

QUALITY IS  
MORE THAN WHAT  
MEETS THE EYE.

**EXPERIENCE**

IN EVERY VALVE



**MILWAUKEE VALVE**

# OUR BEST WORK IS [UNDERCOVER]

## INSULATOR/MS®. YOUR HIDDEN LINE OF DEFENSE AGAINST CONDENSATION DAMAGE.

Standard insulation leaves a gap at valve sites that can lead to condensation, mildew and system contamination. So protect your installations with INSULATOR/MS® ball valve handles that cover exposed valve parts, close gaps and add a layer of insulating power.

INSULATOR also reduces service time. Its reliable memory stop adjusts with a few quick turns of a hex wrench, instead of needing disassembly. Specifying multiple projects is easy, too, with INSULATOR's versatile +15°F to +250°F operating range. The handles are tested and certified to UL 2043 and is UL listed for installation in air-handling plenums. Uncover more product info at [MilwaukeeValve.com](http://MilwaukeeValve.com), [HammondValve.com](http://HammondValve.com) and [UltraPureNoLeadValves.com](http://UltraPureNoLeadValves.com).



Easy Field  
Adjustment

**THE INSULATOR/MS®**  
A Milwaukee/Hammond Valve Product

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Phone 262-432-2700 | Fax 262-432-2701  
[www.MilwaukeeValve.com](http://www.MilwaukeeValve.com) | [www.HammondValve.com](http://www.HammondValve.com)  
[www.UltraPureNoLeadValves.com](http://www.UltraPureNoLeadValves.com)



MILWAUKEE VALVE



HAMMOND VALVE



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The information presented on this sheet is correct at time of publication. Milwaukee Valve reserves the right to change design and/or materials without notice. For our Installation, Operation and Maintenance Manual and the most current product information go to [www.milwaukeevalve.com](http://www.milwaukeevalve.com). State of California Prop 65 ⚠ WARNING: Cancer and Reproductive Harm. For more information visit [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov).

# BALL VALVES



BA-100TIH



BA-100 P2



BA-150H

## 2-PIECE BRONZE

### Standard Port

#### BA-100 / BA-100S

600 WOG 150 SWP, MSS SP-110, Threaded, BA-100S with Stainless Steel Ball and Stem 1/4" thru 3"

#### BA-100ELD

125 psig, MSS SP-110, Latch Lock Handle, Threaded with Exhaust Port 1/4" thru 2"

#### BA-100M

600 WOG 150 SWP, MSS SP-110, Male x Female 1/4" thru 2"

#### BA-100 P2 / BA-100S P2

200 psig @ 250°F, MSS SP-110, Press X Press, BA-100S P2 with Stainless Steel Ball and Stem 1/2" thru 2"

#### BA-150 / BA-150S

600 WOG 150 SWP, MSS SP-110, Solder, BA-150S with Stainless Steel Ball & Stem 3/8" thru 3"

### Full Port

#### BA-100H

600 WOG, MSS SP-110, Threaded With Hose, Cap and Chain 1/2" and 3/4"

#### BA-150H

600 WOG, MSS SP-110, Solder With Hose, Cap and Chain 1/2" and 3/4"

#### BA-100H P1 / BA-100SH P1

200 psig @ 250°F, MSS SP-110, Press X Hose, BA-100SH P1 with Stainless Steel Ball & Stem 1/2" and 3/4"



BA-450



UPBA-100 P2 XH



BA-100 P2 TIH

continued

## 2-PIECE BRONZE

### Full Port

#### BA-400 / BA-400S

600 WOG 150 SWP, MSS SP-110, Threaded, BA-400S with Stainless Steel Ball & Stem 1/4" thru 2"

#### BA-400 P2 / BA-400S P2

200 psig @ 250°F, MSS SP-110, Press X Press, BA-400S with Stainless Steel Ball & Stem 1/2" thru 2"

#### BA-400S3

600 WOG, 250 SWP, MSS SP-110, Stainless Steel Ball & Stem, Threaded, Steam Seats 1/2" thru 2"

#### BA-450 / BA-450S

600 WOG, 150 SWP, MSS SP-110, Solder, BA-450S with Stainless Steel Ball & Stem 3/8" thru 2"

## 2-PIECE BRONZE LEAD-FREE BRONZE BALL VALVES FOR POTABLE WATER SERVICE\*

### Standard Port

#### UPBA-100 / UPBA-100S

600 WOG, MSS SP-110, Threaded, UPBA-100S with Stainless Steel Ball & Stem 1/4" thru 3"

#### UPBA-100 P2 / UPBA-100S P2

200 psig @ 250°F, MSS SP-110, Press X Press, UPBA-100S with Stainless Steel Ball and Stem 1/2" thru 3"

#### Options/Accessories

BA-100/150 / UPBA-100/150  
INSULATOR Handle (TIH)  
Oval Handle (OH)  
Locking Oval Handle (LO)  
Stainless-Steel Handle (SH)  
Tee Handle (TH)  
Locking Handle (LD)  
Extension Handle (XH)  
Extension Handle w/Memory Stop (XM)  
Memory Stop (MS)  
Chain Lever (CL)

#### Options/Accessories

BA-100/150 / UPBA-100/150  
BA-400/450 / UPBA-400/450  
INSULATOR Handle (TIH)  
Oval Handle (OH)  
Locking Oval Handle (LO)  
Stainless-Steel Handle (SH)  
Tee Handle (TH)  
Locking Handle (LD)  
Extension Handle (XH)  
Extension Handle w/Memory Stop (XM)  
Memory Stop (MS)  
Chain Lever (CL)



UPBA-100H



UPBA-400 P2 TIH



UPBA-450S

**Options/Accessories**

- BA-100/150 / UPBA-100/150
- BA-400/450 / UPBA-400/450
- INSULATOR Handle (TIH)
- Oval Handle (OH)
- Locking Oval Handle (LO)
- Stainless-Steel Handle (SH)
- Tee Handle (TH)
- Locking Handle (LD)
- Extension Handle (XH)
- Extension Handle w/Memory Stop (XM)
- Memory Stop (MS)
- Chain Lever (CL)

continued  
**2-PIECE**   
**BRONZE LEAD-FREE**  
**BRONZE BALL VALVES**  
**FOR POTABLE**  
**WATER SERVICE\***

**Standard Port**

**UPBA-150 / UPBA-150S**  
 600 WOG, MSS SP-110, Solder,  
 UPBA-150S with Stainless Steel  
 Ball & Stem  
 3/8" thru 3"

**Full Port**

**UPBA-100H**  
 600 WOG, MSS SP-110, Threaded  
 With Hose, Cap and Chain  
 1/2" and 3/4"

**UPBA-150H**  
 600 WOG, Solder with Hose,  
 Cap and Chain  
 1/2" and 3/4"

**UPBA-400 / UPBA-400S**  
 600 WOG, MSS SP-110, Threaded,  
 UPBA-400S with Stainless Steel  
 Ball & Stem  
 1/4" thru 2"

**UPBA-100H P1**  
 200 psig @ 250°F, MSS SP-110,  
 Press X Hose  
 1/2" and 3/4"

**UPBA-400 P2 / UPBA-400S P2**  
 200 psig @ 250°F, MSS SP-110,  
 Press X Press, UPBA-400S with  
 Stainless Steel Ball and Stem  
 1/2" thru 2"

**UPBA-450 / UPBA-450S**  
 600 WOG, MSS SP-110, Solder,  
 UPBA-450S with Stainless Steel  
 Ball & Stem  
 3/8" thru 2"



BA-200



BA-475B



BA-480S

**Options/Accessories**

- BA-200/250,
- BA-475B/485B / UPBA-475B/485B
- BA-480B/490B / UPBA-480B/490B
- INSULATOR Handle (TIH)
- (Except BA-200/250)
- Oval Handle (OH)
- Stainless-Steel Handle (SH)
- Tee Handle (TH)
- Extension Handle (XH)
- Extension Handle with Memory Stop (XM)
- Memory Stop (MS)

**2-PIECE FORGED**  
**BRASS**

**Standard Port**

**BA-200**  
 400 WOG 150 SWP, Threaded  
 1/4" thru 4"

**BA-250**  
 400 WOG 150 SWP, Solder  
 3/8" thru 3"

**Full Port**

**BA-475B**  
 600 WOG (1/4" thru 3"), 400 WOG  
 (4"), CSA/UL/FM/CGA Approved  
 to 2", Threaded  
 1/4" thru 4"

**BA-485B**  
 600 WOG (1/2" thru 3"), 400 WOG  
 (4"), Heavy Pattern, Solder  
 1/2" thru 4"

**BA-480B / BA-480S**  
 250 psig @ 250°F (1/2" thru 2"),  
 200 psig @ 250°F (2-1/2" thru  
 3"), Press X Press, BA-480S with  
 Stainless Steel Ball & Stem  
 1/2" thru 3"

**BA-490B / BA-490S**  
 200 psig @ 250°F, Press X  
 Threaded, BA-490S with  
 Stainless Steel Ball & Stem  
 1/2" thru 2"

**BA-480BH / BA-480SH**  
 250 psig @ 250°F, Press X Hose,  
 BA-480SH with Stainless Steel  
 Ball & Stem,  
 1/2" thru 3/4"

**BA-481B**  
 200 psig @ 250°F, Press X  
 Press, Extension Stem with  
 Memory stop,  
 1/2" thru 3"

**BA-491B**  
 200 psig @ 250°F, Press X  
 Threaded, Extension stem with  
 Memory Stop,  
 1/2" thru 2"

\* Meets Senate law S3874. IAPMO tested and certified to NSF/ANSI 372 for "lead-free" compliance.

