



## A MILWAUKEE VALVE PRODUCT FOR POTABLE WATER SERVICE

### Ball Valves

Figure #	Description	Page
UPBA100/100S	600# WOG, Threaded End, Bronze Body, Chrome Plated Ball, Standard Port (UP-BA100S Stainless Steel Ball & Stem)	UP-1
UPBA100/100S P2	200 psig @ 250° F, Press End, Bronze Body, Chrome Plated Ball, Standard Port (UP-BA100S P2 Stainless Steel Ball & Stem)	UP-2
UPBA100H/150H	600# WOG, Threaded x Hose, Bronze Body, Chrome Plated Ball, Standard Port (UP-BA150H Solder x Hose)	UP-3
UPBA100H P1	200 psig @ 250° F, Press x Hose, Bronze Body, Chrome Plated Ball, Standard Port	UP-4
UPBA150/150S	600# WOG, Solder End, Bronze Body, Chrome Plated Ball, Standard Port (UP-BA150S Stainless Steel Ball & Stem)	UP-5
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## Gate Valves

Figure #	Description	Page
UP105	300# WOG, Threaded End, Bronze Body, Non-Rising Stem, Threaded Bonnet	UP-24
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UP115	300# WOG, Solder End, Bronze Body, Non-Rising Stem, Threaded Bonnet	UP-26
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## Globe Valves

Figure #	Description	Page
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## Check Valves

Figure #	Description	Page
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UP1509	300# WOG, Solder End, Bronze Body and Disc, Swing Check	UP-36
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UP1548T	250# WOG, Solder End, Bronze Body, PTFE Disc, Spring Check	UP-39
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## Butterfly Valves

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## Butterball Slo-Close

Figure #	Description	Page
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UPBBTSCW02	175 psi, Bronze Body, Threaded Ends with Switch	Up-46

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# UPBA100/100S\* 1/4"-3"



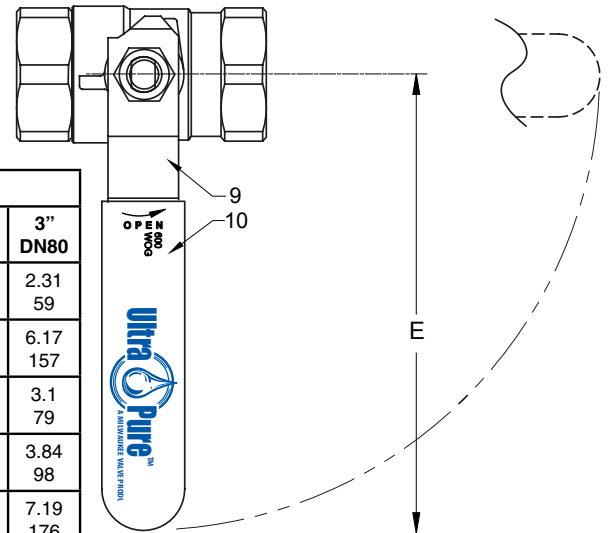
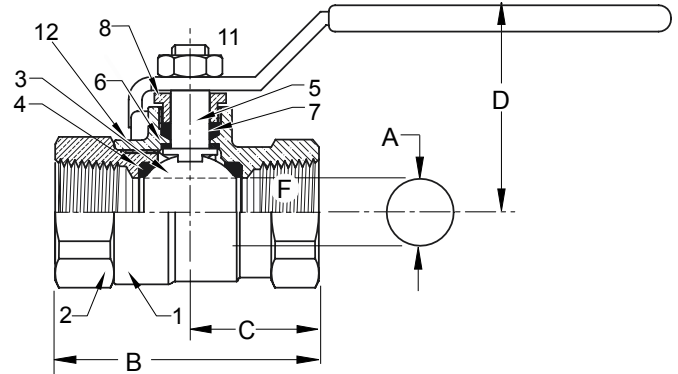
WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Dimensions and workmanship conform to MSS SP-110**

**Bronze Ball Valve For Potable Water**  
**Two-Piece • Full Port (1/4"-3/4")**  
**Standard-Port (1"-3")**  
**Blow-Out Proof Stem**  
**600 PSIG WOG**  
**Threaded Ends**

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	B633
10	Handle Grip	Vinyl	
11	Handle Nut	Steel w/Zinc Plating	B633
12**	Body Seal	RPTFE, 15% Glass Filled	

(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	0.5	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	3.1	
	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	THREADED 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.

Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

\* Same design as Hammond UP8501/8503

\*\* 2 1/2" and 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  $\leq 0.25\%$ . Source: California Health and Safety Code (116875).

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

# UPBA100/100S\* P2 1/2"-2"



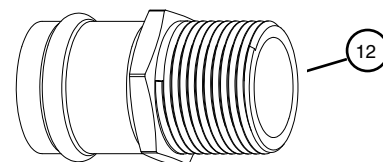
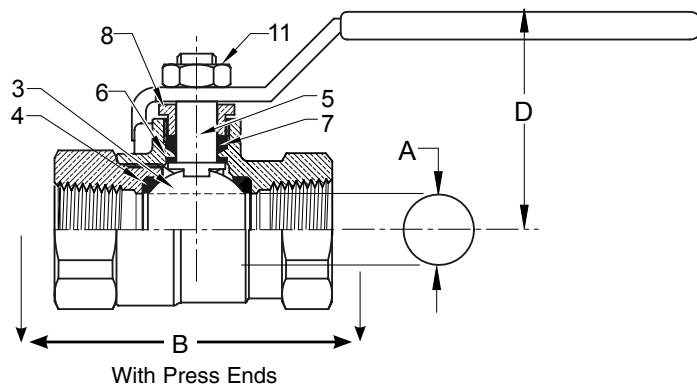
WQA tested and Certified  
 against NSF/ANSI 372  
 for "lead free" compliance.

**Press x Threaded Ends Available (Consult Factory)**  
**Dimensions and workmanship conform to MSS SP-110**

## MATERIAL 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 316 Stainless Steel (1)	B283 C27450 A276 S31600
4	Seat	RPTFE, 15% Glass Filled	
5	Stem	Bronze 316 Stainless Steel (1)	B584 C89833 A276 S31600
6	Thrust Washer	RPTFE, 25% Glass Filled	
7	Packing	PTFE	
8	Packing Nut	Brass	B16 C36000
9	Handle	Steel w/ Zinc Plating	B633
10	Handle Grip	Vinyl	
11	Handle Nut	Steel w/ Zinc Plating	B633
12	Press Adapters	Brass Fitting w/ EPDM O-Ring	ASTM C27450

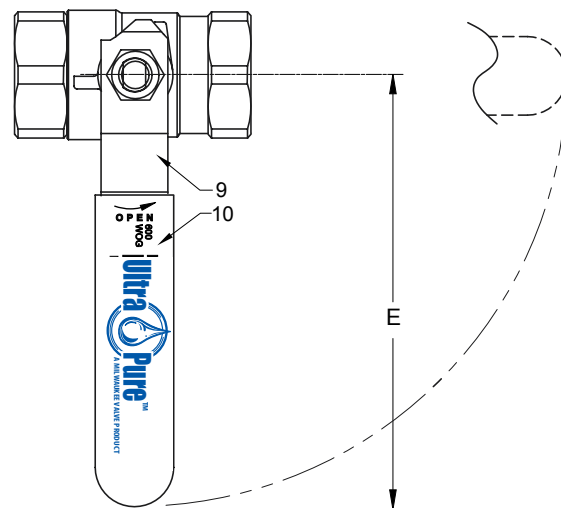
(1) Ball and stem are stainless for UPBA100S P2



Press End Adapter (4151 Series)

	Units	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
A(DIA)	INCHES mm	0.5 13	0.76 19	1.06 27	1.31 33	1.56 40	2.00 51
STD INSERTION DEPTH	INCHES mm	0.87 22	0.98 25	0.98 25	1.02 26	1.42 36	1.58 40
B	INCHES mm	5.19 132	6.22 158	7.17 182	7.57 192	8.44 214	10.3 262
D	INCHES mm	1.91 47	2.32 59	2.68 68	2.82 72	3.00 76	3.36 85
E	INCHES mm	3.82 94	4.55 116	6.33 161	6.33 161	6.33 161	7.19 183

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



\* Same design as Hammond UP8501P2

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**Bronze Ball Valve For Potable Water, Hose End  
Threaded x 3/4" Hose End (UPBA100H)  
Solder x 3/4" Hose End (UPBA150H)  
Dust Cap and Chain  
Two-Piece, Full Port  
Blow-Out Proof Stem  
MSS SP-110**



WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

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

**DIMENSIONS**

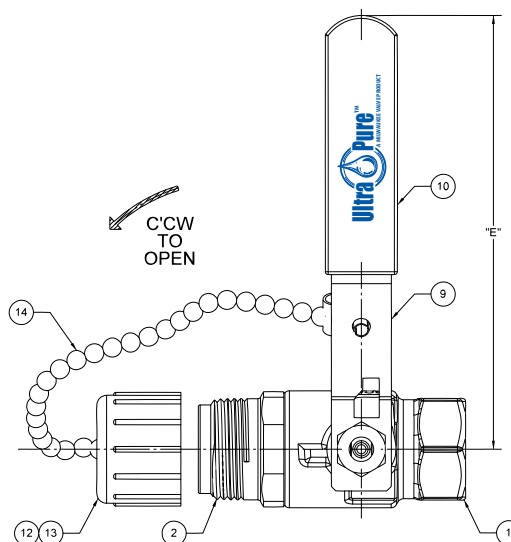
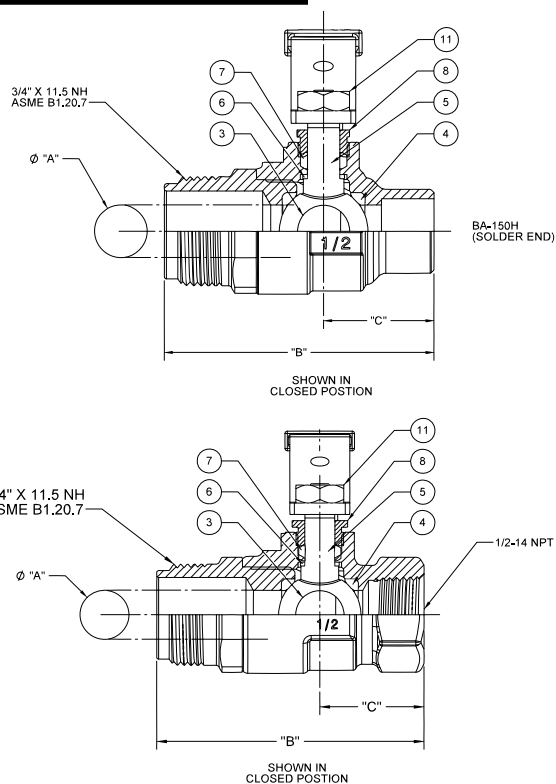
	UNITS	1/2"	3/4"
		DN15	DN20
Ø A	INCHES	0.50	0.76
	mm	12.7	19.3
B (BA-100)	INCHES	2.70	2.90
	mm	69	74
B' (BA-150)	INCHES	2.55	3.05
	mm	65	78
C (BA-100)	INCHES	1.10	1.30
	mm	28	33
C' (BA-150)	INCHES	1.10	1.45
	mm	28	37
D	INCHES	1.88	2.14
	mm	48	54
E	INCHES	3.81	4.62
	mm	97	117
F	THREADED INLET	NPT	NPT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

Note: DN (Diameter Nominal) = Metric equivalent size.  
Same design as UP8501H/8511H

**MATERIAL LIST**

ITEM	DESCRIPTION	MATERIAL	ASTM SPEC
1	BODY	CAST BRONZE	8584 C89833
2	TAILPIECE	BRASS WITH HARD CHROME	B283 C27450
3	BALL	BRASS, CHROME PLATED	B283 C27450
4	SEAT	RPTFE, 15% GLASS FILLED	
5	STEM	BRASS	C46400 H02
6	THRUST WASHER	RPTFE, 25% GLASS FILLED	
7	PACKING	PTFE	
8	PACKING NUT	BRASS	B16 C36000
9	HANDLE	STEEL, ZINC PLATED	
10	HANDLE GRIP	VINYL	
11	HANDLE NUT	STEEL, ZINC PLATED	
12	DUST CAP	POLYPROPYLENE	
13	GASKET	EDPM	
14	CHAIN	BRASS BEAD	

Rev. 3



Milwaukee Valve Company  
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New Berlin, WI 53151  
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# UPBA100H\* P1 1/2" - 3/4"

**Bronze Ball Valve For Potable Water**  
**Blow-Out Proof Stem**  
**Press x Hose End**  
**Dust Cap and Chain**  
**Two-Piece, Full Port**  
**Dimensions and workmanship conform to MSS SP-110**



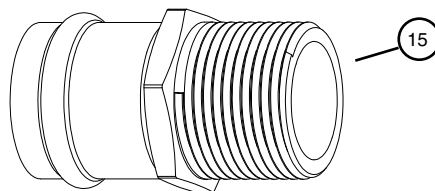
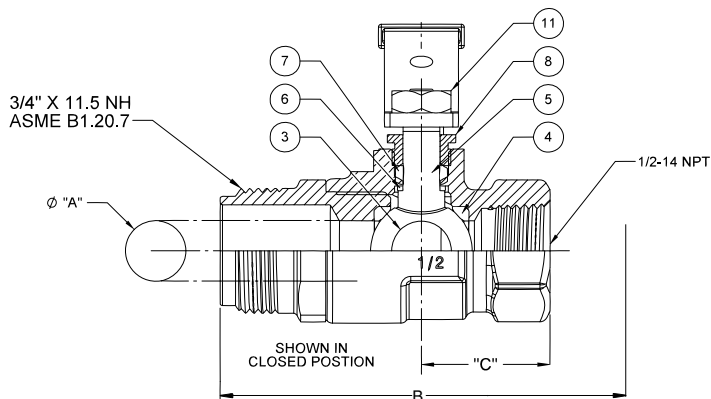
WQA tested and Certified  
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for "lead free" compliance.

## DIMENSIONS

	Units	1/2" DN15	3/4" DN20
<b>A</b>	INCHES MM	0.50 13	.076 19
<b>B</b>	INCHES MM	2.70 69	2.90 74
<b>STD Insertin Depth</b>	INCHES MM	.87 22	.98 25
<b>C</b>	INCHES MM	1.10 28	1.30 33
<b>D</b>	INCHES MM	1.88 48	2.14 54
<b>E</b>	INCHES MM	3.81 97	4.62 117
<b>F</b>	THREADED INLET	NPT	NPT
<b>Cv</b>		13	30

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

\*Same design as UP8501H P1

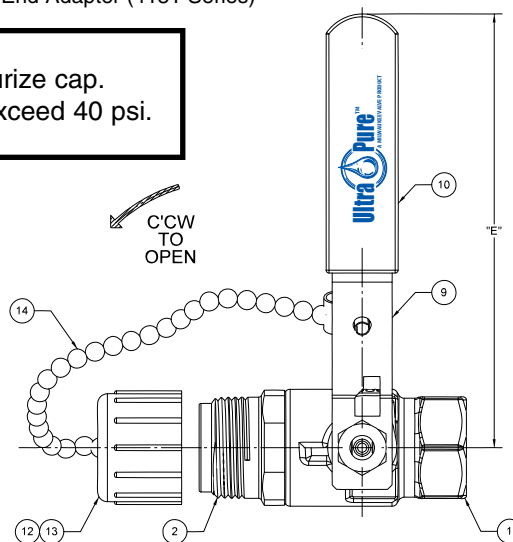


Press End Adapter (4151 Series)

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

## MATERIAL LIST

ITEM	DESCRIPTION	MATERIAL	ASTM SPEC
1	BODY	CAST BRONZE	B548 C27450
2	TAILPIECE	BRASS WITH HARD CHROME	B283 C27450
3	BALL	BRASS, CHROME PLATED	B283 C27450
4	SEAT	RPTFE, 15% GLASS FILLED	
5	STEM	BRASS	C46400 H02
6	THRUST WASHER	RPTFE, 25% GLASS FILLED	
7	PACKING	PTFE	
8	PACKING NUT	BRASS	B16 C36000
9	HANDLE	STEEL, ZINC PLATED	
10	HANDLE GRIP	VINYL	
11	HANDLE NUT	STEEL, ZINC PLATED	
12	DUST CAP	POLYPROPYLENE	
13	GASKET	EDPM	
14	CHAIN	BRASS BEAD	
15	PRESS ADAPTER	BRASS FITTING W/EPDM O-RING	ASTM C27450



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# UPBA150/150S\* 3/8"-3"

**Bronze Ball Valve For Potable Water**  
**Two-Piece • Standard-Port**  
**Blow-Out Proof Stem**  
**600 PSIG WOG**  
**Solder Ends**

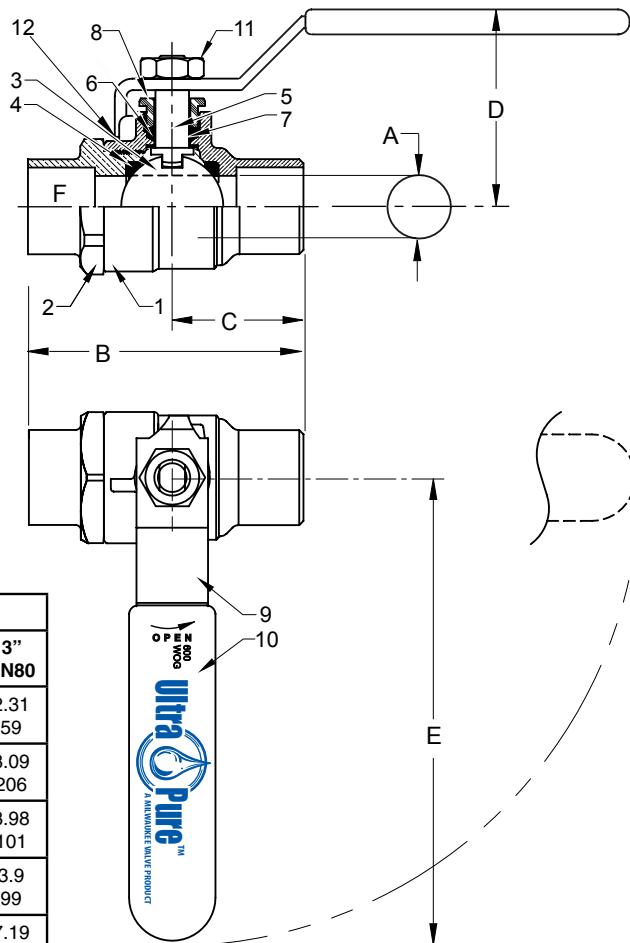


WQA tested and Certified  
 against NSF/ANSI 372  
 for "lead free" compliance.

**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	B633
10	Handle Grip	Vinyl	
11	Handle Nut	Steel w/Zinc Plating	B633
12**	Body Seal	RPTFE, 15% Glass Filled	

(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	0.5	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	3.9
	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 SIZE Ø	.51	.63	.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.

Milwaukee Valve Company  
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\*Same design as Hammond UP8511/8513  
 \*\* 2 1/2" and 3" Only

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# UPBA300/300S\* 1/4"-3"



WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Dimensions and workmanship conform to MSS SP-110**

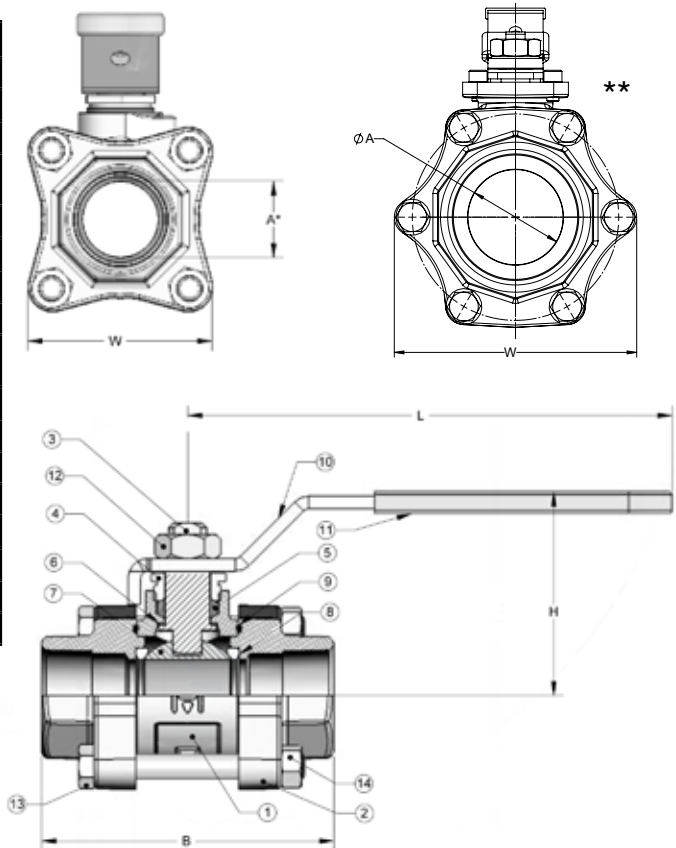
**Bronze Ball Valve For Potable Water**  
**Three-Piece • Full-Port**  
**Blow-Out Proof Stem**  
**600 PSIG WOG**  
**Threaded Ends**

MATERIAL LIST			
ITEM	PART	MATERIAL	ASTM SPEC.
1	Body	Cast Bronze	B584 C89833
2	End Cap	Cast Bronze	B584 C89833
3	Stem	Brass	UNS C89833 or UNS C27450
		316 Stainless Steel (1)	A276
4	Packing Nut	Brass	B16
5	Packing	PTFE	
6	Thrust Washer	RPTFE, 25% Glass Reinforced	
7	Ball	Brass w/Hard Chrome Plating	B283 C69300 or UNS C27450
		316 Stainless Steel (1)	A276
8	Seat	RPTFE, 15% Glass Filled	
9	O-Ring	Viton	Commercial
10	Handle	Steel w/ Zinc Plating	B633
11	Handle Grip	Vinyl	
12	Handle Nut	Steel w/ Zinc Plating	Commercial
13	Bolt	Steel w/ Zinc Plating	Commercial
14	Nut	Steel w/ Zinc Plating	

(1) Ball and stem are stainless for UPBA300.

