

# Plumbing Valves



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Technical Support

1



Quality Control Program

### **BALL VALVES**

### **BRASS AND NO LEAD BRASS FULL PORT BALL VALVES**

**0827-NL Series** 1/4" - 4" Threaded (FPT) **0827C-NL Series** 1/2" - 4" CxC (Sweat)

**0827\* Series** 1/4" - 4" Threaded (FPT)

**0827C\* Series** 1/2" - 4" CxC (Sweat)

- 1/4" thru 2" rated 600 PSI CWP, 2-1/2" thru 4" rated 400 PSI CWP
- WSP (Working Steam Pressure) Rating: 150 PSI Saturated Steam
- Max Temp Rating: 300°F (150°C)
- Solid Stainless Steel Ball sizes 1/4" through 1"
- Hollow Stainless Steel Ball sizes 1-1/4" through 4"
- Forged brass body
- Blow-out proof stem
- PTFE Seats / PTFE Stem packing
- Zinc plated steel handle with yellow plastic sleeve
- NSF/ANSI Standard 61 & 372\* Certified (\* no lead series only)
- cUPC Standard IGC 157 Certified: 1/4" to 2" FPT and CxC
- CSA listed to the following standards, applies to 1/4" to 2" FPT only

ANSI Z21.15 & CGA 9.1: 1/2 PSIG (1/2PSI) ASME B16.44 & CGA/CR91-002: 5 PSIG (5G)

ASME B16.33 & CAN/CGA 3.16: 125 PSIG (BRS125G / CAN 3.16)

UL listed to the following standards, 1/4" to 2" FPT and CxC

UL 1477 (YQNZ): Compressed gas shutoff valves - 600 PSI (1/4" to 1") 300 PSI (1-1/4" to 2")

UL 842 (YRBX): Flammable liquid shutoff valves - 600 PSI (1/4" to 1") 300 PSI (1-1/4" to 2")

UL 842 (YRPV): Gas shutoff valves - 600 PSI (1/4" to 1") 300 PSI (1-1/4" to 2")

UL 842 (MHKZ): Manual valves - 600 PSI (1/4" to 1") 300 PSI (1-1/4" to 2")

UL 125 (YSDT): LP-Gas shutoff valves - 600 PSI (1/4" to 1") 300 PSI (1-1/4" to 2")

- FM Standard 1140 Certified: 1/4" to 2" FPT and CxC
- \* 0827 & 0827C Series Not for Conveying Potable Water

### NO LEAD BRASS FULL PORT BALL VALVES

**0825-NL Series** 1/4" - 2" Threaded (FPT) **0825C-NL Series** 1/2" - 2" CxC (Sweat)

- Threads conform to ANSI / ASME B1.20.1
- 1/4" thru 2" rated 600 PSI CWP
- Temperature Range: -20 to 300°F (-28 to 150°C)
- Solid Chrome Plated No Lead Brass Ball sizes 1/4" through 3/4"
- Cored Stainless Steel Ball sizes 1" through 2"
- Forged full port brass body
- PTFE Seats / PTFE Stem Packing
- Blow-out proof stem
- Zinc plated steel handle with yellow plastic sleeve
- NSF/ANSI Standard 61 & 372 Certified
- cUPC Standard IGC 157 Certified
- CSA listed to the following standards, applies to 1/4" to 2" FPT only
- ASME B16.44 & CGA/CR91-002: 5 PSIG (5G)

#### NO LEAD BRASS FULL PORT BALL VALVE WITH DRAIN

**082WD-NL Series** 1/2" - 1" Threaded (FPT)

- Max Pressure Rating: 600 PSI CWP
- Max Temp Rating: 300°F (150°C)
- Chrome plated ball
- Forged brass body
- Blow-out proof stem
- Zinc plated steel handle with blue plastic sleeve
- PTFE Seats / PTFE Stem packing
- NSF/ANSI Standard 61 & 372 Certified
- cUPC Standard IGC 157 Certified