# BALL VALVES



UPBA-475B



UPBA-480B



UPBA-481B

#### Options/Accessories

BA-475B/485B / UPBA-475B/485B  
 BA-480B/490B / UPBA-480B/490B  
 INSULATOR Handle (TIH)  
 (BA-480B/BA-490B only)  
 Oval Handle (OH)  
 Stainless-Steel Handle (SH)  
 Tee Handle (TH)  
 Extension Handle (XH)  
 Extension Handle with Memory  
 Stop (XM)  
 Memory Stop (MS)

## 2-PIECE LEAD-FREE FORGED BRASS BALL VALVES FOR POTABLE WATER SERVICE

### Full Port

#### UPBA-475B \*

600 WOG (1/4" thru 2") 400 WOG (2-1/2" thru 3") MSS SP-110, UL/CSA Rated to 2", Threaded 1/4" thru 3"

#### UPBA-485B \*

600 WOG (1/2" thru 2") 400 WOG (2-1/2" thru 3"), MSS SP-110, Solder 1/2" thru 3"

#### UPBA-480B / UPBA-480S\*

250 psig @ 250°F (1/2" thru 2"), 200 psig @ 250°F (2-1/2" thru 4"), MSS SP-110, Press X Press, UPBA-480S with Stainless Steel Ball & Stem 1/2" thru 4"

#### UPBA-480BH / UPBA-480SH \*

250 psig @ 250°F, Press X Hose, BA-480SH with Stainless Steel Ball & Stem, 1/2" and 3/4"

#### UPBA-481B / UPBA-481S \*

200 psig @ 250°F, MSS SP-110, Press X Press, Extension Stem With Memory Stop, UPBA-481S with Stainless Steel Ball and Stem 1/2" thru 3"

#### UPBA-490B / UPBA-490S \*

200 psig @ 250°F, MSS SP-110, Press X Threaded, UPBA-490S with Stainless Steel Ball and Stem 1/2" thru 2"

#### UPBA-491B / UPBA-491S \*

200 psig @ 250°F, MSS SP-110, Press X Threaded, Extension Stem With Memory Stop, UPBA-491S with Stainless Steel Ball and Stem 1/2" thru 2"



BA-500



BA-300TIH



BA-350TE

#### Options/Accessories

BA-300/350 / UPBA-300/350  
 INSULATOR Handle (TIH)  
 Oval Handle (OH)  
 Locking Oval Handle (LO)  
 Stainless-Steel Handle (SH)  
 Tee Handle (TH)  
 Locking Handle (LD)  
 Extension Handle (XH)  
 Extension Handle w/Memory Stop (XM)  
 Memory Stop (MS)  
 Chain Lever (CL)

## 2-PIECE BRASS CIRCULATOR-FLANGE

### BA-500

600 WOG, 150 SWP, Full Port, Sold in Pkg. of 2, Threaded 3/4" thru 1-1/4"

### BA-550

600 WOG, 150 SWP, Full Port, Sold in Pkg. of 2, Solder 3/4" thru 1-1/4"

## 3-PIECE BRONZE BALL VALVES

### Full Port

#### BA-300 / BA-300S

600 WOG, 150 SWP, MSS SP-110, Threaded, BA-300S with Stainless Steel Ball & Stem 1/4" thru 3" \*

#### BA-300SB / BA-300SBS

600 WOG, 150 SWP Silbrazed, BA-300SBS with Stainless Steel Ball & Stem 3/4" thru 2"

#### BA-350 / BA-350S

600 WOG, 150 SWP, MSS SP-110, Solder, BA-350S with Stainless Steel Ball and Stem 3/8" thru 3"

#### BA-300 P2 / BA-300S P2

200 psig @ 250°F, MSS SP-110, Press X Press, BA-300S P2 with Stainless Steel Ball and Stem 1/2" thru 2"

#### BA-350TE / BA-350STE \*\*

600 WOG, 150 SWP, Solder, BA-350STE with Stainless Steel Ball and Stem, Tube End 1/2" thru 3"



UPBA-350

**3-PIECE**  
**LEAD-FREE BRONZE**  
**BALL VALVES FOR**  
**POTABLE WATER**



Full Port

**UPBA-300 / UPBA-300S**

600 WOG, MSS SP-110, Threaded,  
 UPBA-300S with Stainless Steel  
 Ball & Stem  
 1/4" thru 3"

**UPBA-350 / UPBA-350S**

600 WOG, MSS SP-110, Solder,  
 UPBA-350S with Stainless Steel  
 Ball & Stem  
 3/8" thru 3"

**UPBA-300 P2 / UPBA-300S P2**

200 psig @ 250°F, MSS SP-110,  
 Press X Press, UPBA-300S P2  
 with Stainless Steel Ball & Stem  
 1/2" thru 2"

**Options/Accessories**

**BA-300/350 / UPBA-300/350**

- INSULATOR Handle (TIH)
- Oval Handle (OH)
- Locking Oval Handle (LO)
- Stainless-Steel Handle (SH)
- Tee Handle (TH)
- Locking Handle (LD)
- Extension Handle (XH)
- Extension Handle w/Memory Stop (XM)
- Memory Stop (MS)
- Chain Lever (CL)



F90SS300R-N1



F90CS150R-N1



F91CS150R-N1

**Options/Accessories**  
**F90/91**

- Stainless Oval Handle (OS)
- Carbon Oval Handle (OH)
- Extended Handle (XH)
- Extended Locking Handle (XLH)
- Gear Operator (GO)
- Pneumatic Actuator
- Electric Actuator
- Assemble Dry (AD)
- Chlorine Cleaned (CC)
- Oxygen Cleaned (OC)
- Grounded Ball (GB)
- Vented Ball (VB)

**UNIBODY, FLANGED-END**

Standard Port

**F90CS150R-N1**

Class 150, TEFLON<sup>®</sup> NXT-75  
 Seats, Carbon Steel Body,  
 Stainless Steel Ball & Stem,  
 Actuator Mounting Pads  
 1/2" thru 6"

**F90CS300R-N1**

Class 300, TEFLON<sup>®</sup> NXT-75  
 Seats, Carbon Steel Body,  
 Stainless Steel Ball & Stem,  
 Actuator Mounting Pads  
 1/2" thru 6"

**F90SS150R-N1**

Class 150, TEFLON<sup>®</sup> NXT-75  
 Seats, Stainless Steel Body,  
 Stainless Steel Ball & Stem,  
 Actuator Mounting Pads  
 1/2" thru 6"

**F90SS300R-N1**

Class 300, TEFLON<sup>®</sup> NXT-75  
 Seats, Stainless Steel Body,  
 Stainless Steel Ball & Stem,  
 Actuator Mounting Pads  
 1/2" thru 6"

**UNIBODY, FLANGED-END, FIRE-SAFE**

Standard Port

**F91CS150R-N1**

Class 150, TEFLON<sup>®</sup> NXT-75  
 Seats, Carbon Steel Body,  
 Stainless Steel Ball & Stem,  
 Fire-Safe to API 607, Actuator  
 Mounting Pads  
 1/2" thru 6"

**F91CS300R-N1**

Class 300, TEFLON<sup>®</sup> NXT-75  
 Seats, Carbon Steel Body,  
 Stainless Steel Ball & Stem,  
 Fire-Safe to API 607, Actuator  
 Mounting Pads  
 1/2" thru 6"

\* Meets Senate law S3874. IAPMO tested and certified to NSF/ANSI 372 for "lead-free" compliance. TEFLON is a registered trademark of DuPont.

# BALL VALVES



F91SS150R-N1



10SSOD-02-LL

## continued UNIBODY, FLANGED- END, FIRE-SAFE

### Standard Port

#### F91SS150R-N1

Class 150, TEFLON<sup>®</sup> NXT-75 Seats, Stainless Steel Body, Stainless Steel Ball & Stem, Fire-Safe to API 607, Actuator Mounting Pads 1/2" thru 6"

#### F91SS300R-N1

Class 300, TEFLON<sup>®</sup> NXT-75 Seats, Stainless Steel Body, Stainless Steel Ball & Stem, Fire-Safe to API 607, Actuator Mounting Pads 1/2" thru 6"



F201CSN2



F201SSN2

## 2-PIECE, FLANGED- END, FIRE-SAFE

### F201CSN2

Class 150, TEFLON<sup>®</sup> NXT-75 Seats, Carbon Steel Body, Stainless Steel Ball & Stem, Full Port, Live Loaded Graphite Packing, Actuator Mounting Pads, Fire-Safe to API 607 1" thru 12"

### F203CSN2

Class 300, TEFLON<sup>®</sup> NXT-75 Seats, Carbon Steel Body, Stainless Steel Ball & Stem, Full Port, Live Loaded Graphite Packing, Actuator Mounting Pads, Fire-Safe to API 607 1" thru 12"

### F201SSN2

Class 150, TEFLON<sup>®</sup> NXT-75 Seats, Stainless Steel Body, Stainless Steel Ball & Stem, Full Port, Live Loaded Graphite Packing, Actuator Mounting Pads, Fire-Safe to API 607 1" thru 12"

### F203SSN2

Class 300, TEFLON<sup>®</sup> NXT-75 Seats, Stainless Steel Body, Stainless Steel Ball & Stem, Full Port, Live Loaded Graphite Packing, Actuator Mounting Pads, Fire-Safe to API 607 1" thru 12"

## UNIBODY, THREADED, FIRE-SAFE

### Reduced Port

#### 10CSOD-02-LL

2000 WOG, Carbon Steel Body, Stainless Steel Ball & Stem, RPTFE Seats, Fire-Safe to API 607, Threaded 1/4" thru 2"

#### 10SSOD-02-LL

2000 WOG, Stainless Steel Body, Stainless Steel Ball & Stem, RPTFE Seats, Fire-Safe to API 607, Threaded 1/4" thru 2"



BA3WDSLH

#### Options/Accessories

##### F91

Stainless Oval Handle (OS)  
Carbon Oval Handle (OH)  
Extended Handle (XH)  
Extended Locking Handle (XLH)  
Gear Operator (GO)  
Pneumatic Actuator  
Electric Actuator  
Assemble Dry (AD)  
Chlorine Cleaned (CC)  
Oxygen Cleaned (OC)  
Grounded Ball (GB)  
Vented Ball (VB)

#### Options/Accessories

##### F20

Lever Handle (2)  
Gear Operator (3)  
Pneumatic Actuator  
Electric Actuator  
Assemble Dry (A)  
Chlorine Cleaned (C)  
Oxygen Cleaned (O)  
Vented Ball (V)  
Flat-Faced Flange (F)  
PTFE Packing (T)

## DIVERTER VALVE

### Standard Port

#### BA3WDSLH

1000 WOG, Stainless Steel Body, Stainless Steel Ball & Stem, RPTFE Seats, 3-Way Port Diverter, Threaded Ends 1/4" thru 2"



20BSOR-02



20SSOR-N1



BA-260

**Options/Accessories**

**20 series**

- Stainless Oval Handle (OS)
- Stainless Latch Lock Handle (LL)
- Stainless-Steel Spring-Loaded Oval Handle (LO)
- Extended Handle (XH)
- Stainless Spring Latch-Lock Handle (LS)
- Pneumatic Actuator
- Electric Actuator
- Assemble Dry (AD)
- Grounded Ball (GB)
- Grounded Stem (GS)
- Vented Ball (VB)

## 2-PIECE, THREADED

### Standard Port

**20BSOR-02**

600 WOG, Bronze Body, Stainless Steel Ball & Stem, RPTFE Seats, Actuator Mounting Pads, Threaded 1/4" thru 2"

**20BBOR-02**

600 WOG, Bronze Body, Chrome Plated Ball, Bronze Stem, RPTFE Seats, Actuator Mounting Pads, Threaded 1/4" thru 2"

**20CSOR-N1**

Carbon Steel Body, Stainless Steel Ball & Stem, TEFLON® NXT-75 Seats, Actuator Mounting Pads, Threaded 2000 WOG 1/4" thru 1", 1500 WOG 1-1/4" thru 2"