\*Same design as Hammond UP8604/8603.

\*\* Threaded Only.



## DIMENSIONS

	UNITS	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3" *
A	INCHES	0.5	0.5	0.5	0.75	1	1.25	1.5	2	2.5	2.5
	mm	13	13	13	19	25	32	38	51	64	64
B	INCHES	3.03	3.03	3.03	3.65	3.82	4.86	5.06	6	6.84	6.84
	mm	77	77	77	90	97	123	129	152	174	174
H	INCHES	1.65	1.65	1.65	2.24	2.65	2.86	3.03	3.26	4.09	4.09
	mm	42	42	42	57	67	73	77	83	104	104
L	INCHES	4.03	4.03	4.06	4.58	6.3	6.32	7.2	7.2	8	8
	mm	102	102	103	116	160	161	183	183	203	203
W	INCHES	1.95	1.95	1.95	2.19	2.48	3	3.13	3.78	5	5
	mm	50	50	50	56	63	76	80	96	127	127
F	THREAD	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
	SIZE	NPT	NPT	NPT	NPT	NPT	NPT	NPT	NPT	NPT	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 ≤ 0.25%. Source: California Health and Safety Code (116875).

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Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701





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

**Bronze Ball Valve For Potable Water**  
**Three-Piece • Full-Port**  
**Blow-Out Proof Stem**  
**200 PSIG @ 250°F**  
**Press x Press Ends**  
**Dimensions and workmanship conform to MSS SP-110**



WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

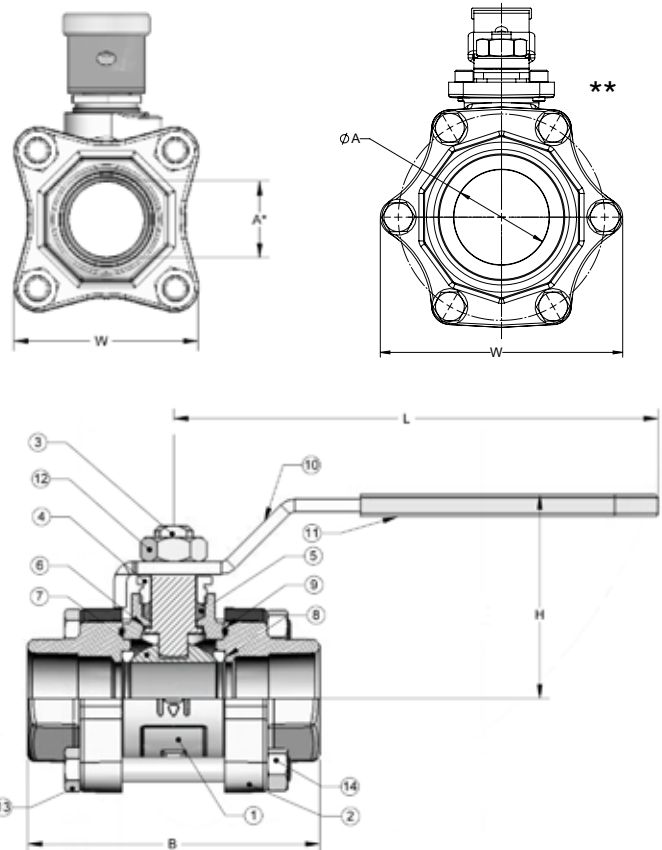
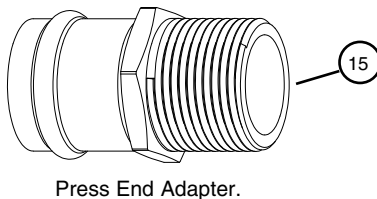
## MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Cast Bronze	B584 C89833
2	End Cap	Cast Bronze	B584 C89833
3	Stem	Brass	UNS C89833 or UNS C27450
		316 Stainless Steel (1)	A276 B16
4	Packing Nut	Brass	
5	Packing	PTFE	
6	Thrust Washer	RPTFE, 25% Glass Reinforced	
7	Ball	Brass w/Hard Chrome Plating	B283 C69300 or UNS C27450
		316 Stainless Steel (1)	A276
8	Seat	RPTFE, 15% Glass Filled	
9	O- Ring	Viton	Commercial
10	Handle	Steel w/ Zinc Plating	B633
11	Handle Grip	Vinyl	
12	Handle Nut	Steel w/ Zinc Plating	Commercial
13	Bolt	Steel w/ Zinc Plating	Commercial
14	Nut	Steel w/ Zinc Plating	
15	Press Adapter	Brass Fitting w/EPDM O-Ring	ASTM C27450

(1) Ball and stem are stainless for UPBA300S.

\*Same design as Hammond UP8604/8603.

\*\* Threaded Only.



## DIMENSIONS

	UNITS	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
		DN15	DN20	D25	D32	D40	D50
A	INCHES	0.5	0.75	1	1.25	1.5	2
	mm	13	19	25	32	38	51
B	INCHES	3.03	3.65	3.82	4.86	5.06	6
	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	6.3	6.32	7.2	7.2
	mm	103	116	160	161	183	183
W	INCHES	1.95	2.19	2.48	3	3.13	3.78
	mm	50	56	63	76	80	96
F	THREAD	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
	SIZE	NPT	NPT	NPT	NPT	NPT	NPT
Cv		17	31	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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Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701



# UPBA350/350S\* 3/8"-3"



WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Dimensions and workmanship conform to MSS SP-110**

**Bronze Ball Valve For Potable Water**  
**Three-Piece • Full-Port**  
**Blow-Out Proof Stem**  
**600 PSIG WOG**  
**Soldered Ends**

MATERIAL LIST				
ITEM	PART	MODEL/SIZE	MATERIAL	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 C69300 or UNS C27450
		UPBA350S	316 Stainless Steel	A276
4	Stem	UPBA350	Brass	B21 C46400, H02
		UPBA350S	316 Stainless Steel	
5	O-Ring	UPBA350 & UPBA350S	Viton	MIL-R-83248
6	Seat	UPBA350 & UPBA350S	15% Glass RPTFE	
7	Thrust, Washer	UPBA350 & UPBA350S	25% Glass RPTFE	
8	Packing, Male	2-1/2" - 3"	PTFE	
		3/8" - 2"	PTFE	
9	Packing, "V"	UPBA350 & UPBA350S	PTFE	
10	Packing, Female	UPBA350 & UPBA350S	PTFE	
11	Packing Follower	UPBA350 & UPBA350S	Brass	B16
12	Hex Jam Nut	UPBA350 & UPBA350S	Stainless Steel	Commercial
13	Nut Locker	UPBA350 & UPBA350S	S.S. TYP. 301 / 302	
14	Washer, Internal Tooth	UPBA350 & UPBA350S	Stainless Steel	Commercial
15	Belleville, Washer	UPBA350 & UPBA350S	S.S. 17-7 PH	Commercial
16	Hex Head Cap Screw	UPBA350 & UPBA350S	SAE, Grade 8	Commercial
17	Socket Head Cap Screw	2-1/2" - 3"	Commercial Carbon Steel	Zinc Plated
18	Handle Assy	UPBA350 & UPBA350S	-	-
19	Gland Nut	3/8" - 2"	Brass	B16
20	Hex Nut	3/8" - 2"	Commercial	SAE 5140

(1) Ball and stem are stainless for UPBA350S.

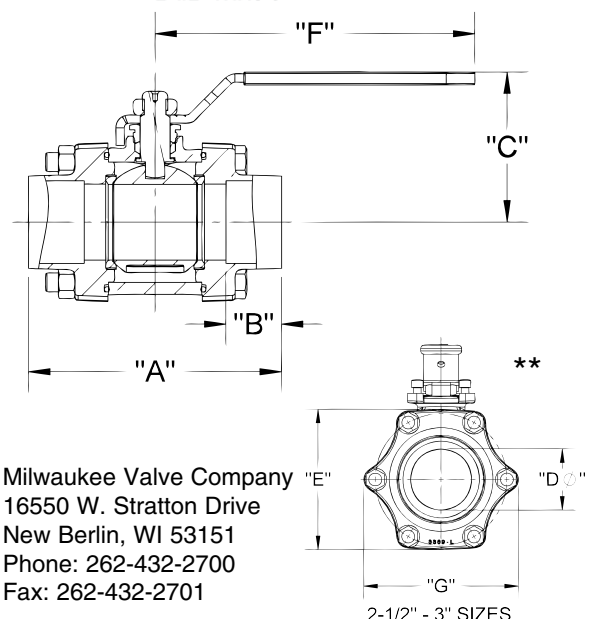
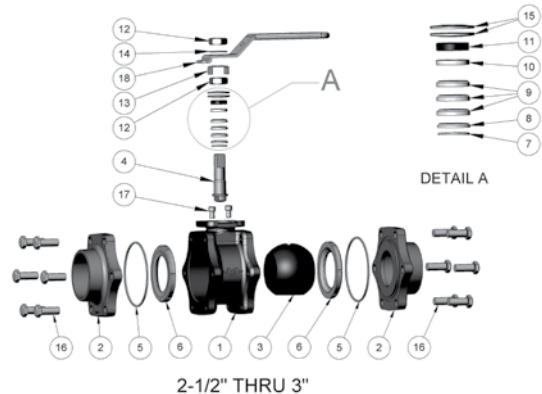
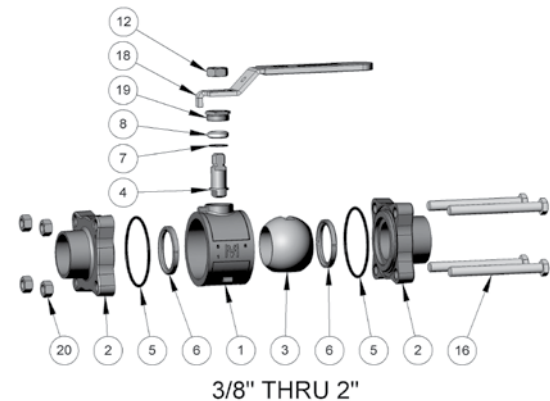
\*Same design as Hammond UP8614/8613

	UNITS	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
A	INCHES	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80
	MM	2.68	3.02	3.56	3.81	4.66	5.00	5.70	7.01	7.01
B	INCHES	68.07	76.76	90.47	96.65	118.34	126.90	144.81	178.05	178.05
	MM	0.44	0.51	0.76	0.92	0.98	1.10	1.35	1.48	1.67
C	INCHES	11.18	12.95	19.30	23.37	24.89	27.94	34.29	37.59	42.42
	MM	1.85	1.85	2.20	2.65	2.79	2.97	3.47	5.44	5.44
D	INCHES	47.07	46.99	55.78	67.41	70.89	75.31	88.19	138.18	138.18
	MM	0.45	0.50	0.75	1.00	1.25	1.50	2.00	2.50	2.50
E	INCHES	11.43	12.70	19.05	25.40	31.75	38.10	50.80	63.50	63.50
	MM	1.32	1.32	2.13	2.41	2.94	3.13	3.86	5.74	5.74
F	INCHES	33.53	33.53	54.00	61.16	74.78	79.55	98.07	145.75	145.75
	MM	3.80	3.80	4.55	6.32	6.32	6.32	7.20	8.10	8.10
G	INCHES	96.39	96.39	115.57	160.48	160.48	160.48	182.83	205.74	205.74
	MM	1.92	1.92	2.13	2.41	2.94	3.13	3.86	6.31	6.31
Cv	MM	48.77	48.77	54.00	61.16	74.78	79.55	98.07	160.35	160.35
		7	17	31	60	110	185	360	390	390

\* 3" is Standard Port.

\*\* 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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# UPBA400/400S\* 1/4"-2"



WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

Dimensions and workmanship conform to MSS SP-110

**Bronze Ball Valve For Potable Water**  
**Two-Piece • Full-Port**  
**Blow Out Proof Stems**  
**600 PSIG WOG**  
**Threaded Ends**

## MATERIAL LIST

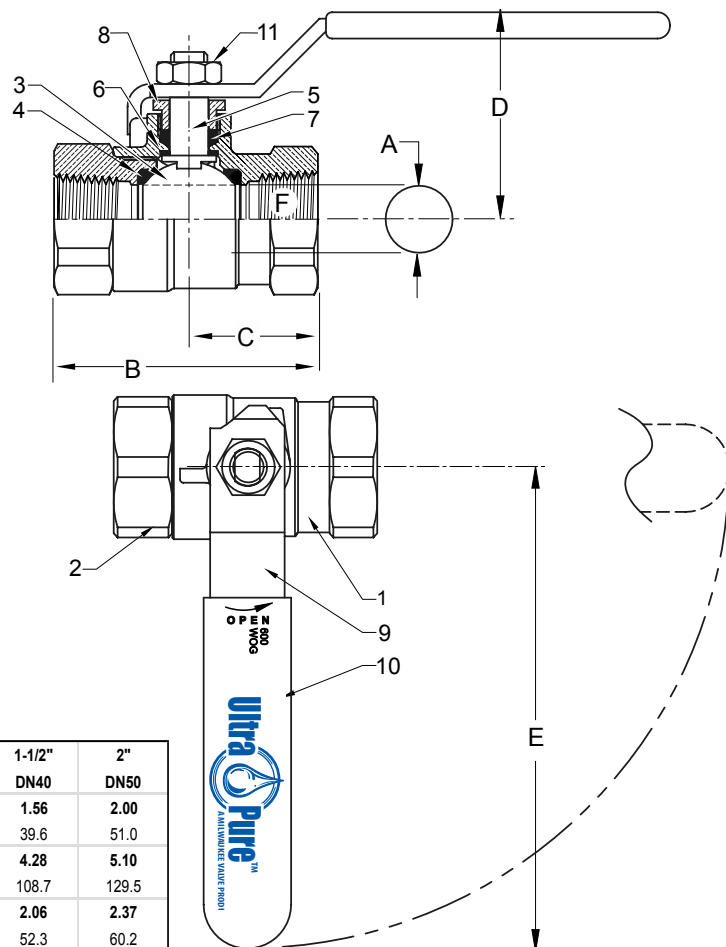
ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Cast Bronze	B584 C89833
2	Tailpiece	Cast Bronze	B584 C89833
3	Ball	Brass w/Hard Chrome Plating 316 Stainless Steel (1)	B283 C27450 A276 S31600
4	Seat	RPTFE, 15% Glass Filled	
5	Stem	Brass (1/4" only)	B927 C27450
		Brass (2" only)	B21 C46400
		Bronze	B584 C89833
		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	B633
10	Handle Grip	Vinyl	
11	Handle Nut	Steel w/ Zinc Plating	B633

(1) Ball and stem are stainless for UPBA400S

## DIMENSIONS

	UNITS	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
A(DIA)	INCHES	0.38	0.38	0.50	.76	1.06	1.31	1.56	2.00
	mm	9.7	9.7	12.7	19.3	26.9	33.3	39.6	51.0
B	INCHES	1.86	1.86	2.19	2.59	3.32	3.77	4.28	5.10
	mm	45.6	45.6	53.7	65.8	84.3	95.8	108.7	129.5
C	INCHES	1.00	1.00	1.10	1.30	1.59	1.81	2.06	2.37
	mm	24.5	24.5	27.0	33.0	40.4	46.0	52.3	60.2
D	INCHES	1.78	1.81	1.91	2.32	2.68	2.82	3.00	3.36
	mm	43.6	44.3	46.8	58.9	68.1	71.6	76.2	85.3
E	INCHES	3.82	3.82	3.82	4.55	6.33	6.33	6.33	7.19
	mm	93.6	93.6	93.6	115.6	160.8	160.8	160.8	182.6
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.



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\*Same design as Hammond UP8301A/8303A

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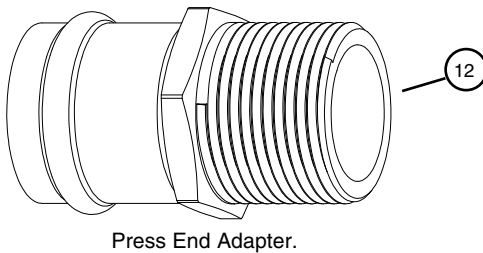
## UPBA400/400S\* P2 1/2"-2"



WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

Dimensions and workmanship conform to MSS SP-110

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



### MATERIAL LIST

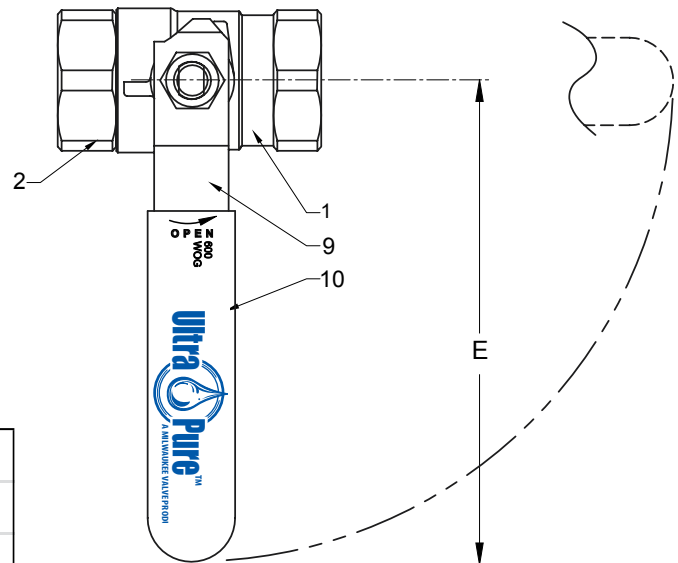
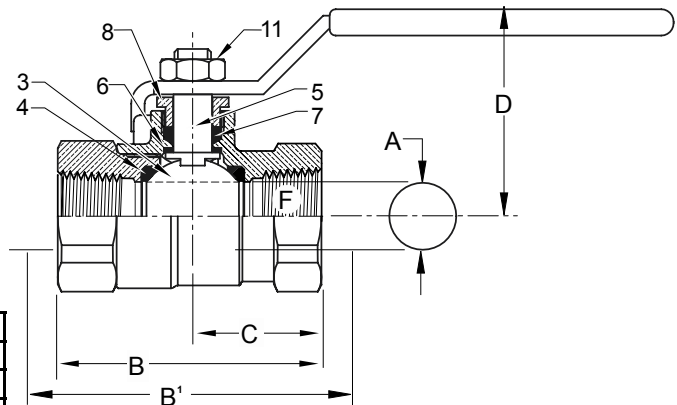
ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Cast Bronze	B584 C89833
2	Tailpiece	Cast Bronze	B584 C89833
3	Ball	Brass w/Hard Chrome Plating 316 Stainless Steel (1)	B283 C27450 A276 S31600
4	Seat	RPTFE, 15% Glass Filled	
5	Stem	Brass (2" only) Bronze 316 Stainless Steel (1)	B21 C46400 B584 C89833 A276 S31600
6	Thrust Washer	RPTFE, 25% Glass Filled	
7	Packing	PTFE	
8	Packing Nut	Brass	B16 C36000
9	Handle	Steel w/ Zinc Plating	B633
10	Handle Grip	Vinyl	
11	Handle Nut	Steel w/ Zinc Plating	B633
12	Press Adapters	Brass Fitting w/EPDM O-Ring	ASTM C27450

(1) Ball and stem are stainless for UPBA400S

### DIMENSIONS

	UNITS	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
A(DIA)	INCHES	0.50	.76	1.06	1.31	1.56	2.00
	mm	12.7	19.3	26.9	33.3	39.6	51.0
B	INCHES	2.19	2.59	3.32	3.77	4.28	5.10
	mm	53.7	65.8	84.3	95.8	108.7	129.5
B'	INCHES	5.19	6.17	7.32	7.84	8.76	11.10
	mm	131.8	156.8	185.9	199.1	227.6	281.9
C	INCHES	1.10	1.30	1.59	1.81	2.06	2.37
	mm	27.0	33.0	40.4	46.0	52.3	60.2
D	INCHES	1.91	2.32	2.68	2.82	3.00	3.36
	mm	46.8	58.9	68.1	71.6	76.2	85.3
E	INCHES	3.82	4.55	6.33	6.33	6.33	7.19
	mm	93.6	115.6	160.8	160.8	160.8	182.6
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.



