4"-14	1"-11.5	1 1/4"-11.5	1 1/2"-11.5	2"-11.5
G	INCHES	0.83	1.00	1.00	1.02	1.42	1.57
	mm	21	25	25	26	36	40
Cv		18	40	72	112	161	287

†Non-Shock

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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UPBA-491B* 1/2"-2"

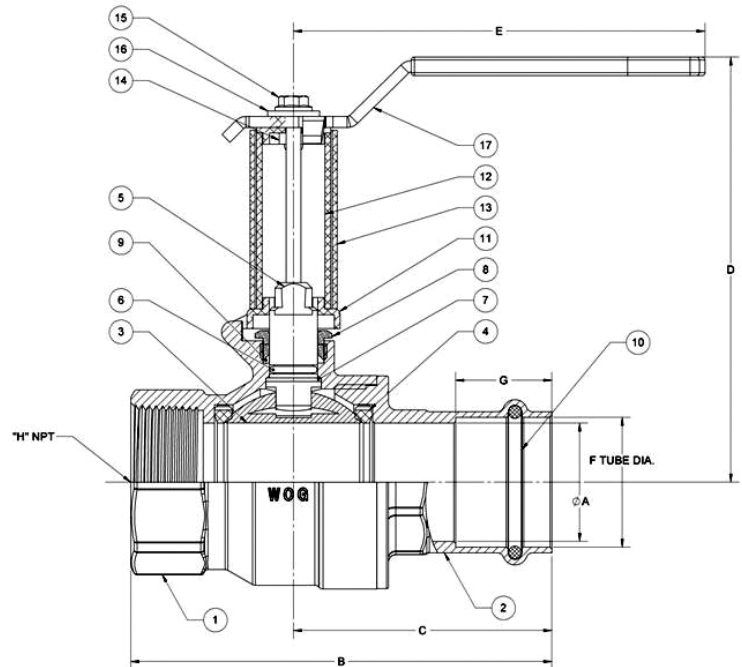


Brass Ball Valve For Potable Water
Two Piece
Full Port
200 psig @ 250°F†
Press x Threaded Ends With
Extension Stem & Memory Stop
Blow-Out Proof Stem

MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Brass, Forged	B283 C27450
2	Tailpiece	Brass, Forged	B283 C27450
3	Ball	Brass, Chrome Plating	B283 C27450
4	Ball Seat	PTFE	Commercial
5	Stem	Brass, Forged	B283 C27450
6	Stem O-Ring	Buna-N	D2000
7	Thrust Washer	PTFE	Commercial
8	Gland Nut	Brass	B124
9	Packing	PTFE	Commercial
10	Handle	Zinc Plated Steel	Commercial
11	Handle Bolt	Zinc Plated Steel	Commercial
12	Tube O-Ring	EPDM	D2000
13	Stem Stop Plate	Zinc Plated Steel	Commercial
14	Internal Extension Tube	Zinc Plated Steel	Commercial
15	External Extension Tube	Zinc Plated Steel	Commercial
16	Upper Stem Adapter	Zinc Plated Steel	Commercial
17	Memory Stop	Zinc Plated Steel	Commercial

*Ultra Press Valves are designed and qualified for use in copper tubing systems only, Types K, L, & M per ASTM B88.



DIMENSIONS

	UNITS	1/2" DN15	3/4" DN20	1" DN25	1-1/4" DN32	1-1/2" DN40	2" DN50
A PORT Ø	INCHES	0.51	0.76	0.98	1.26	1.50	2.01
	mm	13	19	25	32	38	51
B	INCHES	2.76	3.58	3.98	4.51	5.50	6.44
	mm	70	91	101	115	140	164
C	INCHES	1.63	1.92	2.18	2.75	3.46	3.46
	mm	41	49	55	70	88	88
D	INCHES	3.55	4.08	4.28	4.53	4.65	5.13
	mm	90	104	109	115	118	130
E	INCHES	3.28	4.38	4.38	4.38	6.97	6.97
	mm	83	111	111	111	177	177
F TUBE Ø	INCHES	0.63	0.88	1.13	1.38	1.64	2.13
	mm	16	22	29	35	42	54
G	INCHES	0.83	0.99	0.99	1.02	1.42	1.58
	mm	21	25	25	26	36	40
H	THIRD SIZE	1/2" NPT	3/4" NPT	1" NPT	1 1/4 NPT	1 1/2" NPT	2" NPT
Cv		18	40	72	112	161	287

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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UPBA-491S* 1/2"-2"

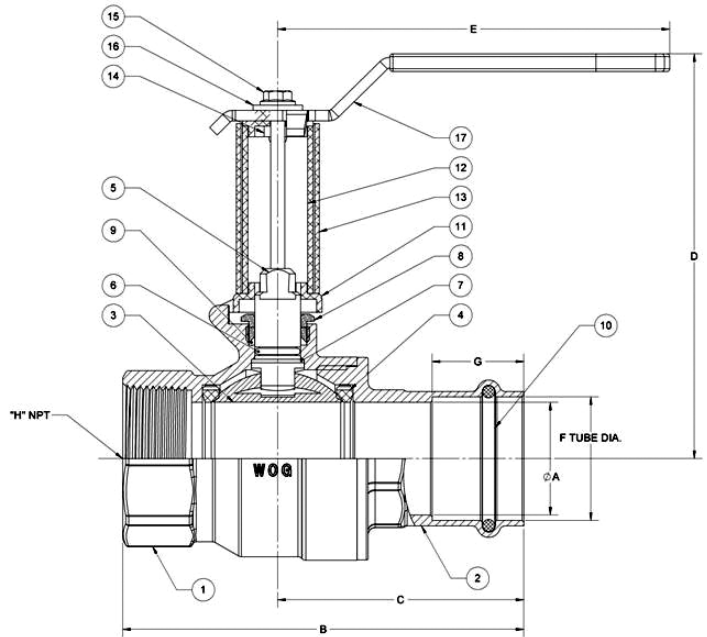


Brass Ball Valve For Potable Water
Two Piece
Full Port
200 psig @ 250°F†
Press x Threaded Ends With
Extension Stem & Memory Stop
Blow-Out Proof Stem

MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Brass, Forged	B283 C27450
2	Tailpiece	Brass, Forged	B283 C27450
3	Ball	316 Stainless Steel	A276 S31600
4	Ball Seat	PTFE	Commercial
5	Stem	316 Stainless Steel	A276 S31600
6	Stem O-Ring	Buna-N	D2000
7	Thrust Washer	PTFE	Commercial
8	Gland Nut	Brass	B124
9	Packing	PTFE	Commercial
10	Handle	Zinc Plated Steel	B633
11	Handle Bolt	Zinc Plated Steel	Commercial
12	Tube O-Ring	EPDM	D2000
13	Stem Stop Plate	Zinc Plated Steel	Commercial
14	Internal Extension Tube	Zinc Plated Steel	Commercial
15	External Extension Tube	Zinc Plated Steel	Commercial
16	Upper Stem Adapter	Zinc Plated Steel	Commercial
17	Memory Stop	Zinc Plated Steel	Commercial

*Ultra Press Valves are designed and qualified for use in copper tubing systems only, Types K, L, & M per ASTM B88.



DIMENSIONS

		UNITS	1/2" DN15	3/4" DN20	1" DN25	1-1/4" DN32	1-1/2" DN40	2" DN50
A-PORT Ø	INCHES	0.51	0.76	0.98	1.26	1.50	2.01	
	mm	13	19	25	32	38	51	
B	INCHES	2.76	3.58	3.98	4.51	5.50	6.44	
	mm	70	91	101	115	140	164	
C	INCHES	1.63	1.92	2.18	2.75	3.46	3.46	
	mm	41	49	55	70	88	88	
D	INCHES	3.55	4.08	4.28	4.53	4.65	5.13	
	mm	90	104	109	115	118	130	
E	INCHES	3.28	4.38	4.38	4.38	6.97	6.97	
	mm	83	111	111	111	177	177	
F TUBE Ø	INCHES	0.63	0.88	1.13	1.38	1.64	2.13	
	mm	16	22	29	35	42	54	
G	INCHES	0.83	0.99	0.99	1.02	1.42	1.58	
	mm	21	25	25	26	36	40	
H		1/2" NPT	3/4" NPT	1" NPT	1 1/4" NPT	1 1/2" NPT	2" NPT	
Cv		18	40	72	112	161	287	

†Non-Shock

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Bronze	B584 C89833
2	Bonnet	Bronze	B584 C89833
3	Wedge	Bronze	B584 C89833
4	Stem	Brass	B21 C46400, H02
5	Stuff Nut	Brass	B283 C37700
6	Check Nut	Brass	B283 C27450
7	Gland ¹	Brass	B283 C37700
8	Wheel Nut	Brass	Commercial
9	Handwheel	Mall. Iron	Commercial
10	Packing	Graphite	Commercial
11	Name Plate	Sh. Alum	Commercial
12	Body Seal ²	PTFE	Commercial

¹ Not used on 1/2" and smaller

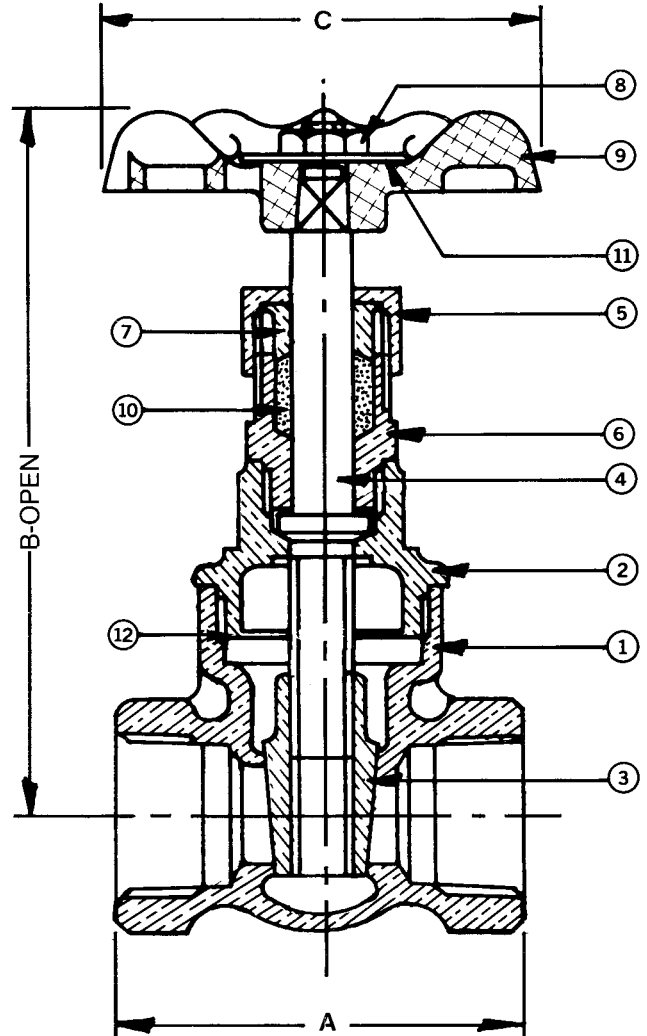
² Only used on 2 1/2" and 3" sizes

DIMENSIONS

Units	Size	A	B	C	Cv
INCHES	1/4	1.75	3.63	2.00	5.6
mm		44	92	51	
INCHES	3/8	1.81	3.63	2.00	10.7
mm		46	92	51	
INCHES	1/2	2.00	3.63	2.00	17.6
mm		51	92	51	
INCHES	3/4	2.13	4.38	2.50	32.0
mm		54	111	64	
INCHES	1	2.56	5.00	2.75	54.0
mm		65	127	70	
INCHES	1 1/4	2.78	5.31	3.13	97.0
mm		71	135	79	
INCHES	1 1/2	2.81	6.34	3.50	135.0
mm		71	161	89	
INCHES	2	3.31	7.44	3.75	230.0
mm		84	189	95	
INCHES	2 1/2	4.19	9.25	4.75	337.0
mm		106	235	121	
INCHES	3	4.63	11.00	5.25	536.0
mm		118	279	133	

† Non-Shock

Note: 2 1/2" - 3" NSF/ANSI 61 Pending



Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content $\leq 0.25\%$. Source: California Health and Safety Code (116875).