Third Party Certified to NSF / ANSI 372





# **BALL VALVES**



#### **BRASS FULL PORT FORGED LOCKING HANDLE BALL VALVES**

**0826LH Series** 1/4" - 4" Threaded (FPT)

- 1/4" thru 2" rated 600 PSI CWP, 2-1/2" thru 4" rated 450 PSI CWP
- WSP (Working Steam Pressure) Rating: 150 PSI Saturated Steam
- Max Temp Rating: 350°F (176°C)
- Chrome plated ball
- Forged brass body
- Blow-out proof nickel plated stem
- Zinc plated steel locking handle with blue plastic sleeve
- PTFE Seats / Two Viton O-rings at the stem for maximum safety
- Manufactured according to MSS SP-110
- NSF/ANSI Standard 61 Certified
- CSA listed to the following standards, applies to 1/4" to 2"

ANSI Z21.15 & CGA 9.1: 1/2 PSIG (1/2PSI)

ASME B16.44 & CGA/CR91-002: 5 PSIG (5G)

ASME B16.33 & CAN/CGA 3.16: 125 PSIG (BRS125G / CAN 3.16)

UL listed to the following standards,

UL 258 (VQGU): Trim and drain valves - 600 PSI (1/4" to 2")

UL 1477 (YQNZ): Compressed gas shutoff valves - 600 PSI (1/4" to 2") 450 PSI (2-1/2" to 4")

UL 842 (YRBX): Flammable liquid shutoff valves - 600 PSI (1/4" to 2") 250 PSI (2-1/2" to 4")

UL 842 (YRPV): Gas shutoff valves - 600 PSI (1/4" to 2") 250 PSI (2-1/2" to 4")

UL 842 (MHKZ): Manual valves - 600 PSI (1/4" to 2") 250 PSI (2-1/2" to 4")

UL 125 (YSDT): LP-Gas shutoff valves - 600 PSI (1/4" to 2") 450 PSI (2-1/2" to 4")

CRN Registered 0C0966

\* 0826LH Series Not for Conveying Potable Water

### NO LEAD BRASS STANDARD PORT COMPRESSION BALL VALVES

**082CPND-NL Series** 1/2" - 1" Compression No Drain

**082CP-NL Series** 1/2" - 1" Compression c/w Drain

- Max Pressure Rating: 200 PSI CWP
- Max Temp Rating: 300°F (150°C)
- Forged brass body
- Chrome plated ball
- Zinc plated steel handle with blue plastic sleeve
- PTFE Seats / PTFE Stem packing
- Blow-out proof stem
- NSF/ANSI Standard 61 & 372 Certified
- cUPC Standard IGC 157 Certified

Standard compression valves can be used to make connections between Copper, Brass, Aluminum, Plastic, CPVC & Pex tubing. Not recommended for use with steel tubing. They are designed for use with tube manufactured to CTS-OD copper tubing sizes (outside diameter controlled). NOTE: A brass insert must be inserted into Soft Copper, Aluminum, Plastic, CPVC & Pex tubing to put 360° of even pressure on the tubing, to make a round rigid profile that will ensure a tight seal.

**NOTE:** Handles are available. Please contact your Sales Rep.

#### NO LEAD BRASS STANDARD PORT PUSH FIT BALL VALVES

**082PF-NL Series** 1/2" - 1" Push Fit (PF)

082PF-WDNL Series 1/2" - 1" Push Fit with Drain

- Max Pressure Rating: 200 PSI WOG
- Max Temp Rating: 200°F (93°C)
- Forged brass body
- Blow-out proof stem
- Chrome plated ball
- PTFE Seats / PTFE Stem packing
- Zinc plated steel handle with blue plastic sleeve
- Stainless steel gripper ring and EPDM O-ring seal for Copper, PEX, CPVC installation
- Integral tube stiffener for PEX installations
- NSF/ANSI Standard 61 & 372 Certified
- ASSE Standard 1061-2006 Certified









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### **BALL VALVES**

#### NO LEAD BRASS STANDARD PORT PEX BALL VALVES

**0821P-NL Series** 3/8" - 1" PEX

**0821WDP-NL Series** 1/2" - 3/4" PEX with Drain

- Max Pressure Rating: 400 PSI CWP
- Max Temp Rating: 203°F (95°C)
- Forged brass body
- Chrome plated ball
- Zinc plated steel handle with blue plastic sleeve
- PTFE Seats / PTFE Stem packing
- Blow-out proof stem
- NSF/ANSI Standard 61 & 372 Certified
- cUPC Standard IGC 157 Certified