\*Same design as Hammond  
UP8301AP2/8303P2

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

Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

**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"



WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

Dimensions and workmanship conform to MSS SP-110

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

## MATERIAL LIST

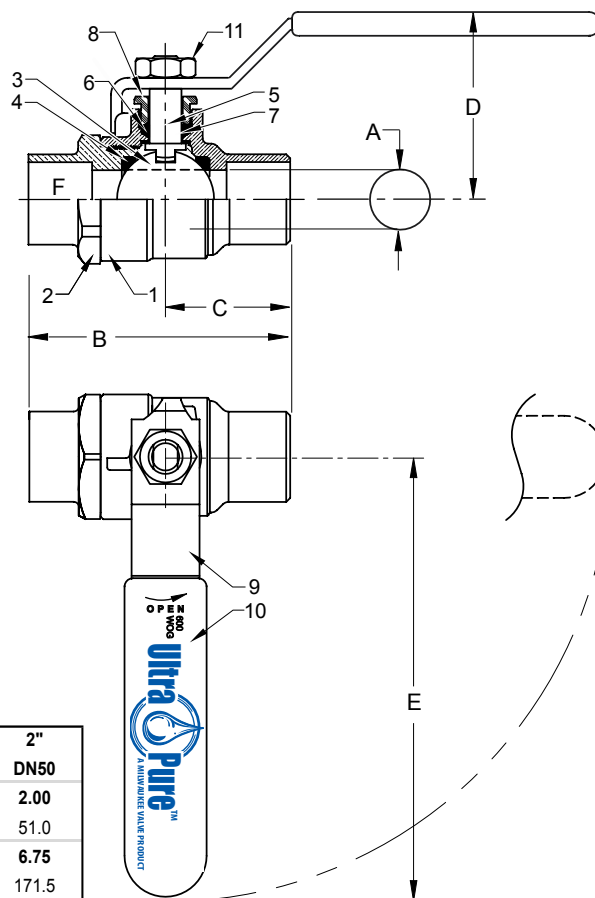
ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Cast Bronze	B584 C89833
2	Tailpiece	Cast Bronze	B584 C89833
3	Ball	Brass w/Hard Chrome Plating	B283 C27450
		316 Stainless Steel (1)	A276 S31600
4	Seat	RPTFE, 15% Glass Filled	
5	Stem	Brass (2" only)	B21 C46400
		Bronze	B584 C89833
		316 Stainless Steel (1)	A276 S31600
6	Thrust Washer	RPTFE, 25% Glass Filled	
7	Packing	PTFE	
8	Packing Nut	Brass	B16 C36000
9	Handle	Steel w/ Zinc Plating	B633
10	Handle Grip	Vinyl	
11	Handle Nut	Steel w/ Zinc Plating	B633

(1) Ball and stem are stainless for UPBA450S

## DIMENSIONS

	UNITS	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
A(DIA)	INCHES	0.50	0.76	1.06	1.31	1.56	2.00
	mm	12.7	19.3	26.9	32.1	39.6	51.0
B	INCHES	2.39	3.17	3.75	5.00	6.00	6.75
	mm	58.6	80.5	95.3	127.0	152.4	171.5
C	INCHES	1.07	1.50	1.79	2.49	3.00	3.37
	mm	27.2	38.1	45.5	63.3	76.2	85.6
D	INCHES	1.87	2.19	2.67	2.82	2.99	3.51
	mm	46.3	55.6	67.8	71.6	75.9	89.2
E	INCHES	3.80	4.56	6.31	6.31	6.31	7.19
	mm	96.5	115.8	160.3	160.3	160.3	182.6
F	TUBE SIZE Ø	.63	.88	1.13	1.38	1.63	2.13
Cv		15	35	60	110	185	360

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



\*Same design as Hammond UP8311A/8313A

Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
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**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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**Brass Ball Valve For Potable Water**  
**Two-Piece • Full-Port**  
**Blow Out Proof Stem**  
**1/4"-2" • 600 psig WOG**  
**2 1/2"-3" 400 psig WOG**  
**Threaded Ends**

**UPBA475B\* 1/4"-3"**



WQA tested and Certified  
 against NSF/ANSI 372  
 for "lead free" compliance.

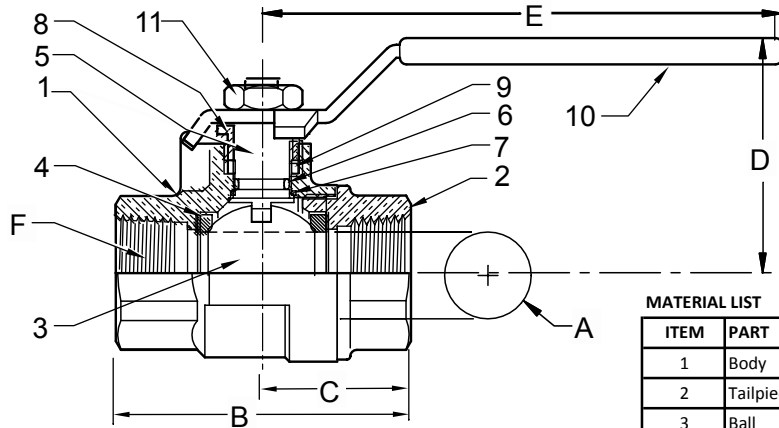


APPROVED  
 1140



**Dimensions and workmanship**  
**Conform to MSS SP-110**  
**ASME A112.4.14**

**\*Also Available UPBA475B-LL**



**MATERIAL LIST**

ITEM	PART	MATERIALS	ASTM SPEC.
1	Body	Brass, Forged	B283 C27450
2	Tailpiece	Brass, Forged	B283 C27450
3	Ball	Brass w/Chrome	C27450
4	Ball Seal	PTFE	Commercial
5	Stem	Brass	C27450
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

\*Same design as Hammond UP8901

\*\*1/4"-2"

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

**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	0.39	0.39	0.51	0.76	1.00	1.26	1.50	2.00	2.48	2.95
	mm	9.9	9.9	12.7	19.3	25	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	76.2
D	INCHES	1.42	1.42	1.46	1.93	2.1	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	307	323
TORQUE	in-lb	16	16	19	58	69	89	124	210	445	563
	N.m	1.8	1.8	2.1	6.5	7.8	10	14	24	50	64
WEIGHT	lbs	0.33	0.34	0.47	0.89	1.24	1.66	2.34	4.94	7.4	10.47
	Kg	0.149	0.155	0.213	0.403	0.565	0.755	1.064	2.245	3.35	4.75

Milwaukee Valve Company  
 16550 W. Stratton Drive  
 New Berlin, WI 53151  
 Phone: 262-432-2700  
 Fax: 262-432-2701

**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-480B\* 1/2" - 4" \*\*

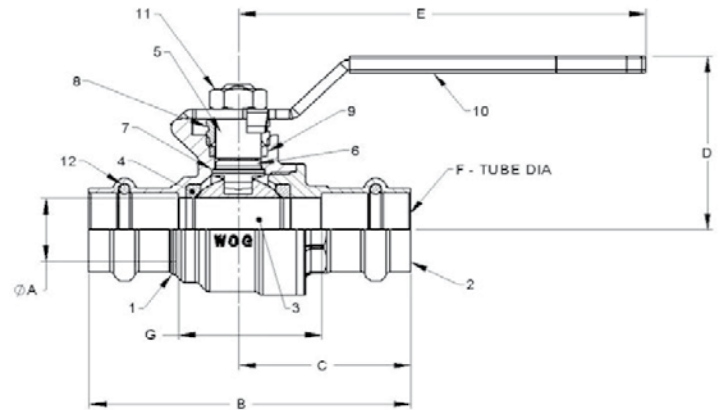


WQA tested and Certified against  
NSF/ANSI 372 for "lead free"  
compliance

**Brass Ball Valve For Potable Water**  
**Two-Piece, Full Port**  
**Blow Out Proof Stem**  
**Press X Press Ends**  
**200 PSIG @ 250° F**

### MATERIALS LIST

ITEM	PART	MATERIAL	ASTM/SPEC
1	Body	Brass, Forged	B283-C27450
2	Tailpiece	Brass, Forged	B283-C27450
3	Ball	CP Brass Ball	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	Buna-N	D2000
13	Backing Spacer	PTFE	Commercial
14	Backing Retainer	Stainless Steel	Commercial

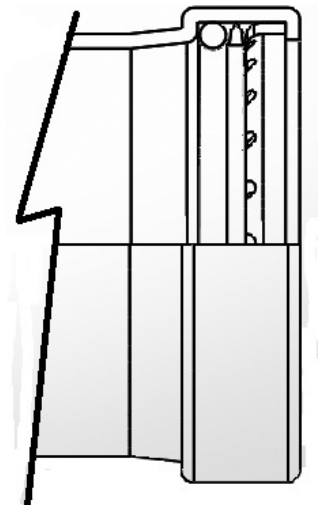


\*Ultra Press Valves are designed and qualified for use in  
copper tubing systems only, Types K, L, & M per ASTM B88.

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### DIMENSIONS

Size		1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
		DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	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	19.3	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	4.8	6.06
	mm	41.4	48.8	55.4	69.9	86.4	100.5	110	122	154
D	INCHES	1.62	2.01	2.21	2.46	2.62	3.13	3.86	4.21	6.06
	mm	41.1	51.1	56.3	62.5	66.5	79.6	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	38.5	43.8	58.6	80.3	88.5	108.7	101	121	156
C <sub>v</sub>		18	40	72	112	161	287	448	645	700
Torque	in-lbs	19	58	69	89	124	210	200	220	750
	N.m.	2.1	6.5	7.8	10	14	24	22.6	24.9	84.7
Weight	lbs	0.42	0.82	1.18	1.86	2.80	5.50	11	16	37
	grams	191	372	535	844	1270	2495	4989	7257	16782



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

Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

**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"



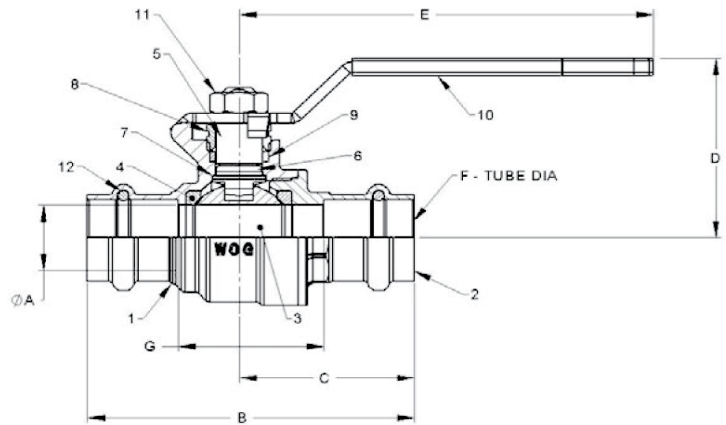
WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Brass Ball Valve For Potable Water**  
**Two-Piece, Full Port**  
**Blow-Out Proof Stem**  
**Press X Press Ends**  
**200 PSIG @ 250° F**

### MATERIALS LIST

ITEM	PART	MATERIAL	ASTM/SPEC
1	Body	Brass, Forged	B283-C27450
2	Tailpiece	Brass, Forged	B283-C27450
3	Ball	316SS	A276
4	Ball Seat	PTFE	Commercial
5	Stem	316SS	A276
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		1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Size		DN15	DN20	DN25	DN32	DN40	DN50
A-PORT DIA	INCHES	0.51	0.76	0.98	1.26	1.50	2.01
	mm	13	19.3	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	41.4	48.8	55.4	69.9	86.4	100.5
D	INCHES	1.62	2.01	2.21	2.46	2.62	3.13
	mm	41.1	51.1	56.3	62.5	66.5	79.6
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	38.5	43.8	58.6	80.3	88.5	108.7
Cv		18	40	72	112	161	287
Torque	in-lb	19	58	69	89	124	210
	N.m.	2.1	6.5	7.8	10	14	24
Weight	lbs.	0.42	0.84	1.18	1.86	2.84	5.60
	grams	191	381	535	844	1288	2540

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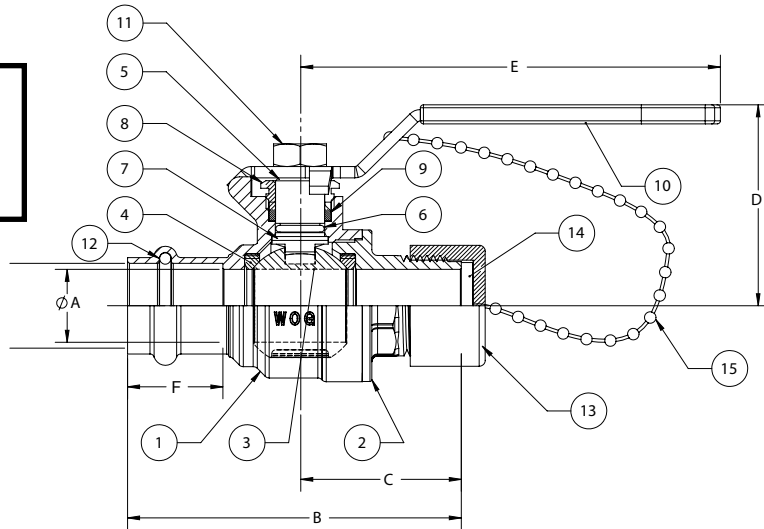
## UPBA-480BH\* 1/2"-3/4"

**Brass Ball Valve For Potable Water**  
**Two-Piece, Full Port**  
**Blow-Out Proof Stem**  
**Press X Hose Ends**  
**200 PSIG @ 250° F**



WQA tested and Certified  
 against NSF/ANSI 372  
 for "lead free" compliance.

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



### MATERIALS LIST

ITEM	PART	MATERIAL	ASTM/SPEC
1	Body	Brass, Forged	B283-C27450
2	Tailpiece	Brass, Forged	B283-C27450
3	Ball	CP Brass Ball	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	B633
11	Handle Nut	Zinc Plated Steel	B633
12	Tube O-Ring	EPDM	D2000 NSF61
13	Hose Cap	Polypropylene	
14	Cap Gasket	EPDM	
15	Chain	Brass Bead	

### Dimensions

Size		1/2" DN15	3/4" DN20
A	inch	0.51	0.76
	mm	13	19
B	inch	3.09	3.5
	mm	78	90
C	inch	1.55	1.70
	mm	39	43
D	inch	1.62	2.01
	mm	41	51
E	inch	3.15	4.33
	mm	80	110
F	inch	.82	.99
	mm	21	25
G	inch	.83	.98
	mm	21	25
Cv		18	40
TORQUE	in. lb	19	58
	N.m	21	6.5
WEIGHT	lbs.	.51	.95
	grams	231	431

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

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 New Berlin, WI 53151  
 Phone: 262-432-2700  
 Fax: 262-432-2701

**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.

**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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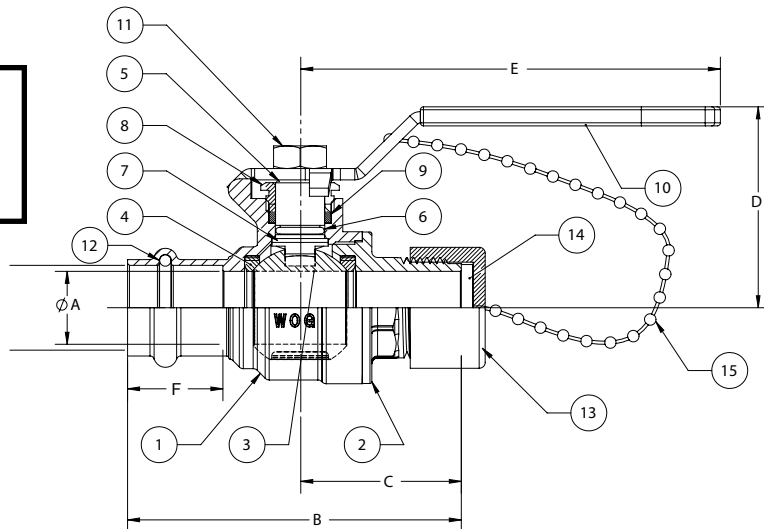
## UPBA-480SH\* 1/2"-3/4"

**Brass Ball Valve For Potable Water**  
**Two-Piece, Full Port**  
**Blow-Out Proof Stem**  
**Press X Hose Ends**  
**200 PSIG @ 250° F**



WQA tested and Certified  
 against NSF/ANSI 372  
 for "lead free" compliance.

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



### MATERIALS LIST

ITEM	PART	MATERIAL	ASTM/SPEC
1	Body	Brass, Forged	B283-C27450
2	Tailpiece	Brass, Forged	B283-C27450
3	Ball	316 S.S.	A276
4	Ball Seat	PTFE	Commercial
5	Stem	316 S.S.	A276
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 Nut	Zinc Plated Steel	B633
12	Tube O-Ring	EPDM	D2000 NSF61
13	Hose Cap	Polypropylene	
14	Cap Gasket	EPDM	
15	Chain	Brass Bead	

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

### Dimensions

Size		1/2" DN15	3/4" DN20
A	inch	0.51	0.76
	mm	13	19
B	inch	3.09	3.5
	mm	78	90
C	inch	1.55	1.70
	mm	39	43
D	inch	1.62	2.01
	mm	41	51
E	inch	3.15	4.33
	mm	80	110
F	inch	.82	.99
	mm	21	25
G	inch	.83	.98
	mm	21	25
Cv		18	40
TORQUE	in. lb	19	58
	N.m	21	6.5
WEIGHT	lbs.	.51	.95
	grams	231	431

Milwaukee Valve Company  
 16550 W. Stratton Drive  
 New Berlin, WI 53151  
 Phone: 262-432-2700  
 Fax: 262-432-2701

**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.

**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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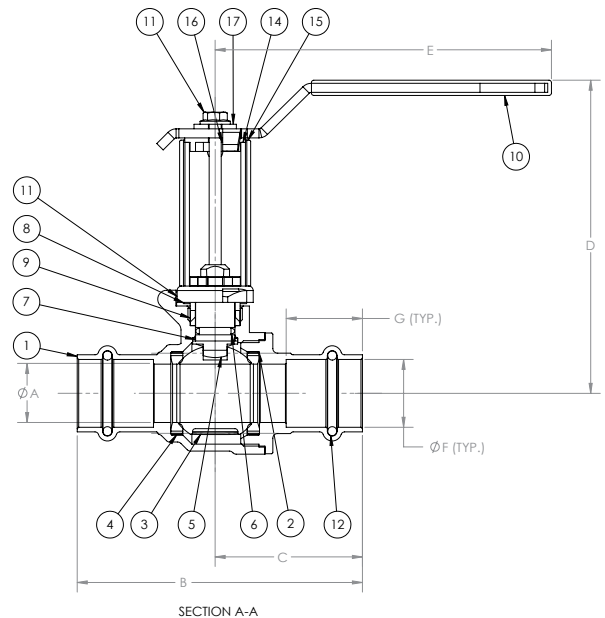
## UPBA-481B\* 1/2"-2"



WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Brass Ball Valve For Potable Water**  
**Two-Piece, Full Port**  
**Blow-Out Proof Stem**  
**Press X Press Ends**  
**With Extension Stem**  
**& Memory Stop**  
**200 PSIG @ 250° F**

MATERIALS LIST			
ITEM	PART	MATERIAL	ASTM/SPEC
1	Body	Brass, Forged	B283-C27450
2	Tailpiece	Brass, Forged	B283-C27450
3	Ball	CP Brass Ball	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	B633
11	Handle Bolt	Zinc Plated Steel	Commercial
12	Tube O-Ring	EPDM	D2000 NSF61
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



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

DIMENSIONS							
Size		1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
		DN15	DN20	DN25	DN32	DN40	DN50
A-PORT DIA	INCHES	0.51	0.76	0.98	1.26	1.50	2.01
	mm	13	19.3	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	41.4	48.8	55.4	69.9	86.4	100.5
D	INCHES	3.87	4.26	4.46	4.71	4.87	5.38
	mm	98.3	108.2	113.3	119.6	123.7	136.7
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	38.5	43.8	58.6	80.3	88.5	108.7
Cv		18	40	72	112	161	287
Torque	in-lb	19	58	69	89	124	210
	N.m.	2.1	6.5	7.8	10	14	24
Weight	lbs.	0.56	1.02	1.38	2.04	3.04	5.86
	grams	254	463	626	925	1379	2658