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UP105 P2* 1/2"-2"

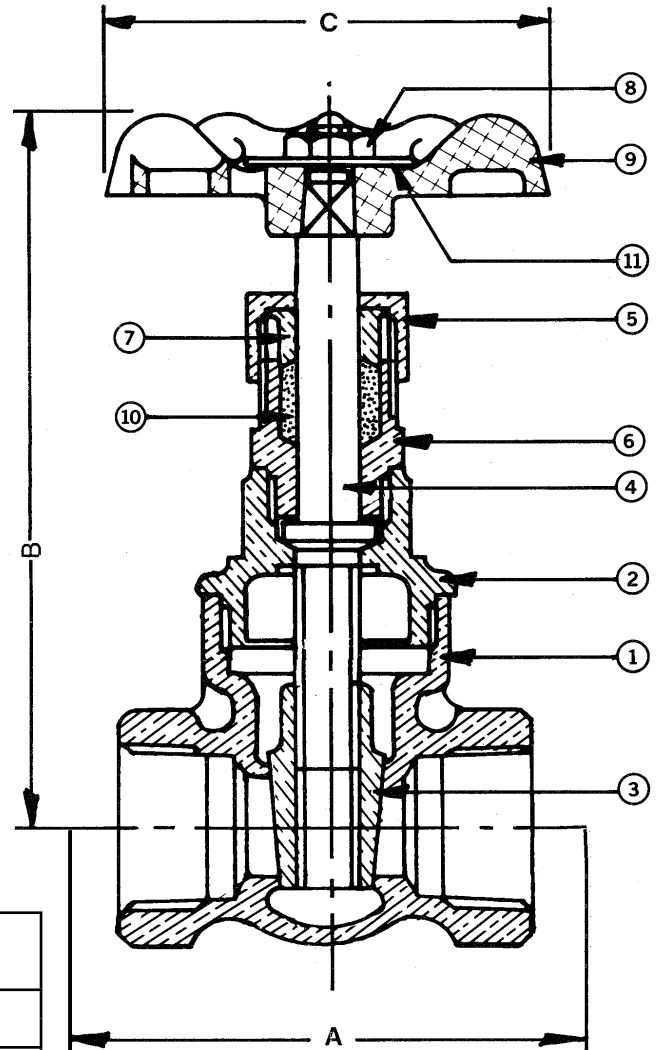
Bronze Gate Valve for Potable Water
200 psig @ 250°F †
Solid Wedge Disc • Non-Rising Stem
Threaded Bonnet • Press Ends

Dimensions and Workmanship Conform to MSS SP-80

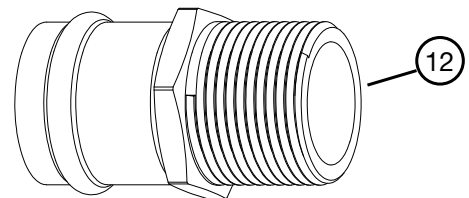
MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Bronze	B584 C89833
2	Bonnet	Bronze	B584 C89833
3	Wedge	Bronze	B584 C89833
4	Stem	Brass	B21 C46400, H02
5	Stuff Nut	Brass	B283 C37700
6	Check Nut	Brass	B283 C27450
7	Gland [†]	Brass	B283 C37700
8	Wheel Nut	Brass	Commercial
9	Handwheel	Mall. Iron	Commercial
10	Packing	Graphite	Commercial
11	Name Plate	Sh. Alum	Commercial
12	Press Adapters	Brass Fitting w/ EPDM O-Ring	ASTM C27450

† Not used on 1/2"



With Press Ends



Press End Adapter (4151 Series)

DIMENSIONS

Units	Size	STD INSERTION DEPTH	A	B	C	Cv
INCHES	1/2	.87	5.00	3.63	2.00	17.6
mm		22	127	92	51	
INCHES	3/4	.98	5.71	4.38	2.50	32.0
mm		166	145	111	64	
INCHES	1	.98	6.56	5.00	2.75	54.0
mm		166	167	127	70	
INCHES	1 1/4	1.02	6.85	5.31	3.13	97.0
mm		26	174	135	79	
INCHES	1 1/2	1.42	7.29	6.34	3.50	135.0
mm		36	185	161	89	
INCHES	2	1.58	9.31	7.44	3.75	230.0
mm		40	237	189	95	

† Non-Shock

*Both the valve and 4151 series press end adapters are approved by IAPMO to NSF / ANSI 372 for "lead free" compliance.

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

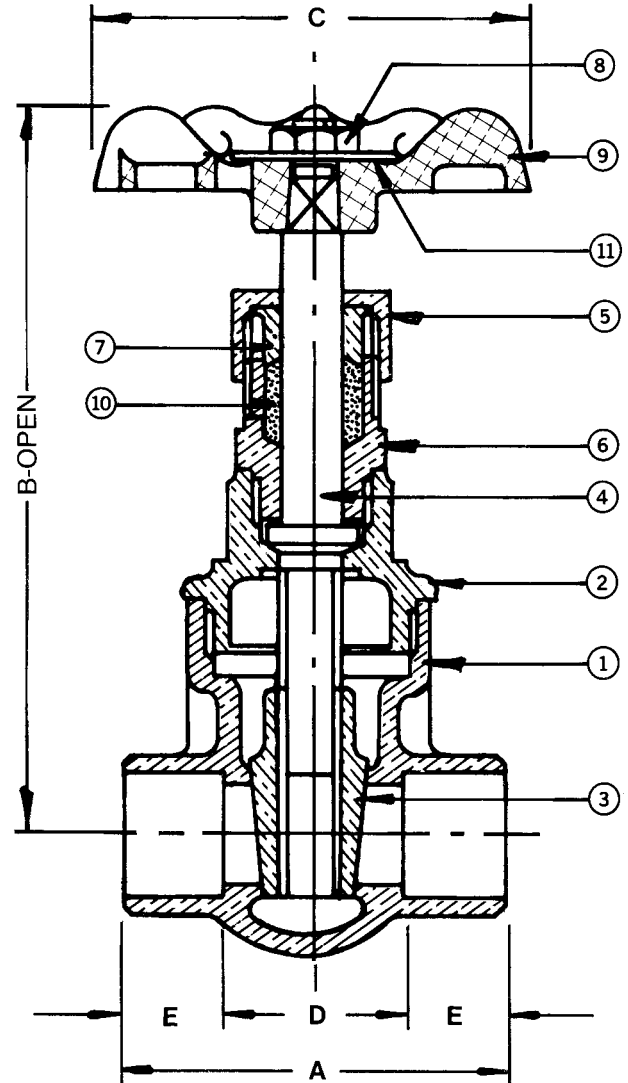
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MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Bronze	B584 C89833
2	Bonnet	Bronze	B584 C89833
3	Wedge	Bronze	B584 C89833
4	Stem	Brass	B21 C46400, H02
5	Stuff Nut	Brass	B283 C37700
6	Check Nut	Brass	B283 C27450
7	Gland ¹	Brass	B283 C37700
8	Wheel Nut	Brass	Commercial
9	Handwheel	Mall. Iron	Commercial
10	Packing	Graphite	Commercial
11	Name Plate	Sh. Alum	Commercial

1 Not used on 1/2" and smaller



DIMENSIONS

Units	Size	A	B	C	D	E	Cv
INCHES	3/8	1.63	3.56	2.00	0.88	0.38	5.6
mm		41	91	51	22	10	
INCHES	1/2	1.88	3.56	2.00	0.88	0.50	10.7
mm		48	91	51	22	13	
INCHES	3/4	2.50	4.75	2.50	1.00	0.75	17.6
mm		64	121	64	25	19	
INCHES	1	3.00	5.00	2.75	1.19	0.91	32.0
mm		76	127	70	30	23	
INCHES	1 1/4	3.25	5.88	3.13	1.31	0.97	54.0
mm		83	149	79	33	25	
INCHES	1 1/2	3.63	6.50	3.50	1.44	1.09	97.0
mm		92	165	89	37	28	
INCHES	2	4.31	7.44	3.75	1.63	1.34	135.0
mm		110	189	95	41	34	

† Non-Shock

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

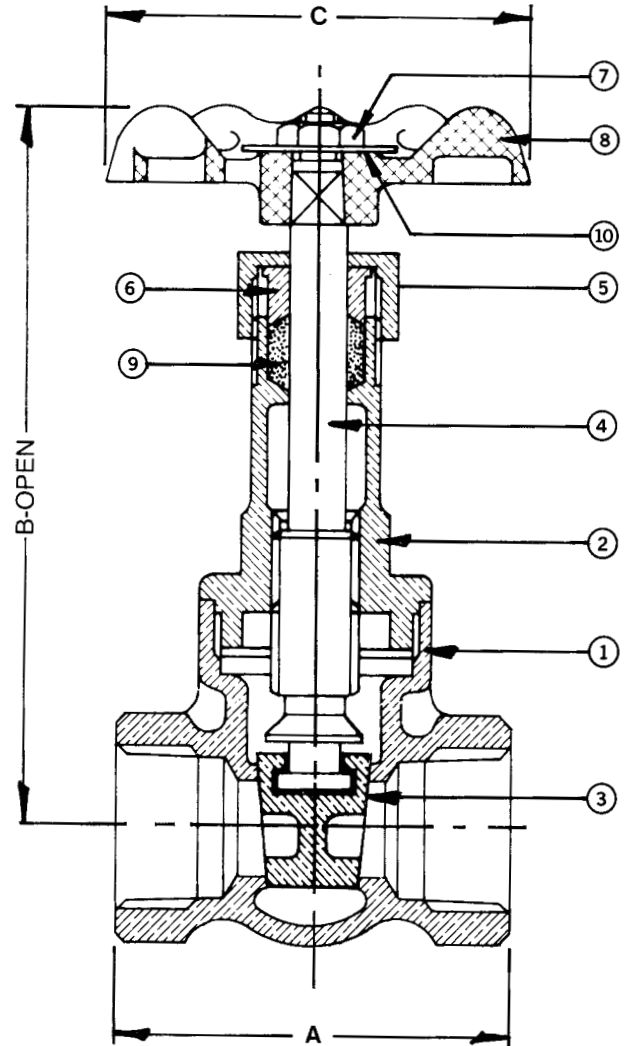
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MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Bronze	B584 C89833
2	Bonnet	Bronze	B584 C89833
3	Wedge	Bronze	B584 C89833
4	Stem	Brass	B21 C46400, H02
5	Stuff Nut	Brass	B283 C27450
6	Gland 1	Brass	B283 C27450
7	Wheel Nut	Brass	Commercial
8	Handwheel	Mall. Iron	Commercial
9	Packing	Graphite	Commercial
10	Name Plate	Sh. Alum	Commercial

1 Not used on 1/2" and smaller



DIMENSIONS

Units	Size	A	B	C	Cv
INCHES	1/4	1.75	4.38	2.00	5.6
mm		44	111	6	
INCHES	3/8	1.81	4.38	2.00	10.7
mm		46	111	6	
INCHES	1/2	2.00	4.38	2.00	17.6
mm		51	111	6	
INCHES	3/4	2.13	5.84	2.50	32.0
mm		54	148	64	
INCHES	1	2.56	7.06	2.75	54.0
mm		65	179	70	
INCHES	1 1/4	2.78	8.78	3.13	97.0
mm		71	223	79	
INCHES	1 1/2	2.81	9.50	3.50	135.0
mm		71	241	89	
INCHES	2	3.31	11.50	3.75	230.0
mm		84	292	95	

† Non-Shock

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content $\leq 0.25\%$. Source: California Health and Safety Code (116875).