**20SSOR-N1**

Stainless Steel Body, Stainless Steel Ball & Stem, TEFLON® NXT-75 Seats, Actuator Mounting Pads, Threaded 2000 WOG 1/4" thru 1" 1500 WOG 1-1/4" thru 2"

### Full Port

**BA-260**

1000 WOG, Stainless Steel Body and Ball, RPTFE Seats, Locking Handle, Threaded 1/4" thru 3"



41CSOF-02-LL



41SSOF-02-LL



22SSOR-N1

**Options/Accessories**

**22 series**

- Stainless Oval Handle (OS)
- Stainless Latch Lock Handle (LL)
- Stainless-Steel Spring-Loaded Oval Handle (LO)
- Extended Handle (XH)
- Stainless Spring Latch-Lock Handle (LS)
- Pneumatic Actuator
- Electric Actuator
- Assemble Dry (AD)
- Grounded Ball (GB)
- Grounded Stem (GS)
- Vented Ball (VB)

**41 Series**

- Stainless Handle (SH)
- Stainless Oval Handle (OS)
- Stainless Latch Lock Handle (LL)
- Carbon-Steel Oval Handle (OH)
- Locking Spring-Return Stainless-Steel Oval Handle (LO)
- Extended Handle (XH)
- Stainless Spring Latch Lock Handle (LS)

## HIGH-PRESSURE, SEAL-WELDED, FIRE-SAFE

### Full Port

**41CSOF-02-LL**

Carbon Steel Body, Stainless Steel Ball & Stem, Available with Socket-Weld, Extended Butt-Weld Ends and 3,000-lb. Configuration (Consult Factory), Actuator Mounting Pads, Threaded Class 900 1/2" thru 1-1/2" Class 600 2"

**41SSOF-02-LL**

Stainless Steel Body, Stainless Steel Ball & Stem, Available with Socket-Weld, Extended Butt-Weld Ends and 3,000-lb. Configuration (Consult Factory), Actuator Mounting Pads, Threaded Class 900 1/2" thru 1-1/2" Class 600 2"

## 2-PIECE, SEAL-WELDED

### Standard Port

**22CSOR-N1**

Carbon Steel Body, Stainless Steel Ball & Stem, TEFLON® NXT-75 Seats, Actuator Mounting Pads, Threaded 2000 WOG 1/4" thru 1" 1500 WOG 1-1/4" thru 2"

**22SSOR-N1**

Stainless Steel Body, Stainless Steel Ball & Stem, TEFLON® NXT-75 Seats, Actuator Mounting Pads, Threaded 2000 WOG 1/4" thru 1" 1500 WOG 1-1/4" thru 2"

# BALL VALVES



30SSOF-02



30BSOF-02



30CSOF-02



30SSOF-02-LO

#### Options/Accessories

##### 30 Series

- Stainless Latch Lock Handle (LL)
- Locking Stainless-Steel Oval Handle (LO)
- Stainless-Steel Latch Lock Spring-Loaded Handle (LS)
- Stainless-Steel Oval Handle (OS)
- Extended Handle 2" (XH)
- Extended Handle 4 1/2" (XLH)
- Extended Handle (XH)
- Pneumatic Actuator
- Electric Actuator
- Assemble Dry (AD)
- Grounded Ball (GB)
- Grounded Stem (GS)
- Vented Ball (VB)

## 3-PIECE, THREADED

### Full Port

#### 30BBOF-02

600 WOG, Bronze Body, Chrome Plated Ball & Stem, RPTFE Seats, PTFE V-Ring Packing, Threaded, Available with Solder, Actuator Mounting Pads 1/4" thru 2"

#### 30BSOF-02

600 WOG, Bronze Body, Stainless Steel Ball & Stem, RPTFE Seats, PTFE V-Ring Packing, Actuator Mounting Pads, Threaded, Available with Solder 1/4" thru 2"

#### 30CSOF-02

1000 WOG, Carbon Steel Body, Stainless Steel Ball & Stem, RPTFE Seats, PTFE V-Ring Packing, Actuator Mounting Pads, Threaded, Available with Socket-Weld 1/4" thru 2"

#### 30SSOF-02

1000 WOG, Stainless Steel Body, Stainless Steel Ball & Stem, RPTFE Seats, PTFE V-Ring Packing, Actuator Mounting Pads, Threaded, Available with Socket-Weld 1/4" thru 2"



35RCSO-LL



35RSSO-LL

## 3-PIECE, ENCLOSED-BOLT, FIRE-SAFE

### Standard Port

#### 35RCSO-LL

2000 WOG, Carbon Steel Body, Stainless Steel Ball & Stem, TEFLON® NXT-75 Seats, Fire-Safe to API 607, Live Loaded Graphite Packing, Actuator Mounting Pads, Threaded, Available with Socket-Weld 1/4" thru 2"

#### 35RSSO-LL

2000 WOG, Stainless Steel Body, Stainless Steel Ball & Stem, Live Loaded Flexible Graphite Packing, TEFLON® NXT-75 Seats, Fire-Safe to API 607, Actuator Mounting Pads, Threaded, Available with Socket-Weld 1/4" thru 2"

### Full Port

#### 35FCSO-LL

2000 WOG, Carbon Steel Body, Stainless Steel Ball & Stem, TEFLON® NXT-75 Seats, Fire-Safe to API 607, Live Loaded Graphite Packing, Actuator Mounting Pads, Threaded, Available with Socket-Weld 1/4" thru 2"

#### 35FSSO-LL

2000 WOG, Stainless Steel Body, Stainless Steel Ball & Stem, TEFLON® NXT-75 Seats, Fire-Safe to API 607, Live Loaded Graphite Packing, Actuator Mounting Pads, Threaded, Available with Socket-Weld 1/4" thru 2"

#### Options/Accessories

##### 35 series

- Latch Lock Handle (LL)
- Locking Stainless-Steel Oval Handle (LO)
- Extended Handle (XH)
- Pneumatic Actuator
- Electric Actuator
- Assemble Dry (A)
- Chlorine Cleaned (Stainless Only) (C)
- Oxygen Cleaned (O)

# BUTTERFLY VALVES



CL323E



CW323E

## C SERIES — COMMERCIAL BUTTERFLY

Concentric valve to MSS SP-67, Available in lug or wafer body. CL Series IAPMO tested and certified against NSF/ANSI 372 for lead-free\* compliance. Body: Cast Iron ASTM A126 Class B  
Disc: AlBr (Aluminum Bronze)  
Stem: 416 Stainless Steel  
Liner: EPDM  
2" thru 12" rated at 200 WOG  
14" thru 48" rated at 150 WOG

These valves are based on our M Series, but intended for commercial applications in HVAC and similar systems. The valves feature a phenolic-backed rubber seat with optimized disc and stem design for reliable sealing, low torque, and long life. C Series valves from 2" thru 12" are approved by the U.S. Coast Guard for Category A service. Lug butterfly valves 2" thru 12" are bi-directional dead-end service to 200 psig max. Valves 14" thru 24" are rated for uni-directional dead-end service to 150 psig. The valves are available with 10-position locking-lever handles (up to 12 inch) and gear operators.



MW323E



ML323E



ML223E

## M SERIES — INDUSTRIAL BUTTERFLY\*

Concentric valve to MSS SP-67, Available in lug or wafer body. Disc: Ni-plated Ductile Iron, AlBr, or Stainless Steel, nylon and epoxy-coated optional. Stem: 416 or 316 Stainless Steel. Liner: EPDM, Buna, FDA Neoprene, PTFE, Hypalon, and many other options. Body: Cast iron ASTM A126 Class B or Ductile Iron ASTM A536 65-45-12  
2" thru 12" rated at 200 WOG  
14" thru 48" rated at 150 WOG

These valves feature a phenolic-backed rubber seat with optimized disc and stem design for reliable sealing, low torque, and long life. 2" thru 12" are approved by the U.S. Coast Guard for Category A service. Lug butterfly valves 2" thru 12" are bi-directional dead-end service to 200 psig max. BUNA and EPDM only. All others 150 psig uni-directional field repairable. Valves 14" thru 24" rated for uni-directional dead-end service to 150 psig. The valves are available with on-board actuation direct from the factory, 10 position locking lever handles (up to 12 inch), gear operators, or other options — consult the factory.

- Available in Low Lead  
ML133E/233E/333E  
2" thru 12"  
ML133E/333E  
14" thru 24"

# BUTTERFLY VALVES



ML133E/233E/333E



## LEAD-FREE COMMERCIAL BUTTERFLY

### ML133E/233E/333E

Cast Iron Body, Lug Style, Aluminum Bronze Disc, EPDM Liner, Bi-Directional Dead-End Service 200 psig Max, IAPMO Tested and certified against NSF/ANSI 372 for "Lead-free" compliance. 2" thru 12"

### ML133E/333E

Cast Iron Body, Lug Style, Aluminum Bronze Disc, EPDM Liner, Bi-Directional Dead-End Service 200 psig Max 2" thru 12", Uni-Directional Dead-End Service 150 psig Max, 14" thru 24", IAPMO Tested and certified against NSF/ANSI 372 for "Lead-free" compliance.

### CL Series

Cast Iron Body, Lug Style, Aluminum Bronze Disc, EPDM Liner, Bi-Directional Dead-End Service 200 psig Max 2" thru 12", Uni-Directional Dead-End Service 150 psig Max, 14" thru 24", IAPMO Tested and certified against NSF/ANSI 372 for "Lead-free" compliance.



CL323E



HP1LCS WITH LEVER HANDLE



HP1LCS WITH GEAR OPERATOR



HP1LSS WITH GEAR OPERATOR

## HP SERIES HIGH PERFORMANCE BUTTERFLY

Double offset valve designed to MSS SP-68, ASME B16.34, and API 609, Category B. Available in lug or wafer body, ANSI Class 150 and 300 in sizes 2-1/2" thru 36"

Body: A216 WCB carbon steel or ASTM A351 CF8M  
Stainless Steel  
Disc: ASTM A351 CF8M  
Stainless Steel  
Stem: 17-4PH or 316  
Stainless Steel  
Seats: RTFE standard, Virgin PTFE, UHMWPE and other options.

These valves feature a double offset seat and disc design for superior sealing with no leakage and minimal seat contact and wear. The valves are available with on-board actuation direct from the factory, 10 position locking lever handles (up to 8 inch), gear operators on all valves, for other actuation options or accessories, consult the factory.



### HP1LSS4212/HP3LSS4212/ HP1LLSS4213/HP3LSS4213

Stainless Steel Body, Lug Style, Stainless Steel Disc, RPTE Seat, bi-directional dead-end service and double offset design. ANSI Class 150 and 300 available in sizes 2 1/2" - 24". Certified by IAPMO R&T to NSF/ANSI 61 and NSF/ANSI 372 for low lead requirements.