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## UPBA-481S\* 1/2"-2"

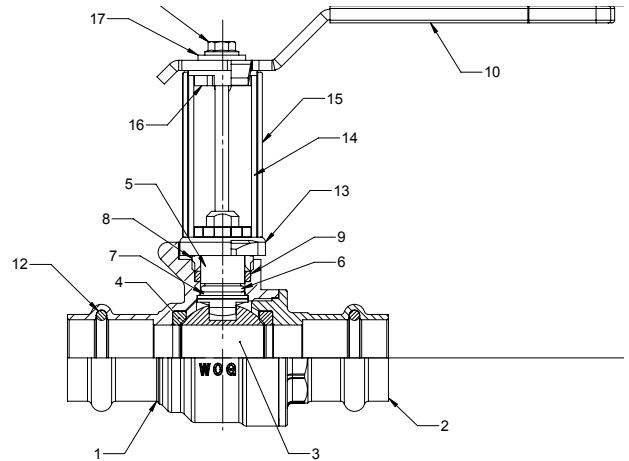


WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Brass Ball Valve For Potable Water**  
**Two-Piece, Full Port**  
**Blow-Out Proof Stem**  
**Press X Press Ends**  
**With Extension Stem & Memory Stop**  
**200 PSIG @ 250° F**

### MATERIALS LIST

ITEM	PART	MATERIAL	ASTM/SPEC
1	Body	Brass, Forged	B283-C27450
2	Tailpiece	Brass, Forged	B283-C27450
3	Ball	316 SS	A276
4	Ball Seat	PTFE	Commercial
5	Stem	316 SS	A276
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 NSF61
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



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

### DIMENSIONS

Size		1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
		DN15	DN20	DN25	DN32	DN40	DN50
A-PORT DIA	INCHES	0.51	0.76	0.98	1.26	1.50	2.01
	mm	13	19.3	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	41.4	48.8	55.4	69.9	86.4	100.5
D	INCHES	3.87	4.26	4.46	4.71	4.87	5.38
	mm	98.3	108.2	113.3	119.6	123.7	136.7
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	38.5	43.8	58.6	80.3	88.5	108.7
Cv		18	40	72	112	161	287
Torque	in-lb	19	58	69	89	124	210
	N.m.	2.1	6.5	7.8	10	14	24
Weight	lbs.	0.56	1.02	1.36	2.06	3.04	5.88
	grams	254	463	617	934	1379	2667

Milwaukee Valve Company  
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New Berlin, WI 53151  
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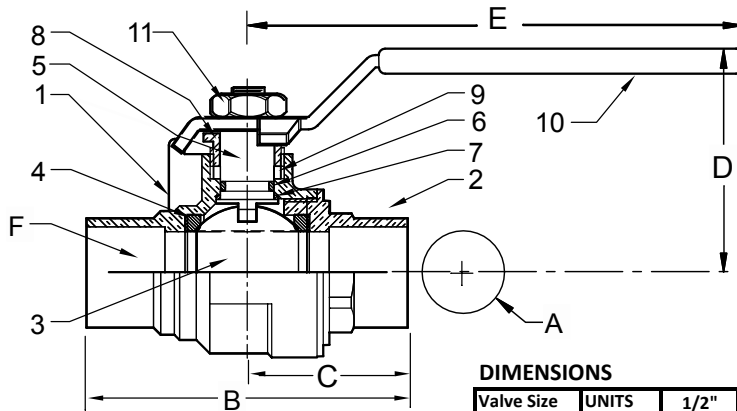


# UPBA485B\* 1/2"-3"



WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Brass Ball Valve For Potable Water**  
**Two-Piece • Full-Port**  
**Blow-Out Proof Stem**  
**600 PSIG WOG**  
**Solder Ends**  
**Dimensions and workmanship conform to MSS SP-110**



\*Same design as Hammond UP8911

## DIMENSIONS

Valve Size	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	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	4.53	5.00	5.00	6.90	7.87	7.87
	mm	80	110	110	127	127	175	199.9	199.9
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
TORQUE	in-lb	19	58	69	89	124	210	445	563
	N.m	2.1	6.5	7.8	10	14	24	50	64
WEIGHT	lbs	0.40	0.82	1.15	1.53	2.23	4.61	10.00	13.00
	Kg	0.180	0.370	0.521	0.696	1.012	2.092	4.54	16.00

## 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	B283 C27450 Chrome Plated
4	Ball Seal	PTFE	Commercial
5	Stem	Brass	B283 C27450
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

Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

**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"



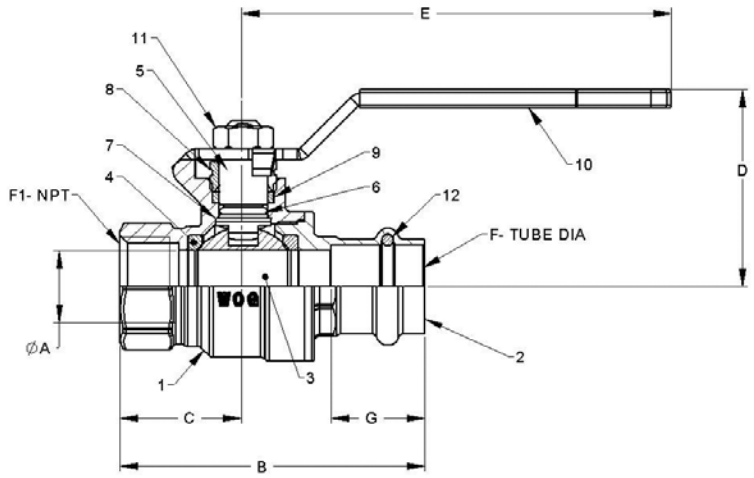
WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Brass Ball Valve For Potable Water**  
**Two-Piece, Full Port**  
**Blow-Out Proof Stem**  
**Press X Threaded Ends**  
**200 PSIG @ 250° F**

### MATERIALS LIST

ITEM	PART	MATERIAL	ASTM/SPEC
1	Body	Brass, Forged	B283-C27450
2	Tailpiece	Brass, Forged	B283-C27450
3	Ball	CP Brass Ball	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

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



### DIMENSIONS

Valve Size		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	155.96
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		Inches 1/2" -14	3/4"-14	1"-11.5	1-1/4"-11.5	1-1/2"-11.5	2"-11.5
G	Inches	.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
TORQUE	in-lb	19	58	69	89	124	210
	N.m	2.1	6.5	7.8	10	14	24
WEIGHT	lbs	.48	.84	1.22	1.71	2.59	5.04
	grams	218	381	553	776	1175	2286

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



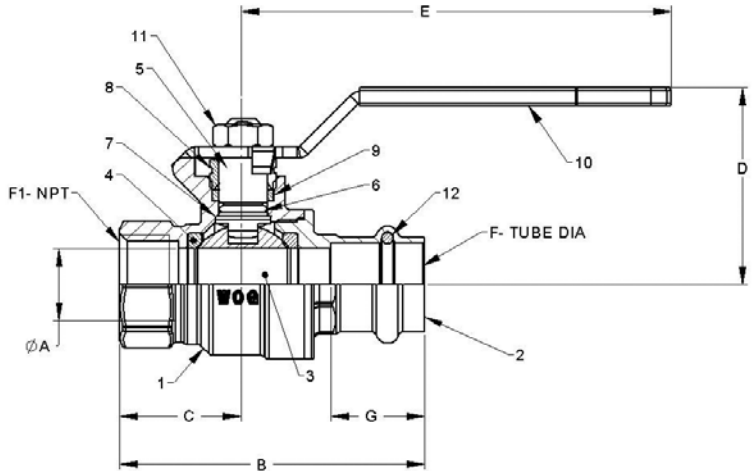
WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Brass Ball Valve For Potable Water**  
**Two-Piece, Full Port**  
**Blow-Out Proof Stem**  
**Press X Threaded Ends**  
**200 PSIG @ 250° F**

### MATERIALS LIST

ITEM	PART	MATERIAL	ASTM/SPEC
1	Body	Brass, Forged	B283-C27450
2	Tailpiece	Brass, Forged	B283-C27450
3	Ball	316 SS	A276
4	Ball Seat	PTFE	Commercial
5	Stem	316 SS	A276
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

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



### DIMENSIONS

Valve Size		1/2" DN15	3/4" DN20	1" DN25	1-1/4" DN32	1-1/2" DN40	2" DN50
A	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	155.96
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		Inches 1/2" -14	3/4"-14	1"-11.5	1-1/4"-11.5	1-1/2"-11.5	2"-11.5
G	Inches	.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
TORQUE	in-lb	19	58	69	89	124	210
	N.m	2.1	6.5	7.8	10	14	24
WEIGHT	lbs	.48	.84	1.22	1.71	2.59	5.04
	grams	218	381	553	776	1175	2286

Milwaukee Valve Company  
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**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"

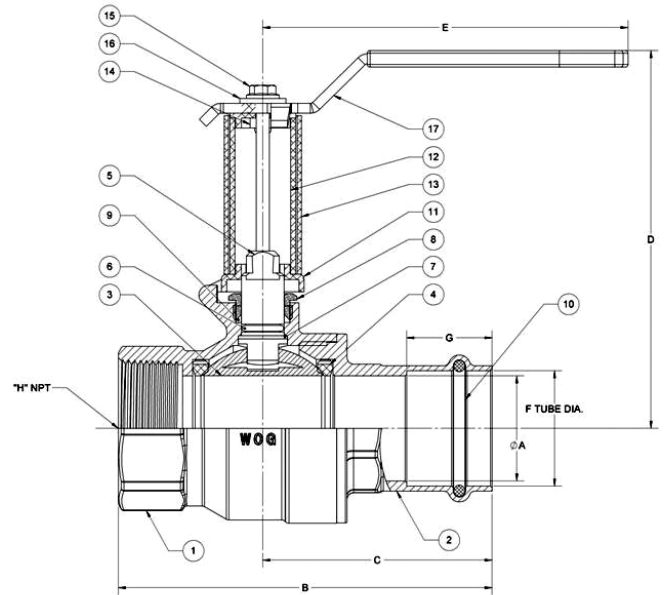


WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Brass Ball Valve For Potable Water**  
**Two-Piece, Full Port**  
**Blow-Out Proof Stem**  
**Press X Threaded Ends**  
**200 PSIG @ 250° F**  
**With Extension Stem**

MATERIALS LIST			
ITEM	PART	MATERIAL	ASTM/SPEC
1	BODY	BRASS, FORGED	B283-C27450
2	TAILPIECE	BRASS, FORGED	B283-C27450
3	BALL	CP BRASS BALL	B283-C27450
4	BALL SEAT	PTFE	COMMERICAL
5	STEM	BRASS, FORGED	B283-C27450
6	STEM O-RING	BUNA-N	D2000
7	THRUST WASHER	PTFE	COMMERICAL
8	GLAND NUT	BRASS	B124
9	PACKING	PTFE	COMMERICAL
10	HANDLE	ZINC PLATED STEEL	B633
11	HANDLE BOLT	ZINC PLATED STEEL	COMMERICAL
12	TUBE O-RING	EPDM	D2000 NSF61
13	STEM STOP PLATE	ZINC PLATED STEEL	COMMERICAL
14	INTERNAL EXTENSION TUBE	ZINC PLATED STEEL	COMMERICAL
15	EXTERNAL EXTENSION TUBE	ZINC PLATED STEEL	COMMERICAL
16	UPPER STEM ADAPTOR	ZINC PLATED STEEL	COMMERICAL
17	MEMORY STOP	ZINC PLATED STEEL	COMMERICAL

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



DIMENSIONS							
VALVE SIZE		1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
		DN15	DN20	DN25	DN32	DN32	DN50
A	INCH	0.51	0.76	0.98	1.26	1.50	2.01
	mm	13.0	19.3	24.9	32.0	38.1	51.1
B	INCH	2.76	3.58	3.98	4.51	5.50	6.44
	mm	70.1	90.9	101.1	114.6	139.7	163.6
C	INCH	1.63	1.92	2.18	2.75	3.46	3.46
	mm	41.4	48.8	55.4	69.9	87.9	87.9
D	INCH	3.55	4.08	4.28	4.53	4.65	5.13
	mm	90.2	103.6	108.7	115.1	118.1	130.3
E	INCH	3.28	4.38	4.38	4.38	6.97	6.97
	mm	83.3	111.3	111.3	111.3	177.0	177.0
F	INCH	0.63	0.88	1.13	1.38	1.64	2.13
	mm	16.0	22.4	28.7	35.1	41.7	54.1
G	INCH	0.83	0.99	0.99	1.02	1.42	1.58
	mm	21.1	25.1	25.1	25.9	36.1	40.1
H	THRD SIZE	1/2" NPT	3/4" NPT	1" NPT	1-1/4" NPT	1-1/2" NPT	2" NPT
TORQUE	Cv	GPM	18	40	72	112	287
	INCH-LB		19	58	69	89	124
	N.m		2.1	6.5	7.8	10	24
WEIGHT	LBS		0.59	1.11	1.32	2.07	3.30
	GRAMS		268	503	599	939	1497

Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

**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"

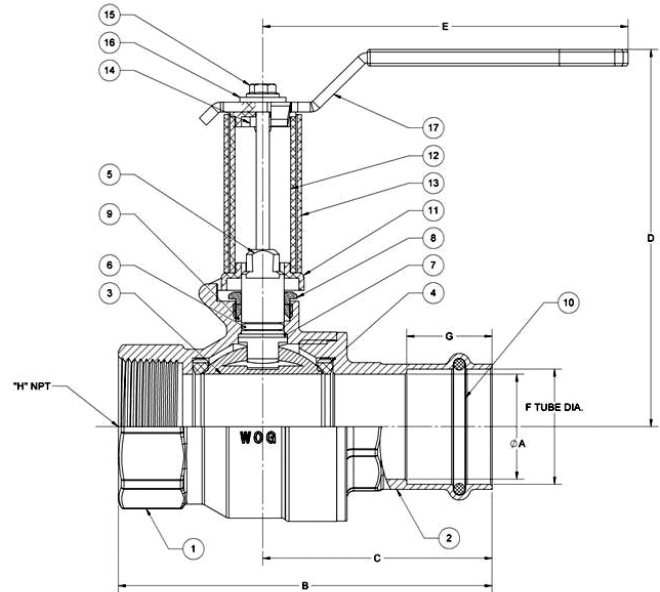


WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Brass Ball Valve For Potable Water**  
**Two-Piece, Full Port**  
**Blow-Out Proof Stem**  
**Press X Threaded Ends**  
**200 PSIG @ 250° F**  
**With Extension Stem**

MATERIALS LIST			
ITEM	PART	MATERIAL	ASTM/SPEC
1	BODY	BRASS, FORGED	B283-C27450
2	TAILPIECE	BRASS, FORGED	B283-C27450
3	BALL	316 SS	A276
4	BALL SEAT	PTFE	COMMERICAL
5	STEM	316 SS	A276
6	STEM O-RING	BUNA-N	D2000
7	THRUST WASHER	PTFE	COMMERICAL
8	GLAND NUT	BRASS	B124
9	PACKING	PTFE	COMMERICAL
10	HANDLE	ZINC PLATED STEEL	B633
11	HANDLE BOLT	ZINC PLATED STEEL	COMMERICAL
12	TUBE O-RING	EPDM	D2000 NSF61
13	STEM STOP PLATE	ZINC PLATED STEEL	COMMERICAL
14	INTERNAL EXTENSION TUBE	ZINC PLATED STEEL	COMMERICAL
15	EXTERNAL EXTENSION TUBE	ZINC PLATED STEEL	COMMERICAL
16	UPPER STEM ADAPTOR	ZINC PLATED STEEL	COMMERICAL
17	MEMORY STOP	ZINC PLATED STEEL	COMMERICAL

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



VALVE SIZE		DIMENSIONS					
		1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
A	INCH	0.51	0.76	0.98	1.26	1.50	2.01
	mm	13.0	19.3	24.9	32.0	38.1	51.1
B	INCH	2.76	3.58	3.98	4.51	5.50	6.44
	mm	70.1	90.9	101.1	114.6	139.7	163.6
C	INCH	1.63	1.92	2.18	2.75	3.46	3.46
	mm	41.4	48.8	55.4	69.9	87.9	87.9
D	INCH	3.55	4.08	4.28	4.53	4.65	5.13
	mm	90.2	103.6	108.7	115.1	118.1	130.3
E	INCH	3.28	4.38	4.38	4.38	6.97	6.97
	mm	83.3	111.3	111.3	111.3	177.0	177.0
F	INCH	0.63	0.88	1.13	1.38	1.64	2.13
	mm	16.0	22.4	28.7	35.1	41.7	54.1
G	INCH	0.83	0.99	0.99	1.02	1.42	1.58
	mm	21.1	25.1	25.1	25.9	36.1	40.1
H	THRD SIZE	1/2" NPT	3/4" NPT	1" NPT	1-1/4" NPT	1-1/2" NPT	2" NPT
Cv	GPM	18	40	72	112	161	287
TORQUE	INCH-LB	19	58	69	89	124	210
	N.m	2.1	6.5	7.8	10	14	24
WEIGHT	LBS	0.59	1.11	1.32	2.07	3.30	5.32
	GRAMS	268	503	599	939	1497	2413

Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

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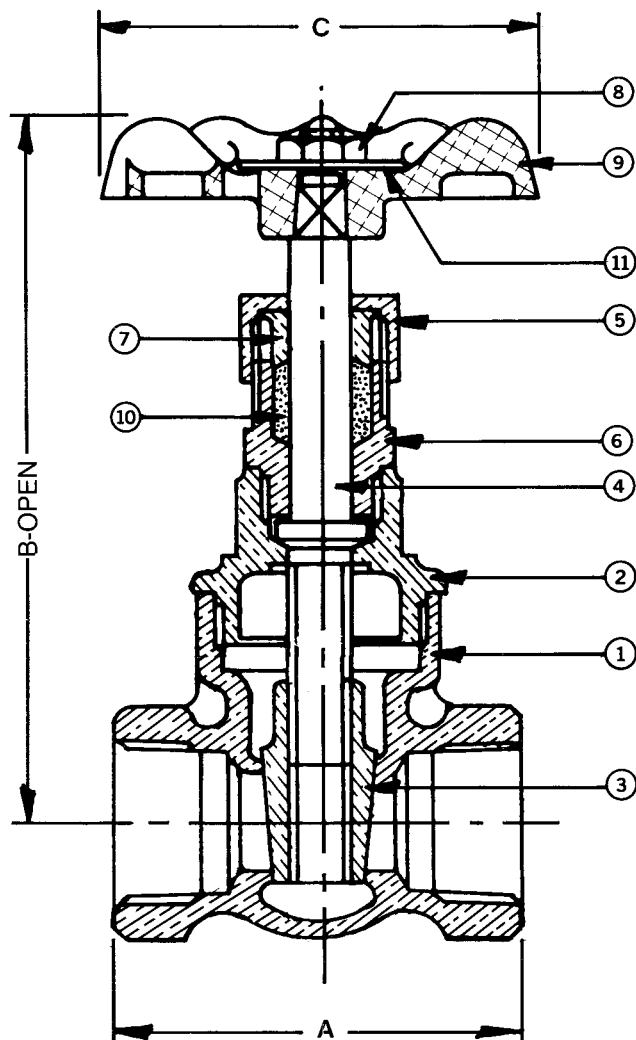


# UP105\* 1/4"-2"



WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Bronze Gate Valve For Potable Water**  
**Solid Wedge Disc • Non-Rising Stem**  
**Threaded Ends, Threaded Bonnet**  
**300 WOG†**  
**Gland Packed**  
**Dimensions and Workmanship Conform to MSS SP-80**



DIMENSIONS - INCHES / MILLIMETERS					
Units	Size	A	B	C	C <sub>v</sub>
Inches	1/4	1.75	3.63	2.00	5.6
mm	6.35	44.45	92.08	50.80	
Inches	3/8	1.81	3.63	2.00	10.7
mm	9.53	46.05	92.08	50.80	
Inches	1/2	2.00	3.63	2.00	17.6
mm	12.70	50.80	92.08	50.80	
Inches	3/4	2.13	4.38	2.50	32.0
mm	19.05	53.98	111.13	63.50	
Inches	1	2.56	5.00	2.75	54.0
mm	25.40	65.10	127.00	69.85	
Inches	1 1/4	2.78	5.31	3.13	97.0
mm	31.75	70.64	134.95	79.38	
Inches	1 1/2	2.81	6.34	3.50	135.0
mm	38.10	71.45	161.13	88.90	
Inches	2	3.31	7.44	3.75	230.0
mm	50.80	84.15	188.93	95.25	