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UP148 P2* 1/2"-2"

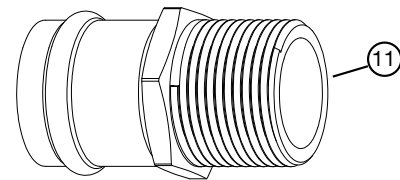
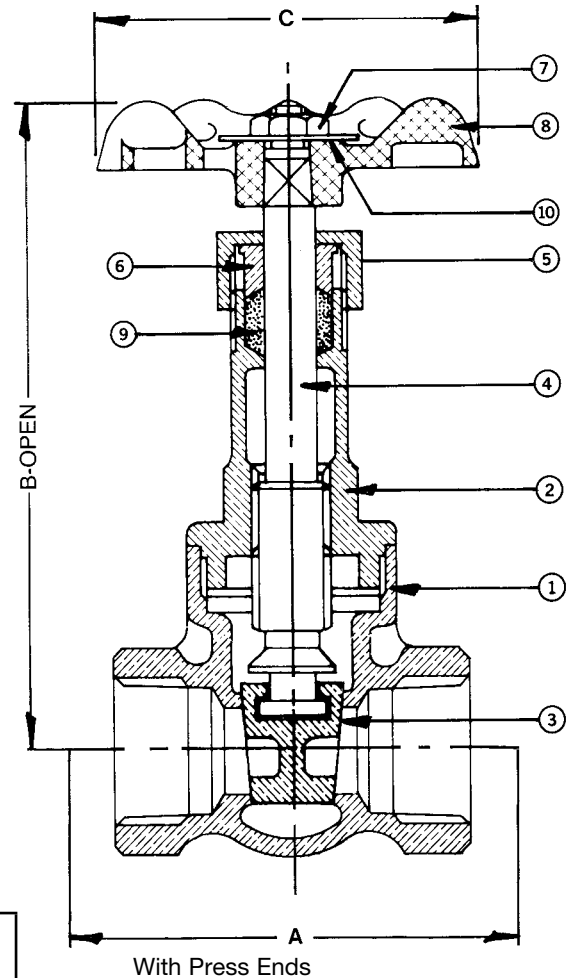
Bronze Gate Valve for Potable Water
200 psig @ 250°F †
Solid Wedge Disc • Rising Stem
Threaded Bonnet • Press Ends

Dimensions and Workmanship Conform to MSS SP-80

MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Bronze	B584 C89833
2	Bonnet	Bronze	B584 C89833
3	Wedge	Bronze	B584 C89833
4	Stem	Brass	B21 C46400, H02
5	Stuff Nut	Brass	B283 C27450
6 [†]	Gland	Brass	B283 C27450
7	Wheel Nut	Brass	Commercial
8	Handwheel	Mall. Iron	Commercial
9	Packing	Graphite	Commercial
10	Name Plate	Sh. Alum	Commercial
11	Press Adapter	Brass Fitting w/ EPDM O-Ring	ASTM C27450

† Not used on 1/2"



Press End Adapter (4151 Series)

DIMENSIONS

Units	Size	STD INSERTION DEPTH	A	B	C	Cv
INCHES	1/2	.87	5.00	4.38	2.00	17.6
mm		22	127	111	51	
INCHES	3/4	.98	5.71	5.84	2.50	32.0
mm		166	145	148	64	
INCHES	1	.98	6.56	7.06	2.75	54.0
mm		166	167	179	70	
INCHES	1 1/4	1.02	6.85	8.78	3.13	97.0
mm		26	174	223	79	
INCHES	1 1/2	1.42	7.29	9.50	3.50	135.0
mm		36	185	241	89	
INCHES	2	1.58	9.31	11.50	3.75	230.0
mm		40	236	292	95	

† Non-Shock

*Both the valve and 4151 series press end adapters are approved by IAPMO to NSF / ANSI 372 for "lead free" compliance.

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content $\leq 0.25\%$. Source: California Health and Safety Code (116875).

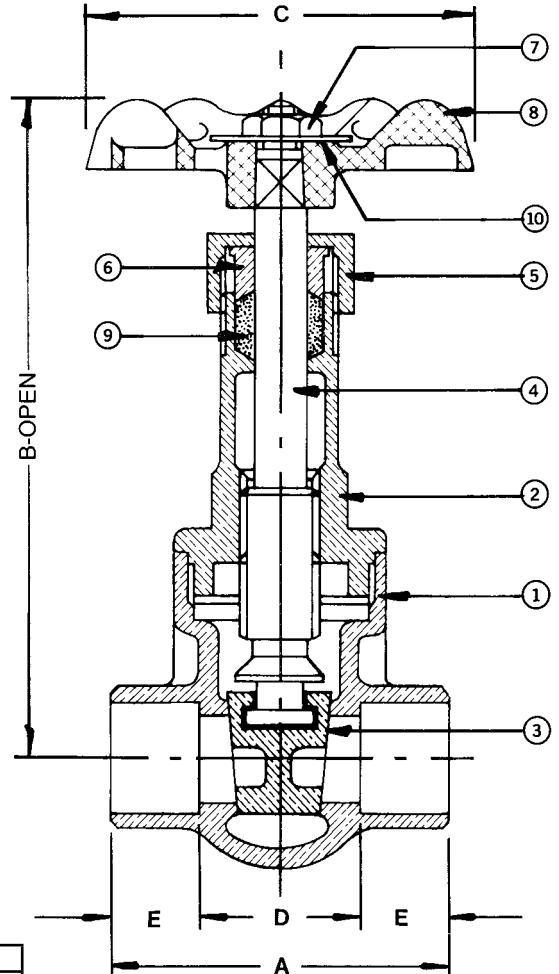
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MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Bronze	B584 C89833
2	Bonnet	Bronze	B584 C89833
3	Wedge	Bronze	B584 C89833
4	Stem	Brass	B21 C46400, H02
5	Stuff Nut	Brass	B283 C27450
6	Gland ¹	Brass	B283 C27450
7	Wheel Nut	Brass	Commercial
8	Handwheel	Mall. Iron	Commercial
9	Packing	Graphite	Commercial
10	Name Plate	Sh. Alum	Commercial

¹ Not used on 1/2" and smaller



DIMENSIONS

Units	Size	A	B	C	D	E	Cv
INCHES	3/8	1.63	4.31	2.00	0.88	0.38	5.6
mm		41	110	51	22	10	
INCHES	1/2	1.88	4.31	2.00	0.88	0.50	10.7
mm		48	110	51	22	13	
INCHES	3/4	2.50	6.25	2.50	1.00	0.75	17.6
mm		64	159	64	25	19	
INCHES	1	3.00	7.00	2.75	1.19	0.91	32.0
mm		76	178	70	30	23	
INCHES	1 1/4	3.25	8.63	3.13	1.31	0.97	54.0
mm		83	219	79	33	25	
INCHES	1 1/2	3.63	9.50	3.50	1.44	1.09	97.0
mm		92	241	89	37	28	
INCHES	2	4.31	11.50	3.75	1.63	1.34	135.0
mm		110	292	95	41	34	

† Non-Shock

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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UP667 & UP668 1/4"-2"



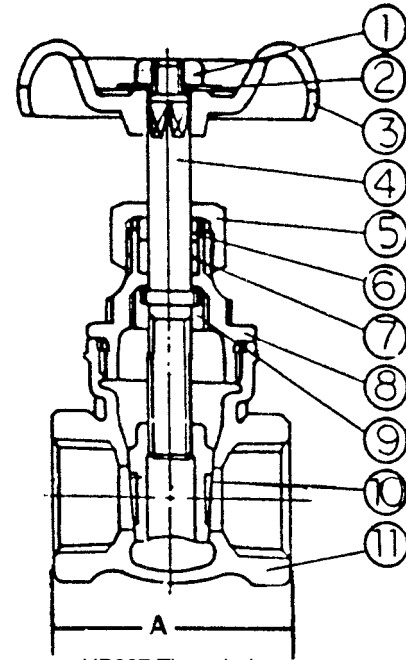
Brass Gate Valve for Potable Water
200 WOG

Threaded Bonnet

Threaded Ends (UP667) • Solder Ends (UP668)

MATERIALS LIST

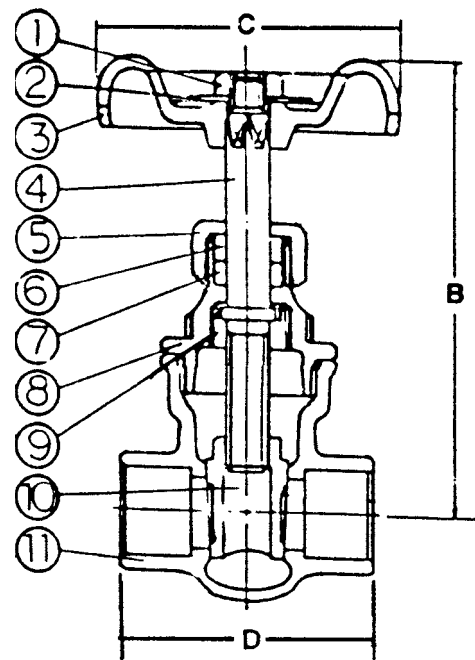
ITEM	PART	MATERIALS	ASTM SPEC.
1	Handwheel Nut	Brass	B16 C36000
2	Nameplate	Aluminum Sheet	Commercial
3	Handwheel	Cast Iron	A48, Class 35
4	Stem	Brass	B283 C27450
5	Packing Nut	Forged Brass	B283 C27450
6	Gland	Brass Rod	B283 C27450
7	Packing Ring	PTFE	Commercial
8	Bonnet	Forged Brass	B283 C27450
9	Locknut	Brass Rod	B283 C27450
10	Wedge	Forged Brass	B283 C27450
11	Body	Forged Brass	B283 C27450



UP667 Threaded

DIMENSIONS

Units	Size	A	B	C	D	Cv
INCHES	1/4	1.63	2.84	2.13	-	5.6
mm		41	72	54		
INCHES	3/8	1.63	2.84	2.13	1.63	10.7
mm		41	72	54	41	
INCHES	1/2	1.69	2.91	2.13	1.78	17.6
mm		43	74	54	45	
INCHES	3/4	1.84	3.31	2.13	2.31	32.0
mm		47	84	54	59	
INCHES	1	2.19	3.94	2.41	2.84	54.0
mm		56	100	61	72	
INCHES	1 1/4	2.42	4.34	2.94	3.00	97.0
mm		61	110	75	76	
INCHES	1 1/2	2.44	4.94	2.94	3.22	135.0
mm		62	125	75	82	
INCHES	2	2.84	6.03	3.19	3.97	230.0
mm		72	153	81	101	



UP668 Solder

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content $\leq 0.25\%$. Source: California Health and Safety Code (116875).