HL123E



HL323E



UPGG-245E

## H SERIES — HIGH-PRESSURE INDUSTRIAL BUTTERFLY

Concentric valve to MSS SP-67,  
Available in lug or wafer body.  
Body: Ductile iron ASTM A536  
65-45-12  
Disc: Ni Plated DI, AlBr, or  
Stainless Steel.  
Stem: 416 or 316 Stainless Steel  
Liner: EPDM, Buna, Viton.

2" thru 12" rated at 250 WOG  
14" thru 24" rated at 200 WOG

The H Series is tested and rated  
for higher-pressure services.  
H Series Valves from 2" thru 12"  
are approved by the U.S. Coast  
Guard for Category A service.  
Lug butterfly valves 2" thru 12"  
are uni-directional dead-end  
service to 200 psig max. BUNA  
and EPDM only. Valves 14" thru  
24" are rated for uni-directional  
dead end service to 150 psig.

### UPGG-245E

Polyamide Coated Ductile Iron  
Grooved End Butterfly, 300 psi,  
designed to MS SP-67  
Extended Neck, Elastomer  
Encapsulated Disc  
2" thru 10"



BB2-100



BB2-350

## BRONZE BUTTERBALL® BUTTERFLY

### BB2-100

175 psig, Threaded  
1/4" thru 2" (1/2" thru 2" UL/CSA)

### BB2-350

175 psig, Solder  
3/8" thru 2"

### BB1-10A0

175 psig, Threaded, Actuator  
Mounting Pads  
1" thru 2"



35 SERIES BALL VALVE WITH PNEUMATIC ACTUATOR



F20 SERIES BALL VALVE WITH PNEUMATIC ACTUATOR WITH LIMIT SWITCH

## PNEUMATIC ACTUATION

### 2-Piece Ball Valves

Available on Threaded-End Valves. Available on Bronze, Carbon-Steel and Stainless-Steel Valves. Available on 1/2" thru 2" Valves.

### 3-Piece Ball Valves

Available on Threaded-End and Socket-Weld-End Valves. Available on Bronze, Carbon-Steel and Stainless-Steel Valves. Available on 1/2" thru 2" Valves.

### Flanged-End Ball Valves

Available on 150 and 300 lbs. Class Valves. Available on 1/2" thru 12" Valves.

## PNEUMATIC BALL VALVE PACKAGE

### 2-Piece Full Port Stainless Steel Ball Valve

with stainless ball and stem. 1000 psig rated @ 100° F Temperature Range: -20° to 450° F 50 psi SWP for on/off service Factory Assembled and tested Available on 1/4" to 3" valves.

#### BA260LDA

Spring Return (fail closed) actuator sized for 80 psi air supply 120V three-way Nema 4/4X NAMUR mounted solenoid.

#### BA260LDB

Double -acting actuator sized for 80 psi air supply 120V four-way Nema 4/4X NAMUR mounted solenoid.-

#### Pneumatic Actuation and Ball Valve Package Options

- Double-Acting Actuators
- Spring-Return Actuators
- Solenoid Valves
- Actuator Brackets
- Limit Switches
- Valve Positioners
- Modulating Positioners



ML SERIES BUTTERFLY VALVE WITH PNEUMATIC ACTUATOR



HP SERIES LUG BUTTERFLY VALVE WITH PNEUMATIC ACTUATOR

## continued PNEUMATIC ACTUATION

### Butterfly Valves

Available on HP Series High-Performance Butterfly Available in Wafer and Lugged Patterns. Available on 2" thru 48" Valves. Available on Class 150 2-1/2" thru 36". Available on Class 300 2-1/2" thru 36". Available on C and M Series Butterfly Valves. Available on Wafer and Lugged Patterns. Available on 2" thru 48".

## PNEUMATIC BUTTERFLY PACKAGE



### Cast Iron Lug Butterfly

200 WOG with Aluminum Bronze Disc and EPDM Liner for on/off service. Temperature Range: 0° to 250° F for HVAC Service Factory assembled and tested Available on 2" to 12" valves.

#### CLA23E

Double-acting actuator sized for 80 psi air supply. 120V four-way Nema 4/4x Namur mounted solenoid.

#### CLB23E

Spring return fail closed actuator. 120V three-way Nema 4/4x Namur mounted solenoid.



BA-260 BALL VALVE WITH ELECTRIC ACTUATOR



35 SERIES BALL VALVE WITH ELECTRIC ACTUATOR

## ELECTRIC ACTUATION

### 2-Piece Ball Valves

Available on Threaded-End Valves.  
Available on Bronze, Carbon-Steel and Stainless-Steel Valves.  
Available on 1/2" thru 2" Valves.

### 3-Piece Ball Valves

Available on Threaded-End and Socket-Weld-End Valves.  
Available on Bronze, Carbon-Steel and Stainless-Steel Valves.  
Available on 1/2" thru 2" Valves.

### Flanged-End Ball Valves

Available on 150 and 300 lbs. Class Valves  
Available on 1/2" thru 12" Valves

## ELECTRIC BALL VALVE PACKAGE

### 2-Piece Full Port Stainless Ball Valve

with stainless ball and stem.  
1000 psig rated @ 100° F  
Temperature Range: -20° to 450° F  
50 psi SWP for on/off service  
Factory Assembled and tested  
Available on 1/4" to 3" valves.

### BA260LDC

120VAC Nema 4 rated electric actuator  
25% duty cycle with 2 limit switches/  
remote light indicator,  
Manual override, visual position indicator.



CL SERIES BUTTERFLY VALVE WITH ELECTRIC ACTUATOR



HP SERIES LUG BUTTERFLY VALVE WITH ELECTRIC ACTUATOR

## continued ELECTRIC ACTUATION

### Butterfly Valves

Available on C and M Series Iron Butterfly Valves and HP Series High-Performance Butterfly Valves.  
Available in Wafer and Lugged Patterns.  
Available on 2" thru 48" valves.  
Available on Class 150 2-1/2" thru 36".  
Available on Class 300 2-1/2" thru 36".  
Available on C and M Series Butterfly Valves.  
Available on Wafer and Lugged Patterns.  
Available on 2" to 48" valves

## ELECTRIC BUTTERFLY VALVE PACKAGE



### Cast Iron Lug Butterfly

200 WOG with Aluminum Bronze Disc and EPDM Liner for on/off service.  
120V four-way Nema 4/4x Namur mounted solenoid.  
Temperature Range: 0° to 250° F for HVAC Service  
Factory Assembled and tested  
Available on 2" to 12" valves.

### CLC23E

120VAC Nema 4 rated electric actuator  
25% duty cycle with 2 limit switches  
Manual override and visual position indicator.

### Electric Actuation and Butterfly Valve Package Options

120 Volt AC and DC Voltages  
NEMA 4 and 7 Housings  
4-20 maDC Valve Positioners  
Actuator Brackets  
Extra Limit Switches  
Reversing Actuators  
Limit Switches  
Modulating Positioners

# BRONZE VALVES



105

## BRONZE GATE VALVES, NON-RISING STEM

### Threaded End

**105**  
125 SWP-200 WOG, MSS SP-80,  
Threaded Bonnet  
1/4" thru 4"

**1140**  
150 SWP-300 WOG, MSS SP-80,  
Threaded Bonnet  
1/4" thru 4"

**1141**  
150 SWP-300 WOG, MSS SP-80,  
Union Bonnet  
1/4" thru 2"

**1176**  
200 SWP-400 WOG,  
Stainless-Steel Seats,  
MSS SP-80, Union Bonnet  
1/4" thru 2"

**1186**  
300 SWP-1000 WOG,  
Stainless-Steel Seats,  
MSS SP-80, Union Bonnet  
1/4" thru 2"

**UP105 \***  
UltraPure® Lead Free Bronze,  
Threaded, 300 WOG, MSS SP-80,  
Threaded Bonnet  
1/4" thru 2"

**UP667 \***  
UltraPure® Lead Free Brass,  
Threaded, 200 WOG, Threaded  
Bonnet  
1/4" thru 2"

### Solder End

**115**  
125 SWP-200 WOG, MSS SP-80,  
Threaded Bonnet  
3/8" thru 4"



UP115



105 P2



148



148 P2

**UP115 \***  
UltraPure® Lead-Free Bronze, 300  
WOG, MSS SP-80, Threaded Bonnet  
3/8" thru 2"

**UP668 \***  
UltraPure® Lead-Free Brass, Solder,  
200 WOG, Threaded Bonnet  
1/4" thru 2"

Press x  
Press Ends



**105 P2**  
200 psig @ 250°F,  
MSS SP-80, Threaded Bonnet  
1/2" thru 2"

**1141 P2**  
200 psig @ 250°F,  
MSS SP-80, Union Bonnet  
1/2" thru 2"

**UP105 P2 \***  
UltraPure® Lead-Free Bronze,  
200 psig @ 250°F,  
MSS SP-80, Threaded Bonnet  
1/2" thru 2"

## BRONZE GATE VALVES, RISING STEM

### Threaded End

**148**  
125 SWP-200 WOG,  
MSS SP-80, Threaded Bonnet  
1/4" thru 4"

**1150**  
150 SWP-300 WOG,  
MSS SP-80, Threaded Bonnet  
1/4" thru 4"

Press x  
Press Ends



**148 P2**  
125 SWP-200 psig @ 250°F,  
MSS SP-80, Threaded Bonnet  
1/2" thru 2"

UP667

UP 148



continued  
**BRONZE GATE VALVES, RISING STEM**

Threaded End

**UP148 \***  
UltraPure® Lead-Free Bronze,  
300 WOG, MSS SP-80,  
Threaded Bonnet  
1/4" thru 2"

1174



**1152**  
125 SWP-200 WOG,  
MSS SP-80, Union Bonnet  
1/4" thru 3"

**1151**  
150 SWP-300 WOG, MSS SP-80,  
Union Bonnet  
1/4" thru 3"

**1153**  
200 SWP-400 WOG, Bronze  
Seats, MSS SP-80, Union Bonnet  
1/4" thru 3"

**1156**  
200 SWP-400 WOG, Cu-Ni Seat  
Ring, MSS SP-80, Union Bonnet  
1/4" thru 2"

**1174**  
200 SWP-400 WOG, Stainless-  
Steel Seat Ring, MSS SP-80,  
Union Bonnet  
1/4" thru 3"

149



**1182**  
300 SWP-1000 WOG, Cu-Ni Seat  
Ring, MSS SP-80, Union Bonnet  
1/4" thru 2"

**1184**  
300 SWP-1000 WOG,  
Stainless-Steel Seat Ring,  
MSS SP-80, Union Bonnet  
1/4" thru 3"

Solder End

**149**  
125 SWP-200 WOG, MSS SP-80,  
Threaded Bonnet  
3/8" thru 4"

1169



continued  
**BRONZE GATE VALVES, RISING STEM**

Solder End

**1169**  
150 SWP-300 WOG,  
MSS SP-80, Union Bonnet  
3/8" thru 3"

**UP149 \***  
UltraPure® Lead-Free Bronze,  
300 WOG, MSS SP-80,  
Threaded Bonnet  
3/8" thru 2"

Press x Press Ends

**148 P2**   
200 psig @ 250°F,  
MSS SP-80, Threaded Bonnet  
1/2" thru 2"

UP149



**1152 P2**  
200 psig @ 250°F,  
MSS SP-80, Union Bonnet  
1/2" thru 2"

**UP148 P2 \***  
UltraPure® Lead-Free Bronze,  
200 psig @ 250°F, MSS SP-80,  
Threaded Bonnet  
1/2" thru 2"

UP148 P2



**QUICK-OPENING GATE VALVES**

Threaded Ends

**P900**  
150 WSP-300 WOG, Spring-  
Loaded Handle  
1" thru 3"

**P901**  
150 WSP-300 WOG, Quick-Open  
Lever Handle  
1/2" thru 4"

**902**  
150 WOG O-Ring Seal,  
Quick-Open Lever with Springs  
3/4" and 1-1/4"

P901



\* Meets Senate law S3874. IAPMO tested and certified to NSF/ANSI 372 for "lead-free" compliance.