† Non-Shock

## MATERIAL LIST

NO.	PART	MATERIAL	SPECIFICATION
1	Body	Bronze	ASTM B584 C89833
2	Bonnet	Bronze	ASTM B584 C89833
3	Wedge	Bronze	ASTM B584 C89833
4	Stem	Bronze	ASTM B21 C46400, H02
5	Stuff Nut	Brass	ASTM B283 C37700
6	Check Nut	Brass	ASTM B283 C27450
7	Gland <sup>1</sup>	Brass	ASTM B283 C37700
8	Wheel Nut	Brass	Commercial
9	Handwheel	Mall. Iron	Commercial
10	Packing	Graphite	Commercial
11	Name Plate	Sh. Alum	Commercial

<sup>1</sup> Not Used of 1/2" and Smaller

\*Same design as Hammond UP645

Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

**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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# UP105 P2\* 1/2"-2"



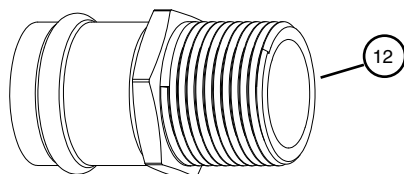
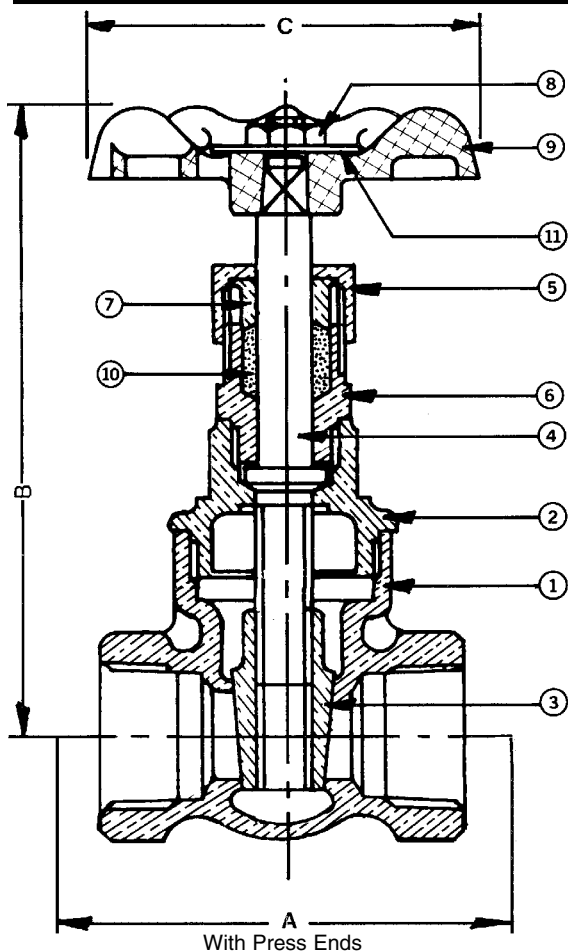
WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Bronze Gate Valve For Potable Water**  
**Solid Wedge Disc • Non-Rising Stem**  
**Press x Press Ends**  
**Press x Threaded Available (Consult Factory)**

**200 PSIG @ 250°F†**

**Threaded Bonnet, Gland Packed**

**Dimensions and Workmanship Conform to MSS SP-80**



Press End Adapter (4151 Series)

## MATERIAL LIST

NO.	PART	MATERIAL	SPECIFICATION
1	Body	Bronze	ASTM B584 C89833
2	Bonnet	Bronze	ASTM B584 C89833
3	Wedge	Bronze	ASTM B584 C89833
4	Stem	Bronze	ASTM B21 C46400, H02
5	Stuff Nut	Brass	ASTM B283 C37700
6	Check Nut	Brass	ASTM B283 C27450
7	Gland †	Brass	ASTM 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 of 1/2"

## DIMENSIONS - INCHES/MILLIMETERS

Units	Size	STD Insertion Depth	A	B	C	C <sub>v</sub>
Inches mm	1/2	0.87 22	5.00 127	3.63 92	2.00 51	17.6
Inches mm	3/4	0.98 166	5.71 145	4.38 111	2.50 64	32.0
Inches mm	1	0.98 166	6.56 167	5.00 127	2.75 70	54.0
Inches mm	1 1/4	1.02 26	6.85 174	5.31 135	3.13 79	97.0
Inches mm	1 1/2	1.42 36	7.29 185	6.34 161	3.50 89	135.0
Inches mm	2	1.58 40	9.31 237	7.44 189	3.75 95	230.0

† Non-Shock

\*Same design as Hammond UP645 P2

Milwaukee Valve Company  
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# UP115\* 3/8"-2"



WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Bronze Gate Valve For Potable Water**  
**Solid Wedge Disc • Non-Rising Stem**  
**Solder Ends, Threaded Bonnet**

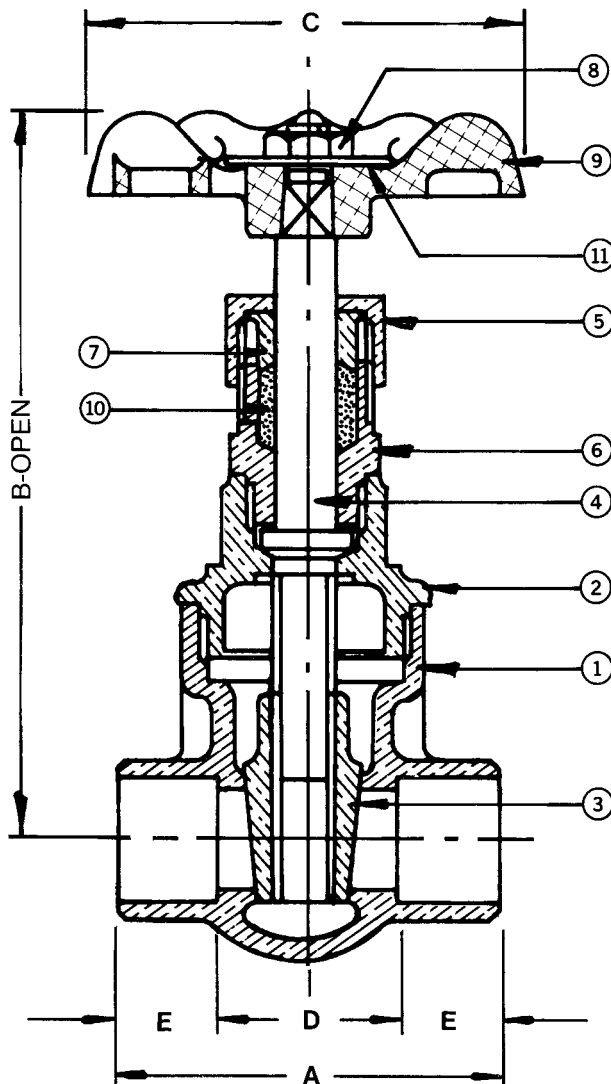
**300 WOG†**  
**Gland Packed**

**Dimensions and Workmanship Conform to MSS SP-80**

## MATERIAL LIST

NO.	PART	MATERIAL	SPECIFICATION
1	Body	Bronze	ASTM B584 C89833
2	Bonnet	Bronze	ASTM B584 C89833
3	Wedge	Bronze	ASTM B584 C89833
4	Stem	Bronze	ASTM B21 C46400, H02
5	Stuff Nut	Brass	ASTM B283 C37700
6	Check Nut	Brass	ASTM B283 C27450
7	Gland <sup>1</sup>	Brass	ASTM B283 C37700
8	Wheel Nut	Brass	Commercial
9	Handwheel	Mall. Iron	Commercial
10	Packing	Graphite	Commercial
11	Name Plate	Sh. Alum	Commercial

<sup>1</sup> Not Used of 1/2" and Smaller



## DIMENSIONS - INCHES / MILLIMETERS

Units	Size	A	B	C	D	E	C <sub>v</sub>
Inches	3/8	1.63	3.56	2.00	0.88	0.38	5.6
mm	9.5	41.3	90.5	50.8	22.2	9.5	
Inches	1/2	1.88	3.56	2.00	0.88	0.50	10.7
mm	12.7	47.6	90.5	50.8	22.2	12.7	
Inches	3/4	2.50	4.75	2.50	1.00	0.75	17.6
mm	19.1	63.5	120.7	63.5	25.4	19.1	
Inches	1	3.00	5.00	2.75	1.19	0.91	32.0
mm	25.4	76.2	127.0	69.9	30.2	23.0	
Inches	1 1/4	3.25	5.88	3.13	1.31	0.97	54.0
mm	31.8	82.6	149.2	79.4	33.4	24.6	
Inches	1 1/2	3.63	6.50	3.50	1.44	1.09	97.0
mm	38.1	92.1	165.1	88.9	36.5	27.8	
Inches	2	4.31	7.44	3.75	1.63	1.34	135.0
mm	50.8	109.6	188.9	95.3	41.3	34.1	

† Non-Shock

\*Same design as Hammond UP647

Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

**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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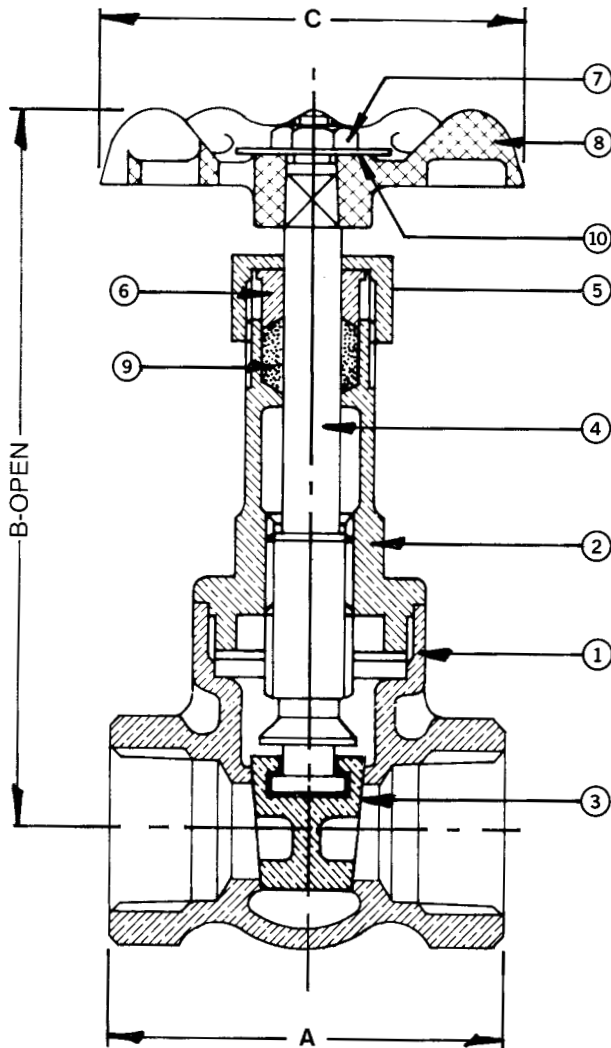
# UP148\* 1/4"-2"



WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Bronze Gate Valve For Potable Water**  
**Solid Wedge Disc • Rising Stem**  
**Threaded Ends, Threaded Bonnet**  
**300 WOG†**  
**Gland Packed**

**Dimensions and Workmanship Conform to MSS SP-80**



DIMENSIONS - INCHES / MILLIMETERS					
Units	Size	A	B	C	C <sub>v</sub>
Inches	1/4	1.75	4.38	2.00	5.6
mm	6.35	44.45	111.13	5.80	
Inches	3/8	1.81	4.38	2.00	10.7
mm	9.53	46.05	111.13	5.80	
Inches	1/2	2.00	4.38	2.00	17.6
mm	12.70	50.80	111.13	5.80	
Inches	3/4	2.13	5.84	2.50	32.0
mm	19.05	53.98	148.44	63.50	
Inches	1	2.56	7.06	2.75	54.0
mm	25.40	65.10	179.40	69.85	
Inches	1 1/4	2.78	8.78	3.13	97.0
mm	31.75	70.64	223.04	79.38	
Inches	1 1/2	2.81	9.50	3.50	135.0
mm	38.10	71.45	241.30	88.90	
Inches	2	3.31	11.50	3.75	230.0
mm	50.80	84.15	292.10	95.25	

† Non-Shock

## MATERIAL LIST

NO.	PART	MATERIAL	SPECIFICATION
1	Body	Bronze	ASTM B584 C89833
2	Bonnet	Bronze	ASTM B584 C89833
3	Wedge	Bronze	ASTM B584 C89833
4	Stem	Bronze	ASTM B21 C46400, H02
5	Stuff Nut	Brass	ASTM B283 C27450
6	Gland <sup>1</sup>	Brass	ASTM B283 C27450
7	Wheel Nut	Brass	Commercial
8	Handwheel	Mall. Iron	Commercial
9	Packing	Graphite	Commercial
10	Name Plate	Sh. Alum	Commercial

<sup>1</sup> Not Used of 1/2" and Smaller

\*Same design as Hammond UP640

Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

**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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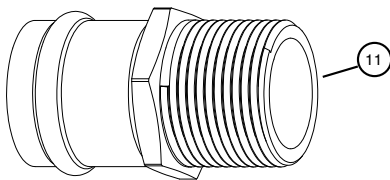
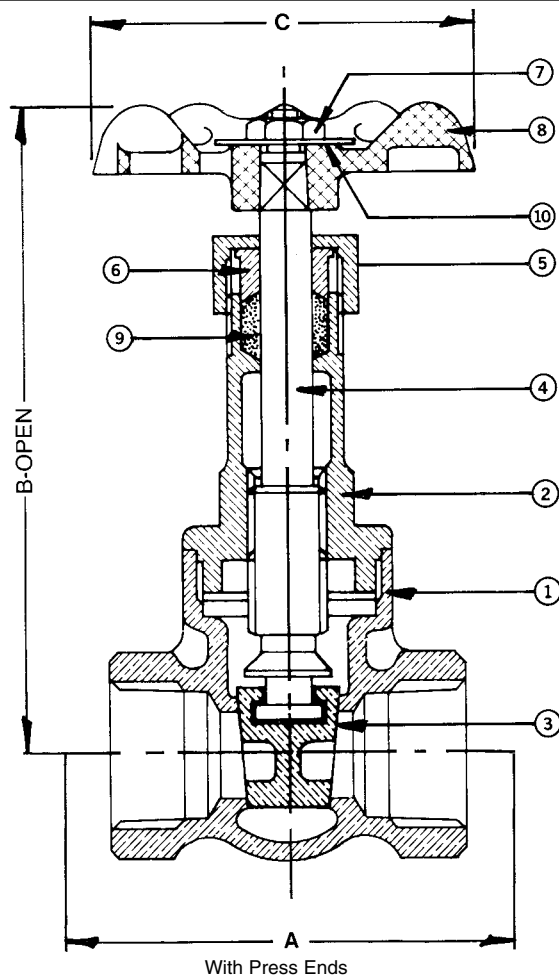


# UP148 P2 1/2"-2"



WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Bronze Gate Valve  
For Potable Water  
200 PSIG @ 250°F†  
Solid Wedge Disc • Rising Stem  
Threaded Bonnet • Gland Packed • Press x Press Ends  
Press x Threaded Ends (Consult Factory)  
Conforms to: MSS SP-80. Type 2, Class 125**



Press End Adapter (4151 Series)

## MATERIAL LIST

NO.	PART	MATERIAL	SPECIFICATION
1	Body	Bronze	ASTM B584 C89833
2	Bonnet	Bronze	ASTM B584 C89833
3	Wedge	Bronze	ASTM B584 C89833
4	Stem	Bronze	ASTM B21 C46400, H02
5	Stuff Nut	Brass	ASTM B283 C27450
6 <sup>1</sup>	Gland	Brass	ASTM 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

<sup>1</sup> Not used on 1/2"

## DIMENSIONS - INCHES/MILLIMETERS

Units	Size	STD Insertion Depth	A	B	C	C <sub>v</sub>
Inches mm	1/2	0.87 22	5.00 127	4.38 111	2.00 51	17.6
Inches mm	3/4	0.98 166	5.71 145	5.84 148	2.50 64	32.0
Inches mm	1	0.98 166	6.56 167	7.06 179	2.75 70	54.0
Inches mm	1 1/4	1.02 26	6.85 174	8.78 223	3.13 79	97.0
Inches mm	1 1/2	1.42 36	7.29 185	9.50 241	3.50 89	135.0
Inches mm	2	1.58 40	9.31 236	11.50 292	3.75 95	230.0

† Non-Shock

\*Same design as Hammond UP640 P2

Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

**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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# UP149\* 3/8"-2"

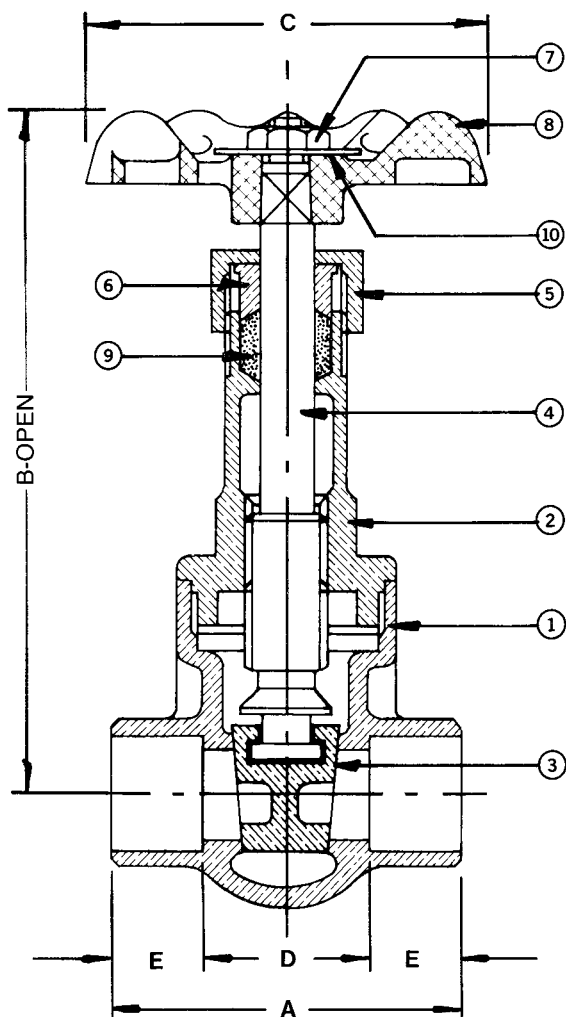


WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Bronze Gate Valve For Potable Water**  
**Solid Wedge Disc • Rising Stem**  
**Solder Ends, Threaded Bonnet**

**300 WOG†**  
**Gland Packed**

**Dimensions and Workmanship Conform to MSS SP-80**



DIMENSIONS - INCHES / MILLIMETERS							
Units	Size	A	B	C	D	E	C <sub>v</sub>
Inches	3/8	1.63	4.31	2.00	0.88	0.38	5.6
mm	9.5	41.3	109.6	50.8	22.3	9.5	
Inches	1/2	1.88	4.31	2.00	0.88	0.50	10.7
mm	12.7	47.6	109.6	50.8	22.3	12.7	
Inches	3/4	2.50	6.25	2.50	1.00	0.75	17.6
mm	19.1	63.5	158.8	63.5	25.4	19.1	
Inches	1	3.00	7.00	2.75	1.19	0.91	32.0
mm	25.4	76.2	177.8	69.9	30.2	23.0	
Inches	1 1/4	3.25	8.63	3.13	1.31	0.97	54.0
mm	31.8	82.6	219.1	79.4	33.4	24.6	
Inches	1 1/2	3.63	9.50	3.50	1.44	1.09	97.0
mm	38.1	92.1	241.3	88.9	36.5	27.8	
Inches	2	4.31	11.50	3.75	1.63	1.34	135.0
mm	50.8	109.6	292.1	95.3	41.3	34.1	

† Non-Shock

## MATERIAL LIST

NO.	PART	MATERIAL	SPECIFICATION
1	Body	Bronze	ASTM B584 C89833
2	Bonnet	Bronze	ASTM B584 C89833
3	Wedge	Bronze	ASTM B584 C89833
4	Stem	Bronze	ASTM B21 C46400, H02
5	Stuff Nut	Brass	ASTM B283 C27450
6	Gland <sup>1</sup>	Brass	ASTM B283 C27450
7	Wheel Nut	Brass	Commercial
8	Handwheel	Mall. Iron	Commercial
9	Packing	Graphite	Commercial
10	Name Plate	Sh. Alum	Commercial