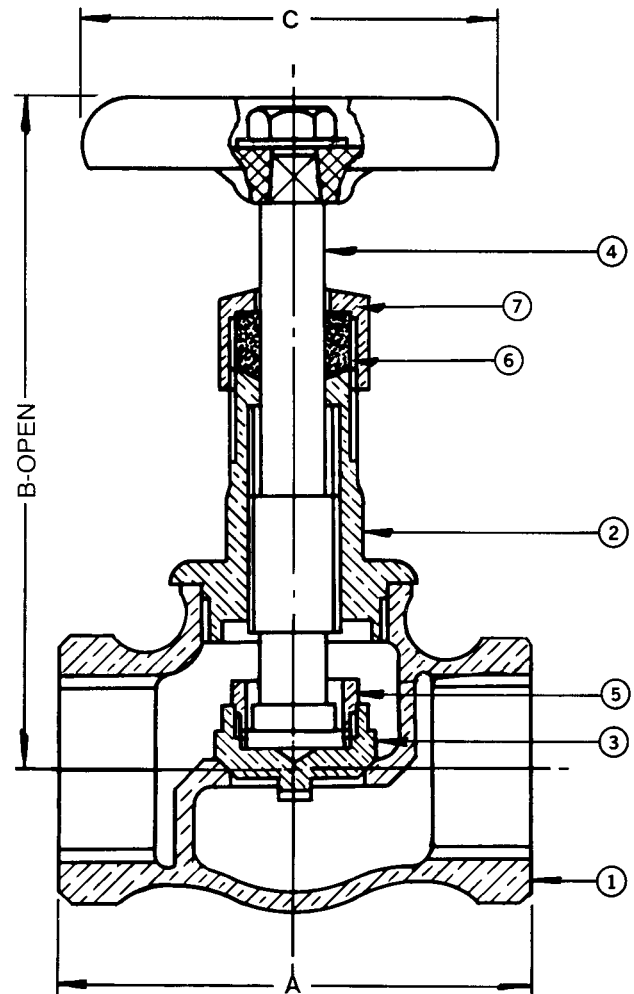
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MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Bronze	B584 C89833
2	Bonnet	Bronze	B584 C89833
3	Disc	Bronze	ASTM B584 C89833
		Brass	B21 C46400, H02
4	Stem	Brass	ASTM B21 C46400, H02
5	Disc Ring	Brass	ASTM B21 C46400, H02
6	Packing	Graphite	Commercial
7	Packing Nut	Brass	B16 C36000
8	Handwheel	Mall. Iron	Commercial
9	Identification Plate	Aluminum	Commercial
10	Handwheel Nut	Brass	Commercial

1/4" to 1/2" sizes have the disc integral with the stem and have no disc ring.



DIMENSIONS

Units	Size	A	B	C	Cv
INCHES	1/8	1.63	3.06	2.00	0.6
mm		41	78	51	
INCHES	1/4	1.63	3.06	2.00	1.2
mm		41	78	51	
INCHES	3/8	1.81	3.19	2.00	2.2
mm		46	81	51	
INCHES	1/2	2.31	3.63	2.25	3.6
mm		59	92	57	
INCHES	3/4	2.56	3.94	2.50	6.7
mm		65	100	64	
INCHES	1	2.94	4.38	2.75	11.1
mm		75	111	70	
INCHES	1 1/4	3.38	5.19	3.13	20.0
mm		86	132	79	
INCHES	1 1/2	3.69	5.75	3.50	28.0
mm		94	146	89	
INCHES	2	4.44	6.75	4.00	48.0
mm		113	172	102	

† Non-Shock

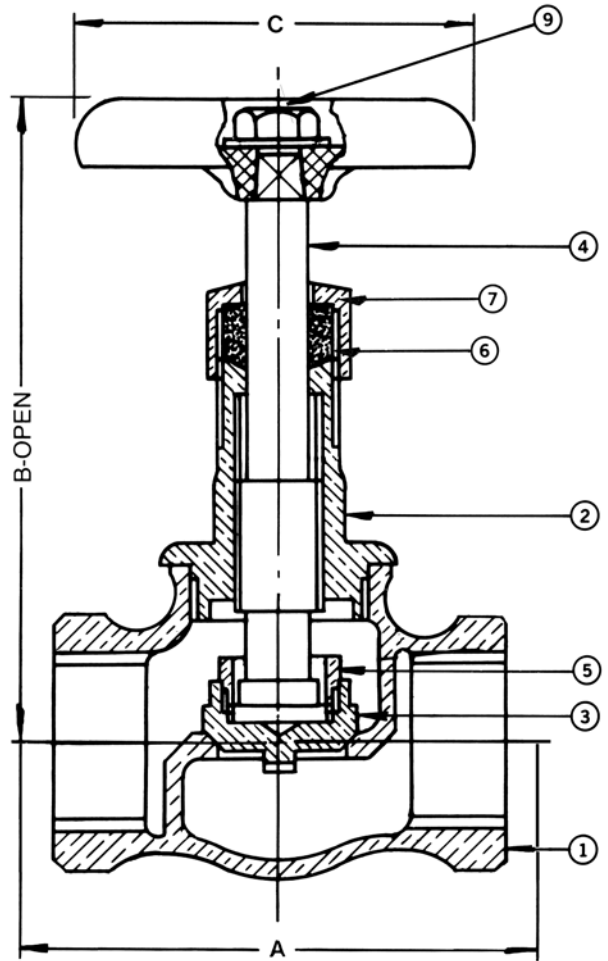
Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content $\leq 0.25\%$. Source: California Health and Safety Code (116875).

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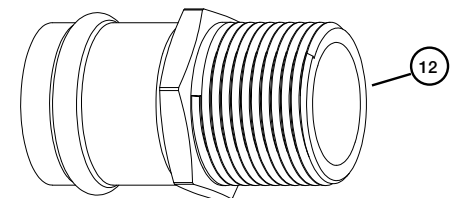
MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Bronze	B584 C89833
2	Bonnet	Bronze	B584 C89833
3	Disc	Bronze	B584 C89833
		Brass	B21 C46400, H02
4	Stem	Brass	B21 C46400, H02
5	Disc Ring	Brass	B21 C46400, H02
6	Packing	Graphite	Commercial
7	Packing Nut	Brass	B16 C36000
8	Handwheel	Mall. Iron	Commercial
9	Identification Plate	Aluminum	Commercial
10	Handwheel Nut	Brass	Commercial
11	Gland (not shown)	Brass	B16 C36000
12	Press Adapter	Brass Fitting w/ EPDM O-Ring	B283 C27450

1/2" sizes has the disc integral with the stem and have no disc ring.



With Press Ends



Press End Adapter (4151 Series)

DIMENSIONS

Units	Size	STD INSERTION DEPTH	A	B	C	Cv
INCHES	1/2	.87	5.31	3.63	2.25	3.6
mm		22	135	92	57	
INCHES	3/4	.98	6.14	3.94	2.50	6.6
mm		166	156	100	64	
INCHES	1	.98	6.94	4.38	2.75	11.1
mm		166	176	111	70	
INCHES	1 1/4	1.02	7.45	5.19	3.13	20.0
mm		26	189	132	79	
INCHES	1 1/2	1.42	8.17	5.75	3.50	28.0
mm		36	208	146	89	
INCHES	2	1.58	10.44	6.75	4.00	48.0
mm		40	265	172	102	

† Non-Shock

*Both the valve and 4151 series press end adapters are approved by IAPMO to NSF / ANSI 372 for "lead free" compliance.

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

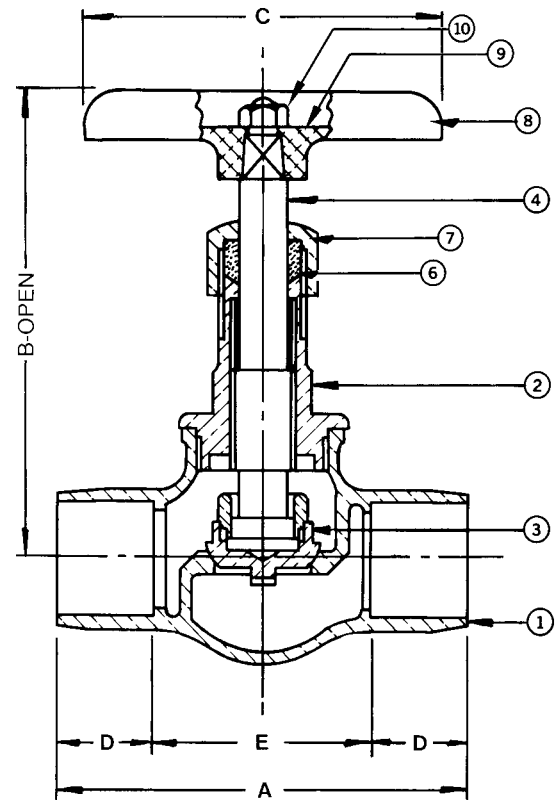
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MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Bronze	B584 C89833
2	Bonnet	Bronze	B584 C89833
3	Disc	Bronze	B584 C89833, ASTM
		Brass	B21 C46400, H02
4	Stem	Bronze	B21 C46400, H02
5	Disc Ring	Brass	B21 C46400, H02
6	Packing	Graphite	Commercial
7	Packing Nut	Brass	B16 C30000
8	Handwheel	Mall. Iron	Commercial
9	Identification Plate	Aluminum	Commercial
10	Handwheel Nut	Brass	Commercial

*1/2" sizes has the disc integral with the stem and have no disc ring.



DIMENSIONS

Units	Size	A	B	C	D	D	Gv
INCHES	3/8	2.00	3.19	2.00	0.38	1.25	2.2
mm		51	81	51	10	32	
INCHES	1/2	2.44	3.75	2.25	0.50	1.44	3.6
mm		62	95	57	13	37	
INCHES	3/4	3.19	4.00	2.50	0.75	1.69	6.7
mm		81	102	64	19	43	
INCHES	1	3.69	4.38	2.75	0.91	1.88	11.1
mm		94	111	70	23	48	
INCHES	1 1/4	4.19	5.13	3.13	0.97	2.25	20.0
mm		106	130	79	25	57	
INCHES	1 1/2	4.75	5.63	3.50	1.09	2.56	28.0
mm		121	143	89	28	65	
INCHES	2	5.94	6.69	4.00	1.34	3.25	48.0
mm		151	170	102	34	83	

† Non-Shock

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UP509 1/4"-3"*



Bronze Check Valve For Potable Water
300 WOG† (1/4" - 2") 200 psig WOG †(2 1/2" -3")
Horizontal Swing • Threaded Ends
Dimensions and Workmanship Conform to MSS SP-80

*NSF-61 approved to 2"
 2 1/2"-3" pending NSF-61 approval

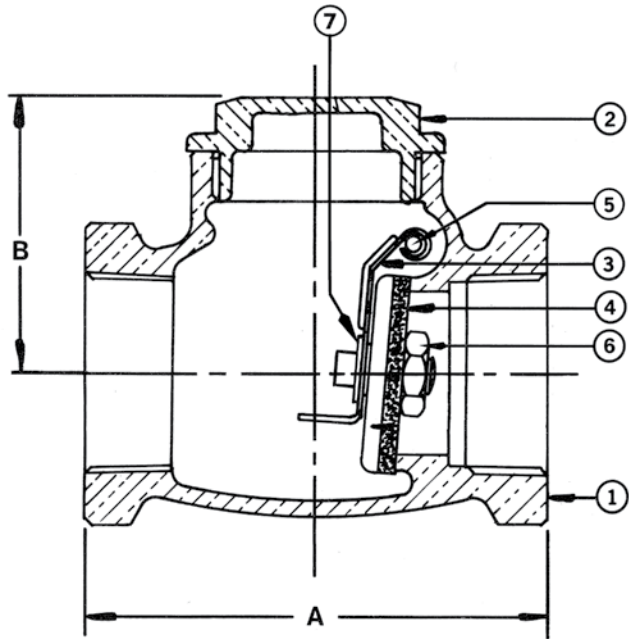
MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Bronze	B584 C89833
2	Cap	Bronze	B584 C89833
3	Lever	Stainless Steel (1/4"-2")	A276 S30200
		Bronze (2 1/2"-3")	B584 C89833
4	Disc	Brass	ASTM B21 C46400, H02 (1/4"-1 1/2")
		Bronze	ASTM B584 C89833 (2"-3")
5	Pin	Stainless Steel	A276 S30400 (1"-2")
		Stainless Steel	A582 S30300 (1/4"-3/4") (2 1/2"-3")
6	Disc Nut	Brass	B21 C46400 H02 (2 1/2"-3")
7	Retaining Ring	Stainless Steel	A276 S30400
8	Plug (not shown)	Brass	B21 C46400, H02