# BRONZE VALVES



502



570



593A

## BRONZE GLOBE VALVES

### Threaded Ends

**502**  
125 SWP-200 WOG, MSS SP-80,  
Bronze Disc, Threaded Bonnet  
1/8" thru 3"

**600**  
200 SWP-400 WOG, MSS SP-80,  
Needle Disc, Threaded Bonnet  
1/8" thru 3/4"

**590T**  
150 SWP-300 WOG, MSS SP-80,  
PTFE Disc, Union Bonnet  
1/8" thru 3"

**591A**  
150 SWP-300 WOG, MSS SP-80,  
SS Seat & Disc, Union Bonnet  
1/4" thru 2"

**570**  
200 SWP-400 WOG, MSS SP-80,  
Bronze Disc, Union Bonnet  
1/8" thru 3"

**572**  
300 SWP-1000 WOG, MSS SP-80,  
Bronze Disc, Union Bonnet  
1/4" thru 2"

**592A**  
200 SWP-400 WOG, MSS SP-80,  
SS Seat & Disc, Union Bonnet  
1/4" thru 2"

**593A**  
300 SWP-1000 WOG, MSS SP-80,  
SS Seat & Disc, Union Bonnet  
1/4" thru 2"

**UP502 \***  
UltraPure® Lead-Free Bronze,  
300 WOG, MSS SP-80, Bronze  
Disc, Threaded Bonnet  
1/8" thru 2"



1590T



UP1502



502 P2

## continued BRONZE GLOBE VALVES

### Solder Ends

**1502**  
125 SWP-200 WOG, MSS SP-80,  
Bronze Disc, Threaded Bonnet  
3/8" thru 2"

**1590T**  
150 SWP-300 WOG, MSS SP-80,  
PTFE Disc, Union Bonnet  
1/2" thru 3"

**UP1502 \***  
UltraPure® Lead-Free Bronze,  
300 WOG, MSS SP-80,  
Bronze Disc, Threaded Bonnet  
3/8" thru 2"

### Press x Press Ends



**502 P2**  
200 psig @ 250°F, MSS SP-80,  
Bronze Disc, Threaded Bonnet  
1/2" thru 2"

**590T P2**  
200 psig @ 250°F, MSS SP-80,  
PTFE Disc, Union Bonnet  
1/2" thru 2"

**UP502 P2 \***  
UltraPure® Lead-Free Bronze,  
200 psig @ 250°F, MSS SP-80,  
Bronze Disc, Threaded Bonnet  
1/2" thru 2"



504



595T



509T

## BRONZE ANGLE VALVES

### Threaded Ends

**504**  
125 SWP-200 WOG, MSS SP-80, Bronze Disc, Threaded Bonnet 1/4" thru 2-1/2"

**582**  
300 SWP-600 WOG, MSS SP-80, Bronze Disc, Union Bonnet 1/4" thru 2"

**595T**  
150 SWP-300 WOG, MSS SP-80, PTFE Disc, Union Bonnet 1/4" thru 2"

## BRONZE CHECK VALVES HORIZONTAL SWING CHECK

### Threaded Ends

**509**  
Bronze, 125 SWP-200 WOG, MSS SP-80, Brass Disc (1/4" - 1-1/2"), Bronze Disc (2" - 3") 1/4" thru 3"

**509T**  
Bronze, 125 SWP-200 WOG, MSS SP-80, PTFE Disc 1/4" thru 2"

**510T**  
Bronze, 150 SWP-300 WOG, MSS SP-80, PTFE Disc 1/4" thru 2"

**515**  
Bronze, 150 SWP-300 WOG, MSS SP-80, Bronze Disc 1/4" thru 2"

**UP509 \***  
UltraPure® Lead-Free Bronze, 300 WOG (1/4" thru 2"), 200 WOG (2-1/2" thru 3"), MSS SP-80, Bronze Disc, Threaded 1/4" thru 3"



1509



969



UP509 P2

## continued BRONZE CHECK VALVES HORIZONTAL SWING CHECK

**UP967 \***  
UltraPure® Lead Free Brass, Brass Disc, 200 WOG 3/8" thru 3"

### Solder Ends

**1509**  
Bronze, 125 SWP-200 WOG, MSS SP-80, Bronze Disc 3/8" thru 3"

**1509T**  
Bronze, 125 SWP-200 WOG, MSS SP-80, PTFE Disc 3/8" thru 2"

**1510T**  
Bronze, 150 SWP-300 WOG, MSS SP-80, PTFE Disc (Also available w/Bronze Disc) 1/2" thru 2"

**UP1509 \***  
UltraPure® Lead-Free Bronze, 300 WOG, MSS SP-80, Bronze Disc 3/8" thru 3"

**UP968 \***  
UltraPure® Lead-Free Brass, 200 WOG, Brass Disc 3/8" thru 3"

### Press x Press Ends

**509 P2**   
Bronze, 200 psig @ 250°F, MSS SP-80, Brass Disc 1/2" thru 2"

**969**  
Brass, 200 psig @ 250°F, Brass Disc, Integral Seat 1/2" thru 2"

**UP509 P2 \***  
UltraPure® Lead-Free Bronze, 200 psig @ 250°F, Brass Disc, MSS SP-80 1/2" thru 2"

\* Meets Senate law S3874. IAPMO tested and certified to NSF/ANSI 372 for "lead-free" compliance.

# BRONZE VALVES



UP969



509Y



548B P2

continued  
**BRONZE CHECK VALVES HORIZONTAL SWING CHECK**

**UP969 \***  
 UltraPure® Lead-Free Brass,  
 Brass Disc, 200 psig @ 250°F  
 1/2" thru 2"

**HORIZONTAL SWING CHECK – Y PATTERN**

**Threaded Ends**  
**507**  
 Bronze, 300 SWP-600 WOG,  
 MSS SP-80, Bronze Disc  
 1/4" thru 3"

**508**  
 Bronze, 200 SWP-400 WOG,  
 MSS SP-80, Bronze Disc  
 1/4" thru 3"

**509Y**  
 Bronze, 125 SWP-200 WOG,  
 MSS SP-80, Bronze Disc  
 1/4" thru 3"

**515Y**  
 Bronze, 150 SWP-300 WOG,  
 MSS SP-80, Bronze Disc  
 1/4" thru 3"

Press x   
 Press Ends

**509Y P2**  
 Bronze, 200 psig @ 250°F, MSS  
 SP-80, Bronze Disc  
 1/2" thru 2"



UP548T



1548T



UP548T P2

## SPRING-LOADED LIFT CHECK

**Threaded Ends**

**548B**  
 Bronze, 250 WOG,  
 BUNA Disc  
 3/8" thru 2"

**548T**  
 Bronze, 250 WOG,  
 PTFE Disc  
 3/8" thru 2"

**UP548T \***  
 UltraPure® Lead-Free Bronze,  
 PTFE Disc, 250 WOG,  
 3/8" thru 2"

**Solder Ends**

**1548T**  
 Bronze, 250 WOG,  
 PTFE Disc  
 3/8" thru 2"

**1548B**  
 Bronze, 250 WOG,  
 BUNA Disc  
 3/8" thru 2"

**UP1548T \***  
 UltraPure® Lead-Free Bronze,  
 PTFE Disc, 250 WOG,  
 3/8" thru 2"

Press Ends 

**548B P2**  
 Bronze, 200 psig @ 250°F,  
 Buna Disc  
 1/2" thru 2"

**548T P2**  
 Bronze, 200 psig @ 250°F,  
 PTFE Disc  
 1/2" thru 2"

**UP548T P2 \***  
 UltraPure® Lead-Free Bronze,  
 200 psig @ 250°F, PTFE Disc,  
 1/2" thru 2"



1550

## CAST STEEL GATE

### 1550CB2

Class 150, Flanged, API 600, ASME B16.34 Design, API 598 Tested, Available in Butt-weld, Consult Factory. 2" thru 24"

### 3050CB2

Class 300, Flanged, API 600, ASME B16.34 Design, API 598 Tested, Available in Butt-weld, Consult Factory. 2" thru 24"

### 6050CB2

Class 600, Flanged, API 600, ASME B16.34 Design, API 598 Tested, Available in Butt-weld, Consult Factory. 2" thru 12"



1560

## CAST STEEL GLOBE

### 1560CB2

Class 150, Flanged, API 623, ASME B16.34 Design, API 598 Tested, Available in Butt-weld, Consult Factory. 2" thru 8"

### 3060CB2

Class 300, Flanged, API 623, ASME B16.34 Design, API 598 Tested, Available in Butt-Weld, Consult Factory. 2" thru 8"

### 6060CB2

Class 600, Flanged, API 623, ASME B16.34 Design, API 598 Tested, Available in Butt-Weld, Consult Factory. 2" thru 6"



1570

## CAST STEEL CHECK

### 1570CB2

Class 150, Flanged, API 594, ASME B16.34 Design, API 598 Tested, Available in Butt-Weld, Consult Factory. 2" thru 12"

### 3070CB2

Class 300, Flanged, API 594, ASME B16.34 Design, API 598 Tested, Available in Butt-Weld, Consult Factory. 2" thru 12"

### 6070CB2

Class 600, Flanged, API 594, ASME B16.34 Design, API 598 Tested, Available in Butt-Weld, Consult Factory. 2" thru 12"