<sup>1</sup> Not Used of 1/2" and Smaller

\*Same design as Hammond UP635

Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

**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"

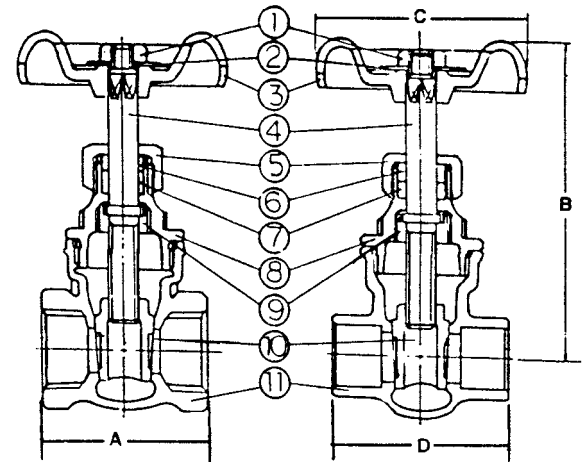


WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Brass Gate Valve  
For Potable Water  
Threaded Bonnet  
Threaded Ends (UP667)  
or Solder Ends (UP668)  
200 WOG**

DIMENSIONS (INCHES)					Approx. Weight	Approx. Weight	C <sub>v</sub>
SIZE	A	B	C	D	667	668	
1/4	1.63	2.84	2.13	-	0.60	-	5.6
3/8	1.63	2.84	2.13	1.63	0.60	0.56	10.7
1/2	1.69	2.91	2.13	1.78	0.63	0.59	17.6
3/4	1.84	3.31	2.13	2.31	0.88	0.81	32
1	2.19	3.94	2.41	2.84	1.25	1.19	54
1 1/4	2.42	4.34	2.94	3.00	1.75	1.65	97
1 1/2	2.44	4.94	2.94	3.22	2.12	2.00	135
2	2.84	6.03	3.19	3.97	3.20	3.10	230

MATERIAL SPECIFICATION			
1	Handwheel Nut	Brass	ASTM B16
2	Nameplate	Aluminum Sheet	Commercial
3	Handwheel	Cast Iron	ASTM A48, Class 35
4	Stem	Brass	B283 C27450
5	Packing Nut	Forged Brass	B283 C27450
6	Gland	Brass Rod	B283 C27450
7	Packing Ring	Non-Asbestos Synthetic Fibers	
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

UP668 Solder

## FEATURES

- FORGED BRASS BODY
- THREADED OR SOLDER ENDS
- THREADED BONNET
- INTEGRAL SEAT
- ADJUSTABLE PACKING NUT
- NON-RISING STEM
- FORGED SOLID WEDGE DISC
- IRON HANDWHEEL
- 100% FACTORY TESTED
- INTERNATIONAL

Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

**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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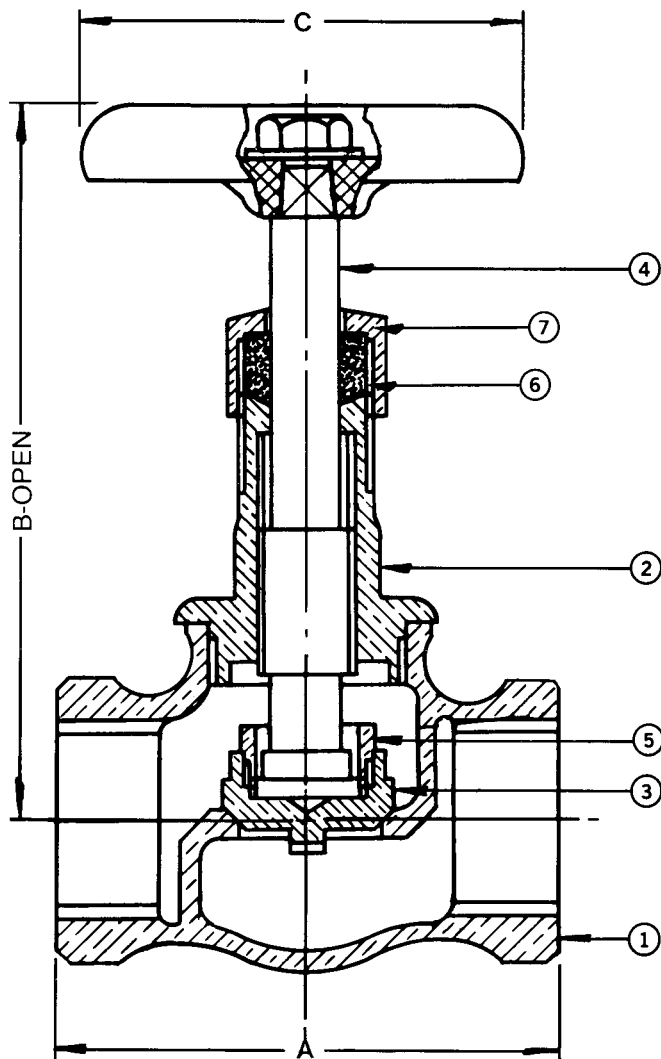
# UP502\* 1/8"-2"



WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Bronze Globe Valve For Potable Water**  
**Bronze Disc**  
**300 WOG†**  
**Threaded Ends, Threaded Bonnet**  
**Dimensions and Workmanship Conform to MSS SP-80**

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



## MATERIAL LIST

NO.	PART	MATERIAL	SPECIFICATION
1	Body	Bronze	ASTM B584 C89833
2	Bonnet	Bronze	ASTM B584 C89833
3	Disc	Bronze	ASTM B584 C89833, ASTM B21 C46400, H02
4	Stem	Bronze	ASTM B21 C46400, H02
5	Disc Ring	Brass	ASTM B21 C46400, H02
6	Packing	Graphite	Commercial
7	Packing Nut	Brass	ASTM B 16
8	Handwheel	Mall. Iron	Commercial
9	Identification Plate	Aluminum	Commercial
10	Handwheel Nut	Brass	Commercial

## DIMENSIONS - INCHES / MILLIMETERS

Units	Size	A	B	C	Cv
Inches	1/8	1.63	3.06	2.00	0.61
mm	3.2	41.3	77.8	50.8	
Inches	1/4	1.63	3.06	2.00	1.16
mm	6.4	41.3	77.8	50.8	
Inches	3/8	1.81	3.19	2.00	2.21
mm	9.5	46.1	81.0	50.8	
Inches	1/2	2.31	3.63	2.25	3.64
mm	12.7	58.8	92.1	57.2	
Inches	3/4	2.56	3.94	2.50	6.65
mm	19.1	65.1	100.0	63.5	
Inches	1	2.94	4.38	2.75	11.10
mm	25.4	74.6	111.1	69.9	
Inches	1 1/4	3.38	5.19	3.13	20.00
mm	31.8	85.7	131.8	79.4	
Inches	1 1/2	3.69	5.75	3.50	28.00
mm	38.1	93.7	146.1	88.9	
Inches	2	4.44	6.75	4.00	48.00
mm	50.8	112.7	171.5	101.6	

† Non-Shock

Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

\*Same design as Hammond UP440

**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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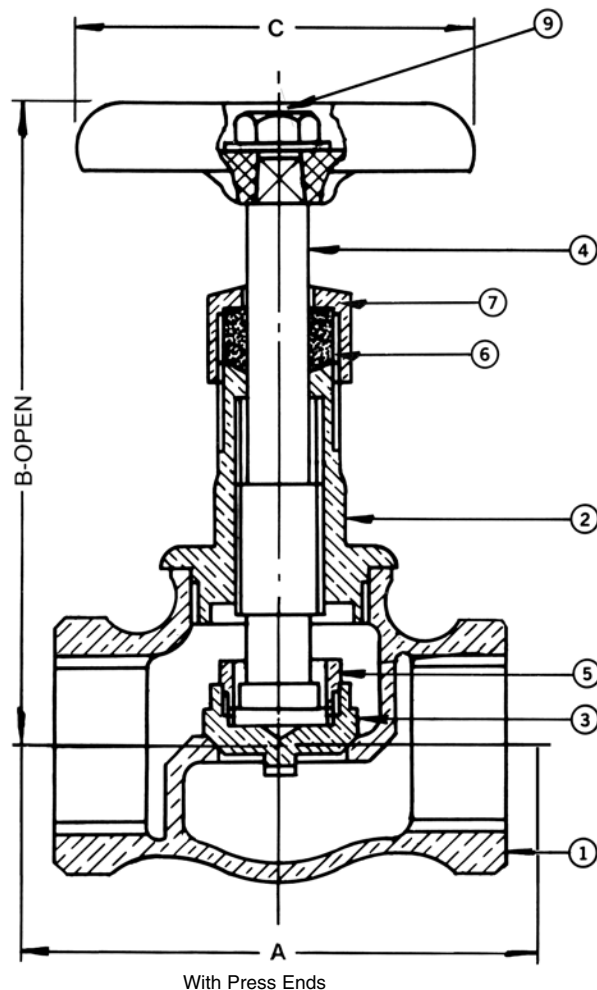


# UP502 P2 1/2"-2"



WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Bronze Globe Valve**  
**200 PSIG @ 250°F† • Bronze Disc**  
**Threaded Bonnet • Press x Press Ends**  
**Conforms to: MSS SP-80. Type 1, Class 125**



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

MATERIAL LIST			
NO.	PART	MATERIAL	SPECIFICATION
1	Body	Bronze	ASTM B584 C89833
2	Bonnet	Bronze	ASTM B584 C89833
3	Disc	Bronze	ASTM B584 C89833 ASTM B21 C46400, H02
4	Stem	Bronze	ASTM B21 C46400, H02
5	Disc Ring	Brass	ASTM B21 C46400, H02
6	Packing	Graphite	Commercial
7	Packing Nut	Brass	ASTM B 16
8	Handwheel	Mall. Iron	Commercial
9	Identification Plate	Aluminum	Commercial
10	Handwheel Nut	Brass	Commercial
11	Gland (not shown)	Brass	ASTM B 16
12	Press Adapter	Brass Fitting w/ EPDM O-Ring	ASTM C27450

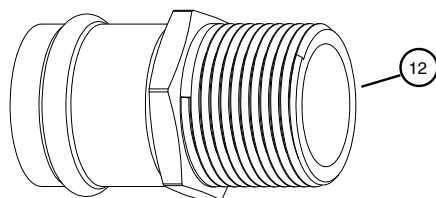
DIMENSIONS - INCHES/MILLIMETERS						
Units	Size	STD Insertion Depth	A	B	C	C <sub>V</sub>
Inches mm	1/2	0.87 22	5.31 135	3.63 92	2.25 57	3.64
Inches mm	3/4	0.98 166	6.14 156	3.94 100	2.50 64	6.65
Inches mm	1	0.98 166	6.94 176	4.38 111	2.75 70	11.10
Inches mm	1 1/4	1.02 26	7.45 189	5.19 132	3.13 79	20.00
Inches mm	1 1/2	1.42 36	8.17 208	5.75 146	3.50 89	28.00
Inches mm	2	1.58 40	10.44 265	6.75 172	4.00 102	48.00

† Non-Shock

\*Same design as Hammond UP440 P2

Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

Press End Adapter (4151 Series)



**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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# UP1502\* 3/8"-2"

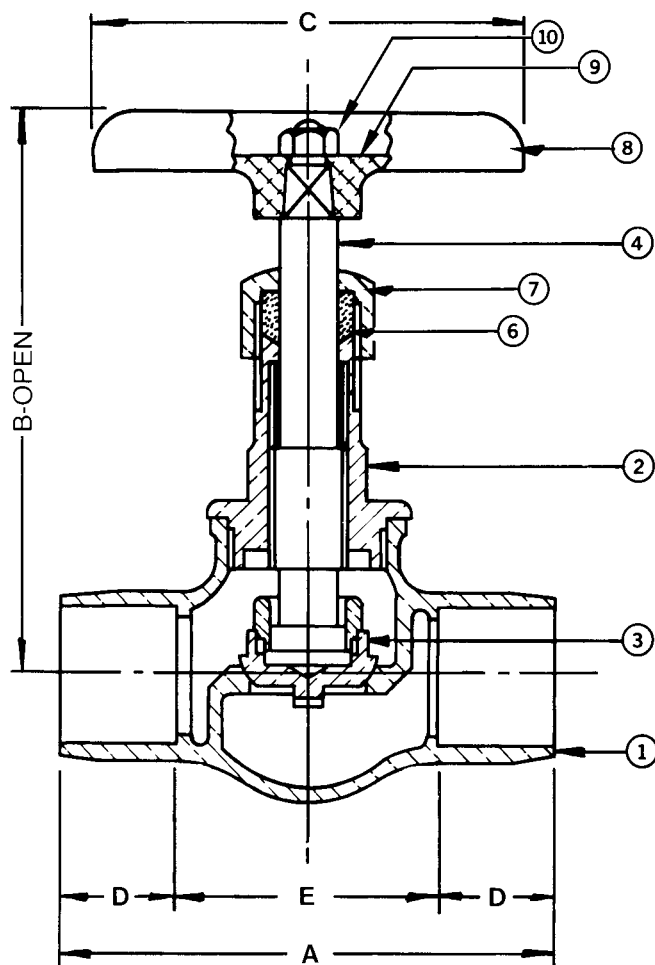


WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Bronze Globe Valve For Potable Water**  
**Solder Ends, Bronze Disc**  
**Threaded Bonnet**  
**300 WOG†**

**Dimensions and Workmanship Conform to MSS SP-80**

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



## MATERIAL LIST

NO.	PART	MATERIAL	SPECIFICATION
1	Body	Bronze	ASTM B584 C89833
2	Bonnet	Bronze	ASTM B584 C89833
3	Disc	Bronze	ASTM B584 C89833, ASTM B21 C46400, H02
4	Stem	Bronze	ASTM B21 C46400, H02
5	Disc Ring	Brass	ASTM B21 C46400, H02
6	Packing	Graphite	Commercial
7	Packing Nut	Brass	ASTM B 16
8	Handwheel	Mall. Iron	Commercial
9	Identification Plate	Aluminum	Commercial
10	Handwheel Nut	Brass	Commercial

## DIMENSIONS - INCHES / MILLIMETERS

Units	Size	A	B	C	D	E	C <sub>v</sub>
Inches	3/8	2.00	3.19	2.00	0.38	1.25	2.21
mm	9.5	50.8	81.0	50.8	9.5	31.8	
Inches	1/2	2.44	3.75	2.25	0.50	1.44	3.64
mm	12.7	61.9	95.3	57.2	12.7	36.5	
Inches	3/4	3.19	4.00	2.50	0.75	1.69	6.65
mm	19.1	81.0	101.6	63.5	19.1	42.9	
Inches	1	3.69	4.38	2.75	0.91	1.88	11.10
mm	25.4	93.7	111.1	69.9	23.0	47.6	
Inches	1 1/4	4.19	5.13	3.13	0.97	2.25	20.00
mm	31.8	106.4	130.2	79.4	24.6	57.2	
Inches	1 1/2	4.75	5.63	3.50	1.09	2.56	28.00
mm	38.1	120.7	142.9	88.9	27.8	65.1	
Inches	2	5.94	6.69	4.00	1.34	3.25	48.00
mm	50.8	150.8	169.9	101.6	34.1	82.6	

† Non-Shock

Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

\*Same design as Hammond UP418

**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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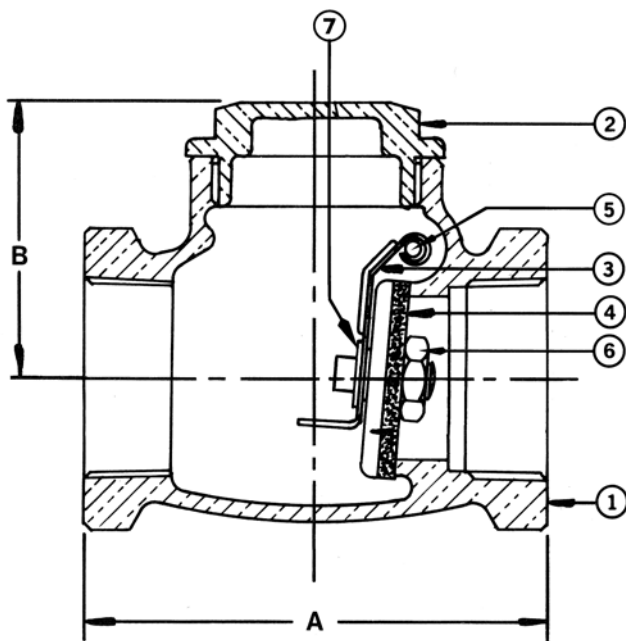


# UP509\* 1/4"-3"



WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

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



\*Same design as Hammond UP904

MATERIAL LIST			
NO.	PART	MATERIAL	SPECIFICATION
1	Body	Bronze	ASTM B584 C89833
2	Cap	Bronze	ASTM B584 C89833
3	Lever	St. Steel	Commercial 1/4" to 2" Incl.
		Bronze	ASTM B584 C89833 2 1/2" and 3"
4	Disc	Brass	ASTM B21 C46400 HO2 1/4" to 1 1/2"
		Bronze	ASTM B584 C89833 2" - 3"
5	Pin	St. Steel	Commercial
6	Disc Nut	Brass	ASTM B21 C46400 HO2 2 1/2" - 3"
7	Retaining Ring	St. Steel	Commercial
8	Plug (not shown)	Brass-509	ASTM B21 C46400 HO2

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

† Non-Shock

Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

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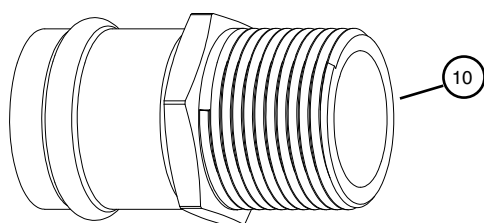
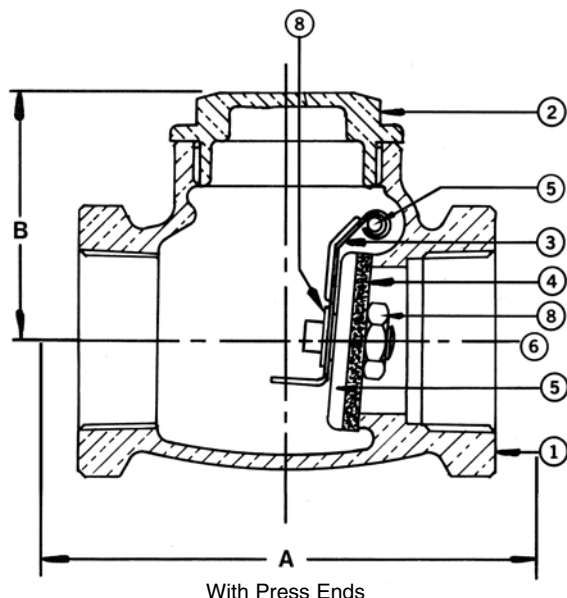


# UP509 P2 1/2"-2"



WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Bronze Check Valve  
For Potable Water  
Horizontal Swing  
200 PSIG @ 250°F†  
Press x Press Ends  
Conforms to: MSS SP-80. Type 3\*  
Type 4\*\* Class 125**



Press End Adapter (4151 Series)

MATERIAL LIST			
NO.	PART	MATERIAL	SPECIFICATION
1	Body	Bronze	ASTM B584 C89833
2	Cap	Bronze	ASTM B584 C89833
3	Lever	Stainless Steel UP509 P2	Commercial 1/2" to 2" Incl.
4	Disc	Brass 509 P2	ASTM B21 C46400, H02 1/2" to 1 1/2" Incl. ASTM B584 C89833 (2")
5	Pin	Stainless Steel	Commercial
6	Disc Nut	Brass	ASTM B283 C46400
7	Retainin Ring	Stainless Steel	Commercial
8	Plug (not shown)	Brass	ASTM B21 C46400,H02
9	Washer (not shown)	Brass	ASTM B 16
10	Press Adapter	Brass Fitting w/ EPDM O-Ring	ASTM C27450

DIMENSIONS - INCHES/MILLIMETERS					
Units	Size	STD Insertion Depth	A	B	C <sub>V</sub>
Inches mm	1/2	0.87 22	5.31 135	1.44 37	10.0
Inches mm	3/4	0.98 166	6.21 158	1.69 43	18.0
Inches mm	1	0.98 166	7.25 184	2.00 51	31.0
Inches mm	1 1/4	1.02 26	7.63 194	2.13 54	54.00
Inches mm	1 1/2	1.42 36	8.48 215	2.38 60	76.00
Inches mm	2 51	1.58 40	10.75 273	2.81 208	131.00

† Non-Shock

\* UP509 P2

\*\*Same design as Hammond UP904 P2

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16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

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# UP1509\* 3/8"-3"