DIMENSIONS

Units	Size	A	B	Cv
INCHES	1/4	2.13	1.44	3.3
		54	37	
INCHES	3/8	2.13	1.44	6.0
		54	37	
INCHES	1/2	2.31	1.44	10.0
		59	37	
INCHES	3/4	2.63	1.69	18.0
		67	43	
INCHES	1	3.25	2.00	31.0
		83	51	
INCHES	1 1/4	3.56	2.13	54.0
		91	54	
INCHES	1 1/2	4.00	2.38	76.0
		102	60	
INCHES	2	4.75	2.81	131.0
		130	208	
INCHES	2 1/2	6.00	3.63	233.8
		152	92	
INCHES	3	6.88	4.19	286.4
		175	106	

† Non-Shock



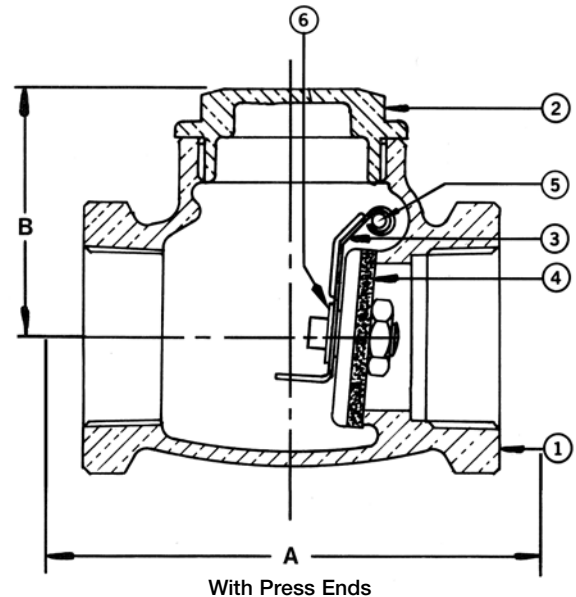
Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content $\leq 0.25\%$. Source: California Health and Safety Code (116875).

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MATERIALS LIST

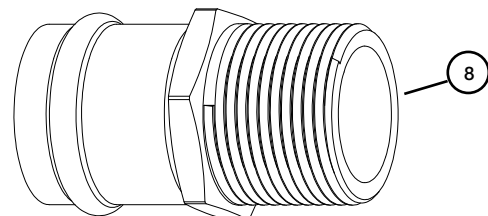
ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Bronze	B584 C89833
2	Cap	Bronze	B584 C89833
3	Lever	Stainless Steel	A276 S30200
4	Disc	Brass	B21 C46400, H02 (1/2"-1 1/2") Incl. ASTM B584 C89833 (2")
5	Pin	Stainless Steel	A276 S30400 (1"-2") A582 S30300 (1/2"-3/4")
6	Retaining Ring	Stainless Steel	Commercial
7	Plug (not shown)	Brass	ASTM B21 C46400, H02
8	Press Adapter	Brass Fitting w/ EPDM O-Ring	ASTM C27450



DIMENSIONS

Units	Size	STD INSERTION DEPTH	A	B	Cv
INCHES	1/2	.87	5.31	1.44	10.0
mm		22	135	37	
INCHES	3/4	.98	6.21	1.69	18.0
mm		166	158	43	
INCHES	1	.98	7.25	2.00	31.0
mm		166	184	51	
INCHES	1 1/4	1.02	7.63	2.13	54.0
mm		26	194	54	
INCHES	1 1/2	1.42	8.48	2.38	76.0
mm		36	215	60	
INCHES	2	1.58	10.75	2.81	131.0
mm	51	40	273	208	

† Non-Shock



Press End Adapter (4151 Series)

*Both the valve and 4151 series press end adapters are approved by IAPMO to NSF / ANSI 372 for "lead free" compliance.

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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UP1509 3/8" - 3"*

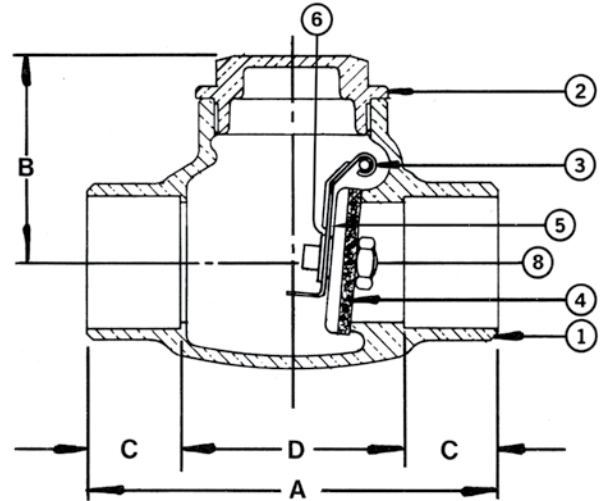


Bronze Check Valve For Potable Water
300 WOG† (3/8" - 2") 200 psig WOG †(2 1/2" - 3")
Bronze Disc
Horizontal Swing • Solder Ends
Dimensions and Workmanship Conform to MSS SP-80

2"-3" sizes are not certified to NSF/ANSI 61 (certification pending)

MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Bronze	B584 C89833
2	Cap	Bronze	B584 C89833
3	Pin	Stainless Steel	A276 S30400 (3/8"-1") A582 S30300 (1 1/4"-2")
4	Disc	Brass	B21 C46400, H02
		Bronze	B584 C89833 (2"-3")
5	Lever	Stainless Steel	A276 S530200
6	Retaining Ring	Stainless Steel	A276 S530400
7	Plug (not shown)	Brass	B21 C46400, H02
8	Disc Nut	Brass	B21 C46400, H02 (2 1/2"-3")



DIMENSIONS

Units	Size	A	B	C	D	Cv
INCHES	3/8	2.25	1.44	.38	1.50	6.0
mm		57	37	10	38	
INCHES	1/2	2.56	1.44	.50	1.56	10.0
mm		65	37	13	40	
INCHES	3/4	3.31	1.69	.75	1.75	18.0
mm		84	43	19	45	
INCHES	1	4.00	1.97	.91	2.19	31.0
mm		102	50	23	56	
INCHES	1 1/4	4.25	2.16	.97	2.31	54.0
mm		108	55	25	59	
INCHES	1 1/2	4.94	2.41	1.09	2.75	76.0
mm		125	61	28	70	
INCHES	2	6.13	2.81	1.34	3.44	131.0
mm		156	72	34	87	
INCHES	2 1/2	7.38	3.63	1.48	4.42	233.8
mm		187	92	38	112	
INCHES	3	8.50	4.19	1.66	5.19	286.4
mm		216	106	42	132	

† Non-Shock

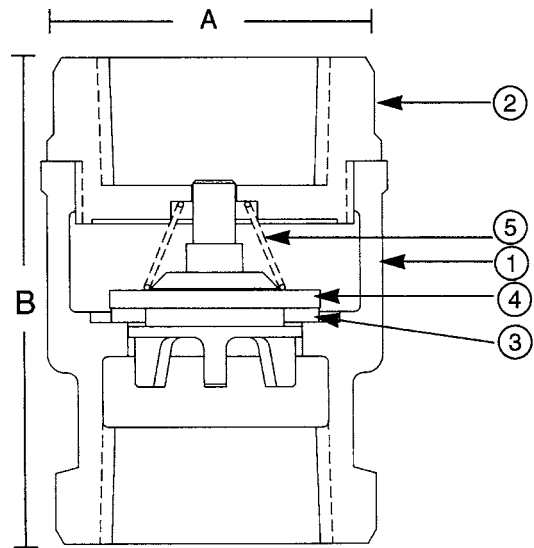
Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Cast Bronze	B584 C89833
2	Tail Piece	Cast Bronze	B584 C89833
3	Disc	PTFE	Commercial
4	Disc Holder	Cast Bronze	B584 C89833
5	Spring	Stainless Steel	A276 S30400



Note: Check Valves may be installed in both the horizontal and vertical lines with upward flow or in any intermediate position.

DIMENSIONS

Units	Size	A	B	Cv
INCHES	3/8	1.22	1.97	2.5
mm		31	50	
INCHES	1/2	1.22	2.09	4.1
mm		31	53	
INCHES	3/4	1.50	2.31	7.6
mm		38	59	
INCHES	1	1.91	2.66	13.0
mm		48	67	
INCHES	1 1/4	2.16	3.09	23.0
mm		55	79	
INCHES	1 1/2	2.59	3.31	31.0
mm		66	84	
INCHES	2	3.13	3.78	54.0
mm		79	96	

† Non-Shock

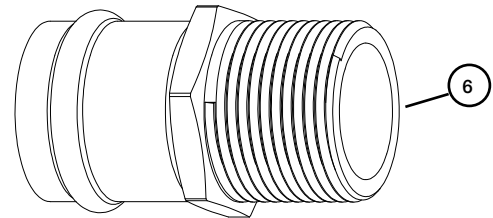
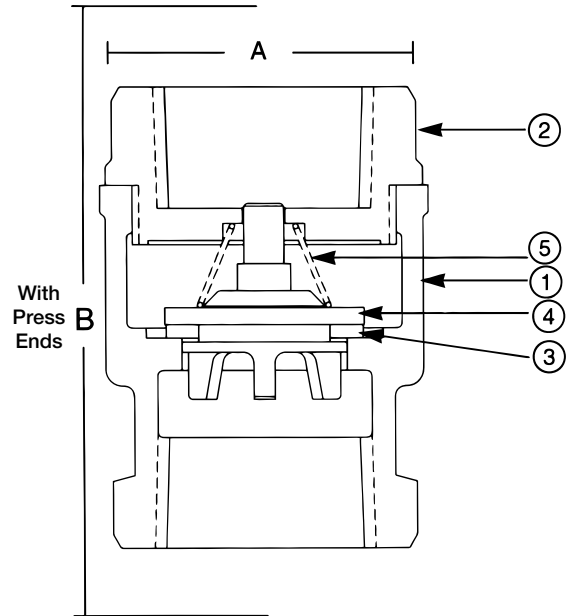
Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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UP548T P2* 1/2"-2"

MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Cast Bronze	B584 C89833
2	Tail Piece	Cast Bronze	B584 C89833
3	Disc	PTFE	Commercial
4	Disc Holder	Cast Bronze	B584 C89833
5	Spring	Stainless Steel	A276 S30400
6	Press Adapter	Brass Fitting w/ EPDM O-Ring	B283 C27450



Press End Adapter (4151 Series)

DIMENSIONS

Units	Size	STD INSERTION DEPTH	A	B	Cv
INCHES	1/2	.87	1.22	4.22	4.1
mm		22	31	107	
INCHES	3/4	.98	1.50	5.08	7.6
mm		166	38	129	
INCHES	1	.98	1.91	5.91	13.0
mm		166	48	150	
INCHES	1 1/4	1.02	2.16	6.23	23.0
mm		26	55	158	
INCHES	1 1/2	1.42	2.59	7.07	31.0
mm		36	66	180	
INCHES	2	1.58	3.13	9.13	54.0
mm		40	79	232	

† Non-Shock

Do not use for reciprocating air compressor service.

Note 1: Check Valves may be installed in both the horizontal and vertical lines with upward flow or in any intermediate position.

*Both the valve and 4151 series press end adapters are approved by IAPMO to NSF / ANSI 372 for "lead free" compliance.