F2882M



2894M



2882-MRWSQ



2885-MRW

## IRON GATE

### 2882A or 2882M

125 SWP 200 WOG, Non-Rising Stem, IBBM, MSS SP-70  
A Available 2" thru 12"  
M Available 2" thru 24"

### 2882A26 or 2882M26

125 SWP 200 WOG, Non-Rising Stem, All Iron, MSS SP-70  
A Available 2" thru 12"  
M Available 2" thru 24"

### 2885A or 2885M

125 SWP 200 WOG, OS & Y, IBBM, MSS SP-70  
A Available 2" thru 12"  
M Available 2" thru 24"

### 2885M26\*

UltraPure Lead-Free Iron  
125 SWP 200 WOG, OS & Y, All Iron, MSS SP-70  
M Available 2" thru 12"

### 2885M13

3% Nickel Iron, OS & Y, Iron Body, SS Trim, MSS SP-70  
2" thru 12"

### 2894A or 2894M

250 WSP 500 WOG, OS & Y, IBBM, MSS SP-70  
A Available 2" thru 12"  
M Available 2" thru 12"



### 2882-MRW, 2882-MRWSQ

UltraPure Low Lead Iron  
300 psi, MSS SP-70  
2" thru 16"

### 2885-MRW

UltraPure Low Lead Iron  
300 psi, OS & Y MSS SP-70  
2 1/2" thru 16"



2887M



2981A

## IRON CLIP GATE

### 2887M

150 SWP 225 WOG, Bronze Trim, Threaded  
1/4" thru 2"  
125 SWP 175 WOG, Bronze Trim, Threaded  
2" thru 4"

### 2888M

150 SWP 225 WOG, All Iron, Threaded  
1/4" thru 2"  
125 SWP 175 WOG, All Iron, Threaded  
2-1/2" thru 4"

## IRON GLOBE

### 2981A or 2981M

125 SWP 200 WOG, MSS SP-85  
A Available 2" thru 10"  
M Available 2" thru 10"

### 2983A or 2983M

250 SWP 500 WOG, IBBM, MSS SP-85  
A Available 2-1/2" thru 6"  
M Available 2-1/2" thru 6"

### 2986M

Angle Globe, 125 SWP, 200 WOG, MSS SP-85  
2" thru 8"

### 2986M-SC

Angle Stop Check, Globe Style, 125 SWP, 200 WOG, MSS SP-85  
2" thru 8"



2974M

## IRON CHECK

### 2974A or 2974M

125 SWP 200 WOG, IBBM, MSS SP-71

A Available 2" thru 12"  
M Available 2" thru 24"

### 2974MLW

125 SWP 200 WOG, IBBM, MSS SP-71, Lever and Weight, 2" thru 12"

### 2974A26 or 2974M26\*

UltraPure Lead-Free Iron  
125 SWP 200 WOG, All Iron, A Available 2" thru 12"  
M Available 2" thru 24"

### 2974M13

3% Nickel Iron, 125 SWP, 200 WOG Iron Body, Stainless-Steel Trim, MSS SP-71  
2" thru 12"

### 2970M

250 SWP 500 WOG, IBBM, MSS SP-71  
2-1/2" thru 6"



2974MLW



2970



1400

## SILENT CHECK

### 1400

Class 125, Wafer-Style Cast-Iron Body, Stainless-Steel Disc, Stainless-Steel Spring, Meets Senate Law S3874  
2" thru 10"  
(Also Available Class 250)

### 1800

Class 125, Globe-Style Cast-Iron Body, Stainless-Steel Disc, Stainless-Steel Spring, Meets Senate Law S3874  
2-1/2" thru 42"  
(Also Available Class 250)



1800

## NON-SLAM CHECK

### 8800

Class 125, Wafer-Style Cast-Iron Body, Stainless-Steel Double Disc  
2" thru 16"

\* Meets Senate law S3874. IAPMO tested and certified to NSF/ANSI 372 for "lead-free" compliance.

# FIRE PROTECTION VALVES



UPBBTSCS02



## LEAD-FREE BRONZE SLO-CLOSE SPRINKLER-CONTROL VALVE INDOOR/ OUTDOOR\*

### UPBBTSC

175 psig, UL/FM, Slo-Close with Position Indicator, IAPMO Tested and Certified, Less Tamper Switch, NPT-Threaded Ends 1" - 2"

### UPBBTSCS02

NPT-Threaded Ends, 175 psig, UL/FM, Slo-Close with Position Indicator, Tamper Switch 1" thru 2"

### GG-SCS2

Nylon Coated Ductile Iron Grooved End Butterfly, 300 psi, UL/FM, Extended Neck, Elastomer Encapsulated Disc 2 1/2" thru 10"



GG-SCS2



BBVSC100

## SLO-CLOSE SPRINKLER-CONTROL VALVE INDOOR/ OUTDOOR

### BB-SC100

175 psig, UL/FM, Slo-Close w/Position Indicator, Less Tamper Switch, Indoor/Outdoor, Threaded 1" thru 2-1/2"

### BB-SCS02

175 psig, UL/FM, Slo-Close w/Position Indicator, With Tamper Switch, Indoor/Outdoor, Threaded 1" thru 2-1/2"

### BBVSC100

175 psig, UL/FM, Slo-Close w/Position Indicator, Less Tamper Switch, Indoor/Outdoor, Grooved 2" and 2-1/2"

### BBVSCS02

175 psig, UL/FM, Slo-Close w/Position Indicator, With Tamper Switch, Indoor/Outdoor, Grooved 2" and 2-1/2"



2885-FP

## IRON GATE

**2885-FP**

OS & Y Bronze Trim, 175 WOG  
UL/FM  
2-1/2" thru 8"

## IRON CHECK VALVE

**2974-FP**

175 WOG, UL/FM, Rubber Disc  
2-1/2" thru 8"



2974-FP



118-FP

## BRONZE GATE VALVE WITH UL/FM TRIM

**118-FP**

OS & Y, UL/FM, NPT Threaded  
1" thru 2"

## HIGH-RISE SPRINKLER-CONTROL VALVE

**BBHSC100**

350 psig, Less Tamper Switch,  
Threaded  
1" thru 2-1/2"

**BBHSC02**

350 psig, With Tamper Switch,  
Threaded  
1" thru 2-1/2"

**BVHSC100**

350 psig, Less Tamper Switch,  
Grooved  
2" and 2-1/2"

**BVHSC02**

350 psig, With Tamper Switch,  
Grooved  
2" and 2-1/2"



BBHSC02



BB2FP

## BUTTERBALL® TRIM VALVES UL/FM

**BB2FP**

175 psig, Quarter Turn, UL-Listed,  
FM-Approved,  
NPT Threaded Ends  
1/2" thru 2"



UPBA-100TIH



UPBA-150H

## 2-PIECE LEAD-FREE BRONZE BALL VALVES

### Standard Port

**UPBA-100 / UPBA-100S \***  
600 WOG, MSS SP-110, Threaded,  
UPBA-100S with Stainless Steel  
Ball & Stem  
1/4" thru 3"

**UPBA-150 / UPBA-150S \***  
600 WOG, MSS SP-110, Solder,  
UPBA-150S with Stainless Steel  
Ball & Stem  
3/8" thru 3"

**UPBA-100 P2 / UPBA-100S P2 \***  
200 psig @ 250°F, MSS SP-110,  
Press X Press, UPBA-100S P2  
with Stainless Steel Ball  
and Stem  
1/2" thru 3"

### Full Port

**UPBA-100H \***  
600 WOG, Threaded with  
Hose-End, Cap and Chain  
1/2" and 3/4"

**UPBA-150H \***  
600 WOG, Solder with Hose-End,  
Cap and Chain  
1/2" and 3/4"

**UPBA-400 / UPBA-400S \***  
600 WOG, MSS SP-110, Threaded,  
UPBA-400S with Stainless Steel  
Ball & Stem  
1/4" thru 2"

**UPBA-450 / UPBA-450S \***  
600 WOG, MSS SP-110, Solder,  
UPBA-450S with Stainless Steel  
Ball & Stem  
3/8" thru 2"

**UPBA-100H P1 \***  
200 psig @ 250°F, MSS SP-110,  
Press X Hose-End  
1/2" and 3/4"

#### Options/Accessories

UPBA-100/150  
UPBA-400/450  
INSULATOR Handle (TIH)  
Oval Handle (OH)  
Locking Oval Handle (LO)  
Stainless-Steel Handle (SH)  
Tee Handle (TH)  
Locking Handle (LD)  
Extension Handle (XH)  
Extension Handle w/Memory Stop (XM)  
Memory Stop (MS)  
Chain Lever (CL)



UPBA-400 P2 XH



UPBA-475B



UPBA-481BXH

#### Options/Accessories

UPBA-400/450  
INSULATOR Handle (TIH)  
Oval Handle (OH)  
Locking Oval Handle (LO)  
Stainless-Steel Handle (SH)  
Tee Handle (TH)  
Locking Handle (LD)  
Extension Handle (XH)  
Extension Handle w/Memory Stop (XM)  
Memory Stop (MS)  
Chain Lever (CL)

UPBA-475B/485B  
UPBA-480B/490B  
INSULATOR Handle (TIH)  
Oval Handle (OH)  
Stainless-Steel Handle (SH)  
Tee Handle (TH)  
Extension Handle (XH)  
Extension Handle with Memory Stop (XM)  
Memory Stop (MS)

## continued 2-PIECE LEAD-FREE BRONZE BALL VALVES

**UPBA-400 P2 / UPBA-400S P2 \***  
200 psig @ 250°F, MSS SP-110,  
Press X Press, UPBA-400S P2  
with Stainless Steel Ball  
and Stem  
1/2" thru 2"

## 2-PIECE LEAD-FREE BRASS BALL VALVES\*

**UPBA-475B \*\***  
600 WOG (1/2" thru 2"), 400 WOG  
(2-1/2" thru 3"), MSS SP-110,  
UL/CSA Rated to 2", Threaded  
1/4" thru 3"

**UPBA-485B \*\***  
600 WOG (1/2" thru 2"), 400  
WOG (2-1/2" thru 3"), MSS SP-110,  
Solder  
1/2" thru 3"

### Full Port

**UPBA-480B / UPBA-480S \*\***  
200 psig @ 250°F, MSS SP-110,  
Press X Press, UPBA-480S with  
Stainless Steel Ball and Stem  
1/2" thru 4"

**UPBA-480SH \*\***  
200 psig @ 250°F, MSS SP-110,  
Press X Hose-End  
1/2" thru 3/4"

**UPBA-481B / UPBA-481S \*\***  
200 psig @ 250°F, MSS SP-110,  
Extension Stem With Memory  
Stop, Press X Press, UPBA-481S with  
Stainless Steel Ball and Stem  
1/2" thru 3"