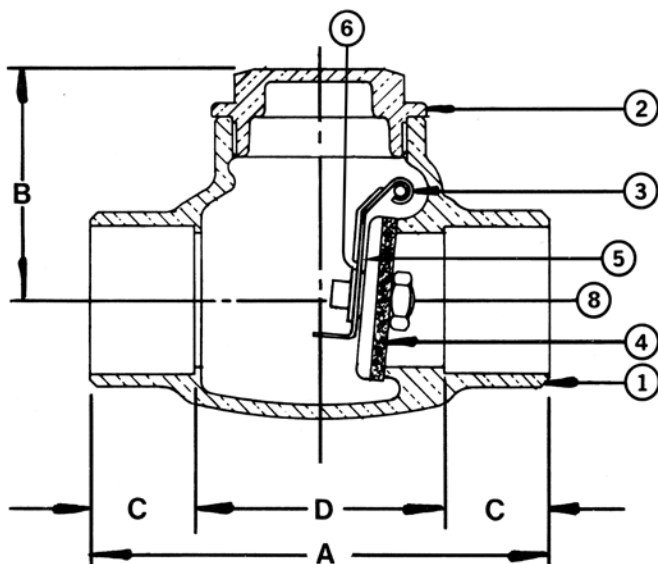


WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Bronze Horizontal Swing Check Valve  
For Potable Water**  
**300 WOG† 3/8"-2", 200 WOG† 2 1/2"-3"**

**Bronze Disc  
Solder Ends**

**Dimensions and Workmanship Conform to MSS SP-80**



\*Same design as Hammond UP912

MATERIAL LIST			
NO.	PART	MATERIAL	SPECIFICATION
1	Body	Bronze	ASTM B584 C89833
2	Cap	Bronze	ASTM B584 C89833
3	Lever	St. Steel	Commercial 3/8" to 2" Incl.
		Bronze	ASTM B584 C89833 2 1/2" and 3"
4	Disc	Brass	ASTM B21 C46400 HO2 3/8" to 1 1/2"
		Bronze	ASTM B584 C89833 2" - 3"
5	Pin	St. Steel	Commercial
6	Disc Nut	Brass	ASTM B21 C46400 HO2 2 1/2" - 3"
7	Retaining Ring	St. Steel	Commercial
8	Plug (not shown)	Brass-509	ASTM B21 C46400 HO2

DIMENSIONS - INCHES/MILLIMETERS						
Units	Size	A	B	C	D	C <sub>v</sub>
Inches mm	3/8	2.25 57	1.44 37	0.38 10	1.50 38.1	6.0
Inches mm	1/2	2.56 65	1.44 37	0.50 13	1.56 40	10.0
Inches mm	3/4	3.31 84	1.69 43	0.75 19	1.75 45	18.0
Inches mm	1	4.00 102	1.97 50	0.91 23	2.19 56	31.0
Inches mm	1 1/4	4.25 108	2.16 55	0.97 25	2.31 59	54.0
Inches mm	1 1/2	4.94 125	2.41 61	1.09 28	2.75 70	76.0
Inches mm	2	6.13 156	2.81 72	1.34 34	3.44 87	131.0
Inches mm	2 1/2	7.38 187	3.63 92	1.48 38	4.42 112	233.8
Inches mm	3	8.50 216	4.19 106	1.66 42	5.19 132	286.4

† Non-Shock

Milwaukee Valve Company  
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New Berlin, WI 53151  
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Fax: 262-432-2701

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# UP548T\* 3/8"-2"

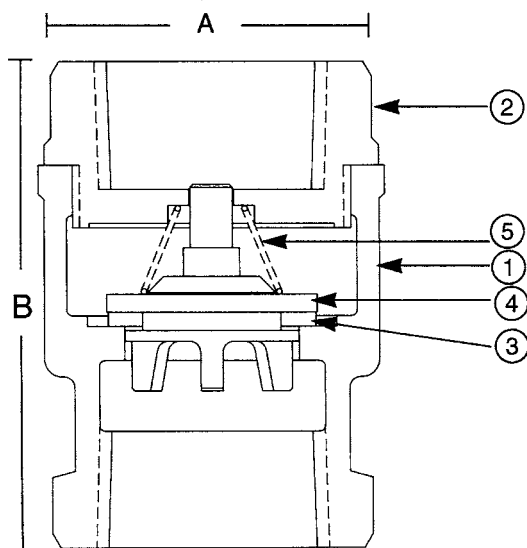


WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Bronze Spring Check Valve  
For Potable Water**  
**250 PSI Non-Shock Cold Water, Oil or Gas**  
**Bronze Disc**  
**Threaded Ends**

## FEATURES

- BRONZE BODY
- THREADED ENDS
- BRONZE SPRING
- TEFLON DISC
- BRONZE DISC HOLDER
- 100% FACTORY TESTED
- SILENT CLOSING  
(minimizes water hammer)



## MATERIAL LIST

NO.	PART	MATERIAL	SPECIFICATION
1	Body	Cast Bronze	ASTM B584 C89833
2	Tail Piece	Cast Bronze	ASTM B584 C89833
3	Disc	PTFE	
4	Disc Holder	Cast Bronze	ASTM B584 C89833
5	Spring	Bronze	ASTM B103 C52100

DIMENSIONS - INCHES / MILIMETERS					
UNITS	SIZE	A	B	Weight	C <sub>v</sub>
Inches	3/8	1.22	1.97	0.38	2.5
mm	9.53	30.96	50.01		
Inches	1/2	1.22	2.09	0.44	4.1
mm	12.70	30.96	53.19		
Inches	3/4	1.50	2.31	0.57	7.6
mm	19.05	38.10	58.75		
Inches	1	1.91	2.66	0.89	13.0
mm	25.40	48.41	67.46		
Inches	1 1/4	2.16	3.09	1.28	23.0
mm	31.75	54.76	78.59		
Inches	1 1/2	2.59	3.31	1.72	31.0
mm	38.10	65.89	84.15		
Inches	2	3.13	3.78	2.58	54.0
mm	50.80	79.38	96.04		

\*Same design as Hammond UP943

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

Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

\* International VALVE

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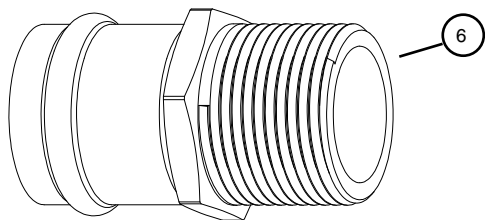
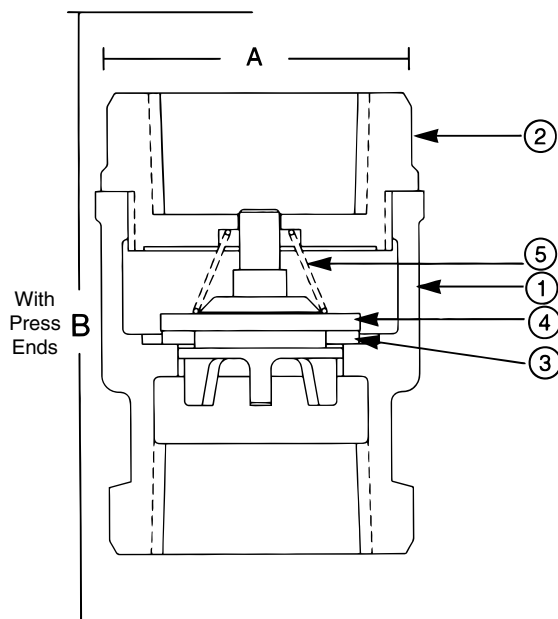
# UP548T P2 1/2"-2"



WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Bronze Spring Check Valve  
For Potable Water  
200 PSIG @ 250°F†**

**Bronze Body • Press x Press Ends • Bronze Spring  
Buna Disc Ring • Bronze Disc Holder  
Silent Closing (minimizes water hammer)**



Press End Adapter (4151 Series)

**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.

MATERIAL LIST			
NO.	PART	MATERIAL	SPECIFICATION
1	Body	Cast Bronze	ASTM B584, C89833
2	Tail Piece	Cast Bronze	ASTM B584, C89833
3	Disc	PTFE	
4	Disc Holder	Cast Bronze	ASTM B584, C89833
5	Spring	Bronze	ASTM B103, C52100
6	Press Adapter	Brass Fitted w/ EPDM O'Ring	ASTM C27450

DIMENSIONS - INCHES/MILLIMETERS						
Units	Size	STD Insertion Depth	A	B	Weight	C <sub>v</sub>
Inches mm	1/2	0.87 22	1.22 31	4.22 107	0.44	4.1
Inches mm	3/4	0.98 166	1.50 38	5.08 129	0.57	7.6
Inches mm	1	0.98 166	1.91 48	5.91 150	0.89	13.0
Inches mm	1 1/4	1.02 26	2.16 55	6.23 158	1.28	23.0
Inches mm	1 1/2	1.42 36	2.59 66	7.07 180	1.72	31.0
Inches mm	2	1.58 40	3.13 79	9.13 232	2.58	54.0

\* International VALVE

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New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

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# UP1548T\* 3/8"-2"



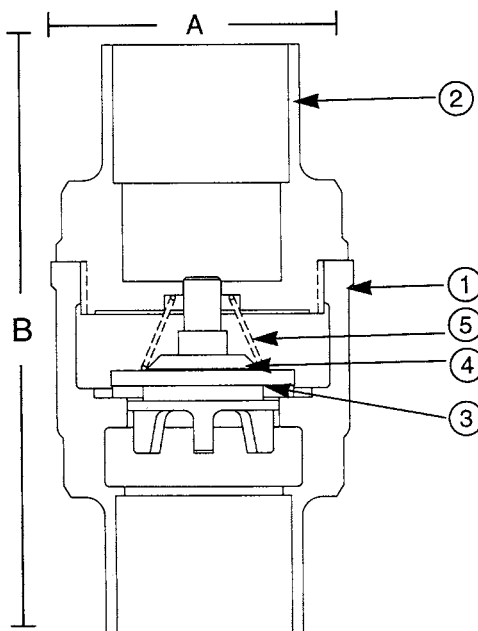
WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Bronze Spring Check Valve  
For Potable Water  
250 PSI Non-Shock Cold Water, Oil or Gas  
Bronze Disc  
Solder Ends**

\*Same design as Hammond UP947

## FEATURES

- BRONZE BODY
- SOLDERED ENDS
- BRONZE SPRING
- PTFE DISC RING
- BRONZE DISC HOLDER
- 100% FACTORY TESTED
- SILENT CLOSING  
(minimizes water hammer)



## MATERIAL LIST

NO.	PART	MATERIAL	SPECIFICATION
1	Body	Cast Bronze	ASTM B584 C89833
2	Tail Piece	Cast Bronze	ASTM B584 C89833
3	Disc	PTFE	
4	Disc Holder	Cast Bronze	ASTM B584 C89833
5	Spring	Bronze	ASTM B103 C52100

## DIMENSIONS - INCHES / MILLIMETERS

UNITS	SIZE	A	B	Weight	C <sub>v</sub>
Inches	3/8	1.22	2.16	0.30	2.5
mm	9.53	30.96	54.76		
Inches	1/2	1.22	2.41	0.45	4.1
mm	12.70	30.96	61.11		
Inches	3/4	1.50	2.81	0.62	7.6
mm	19.05	38.10	71.37		
Inches	1	1.91	3.53	0.97	13.0
mm	25.40	48.41	89.69		
Inches	1 1/4	2.16	4.88	1.42	23.0
mm	31.75	54.76	123.83		
Inches	1 1/2	2.59	4.22	1.84	31.0
mm	38.10	65.89	107.16		
Inches	2	3.13	5.09	2.75	54.0
mm	50.80	79.38	129.39		

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

Milwaukee Valve Company  
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New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

\* International VALVE

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# UP967 & UP968 3/8"-3"



WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

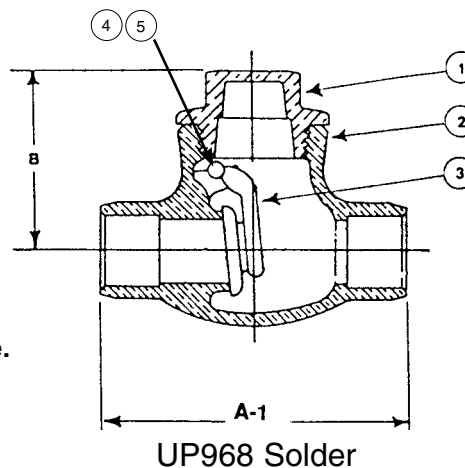
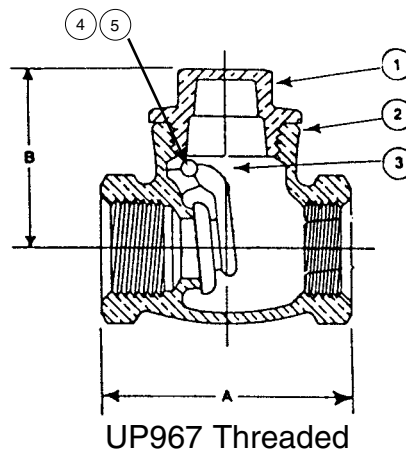
**Brass Swing Check Valve  
For Potable Water  
200 WOG  
Threaded Bonnet  
Brass Disc**

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	3.7	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 reciprocating air compressor service.**

## FEATURES

- BRASS BODY
- THREADED OR SOLDER ENDS
- THREADED BONNET
- INTEGRAL SEAT
- BRASS DISC
- 100% FACTORY TESTED
- INTERNATIONAL



MATERIAL SPECIFICATION			
1	CAP	FORGED BRASS	ASTM B283, C27450
2	BODY	FORGED BRASS	ASTM B283, C27450
3	DISC	FORGED BRASS	ASTM B283, C27450
4	SIDE PLUG	STAINLESS STEEL	ASTM A276, 304
5	PIN	STAINLESS STEEL	ASTM A276, 304

Milwaukee Valve Company  
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New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

**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).

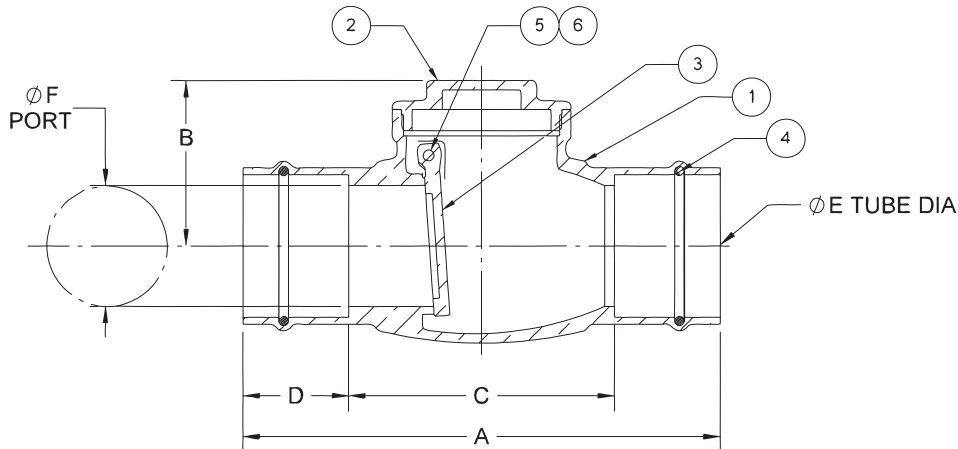
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### UP969\* 1/2"-2"



Tested and Certified by IAPMO R&T to NSF/ANSI 61 and NSF/ANSI 372 for lead free compliance.



\* 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.

#### SPECIFICATIONS

UP969	Designed & Manufactured in accordance with MSS SP-80, Type 3, Press End.
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ITEM	MATERIAL LIST		
1	BODY	BRASS	ASTM B283 C27450
2	CAP	BRASS	ASTM B283 C27450
3	DISC	BRASS	ASTM B283 C27450
4	O-RING	EPDM	
5	PIN	STAINLESS STEEL	ASTM A276 TY. 304
6	SIDE PLUG	BRASS	ASTM B124 C27450

#### DIMENSIONS - INCHES / MILLIMETERS

UNITS	SIZE	A	B	C	D	E	F
INCHES	1/2"	3.35	1.38	1.7	0.83	0.63	0.5
mm	13	85	35	43	21	16	13
INCHES	3/4"	3.74	1.43	1.75	0.99	0.88	0.75
mm	19	95	36	45	25	23	19
INCHES	1"	4.36	1.74	2.38	0.99	1.13	0.93
mm	25	111	44	61	25	29	24
INCHES	1-1/4"	4.97	1.99	2.92	1.02	1.38	1.24
mm	31	126	51	74	26	35	32
INCHES	1-1/2"	6.13	2.28	3.3	1.42	1.63	1.38
mm	38	156	58	84	36	42	35
INCHES	2"	7.16	2.48	3.99	1.59	2.13	1.81
mm	50	182	63	101	40	54	46

Milwaukee Valve Company  
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# CL Series-Rev. D\* 2"-12"

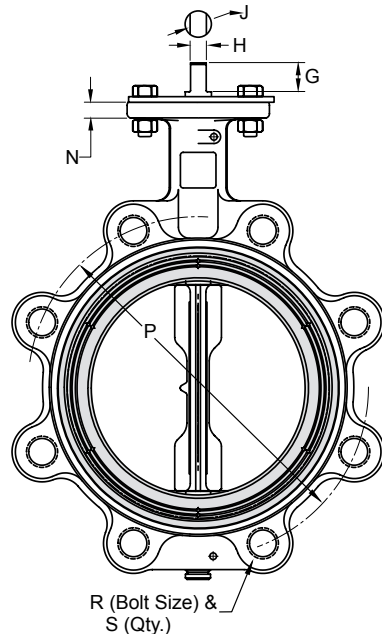
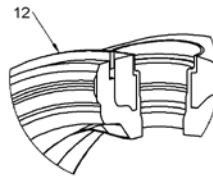
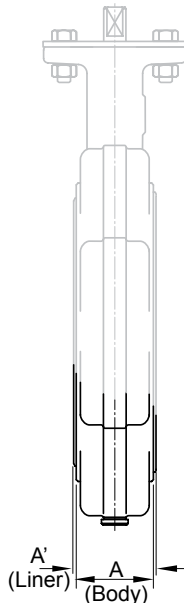
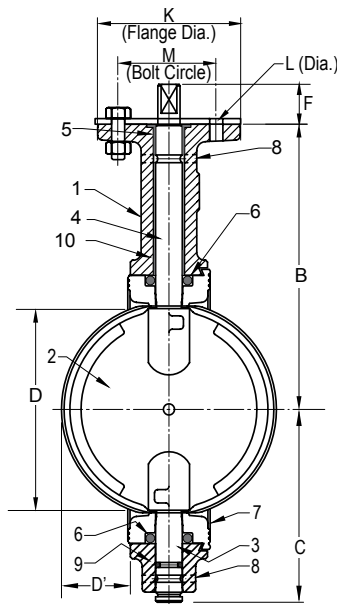


WQA tested and Certified against NSF/ANSI 372 for "lead free" compliance.



ABS Type Approved; Cat. A CFR-46

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



### DIMENSIONS

ITEM	PARTS NAME	MATERIAL
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)
		GEAR OPERATOR
		GEAR OPERATOR WITH MEMORY STOP
		GEAR OPERATOR WITH LOCK
		ACTUATOR-AIR/AIR
12	RETAINING RING	ACTUATOR-AIR/SPRING
		ACTUATOR-ELECTRIC
12	RETAINING RING	1066 SPRING STEEL (65Mn)

		VALVE SIZE									
		INCHES DN	2 50	2-1/2 65	3 80	4 100	5 125	6 150	8 200	10 250	12 300
A (Body)	INCHES	1.69	1.81	1.81	2.07	2.19	2.19	2.38	2.69	3.06	3.06
	mm	43	46	46	52	55	55	60	68	78	78
A' (Liner)	INCHES	1.82	1.94	1.94	2.20	2.32	2.31	2.51	2.82	3.21	3.21
	mm	46	49	49	55	58	58	63	71	82	82
B	INCHES	5.50	6.00	6.25	7.00	7.53	8.00	9.38	10.56	12.06	12.06
	mm	139	152	158	177	191	203	238	268	306	306
C	INCHES	3.06	3.31	3.75	4.25	4.94	5.56	5.56	7.88	9.25	9.25
	mm	77	84	95	108	125	141	166	200	235	235
D (Chord Dia)	INCHES	1.49	2.01	2.64	3.67	4.71	5.66	7.72	9.70	11.68	11.68
	mm	37	51	67	93	119	143	196	246	296	296
D' (Intrusion)	INCHES	0.28	0.44	0.69	1.06	1.50	1.94	2.84	3.69	4.50	4.50
	mm	7	11	17	27	38	49	72	93	114	114
F	INCHES	1.13	1.13	1.13	1.13	1.13	1.13	1.50	1.50	1.50	1.50
	mm	28	28	28	28	28	28	38	38	38	38
G	INCHES	0.81	0.81	0.81	0.81	0.81	0.81	1.06	1.06	1.06	1.06
	mm	20	20	20	20	20	20	27	27	27	27
H	INCHES	0.35	0.35	0.35	0.40	0.40	0.44	0.53	0.71	0.71	0.71
	mm	8	8	8	10	10	11	13	18	18	18
J	INCHES	0.50	0.50	0.50	0.56	0.56	0.62	0.75	1.00	1.00	1.00
	mm	12	12	12	14	14	14	19	25	25	25
K		4	4	4	4	4	4	6	6	6	6
L (Dia)	INCHES	0.44	0.44	0.44	0.44	0.44	0.44	0.56	0.56	0.56	0.56
	mm	11	11	11	11	11	11	14	14	14	14
M	INCHES	3.25	3.25	3.25	3.25	3.25	3.25	5.00	5.00	5.00	5.00
	mm	82	82	82	82	82	82	127	127	127	127
N	INCHES	0.44	0.44	0.44	0.44	0.44	0.44	0.50	0.50	0.50	0.50
	mm	11	11	11	11	11	11	12	12	12	12
P	INCHES	4.75	5.50	6.00	7.50	8.50	9.50	11.75	14.25	17.00	17.00
	mm	120	139	152	190	215	241	298	362	431	431
R		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	7/8-9
S		4	4	4	8	8	8	8	12	12	12

\*Same design as Hammond 5211 series.

Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

**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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# CL Series\* 14"-24"

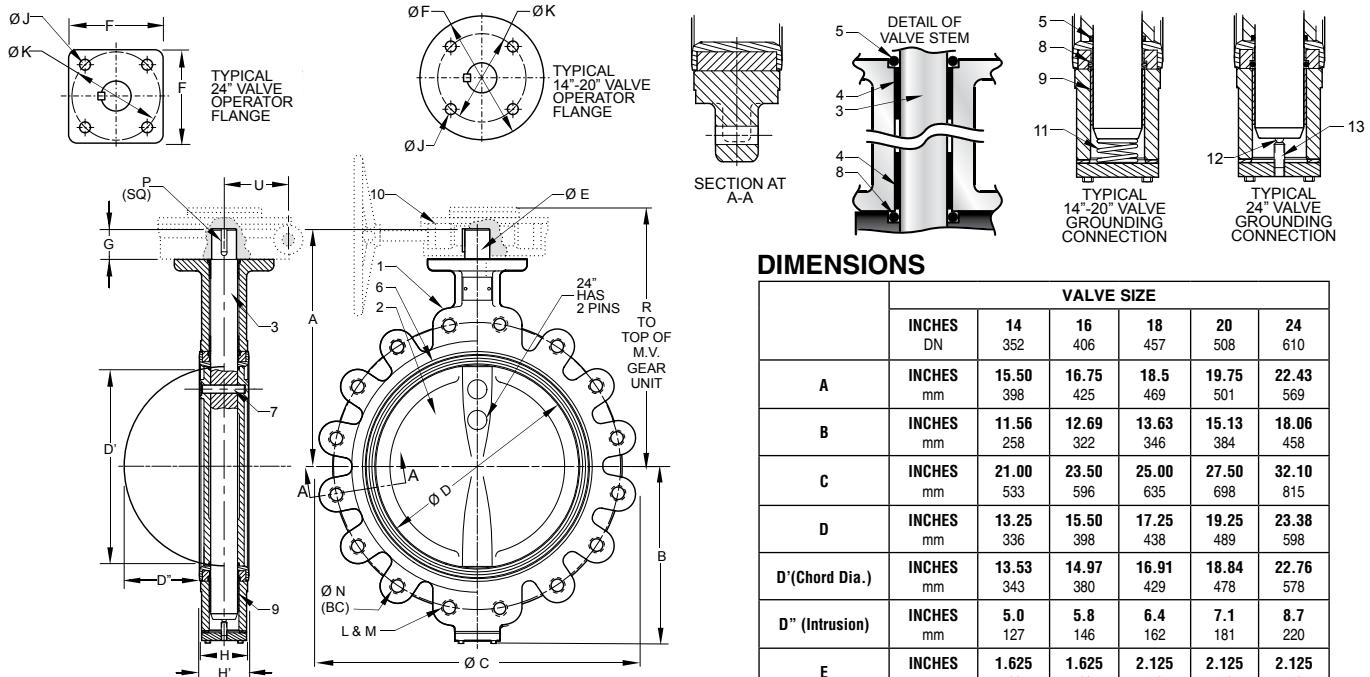


ABS Type Approved; Cat. A  
CFR-46



WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

## Iron Butterfly Valve For Potable Water 150 PSI Non-Shock Water, Oil, Gas Dead End Service to 150 PSI Specifications: API-609 MSS SP-67 Type 1



### DIMENSIONS

	VALVE SIZE					
	INCHES DN	14 352	16 406	18 457	20 508	24 610
A	INCHES mm	15.50 398	16.75 425	18.5 469	19.75 501	22.43 569
B	INCHES mm	11.56 258	12.69 322	13.63 346	15.13 384	18.06 458
C	INCHES mm	21.00 533	23.50 596	25.00 635	27.50 698	32.10 815
D	INCHES mm	13.25 336	15.50 398	17.25 438	19.25 489	23.38 598
D'(Chord Dia.)	INCHES mm	13.53 343	14.97 380	16.91 429	18.84 478	22.76 578
D" (Intrusion)	INCHES mm	5.0 127	5.8 146	6.4 162	7.1 181	8.7 220
E	INCHES mm	1.625 41	1.625 41	2.125 54	2.125 54	2.125 54
F	INCHES mm	6.50 165	6.50 165	9.50 241	9.50 241	7.50 190
G	INCHES mm	2.00 50	2.00 50	3.00 76	3.00 76	3.06 77
H (Body)	INCHES mm	3.06 77	4.00 101	4.50 114	5.00 127	6.06 153
H' (Liner)	INCHES mm	3.19 81	4.13 104	4.63 117	5.13 130	6.19 157
J	INCHES mm	0.688 17	0.688 17	0.813 20	0.813 20	0.813 20
K	INCHES mm	5.250 133	5.250 133	7.500 190	7.500 190	7.500 190
L	No. of Holes	12	16	16	20	20
M	Thread Size	1-8	1-8	1 1/8-7	1 1/8-7	1 1/4-7
N	INCHES mm	18.75 476	21.25 530	22.75 577	25.00 635	29.50 749
P (Key Size)	INCHES mm	0.375 9	0.375 9	0.500 12	0.500 12	0.500 12
R	INCHES mm	17.25 438	18.75 476	19.63 458	20.88 530	25.00 635
U	INCHES mm	3.13 79	3.13 79	4.50 114	4.50 114	4.63 117

### MAJOR COMPONENTS LIST

ITEM	PARTS NAME	MATERIAL
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 OP. W/ MEMORY STOP
		GEAR OP. W/ LOCK
		ACTUATOR AIR/AIR (1) ACTUATOR AIR/SPRING (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

(1)- Consult Automation Department.

CW\_lrg\_mat.XLS

\*Same design as Hammond 5211 series.

**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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Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701



# ML133E/ML233E/ML333E\*\* 2"-12"

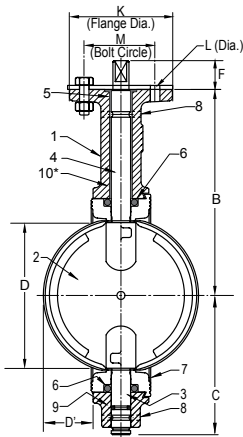


ABS Type Approved; Cat. A  
CFR-46

WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

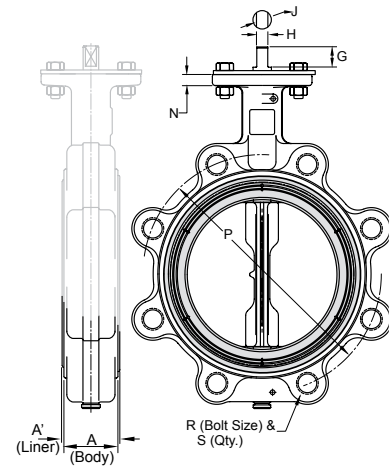
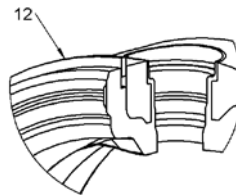
**Iron Butterfly Valve For Potable Water  
200 PSI Non-Shock**

**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.**



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	EPDM
7	LINER	EPDM
8	ROLL PIN	STAINLESS STEEL
9	STEM SEAL	BUNA
10*	LOWER BEARING	REINFORCED NYLON
11	OPERATOR	LEVER HANDLE (EPOXY COATED LEVER)
		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"

\*\*Same design as Hammond 6411 series.

\*\*\*Recommend Aluminum Bronze disc in  
water service.

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## DIMENSIONS

	INCHES	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
A' (Liner)	INCHES	1.82	1.94	1.94	2.20	2.32	2.31	2.51	2.82	3.21
B	INCHES	5.50	6.00	6.25	7.00	7.53	8.00	9.38	10.56	12.06
C	INCHES	3.06	3.31	3.75	4.25	4.94	5.56	6.56	7.88	9.25
D (Chord Dia)	INCHES	1.49	2.01	2.64	3.67	4.71	5.66	7.72	9.70	11.68
D' (Intrusion)	INCHES	0.28	0.44	0.69	1.06	1.50	1.94	2.84	3.69	4.50
F	INCHES	1.13	1.13	1.13	1.13	1.13	1.13	1.50	1.50	1.50
G	INCHES	0.81	0.81	0.81	0.81	0.81	0.81	1.06	1.06	1.06
H	INCHES	0.35	0.35	0.35	0.40	0.40	0.44	0.53	0.71	0.71
J	INCHES	0.50	0.50	0.50	0.56	0.56	0.62	0.75	1.00	1.00
K		4	4	4	4	4	4	6	6	6
L (Dia)	INCHES	0.44	0.44	0.44	0.44	0.44	0.44	0.56	0.56	0.56
M	INCHES	3.25	3.25	3.25	3.25	3.25	3.25	5.00	5.00	5.00
N	INCHES	0.44	0.44	0.44	0.44	0.44	0.44	0.50	0.50	0.50
P	INCHES	4.75	5.50	6.00	7.50	8.50	9.50	11.75	14.25	17.00
R		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
S		4	4	4	8	8	8	8	12	12

**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/ML333E\* 14"-24"



ABS Type Approved; Cat. A  
CFR-46

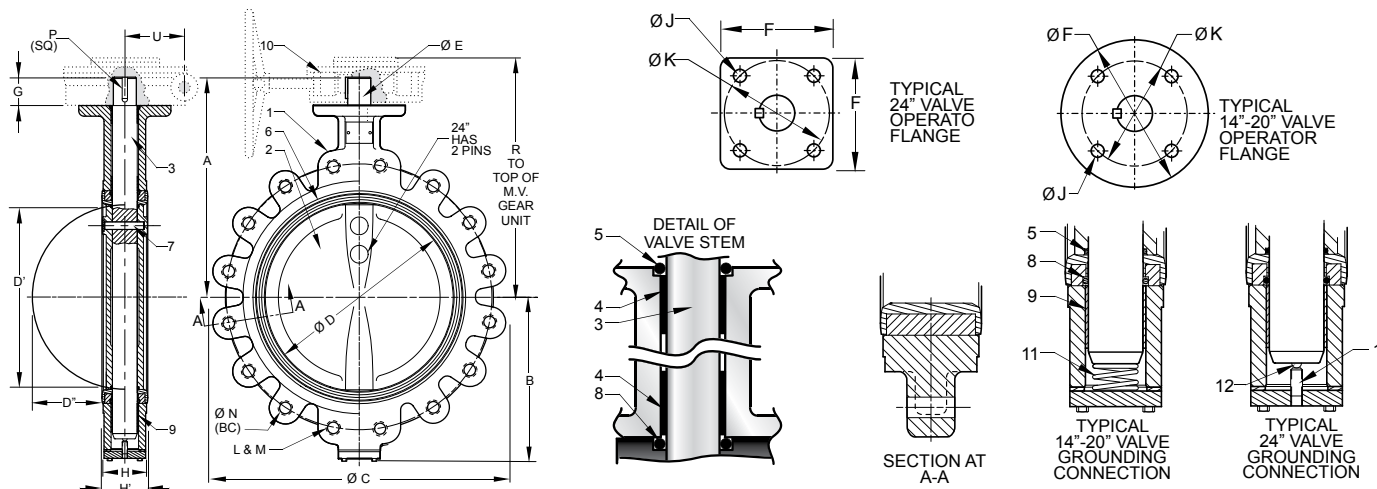
WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.

**Iron Butterfly Valve For Potable Water**

**150 PSI Non-Shock**

**Dead End service to 150 PSI**

**Specifications: API-609 MSS SP-67 Type 1**



## MAJOR COMPONENTS LIST

ITEM	PARTS NAME	MATERIAL
1	BODY	CAST IRON ASTM A126 CL.B
		CAST IRON EPOXY COATED
		DUCTILE IRON ASTM A536
		DUCTILE IRON EPOXY COATED
2	DISC	NP DUCTILE IRON-ASTM A536 ALUMINUM BRONZE-ASTM B148 ** STAINLESS STEEL ASTM A351 CF8M
3	STEM	STAINLESS STEEL TYPE 416 STAINLESS STEEL TYPE 316 (3)
4	TOP BEARING	REINFORCED NYLON
5	STEM O-RING	EPDM, BUNA, VITON (1)
6	LINER	BUNA
		EPDM
		VITON
		HYPALON
7	STEM PIN	ANSI 4140 OR AISI 6150
8	LINER O-RING	EPDM, BUNA, VITON (1)
9	LOWER BEARING	REINFORCED NYLON
10	OPERATOR	GEAR OPERATOR
		GEAR OP. W/ MEMORY STOP
		GEAR OP. W/ LOCK
		ACTUATOR AIR/AIR (2) ACTUATOR AIR/SPRING (2) ACTUATOR ELECTRIC (2)
11	GROUNDING SPRING	STAINLESS STEEL TYPE 302
12	GROUNDING BALL	AISI - 1022
13	TENSION SCREW	AISI - 1020

(1)- O-Ring Matches Liner; Viton Default if no Direct Match.

(2)- Consult Automation Department.

(3)- 316 Stainless Stem used with CF8M Disc.

\*\* Recommend Aluminum Bronze Disc in Water Service.

MW\_valg\_mat.XLS

## DIMENSIONS

	VALVE SIZE					
	INCHES DN	14 352	16 406	18 457	20 508	24 610
A	INCHES mm	15.50 398	16.75 425	18.5 469	19.75 501	22.43 569
B	INCHES mm	11.56 258	12.69 322	13.63 346	15.13 384	18.06 458
C	INCHES mm	21.00 533	23.50 596	25.00 635	27.50 698	32.10 815
D	INCHES mm	13.25 336	15.50 398	17.25 438	19.25 489	23.38 598
D'(Chord Dia.)	INCHES mm	13.53 343	14.97 380	16.91 429	18.84 478	22.76 578
D'' (Intrusion)	INCHES mm	5.0 127	5.8 146	6.4 162	7.1 181	8.7 220
E	INCHES mm	1.625 41	1.625 41	2.125 54	2.125 54	2.125 54
F	INCHES mm	6.50 165	6.50 165	9.50 241	9.50 241	7.50 190
G	INCHES mm	2.00 50	2.00 50	3.00 76	3.00 76	3.06 77
H (Body)	INCHES mm	3.06 77	4.00 101	4.50 114	5.00 127	6.06 153
H' (Liner)	INCHES mm	3.19 81	4.13 104	4.63 117	5.13 130	6.19 157
J	INCHES mm	0.688 17	0.688 17	0.813 20	0.813 20	0.813 20
K	INCHES mm	5.250 133	5.250 133	7.500 190	7.500 190	7.500 190
L	No. of Holes	12	16	16	20	20
M	Thread Size	1-8	1-8	1 1/8-7	1 1/8-7	1 1/4-7
N	INCHES mm	18.75 476	21.25 530	22.75 577	25.00 635	29.50 749
P (Key Size)	INCHES mm	0.375 9	0.375 9	0.500 12	0.500 12	0.500 12
R	INCHES mm	17.25 438	18.75 476	19.63 458	20.88 530	25.00 635
U	INCHES mm	3.13 79	3.13 79	4.50 114	4.50 114	4.63 117

\*Same design as  
Hammond 6411 series.

Milwaukee Valve Company  
16550 W. Stratton Drive  
New Berlin, WI 53151  
Phone: 262-432-2700  
Fax: 262-432-2701

**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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**Butterball Slo-Close For Potable Water**  
**Bronze Butterfly Valve**  
**One-Piece, Full Port**  
**175 PSI**  
**Threaded Ends**



WQA tested and Certified  
against NSF/ANSI 372  
for "lead free" compliance.



## DIMENSIONS

Valve Size				
DIM	1"	1-1/4"	1-1/2"	2"
A	2.13	2.63	2.88	3.25
B <sup>1</sup>	3.16	3.31	3.41	3.63
C	1.56	1.94	2.19	2.75
D	1.72	2.11	2.38	3.07
J <sup>2</sup>	4.16	4.16	4.51	4.76
K	.66	.73	.73	.79
L	.83	.90	.10	1.41
M-40 <sup>3</sup>	1.10	1.38	1.61	2.07
M-80 <sup>4</sup>	.96	1.28	1.50	1.94
N-40 <sup>5</sup>	2.25	2.00	2.50	2.25
W <sup>6</sup>	1.13	1.25	1.41	1.69

ALL DIMENSIONS-INCHES

<sup>1</sup> Pertains to UPBBTSCW only.

<sup>2</sup> Pertains to UPBBTSCS02W only.

<sup>3</sup> M-40 ARE DIMENSIONS USING SCHEDULE 40 PIPE

<sup>4</sup> M-80 ARE DIMENSIONS USING SCHEDULE 80 PIPE

<sup>5</sup> N-40 IS FLOW RESISTANCE EXPRESSED IN EQUIVALENT LENGTH OF SCHEDULE 40 PIPE

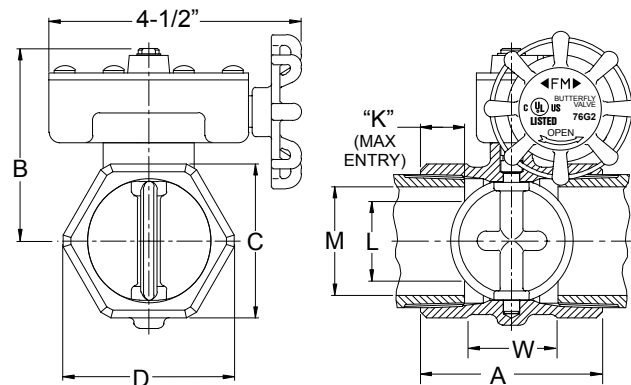
<sup>6</sup> W IS THE WRENCH MAKE-UP LENGTH

## FEATURES

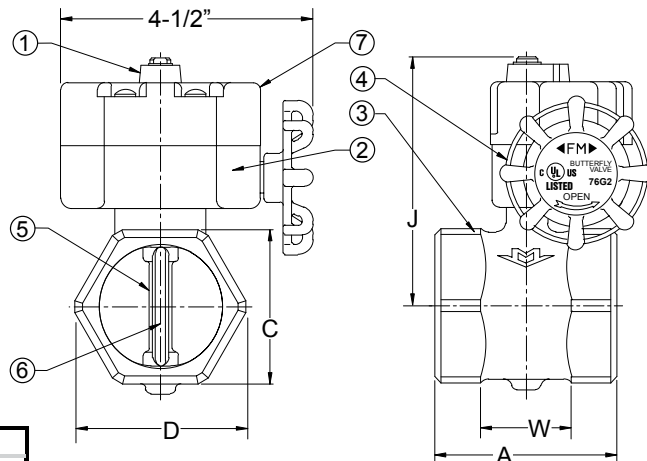
- Slow opening and closing
- Quarter turn operation
- Water Hammer elimination
- Optional internal tamper switch (Indoor/Outdoor use).
  - Signals disc movement
  - Factory or Field installation
  - 10 Amp / 115 VAC-60 Hz
  - 0.5 Amp / 28 VDC

## MATERIALS LIST

ITEM	PART	MATERIALS	ASTM SPEC.
1	Indicator	Iron	F0008P
2	Housing	Bronze	ASTM 584 UNS
3	Body	Bronze	C89833
4	Handle	Brass	ASTM B176 UNS C85800
5	Disk	Stainless Steel	ASTM A276, Type 304
6	Disk Seal	EPDM	
7	Switch Housing (BB-SCS02)	Aluminum	



**UPBBTSCW**  
**Sizes 1", 1-1/4", 1-1/2", 2"**



**UPBBTSC02W**  
**(Includes Switch)**  
**Sizes 1", 1-1/4", 1-1/2", 2"**

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