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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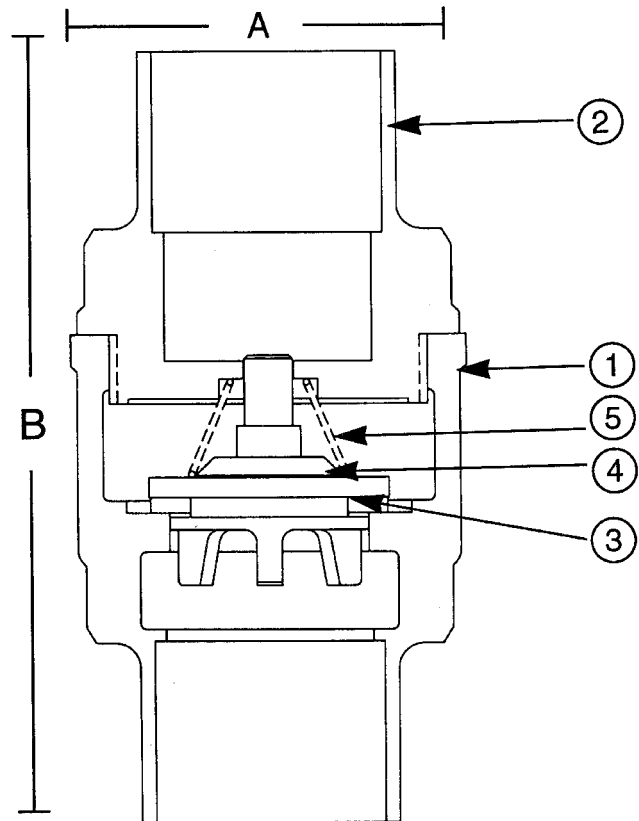
MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Cast Bronze	B584 C89833
2	Tail Piece	Cast Bronze	B584 C89833
3	Disc	PTFE	Commercial
4	Disc Holder	Cast Bronze	B584 C89833
5	Spring	Stainless Steel	A276 S30400

DIMENSIONS

Units	Size	A	B	Cv
INCHES	3/8	1.22	2.16	2.5
mm		31	55	
INCHES	1/2	1.22	2.41	4.1
mm		31	61	
INCHES	3/4	1.50	2.81	7.6
mm		38	71	
INCHES	1	1.91	3.53	13.0
mm		48	90	
INCHES	1 1/4	2.16	4.88	23.0
mm		55	124	
INCHES	1 1/2	2.59	4.22	31.0
mm		66	107	
INCHES	2	3.13	5.09	54.0
mm		79	129	

† Non-Shock



Note: Check Valves may be installed in both the horizontal and vertical lines with upward flow or in any intermediate position.

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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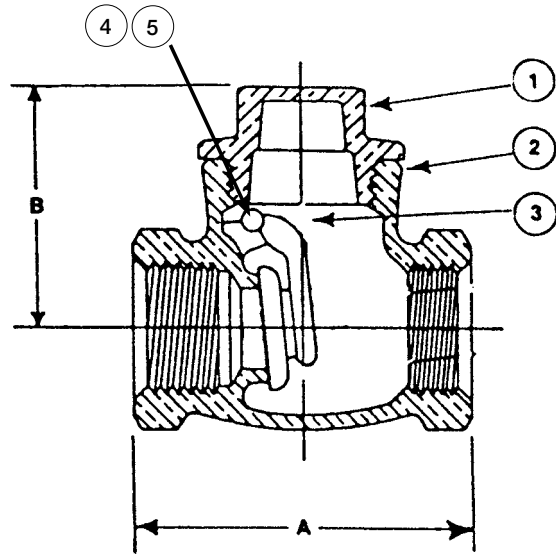
UP967 & UP968 3/8"-3"



Brass Swing Check Valve for Potable Water
200 WOG †
Brass Disc
Threaded Bonnet
Threaded Ends (UP967) • Solder Ends (UP968)

MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Cap	Forged Brass	B283, C27450
2	Body	Forged Brass	B283, C27450
3	Disc	Forged Brass	B283, C27450
4	Side Plug	Stainless Steel	A276, S30400
5	Pin	Stainless Steel	A276, S30400



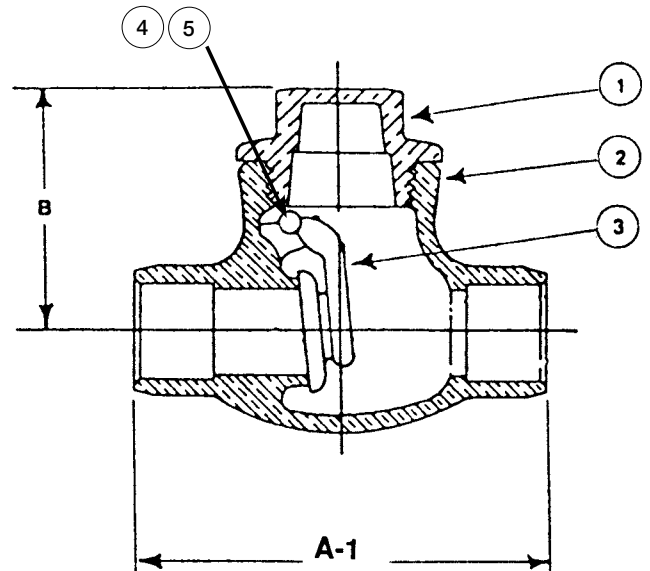
UP967 Threaded

DIMENSIONS

Units	Size	A	A-1	B
INCHES	3/8	1.82	-	1.35
mm		46	-	34
INCHES	1/2	1.86	2.18	1.35
mm		47	55	34
INCHES	3/4	2.11	2.85	1.53
mm		54	72	39
INCHES	1	2.52	3.46	1.74
mm		64	88	44
INCHES	1 1/4	2.72	3.70	1.99
mm		69	94	51
INCHES	1 1/2	3.23	4.33	2.28
mm		82	110	58
INCHES	2	3.70	5.12	2.48
mm		94	130	63
INCHES	2 1/2	5.20	6.73	3.11
mm		132	171	79
INCHES	3	5.83	7.48	3.81
mm		148	190	97

Warning: DO NOT USE for reciprocation
air compressor service.

† Non-Shock



UP968 Solder

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

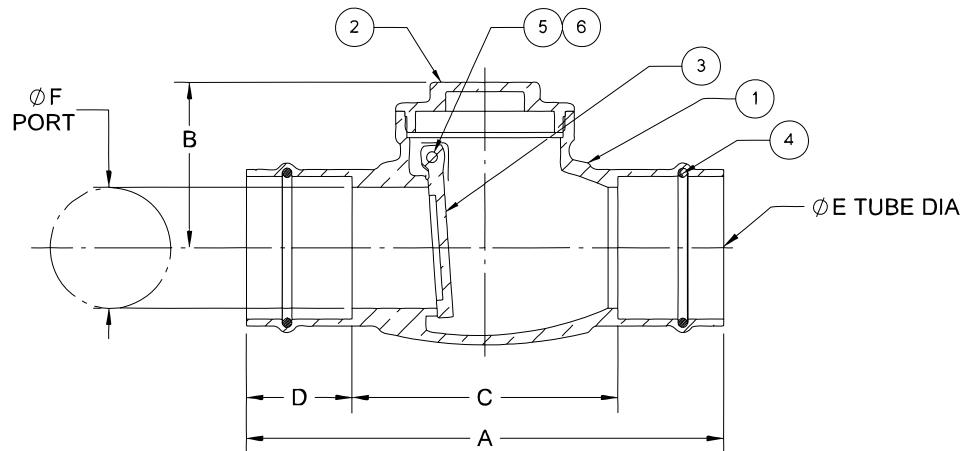
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MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Brass	B283, C27450
2	Cap	Brass	B283, C27450
3	Disc	Brass	B283, C27450
4	O-Ring	EPDM	Commercial
5	Pin	Stainless Steel	A276, S30400
6	Side Plug	Brass	B124 C27450



DIMENSIONS

Units	Size	A	B	C	D	E	F
INCHES	1/2	3.35	1.38	1.70	0.83	0.63	0.50
mm		85	35	43	21	16	13
INCHES	3/4	3.74	1.43	1.75	0.99	0.88	0.75
mm		95	36	45	25	23	19
INCHES	1	4.36	1.74	2.38	0.99	1.13	0.93
mm		111	44	61	25	29	24
INCHES	1 1/4	4.97	1.99	2.92	1.02	1.38	1.24
mm		126	51	74	26	35	32
INCHES	1 1/2	6.13	2.28	3.30	1.42	1.63	1.38
mm		156	58	84	36	42	35
INCHES	2	7.16	2.48	3.99	1.59	2.13	1.81
mm		182	63	101	40	54	46

† Non-Shock

* Ultra Press Valves are designed and qualified for use in copper tubing systems only, Types K, L, & M per ASTM B88. For installation instructions please see engineering section on website.

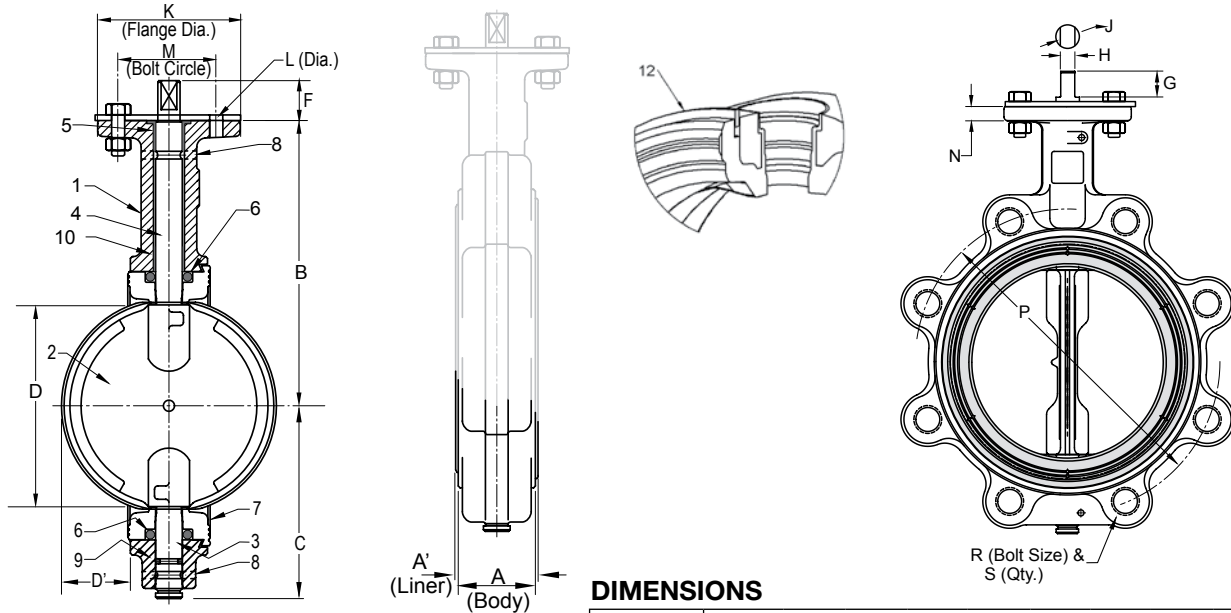
Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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CL Series-Rev. D 2"-12"

Iron Butterfly Valve for Potable Water
200 psi Non-Shock WOG
Bi-Directional Dead End Service to 200 psi Max
Specifications: API-609 MSS SP-67 Type 1