UPBA-490B



UPBA-491B



UPBA-350

**Options/Accessories**

- UPBA-480B/490B
- UPBA-300/350
- INSULATOR Handle (TIH)
- Oval Handle (OH)
- Stainless-Steel Handle (SH)
- Tee Handle (TH)
- Extension Handle (XH)
- Extension Handle with Memory Stop (XM)
- Memory Stop (MS)
- Chain Lever (CL)

continued  
**2-PIECE**   
**LEAD-FREE BRASS**  
**BALL VALVES**

**UPBA-490B / UPBA-490S \***  
 200 psig @ 250°F, MSS SP-110,  
 Press X Threaded, UPBA-490S with  
 Stainless Steel Ball and Stem  
 1/2" thru 4"

**UPBA-490SH \***  
 200 psig @ 250°F, MSS SP-110,  
 Press X Hose  
 1/2" and 3/4"

**UPBA-491B / UPBA-491S \***  
 200 psig @ 250°F, MSS SP-110,  
 Extension Stem with Memory Stop,  
 Press X Threaded, UPBA-491S with  
 Stainless Steel Ball and Stem  
 1/2" thru 2"

**3-PIECE**   
**LEAD-FREE BRONZE**  
**BALL VALVES**

**Full Port**

**UPBA-300 / UPBA-300S \***  
 600 WOG, MSS SP-110, Threaded,  
 UPBA-300S with Stainless Steel  
 Ball & Stem  
 1/4" thru 3"

**UPBA-350 / UPBA-350S \***  
 600 WOG, MSS SP-110, Solder,  
 UPBA-350S with Stainless Steel  
 Ball & Stem  
 3/8" thru 3"

**UPBA-300 P2 / UPBA-300S P2 \***  
 200 psig @ 250°F, MSS SP-110,  
 Press X Press, UPBA-300S P2  
 with Stainless Steel Ball & Stem  
 1/2" thru 2"



UP105



UP105 P2



UP667



**LEAD-FREE BRONZE**  
**GATE VALVES**

**Non-Rising Stem**

**UP105 \***  
 300 WOG, MSS SP-80, Threaded  
 Bonnet, Threaded  
 1/4" thru 2"

**UP115 \***  
 300 WOG, MSS SP-80, Threaded  
 Bonnet, Solder  
 3/8" thru 2"

**UP105 P2 \***  
 200 psig @ 250°F, MSS SP-80,  
 Threaded Bonnet, Press X Press  
 1/2" thru 2"

**Rising Stem**

**UP148 \***  
 300 WOG, MSS SP-80, Threaded  
 Bonnet, Threaded  
 1/4" thru 2"

**UP149 \***  
 300 WOG, MSS SP-80, Threaded  
 Bonnet, Solder  
 1/2" thru 2"

**UP148 P2 \***  
 200 psig @ 250°F, MSS SP-80,  
 Threaded Bonnet, Press X Press  
 1/2" thru 2"



**LEAD-FREE BRASS**  
**GATE VALVES**

**Non-Rising Stem**

**UP667 \***  
 200 WOG, Threaded Bonnet,  
 Threaded  
 1/4" thru 2"

**UP668 \***  
 200 WOG, Threaded Bonnet,  
 Solder  
 1/2" thru 2"

\* Meets Senate law S3874. IAPMO tested and certified to NSF/ANSI 372 for "lead-free" compliance.

\*\* Meets Senate Law S3874. Tested and Certified by IAPMO R & T to NSF/ANSI 61 and NSF/ANSI 372 for "Lead Free" compliance.



UP502 P2



UP1502



UP509



UP968



UP969



## LEAD-FREE BRONZE GLOBE VALVES

**UP502 \***  
300 WOG, MSS SP-80, Threaded  
Bonnet, Threaded  
1/8" thru 2"

**UP1502 \***  
300 WOG, MSS SP-80, Threaded  
Bonnet, Solder  
3/8" thru 2"

**UP502 P2 \***  
200 psig @ 250°F, Press X  
Press, MSS SP-80, Threaded  
Bonnet, Press X Press  
1/2" thru 2"



## LEAD-FREE BRONZE CHECK VALVES

**Horizontal Swing Check**  
**UP509 \***  
300 WOG, Bronze Disc,  
MSS SP-80, Threaded  
1/4" thru 3"

**UP1509 \***  
300 WOG, Bronze Disc,  
MSS SP-80, Solder  
3/8" thru 3"

**UP509 P2 \***  
300 WOG, Bronze Disc,  
MSS SP-80, Press X Press  
1/2" thru 2"



## LEAD-FREE CHECK VALVES

**UP967 \***  
Brass, 200 WOG, Brass Disc,  
Threaded, 3/8" thru 3"

**UP968 \***  
Brass, 200 WOG, Brass Disc,  
Solder, 3/8" thru 3"

**UP969 \***  
Brass, 200 psig @ 250°F, Brass  
Disc, Press x Press, 1/2" thru 2"



UP548T P2



1400



1800



## LEAD-FREE SPRING LOAD LIFT CHECK VALVES

**UP548T \***  
PTFE Disc, 250 WOG,  
Threaded, 3/8" thru 2"

**UP1548T \***  
PTFE Disc, 250 WOG,  
Solder, 3/8" thru 2"

**UP548T P2 \***  
200 psig @ 250°F, PTFE Disc,  
Press X Press  
1/2" thru 2"

## SILENT CHECK 1400

Class 125, Wafer-Style Cast-Iron  
Body, Stainless-Steel Disc,  
Stainless-Steel Spring, Meets  
Senate Law S3874  
2" thru 10" (Also Available Class 250)  
**1800\***

Class 125, Globe-Style Cast-Iron  
Body, Stainless-Steel Disc,  
Stainless-Steel Spring, Meets  
Senate Law S3874  
2-1/2" thru 42" (Also Available Class 250)

## NON-SLAM CHECK 8800

Class 125, Wafer-Style Cast-Iron  
Body, Stainless-Steel Double Disc  
2" thru 16"



## LEAD-FREE BRONZE SLO- CLOSE SPRINKLER- CONTROL VALVE INDOOR/OUTDOOR

**UPBBTSCW**  
175 psig, UL/FM, Slo-Close with  
Position Indicator, IAPMO Tested  
and Certified, Less Tamper  
Switch, NPT-Threaded Ends  
1" - 2"

**UPBBTSCS02W**  
NPT-Threaded Ends, 175 psig, UL/  
FM, Slo-Close with Position  
Indicator, Tamper Switch  
1" thru 2"



UPBBTSCS02W



HP1LSS WITH GEAR OPERATOR

## LEAD-FREE HIGH PERFORMANCE BUTTERFLY

**HP1LSS4212/HP3LSS4212/  
HP1LLSS4213/HP3LSS4213**  
Stainless Steel Body, Lug Style,  
Stainless Steel Disc, RPTE  
Seat, bi-directional dead-end  
service and double offset design.  
ANSI Class 150 and 300 available  
in sizes 2 1/2" - 24". Certified by  
IAPMO R&T to NSF/ANSI 61 and  
NSF/ANSI 372 for low lead  
requirements.



## LEAD-FREE COMMERCIAL BUTTERFLY

**ML133E/233E/333E**  
Cast Iron Body, Lug Style,  
Aluminum Bronze Disc,  
EPDM Liner, Bi-Directional  
Dead-End Service 200 psig Max  
2" thru 12"

**ML133E/333E**  
Cast Iron Body, Lug Style,  
Aluminum Bronze Disc,  
EPDM Liner,  
Bi-Directional Dead-End Service  
200 psig Max 2" thru 12",  
Uni-Directional Dead-End Service  
150 psig Max  
14" thru 24"

**CL Series**  
Cast Iron Body, Lug Style,  
Aluminum Bronze Disc,  
EPDM Liner, Bi-Directional  
Dead-End Service 200 psig Max  
2" thru 12", Uni-Directional  
Dead-End Service 150 psig Max  
14" thru 24"



ML133E



CL323E



2882-MRWSQ



2885-MRW



## LEAD-FREE IRON GATE

**2885M26**  
125 SWP 200 WOG, OS & Y, All  
Iron, MSS SP-70  
M Available 2" thru 12"

**2882-MRW, 2882-MRWSQ**  
UltraPure Low Lead Iron  
300 psi, MSS SP-70  
2" thru 16"

**2885-MRW**  
UltraPure Low Lead Iron  
300 psi, OS & Y MSS SP-70  
2 1/2" thru 16"

## LEAD-FREE IRON CHECK

**2974M26**  
125 SWP 200 WOG, All Iron,  
M Available 2" thru 24"



# Stop the hammer.

## Protect Sprinkler Systems With Slo-Close Butterball® Valves.

Sudden changes in water flow give pipes a pounding. To avoid water hammer damage, use newly improved Slo-Close Butterball® Valves. A more efficient, more reliable design in a lower profile gearbox gives you better performance and easier installation and access. These one-piece full port valves provide triple-seal protection using a unique seal-welded disc and stainless steel stem.

Slo-Close Butterball valves can be ordered with a built-in supervisory switch. Lead-free\* UltraPure options are also available, for compliance in fire protection systems charged off of potable water lines.

- Available in 1" - 2½" (threaded end) and 2" - 2½" (grooved end) sizes. The lead-free UltraPure Butterball is available in 1" - 2" (threaded end).
- Internal tamper switch (indoor/outdoor use) signals disc movement.
- UL and FM approved for up to 175 PSI.
- Approved by NYC Board of Standards & Appeals for 350 PSI in hi-rise buildings.

For powerful shock control, use Slo-Close Butterball Valves. Download a BB-SC spec sheet at [www.MilwaukeeValve.com](http://www.MilwaukeeValve.com) to help hammer out your next fire protection system.

The Milwaukee Valve logo, UltraPure and Butterball are registered trademarks of Milwaukee Valve Co., Inc.  
\* Meets Senate law S3874. IAPMO tested and certified to NSF/ANSI 372 for "lead-free" compliance.  
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Triple seal  
EPDM insert  
seals bubble tight.



**MILWAUKEE VALVE**

[www.UltraPureNoLeadValves.com](http://www.UltraPureNoLeadValves.com)  
[www.MilwaukeeValve.com](http://www.MilwaukeeValve.com)  
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# Pressed for time?

JUST PRESS, CRIMP AND TRIPLE YOUR PRODUCTIVITY<sup>1</sup>.

Reduce installation time up to 68% with Milwaukee Valve's extensive new line of UltraPress<sup>®</sup> press-connection valves. Perfect for potable water, HVAC and inert gas systems, UltraPress<sup>®</sup> valves quickly install without brazing, soldering or special tools. With no open flame required, water service connections can be made wet or dry for faster, easier repairs. Plus, UltraPress eliminates heat-installation costs like solder, flux, propane torches, oxygen/gas bottles and "hot" work permits.

Available in fully annealed brass, bronze and lead-free<sup>2</sup> UltraPure<sup>®</sup> alloys—in ball, gate, globe and check styles—you're sure to find the valves you need. Accessories, too, like extension, INSULATOR/MS<sup>®</sup> and lockout handles.

See the full line of UltraPress products, additional features, full specifications, and a downloadable brochure at [www.UltraPressValves.com](http://www.UltraPressValves.com).

<sup>1</sup> Estimate based on MCAA's WebLEM (Web-based Labor Estimating Manual).

<sup>2</sup> Lead content less than 0.25%, defined as lead-free by US Senate Bill S.3874.

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[www.MilwaukeeValve.com](http://www.MilwaukeeValve.com) • [www.UltraPressValves.com](http://www.UltraPressValves.com)





P-2056

## HOSE NOZZLE

### P-202

Bronze, Overwing Aircraft Refueling, Tank Trucks, Bronze Internal Parts, 2 Stage Fulcrum Lever, Balanced Dashpot Control, Dual Disc, Less Strainer, Cap, and Cable  
1-1/2", 2", 2-1/2" x 2"

### P-2056

Aluminum, Aircraft Refueling, Cushion Close, Tank Trucks, 135 GPM 25 psig Inlet Nozzle Pressure, Aluminum & Stainless Internal Parts, Conforms to MIL-N-87963 Type MD-3  
2"



P-2855E

## BUTTERFLY

### P-2855E

Aluminum, EPDM Liner, Tank Trucks, Bulk Plants, Dry Bulk Plants, 90° Arc, Quick Open, Available with Ductile Iron or Stainless Disc  
2" thru 6"

### P-2855H

Aluminum, Hydrin Liner, Tank Trucks, Bulk Plants, Dry Bulk Plants, 90° Arc, Quick Open, Available with Ductile Iron or Stainless Disc  
2" thru 6"

### P-2860H

Aluminum, Tank Trucks, Bulk Plants, Dry Bulk Plants, 90° Arc, Quick Open, Hydrin Liner for Air Lines and a Wide Variety of Chemicals to 300°F, Discs are Stainless Steel  
2" thru 4"



C-35551

## GATE

### C-35551 / 5551

Aluminum, Bronze Trim, Tank Trucks, Bulk Plants, Filling Stations, Rising Stem, Double Disc, Bolted Bonnet, Round Flange Ends  
3" thru 6"

### P-2699RF

Aluminum, Transport Tank, Bulk Plants, Filling Stations, Rising Stem, Split Wedge Disc, Bolted Bonnet, Round Flange Ends  
4"

### P-2671

Bronze, Tank Trucks, Bulk Plants, Filling Stations, Rising Stem, Double Disc, Threaded Bonnet, Flange Ends  
2"



P-900

### P-900

Bronze, Quick Opening, Hazardous Liquid, 150 SWP, Lever Operated, Double Disc, Gland Packed  
1" thru 3"

### P-901

Bronze, Quick Opening, Double Disc, Gland Packed, 150 SWP, 300 lb. WOG, Lever Operated  
1/2" thru 4"



P-902

### 902

Bronze, Quick Opening, Tank Trucks, Bulk Plants, 150 WOG, Lever Operated, Double Disc, O-Ring Stem Packed  
3/4" and 1-1/4"



P-509

## CHECK

### P-509

Bronze, Horizontal Swing, Tank, Dry Bulk Trucks, Bronze Disc, Threaded Cap, Threaded Ends  
1/4" thru 3"

### P-509S

Bronze, Horizontal Swing, Tank, Dry Bulk Trucks, Composition Disc, Threaded Cap, Threaded Ends  
1/4" thru 2"

### P-2519A

Swing Check, Aluminum, Dry Bulk Transports, Tank Truck, Aluminum Disc with Viton Seat, 150 WOG  
3"

### P-717F

Angle Lift Check, Aluminum, 125 psig WOG at 100°F, 25 psig WOG at 350°F, Square Bolted Cap, Square Flange, Viton Disc  
2-1/2"

### P-717S

Angle Check, Bronze, 125 psig, WOG at 100°F, 25 psig WOG at 350°F, Threaded Cap, Viton Disc, Threaded Ends,  
2"

### P-728

Lift Check, Aluminum, Dry Bulk Transports, Tank Trucks, 125 psig WOG at 100°F, 25 psig at 350°F, Spring Loaded, Viton Disc, Threaded Ends  
3"

### P-729

Lift Check, Aluminum, Dry Bulk Transports, Tank Trucks, 125 psig WOG at 100°F, 25 psig at 350°F, Spring Loaded, Viton Disc, Flanged Ends  
3"



P-717



P-728



P-612A

## RELIEF

### P-612A

Aluminum, Bulk Tank Truck, Pneumatic Conveyor Systems, Railroad Dry Bulk Tanks, NPT Threaded Inlet, Settings from 6 psig to 30 psig  
2"

# TRANSFORMER/SAMPLER VALVES



505-001

## GLOBE SAMPLER VALVES

**505-001**  
Bronze Body, 200 WOG, Threaded Ends, Teflon Disc, 1/2", 3/4", 1", 1-1/2", 2"

**505-202**  
Bronze Body, 200 WOG, Teflon Disc, Threaded Ends, Complete with 3/8" Sampling Device 1", 1-1/2", 2"

**506-202**  
Bronze Body, Offset Flange Inlet, Threaded Outlet, Teflon Disc, 300 WOG, Complete with 3/8" Sampling Device 1" and 2"



P-2641

## GATE SAMPLER VALVE

**P-2641**  
Bronze Body, 300 WOG, Flanged Ends, Solid Wedge, Screwed Bonnet, Non-Rising Stem With Gland Packing, Available with 3/8" Sampling Device P2641B3 2"

# FLOW CONTROL AND MEDICAL GAS VALVES



FC200



FC300

## CONTROL VALVES

**FC200 Series**, Brass, 2-Way, 600 WOG, Linear Characteristics, Integral Mounting Pads, Sizes 1/2" - 2"

**FC300 Series**, Brass, 3-Way, 600 WOG, Linear Characteristics, Integral Mounting Pads 1/2" - 2"



MG SERIES

## MEDICAL GAS VALVES\*

**MG Series**, 3-Piece Bronze Ball Valve with Extended Copper-Tube Ends, customized to meet individual requirements 1/2" - 2"

# ENGINEERING & DESIGN CAPABILITIES

## QUALITY IS MORE THAN WHAT MEETS THE EYE.

For the most part, engineering is invisible. Engineers or contractors know what a valve looks like, and knows what it does, but typically, they can't see the superiority designed into each and every Milwaukee Valve product. Milwaukee Valve demands excellence in our engineering department, with groups operating in each of our facilities to support the manufacturing of all products. These engineers provide design services as well, translating the critical specifications and processes into manufactured items – a key step where other suppliers, without our depth of experience, often fall flat.

Milwaukee Valve's well-staffed engineering department is supported by state-of-the-art computer tools, from 3D design using Solidworks, to finite element analysis (FEA) using COSMOS, to computational fluid dynamics (CFD) using CF Design software, to automated data acquisition in our laboratories using Labview. We operate our own fire-test facility to help us achieve and maintain the most advanced fire-safe designs to the latest API and other standards.



Milwaukee Valve's background in the Commercial and Plumbing markets should provide you with confidence to entrust your most difficult engineering applications to our experienced staff, helping you grow your business and providing you with the great service you deserve.

If you have a service that is constantly causing you concern, give us a call. Our application engineering and technical service teams stand ready to help.



We translate our 3D designs directly to tool paths, both on our shop floor and in our pattern shop, which supports our in-house foundry operation. These capabilities also service our engineering and contracting customers, who use these models in their equipment and building designs.

In addition, Milwaukee Valve has extensive experience in the development of products for specific OEMs or demanding service conditions. Some are minor modifications to existing products. Others are turnkey product-development projects designed to meet the demanding safety needs or harsh application requirements of a specific user.

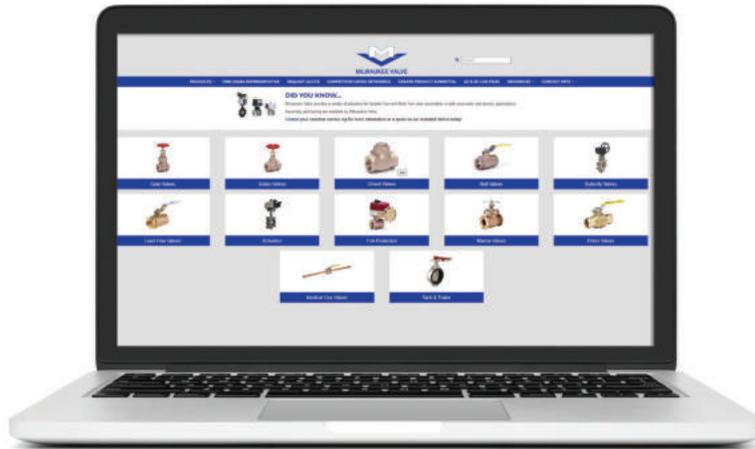
For more information on our capabilities or assistance with a specific problem, contact your Milwaukee Valve sales representative [MilwaukeeValve.com/find-sales-rep](http://MilwaukeeValve.com/find-sales-rep). Their experience and industry knowledge will simplify finding a solution to your product and application requirements.



This condensed catalog is not a complete depiction of Milwaukee Valve's products or capabilities. Please contact the factory for special service conditions or additional accessories and options.

## WEBSITE REDUCES ERRORS AND SAVES TIME

Simplify your projects and reduce ordering errors by building your own valves, courtesy of Milwaukee Valve's online Advanced Search feature.



You know the service, and Milwaukee Valve has the valves and the options to solve your service issues. Found at [www.MilwaukeeValve.com](http://www.MilwaukeeValve.com), the Advanced Search function acts as an online configurator, laying out all available options in one easy-to-use format. You select the type of valve you require, and choose the available materials, sizes, options, etc. Once all options are selected, you are given the model numbers for the valves that meet your criteria. When you know exactly what you are ordering, the result is fewer returns, lower shipping costs, and all-around time savings. The Advanced Search is especially beneficial in selecting Butterfly and Industrial valves, which both offer thousands of different valve and option combinations.

In addition, the website contains specification data for virtually every Milwaukee Valve product, and has the capacity to produce product submittals, access 2D and 3D CAD files, and is a repository for a wide variety of product information, including price lists, literature downloads, technical service bulletins, competitive cross reference and even provides links to YouTube instruction and installation videos.

And if you require assistance in selecting a valve, ball, seat, actuation or any of many other options, assistance is available from your Milwaukee Valve sales representative. Try it out at [www.MilwaukeeValve.com](http://www.MilwaukeeValve.com).



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