MATERIALS LIST

ITEM	PART	MATERIALS
1	BODY	CAST IRON ASTM A126 CL B
2	DISC	ALUMINUM BRONZE ASTM B148
3	BOTTOM STEM	STAINLESS STEEL TYPE 416
4	TOP STEM	STAINLESS STEEL TYPE 416
5	TOP BEARING	REINFORCED NYLON
6	SEAL	EPDM
7	LINER	EPDM
8	ROLL PIN	STAINLESS STEEL
9	STEM SEAL	EPDM
10	LOWER BEARING	REINFORCED NYLON
11	OPERATOR	LEVER HANDLE
		EPOXY COATED LEVER HANDLE
		GEAR OPERATOR
		GEAR OPERATOR WITH MEMORY STOP
		GEAR OPERATOR WITH LOCK
12	RETAINING RING	ST1066 SPRING STEEL (65Mn)

DIMENSIONS

	INCHES DN	VALVE SIZE									
		2	2-1/2	3	4	5	6	8	10	12	
A (Body)	INCHES	1.69	1.81	1.81	2.07	2.19	2.19	2.38	2.69	3.06	
	mm	43	46	46	52	55	55	60	68	78	
A ¹ (Liner)	INCHES	1.82	1.94	1.94	2.20	2.32	2.32	2.51	2.82	3.21	
	mm	46	49	49	55	58	58	63	71	82	
B	INCHES	5.50	6.00	6.25	7.00	7.53	8.00	9.38	10.56	12.06	
	mm	139	152	158	177	191	203	238	268	306	
C	INCHES	3.06	3.31	3.75	4.25	4.94	5.56	5.56	7.88	9.25	
	mm	77	84	95	108	125	141	166	200	235	
D (Chord Dia)	INCHES	1.49	2.01	2.64	3.67	4.71	5.66	7.72	9.70	11.68	
	mm	37	51	67	93	119	143	196	246	296	
D ¹ (Intrusion)	INCHES	0.28	0.44	0.69	1.06	1.50	1.94	2.84	3.69	4.50	
	mm	7	11	17	27	38	49	72	93	114	
F	INCHES	1.13	1.13	1.13	1.13	1.13	1.13	1.50	1.50	1.50	
	mm	28	28	28	28	28	28	38	38	38	
G	INCHES	0.81	0.81	0.81	0.81	0.81	0.81	1.06	1.06	1.06	
	mm	20	20	20	20	20	20	27	27	27	
H	INCHES	0.35	0.35	0.35	0.40	0.40	0.44	0.53	0.71	0.71	
	mm	8	8	8	10	10	11	13	18	18	
J	INCHES	0.50	0.50	0.50	0.56	0.56	0.62	0.75	1.00	1.00	
	mm	12	12	12	14	14	14	19	25	25	
K	INCHES	0.44	0.44	0.44	0.44	0.44	0.44	0.56	0.56	0.56	
	mm	11	11	11	11	11	11	14	14	14	
L (Dia)	INCHES	3.25	3.25	3.25	3.25	3.25	3.25	5.00	5.00	5.00	
	mm	82	82	82	82	82	82	127	127	127	
M	INCHES	0.44	0.44	0.44	0.44	0.44	0.44	0.50	0.50	0.50	
	mm	11	11	11	11	11	11	12	12	12	
N	INCHES	4.75	5.50	6.00	7.50	8.50	9.50	11.75	14.25	17.00	
	mm	120	139	152	190	215	241	298	362	431	
P	INCHES	5/8-11	5/8-11	5/8-11	5/8-11	3/4-10	3/4-10	3/4-10	7/8-9	7/8-9	
	mm	4	4	4	8	8	8	8	12	12	
R	INCHES	4	4	4	8	8	8	8	12	12	
	mm	100	100	100	200	200	200	200	300	300	
S	INCHES	4	4	4	8	8	8	8	12	12	
	mm	100	100	100	200	200	200	200	300	300	

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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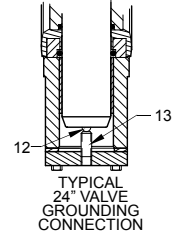
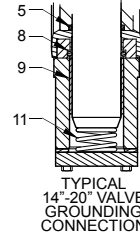
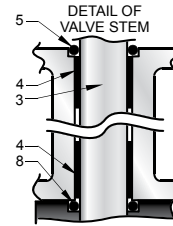
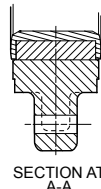
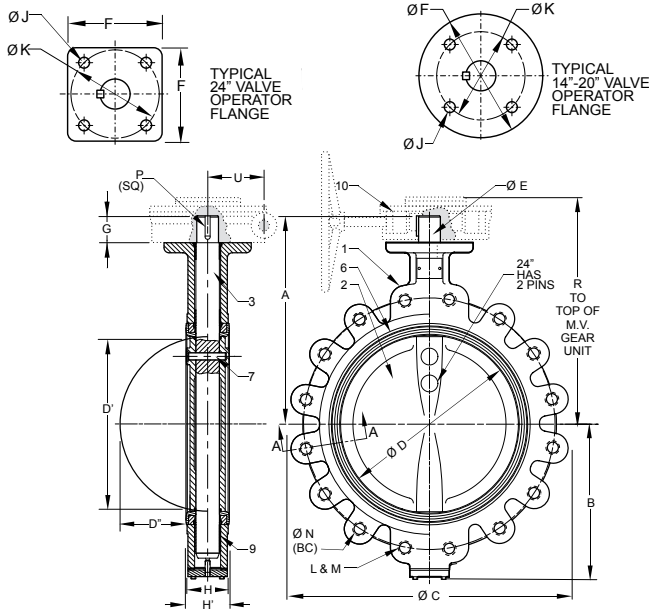


Tested and Certified by
APMO 607 to 192.1/190.1/177
for lead-free compliance.



ABS Type Approved, Cat. A
CFR-46

Iron Butterfly Valve for Potable Water
150 psi Non-Shock WOG
Dead End Service to 150 psi Max
Specifications: API-609 MSS SP-67 Type 1



DIMENSIONS

	VALVE SIZE					
	INCHES DN	14	16	18	20	24
		352	406	457	508	610
A	INCHES	15.50	16.75	18.50	19.75	22.43
	mm	398	425	469	501	569
B	INCHES	11.56	12.69	13.63	15.13	18.06
	mm	258	322	346	384	458
C	INCHES	21.00	23.50	25.00	27.50	32.10
	mm	533	596	635	698	815
D	INCHES	13.25	15.50	17.25	19.25	23.38
	mm	336	398	438	489	598
D ¹ (Chord Dia.)	INCHES	13.53	14.97	16.91	18.84	22.76
	mm	343	380	429	478	578
D ¹¹ (Intrusion)	INCHES	5.00	5.80	6.40	7.10	8.70
	mm	127	146	162	181	220
E	INCHES	1.63	1.63	2.13	2.13	2.13
	mm	41	41	54	54	54
F	INCHES	6.50	6.50	9.50	9.50	7.50
	mm	165	165	241	241	190
G	INCHES	2.00	2.00	3.00	3.00	3.06
	mm	50	50	76	76	77
H (Body)	INCHES	3.06	4.00	4.50	5.00	6.06
	mm	77	101	114	127	153
H ¹ (Liner)	INCHES	3.19	4.13	4.63	5.13	6.19
	mm	81	104	117	130	157
J	INCHES	0.69	0.69	0.81	0.81	0.81
	mm	17	17	20	20	20
K	INCHES	5.25	5.25	7.50	7.50	7.50
	mm	133	133	190	190	190
L	No. of Holes	12	16	16	20	20
	Thread Size	1-8	1-8	1 1/8-7	1 1/8-7	1 1/4-7
M	INCHES	18.75	21.25	22.75	25.00	29.50
	mm	476	530	577	635	749
N	INCHES	0.38	0.38	0.50	0.50	0.50
	mm	9	9	12	12	12
P (Key Size)	INCHES	17.25	18.75	19.63	20.88	25.00
	mm	438	476	458	530	635
R	INCHES	3.13	3.13	4.50	4.50	4.63
	mm	79	79	114	114	117

MATERIALS LIST

ITEM	PART	MATERIALS
1	BODY	CAST IRON ASTM A126 CL. B
2	DISC	ALUMINUM BRONZE ASTM B148
3	STEM	STAINLESS STEEL TYPE 416
4	TOP BEARING	REINFORCED NYLON
5	STEM O-RING	EPDM
6	LINER	EPDM
7	STEM PIN	ANSI 4140 OR AISI 6150
8	LINER O-RING	EPDM
9	LOWER BEARING	REINFORCED NYLON
10	OPERATOR	GEAR OPERATOR
		GEAR OPERATOR WITH MEMORY STOP
		GEAR OPERATOR WITH LOCK
11	GROUNDING SPRING	STAINLESS STEEL TYPE 302
12	GROUNDING BALL	AISI 1022
13	TENSION SCREW	AISI 1020

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content $\leq 0.25\%$. Source: California Health and Safety Code (116875).

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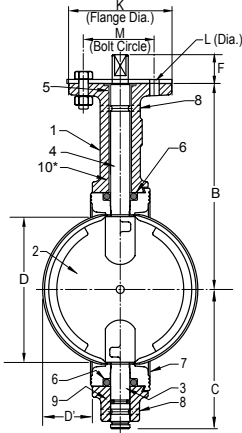




ML133E/ML233E/ML333E* 2"-12"

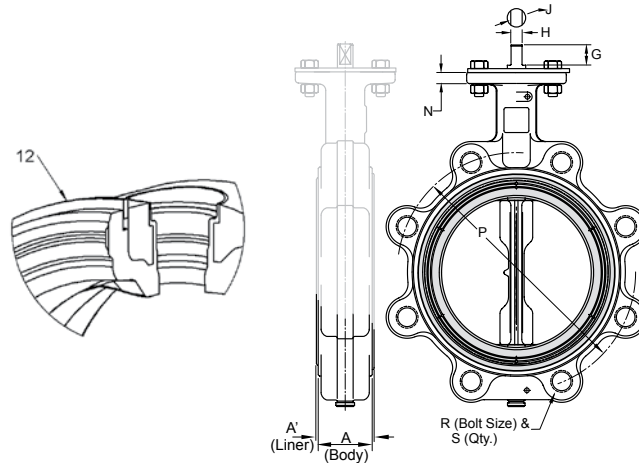


**Iron Butterfly Valve
for Potable Water
200 psi Non-Shock WOG
Bi-Directional Dead End
Service to 200 psi Max
Specifications: API-609 MSS SP-67 Type 1**



Approved by U.S. Coast Guard for use in Category A service as described in Title 46 Code of Federal Regulations 56.20-15.

**Bi-Directional Dead End Service to 200 PSI Max.
EPDM Only.**



MATERIALS LIST

ITEM	PART	MATERIALS
1	BODY	DUCTILE IRON-ASTM A536
2	DISC	ALUMINUM BRONZE-ASTM B 148**
3	BOTTOM STEM	STAINLESS STEEL TYPE 416
4	TOP STEM	STAINLESS STEEL TYPE 416
5	TOP BEARING	REINFORCED NYLON
6	SEAL	
7	LINER	EPDM
8	ROLL PIN	STAINLESS STEEL
9	STEM SEAL	EPDM, BUNA, VITON
10	LOWER BEARING	REINFORCED NYLON
11	OPERATOR	LEVER HANDLE
		EPOXY COATED LEVER HANDLE
		GEAR OPERATOR
		GEAR OPERATOR WITH MEMORY STOP
		GEAR OPERATOR WITH LOCK
		ACTUATOR-AIR/AIR
		ACTUATOR-AIR/SPRING
ACTUATOR-ELECTRIC		
12	RETAINING RING	1066 SPRING STEEL (65Mn)

*Provided on 8", 10" and 12".

DIMENSIONS

	INCHES DN	VALVE SIZE									
		2	2-1/2	3	4	5	6	8	10	12	
A (Body)	INCHES	1.69	1.81	1.81	2.07	2.19	2.19	2.38	2.69	3.06	
	mm	43	46	46	52	55	55	60	68	78	
A ¹ (Body)	INCHES	1.82	1.94	1.94	2.20	2.32	2.32	2.51	2.82	3.21	
	mm	46	49	49	55	58	58	63	71	82	
B	INCHES	5.50	6.00	6.25	7.00	7.53	8.00	9.38	10.56	12.06	
	mm	139	152	158	177	191	203	238	268	306	
C	INCHES	3.06	3.31	3.75	4.25	4.94	5.56	5.56	7.88	9.25	
	mm	77	84	95	108	125	141	166	200	235	
D (Chord Dia)	INCHES	1.49	2.01	2.64	3.67	4.71	5.66	7.72	9.70	11.68	
	mm	37	51	67	93	119	143	196	246	296	
D ¹ (Intrusion)	INCHES	0.28	0.44	0.69	1.06	1.50	1.94	2.84	3.69	4.50	
	mm	7	11	17	27	38	49	72	93	114	
F	INCHES	1.13	1.13	1.13	1.13	1.13	1.13	1.50	1.50	1.50	
	mm	28	28	28	28	28	28	38	38	38	
G	INCHES	0.81	0.81	0.81	0.81	0.81	0.81	1.06	1.06	1.06	
	mm	20	20	20	20	20	20	27	27	27	
H	INCHES	0.35	0.35	0.35	0.40	0.40	0.44	0.53	0.71	0.71	
	mm	8	8	8	10	10	11	13	18	18	
J	INCHES	0.50	0.50	0.50	0.56	0.56	0.62	0.75	1.00	1.00	
	mm	12	12	12	14	14	14	19	25	25	
K	INCHES	4	4	4	4	4	4	6	6	6	
	mm	101.6	101.6	101.6	101.6	101.6	101.6	152.4	152.4	152.4	
L (Dia)	INCHES	0.44	0.44	0.44	0.44	0.44	0.44	0.56	0.56	0.56	
	mm	11	11	11	11	11	11	14	14	14	
M	INCHES	3.25	3.25	3.25	3.25	3.25	3.25	5.00	5.00	5.00	
	mm	82	82	82	82	82	82	127	127	127	
N	INCHES	0.44	0.44	0.44	0.44	0.44	0.44	0.50	0.50	0.50	
	mm	11	11	11	11	11	11	12	12	12	
P	INCHES	4.75	5.50	6.00	7.50	8.50	9.50	11.75	14.25	17.00	
	mm	120	139	152	190	215	241	298	362	431	
R	INCHES	5/8-11	5/8-11	5/8-11	5/8-11	3/4-10	3/4-10	3/4-10	7/8-9	7/8-9	
	mm	15.875	15.875	15.875	15.875	19.0	19.0	19.0	19.0	19.0	
S	INCHES	4	4	4	8	8	8	8	12	12	
	mm	101.6	101.6	101.6	203.2	203.2	203.2	203.2	304.8	304.8	

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

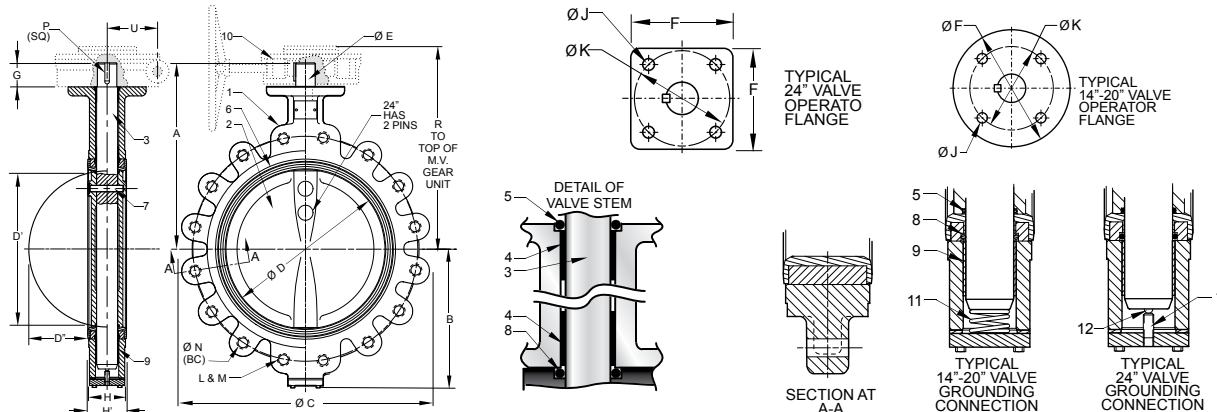
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ML133E/ML333E 14"-24"



Iron Butterfly Valve for Potable Water
150 psi Non-Shock WOG
Dead End Service to 150 psi Max
Specifications: API-609 MSS SP-67 Type 1



MATERIALS LIST

ITEM	PART	MATERIALS
1	BODY	DUCTILE IRON ASTM A536
2	DISC	ALUMINUM BRONZE ASTM B 148
3	STEM	STAINLESS STEEL TYPE 416
4	TOP BEARING	REINFORCED NYLON
5	STEM O-RING	EPDM, BUNA, VITON (1)
6	LINER	EPDM
7	STEM PIN	ANSI 4140 OR AISI 6150
8	LINER O-RING	EPDM
9	LOWER BEARING	REINFORCED NYLON
10	OPERATOR	GEAR OPERATOR
		GEAR OPERATOR WITH MEMORY STOP
		GEAR OPERATOR WITH LOCK
		ACTUATOR-AIR/AIR (1)
		ACTUATOR-AIR/SRING (1)
		ACTUATOR-ELECTRIC (1)
11 14"-20"	GROUNDING SPRING	STAINLESS STEEL TYPE 302
12 24" Only	GROUNDING BALL	AISI-1022
13 24" Only	TENSION SCREW	AISI-1020

DIMENSIONS

	INCHES	VALVE SIZE				
		14	16	18	20	24
A	DN	352	406	457	508	610
	INCHES	15.50	16.75	18.50	19.75	22.43
B	INCHES	11.56	12.69	13.63	15.13	18.06
	mm	298	322	346	384	458
C	INCHES	21.00	23.50	25.00	27.50	32.10
	mm	533	596	635	698	815
D	INCHES	13.25	15.50	17.25	19.25	23.38
	mm	336	398	438	489	598
D ¹ (Chord Dia.)	INCHES	13.53	14.97	16.91	18.84	22.76
	mm	343	380	429	478	578
D ¹¹ (Intrusion)	INCHES	5.00	5.80	6.40	7.10	8.70
	mm	127	146	162	181	220
E	INCHES	1.63	1.63	2.13	2.13	2.13
	mm	41	41	54	54	54
F	INCHES	6.50	6.50	9.50	9.50	7.50
	mm	165	165	241	241	190
G	INCHES	2.00	2.00	3.00	3.00	3.06
	mm	50	50	76	76	77
H (Body)	INCHES	3.06	4.00	4.50	5.00	6.06
	mm	77	101	114	127	153
H ¹ (Liner)	INCHES	3.19	4.13	4.63	5.13	6.19
	mm	81	104	117	130	157
J	INCHES	0.69	0.69	0.81	0.81	0.81
	mm	17	17	20	20	20
K	INCHES	5.25	5.25	7.50	7.50	7.50
	mm	133	133	190	190	190
L	No. of Holes	12	16	16	20	20
	Thread Size	1-8	1-8	1 1/8-7	1 1/8-7	1 1/4-7
N	INCHES	18.75	21.25	22.75	25.00	29.50
	mm	476	530	577	635	749
P (Key Size)	INCHES	0.38	0.38	0.50	0.50	0.50
	mm	9	9	12	12	12
R	INCHES	17.25	18.75	19.63	20.88	25.00
	mm	438	475	498	530	635
U	INCHES	3.13	3.13	4.50	4.50	4.63
	mm	79	79	114	114	117

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content ≤0.25%. Source: California Health and Safety Code (116875).

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UPBBTSCSCL/UPBBTSCS02L 1"-2"



Tested and Certified by
IAFMO R&T to NSF/ANSI 372
for lead free compliance.



MATERIAL LIST

ITEM	PART	MATERIAL	ASTM SPEC
1	Indicator	Sintered Iron	F0008P
2	Housing	Bronze	ASTM 584
3	Body	Bronze	ASTM 584
4	Handle	Brass	
5	Disc	Stainless Steel	Type 304
6	Disc Seal	EPDM	
7	Cover	Die Cast Aluminum	

ALL DIMENSIONS-INCHES

SIZE	1"	1-1/4"	1-1/2"	2"
A	2.13	2.63	2.88	3.25
B	3.94	4.28	4.5	5
C	1.56	1.94	2.19	2.75
D	1.72	2.11	2.38	3.07
K	0.66	0.73	0.73	0.79
L	0.83	0.9	0.1	1.41
M-40	1.1	1.38	1.61	2.07
M-80	0.96	1.28	1.5	1.94
N-40	2.25	2	2.5	2.25
W	1.13	1.25	1.41	1.69

M-40 ARE DIMENSIONS USING
SCHEDULE 40 PIPE

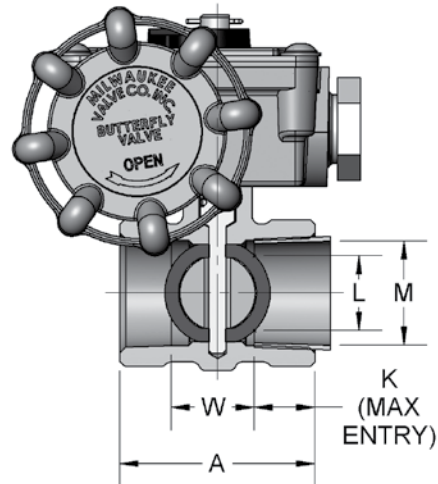
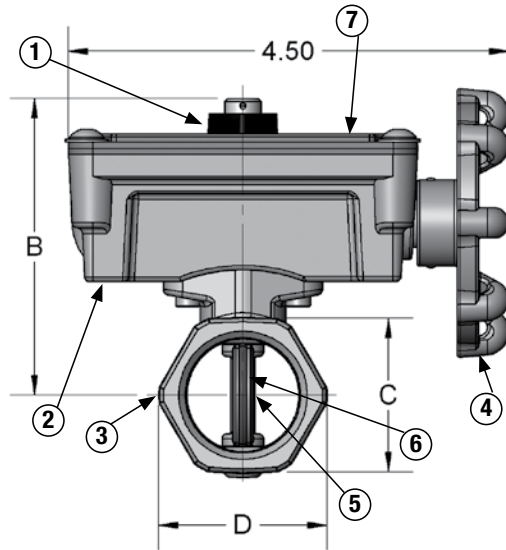
M-80 ARE DIMENSIONS USING
SCHEDULE 80 PIPE

N-40 IS FLOW RESISTANCE
EXPRESSED IN EQUIVALENT LENGTH OF
SCHEDULE 40 PIPE

W IS THE WRENCH MAKE-UP LENGTH

FEATURES

- Slow opening and closing
- Quarter turn operation
- Water Hammer elimination
- Optional internal tamper switch (Indoor/Outdoor use).
 - Signals disc movement
 - Factory or Field installation
 - 10 Amp / 115 VAC-60 Hz
 - 0.5 Amp / 28 VDC



UPBBTSCSCL
SIZES 1", 1-1/4", 1-1/2", 2"

UPBBTSCS02L
(INCLUDES SWITCH)
SIZES 1", 1-1/4", 1-1/2", 2"

Note: Lead free refers to the wetted surface of the pipe, fittings and fixtures in potable water systems that have a weighted average lead content $\leq 0.25\%$. Source: California Health and Safety Code (116875).

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