#### **#304 CF8 STAINLESS STEEL FULL PORT BALL VALVES**

SSBV304 Series 1/4" - 4" Threaded (FPT)

- For water well, plumbing, irrigation and other light duty applications, not to be used in steam, chemical or industrial applications.
- Max Pressure Rating: 1000 PSI CWP
- Max Temp Rating: 14 to 248°F (-10 to 120°C)
- Two piece full port investment cast 304 stainless steel body
- Blow-out proof stem
- Solid Stainless Steel Ball sizes 1/4" through 1-1/4"
- Hollow Stainless Steel Ball sizes 1-1/2" through 4"
- PTFE Seats/PTFE Stem packing
- Stainless steel handle with blue plastic sleeve
- NSF/ANSI Standard 372 Certified



- Max Temp Rating: 450°F (232°C)
- Two piece full port investment cast 316 stainless steel body with mounting pad
- Stainless steel ball
- Blow-out proof stem
- PTFE Seats/PTFE Stem packing
- Stainless steel locking handle with blue plastic sleeve
- NSF/ANSI Standard 372 Certified

#### SSBV1000 Series 1/4" - 3" Threaded (FPT)

 Max Pressure Rating: 1000 PSI Non-Shock based on ambient temperature

#### SSBV2000 Series 1/4" - 2" Threaded (FPT)

 Max Pressure Rating: 1/4" thru 1" rated 2000 PSI 1-1/4" thru 2" rated 1500 PSI Non-Shock based on ambient temperature

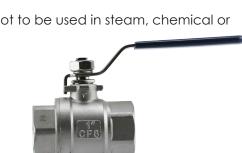
NOTE: Handles are available. Please contact your Sales Rep.



**0828-NL Series** 1/8" - 1/4" Threaded (FPT)

**0828-xxMxxFNL Series** 1/8" - 1/4" Threaded (MPT x FPT)

- Max Pressure Rating: 600 PSI CWP
- Max Temp Ratina: 180°F (82°C)
- Forged brass body
- Chrome plated ball
- PTFE Seats / PTFE Stem packing
- Red tee handle
- NSF/ANSI Standard 372 Certified



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### **GATE VALVES**



#### **BRASS AND NO LEAD BRASS FULL PORT GATE VALVES**

**0818-NL Series** 1/4" - 4" Threaded (FPT) **0818C-NL Series** 1/2" - 2" CxC (Sweat) **0818\* Series** 1/4" - 4" Threaded (FPT)

- Max Pressure Rating: 200 PSI WOG
- Max Temp Rating: 150°F (66°C)
- Cast brass body
- Non-rising stem
- PTFE Packing
- Black cast hand wheel
- NSF/ANSI Standard 372 Certified (NL series)
- \* 0818 Series Not for Conveying Potable Water





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### **GAS VALVES**



- Max Pressure Rating: 250 PSI
- Max Temp Rating: -4°F to 149°F (-20°C to 65°C)
- Two piece forged brass body
- Blow-out proof stem
- Yellow handle
- Ball Seat Material: PTFE
- CSA listed to the following standards, ANSI Z21.15 & CGA 9.1: 1/2 PSIG (1/2PSI)
   ASME B16.44 & CGA/CR91-002: 5 PSIG (5G)

#### FORGED BRASS GAS VALVES

**0832 Series** 3/8" - 1" Threaded (FPT x FPT)

**0833 Series** 1/2" Threaded x Flare (FPT x Flare)

**0834 Series** 1/2" Threaded x Flare (MPT x Flare)

**0835 Series** 3/8" - 1/2" Flare (Flare x Flare)

- Stem Packing Material: Dual NBR O-Ring except the following 0832-10, 0834-0503 & 0834-0505 packing is PTFE
- UL listed to the following standards,

UL 842 (YRPV): Gas shutoff valves - 250 PSI UL 842 (MHKZ): Manual valves - 250 PSI

UL 125 (YSDT): LP-Gas shutoff valves - 250 PSI

### FORGED BRASS GAS VALVES WITH 1/8" PILOT TAP

**0832TP Series** 1/2" - 3/4" Threaded (FPT x FPT) **0835TP Series** 3/8" - 1/2" Flare (Flare x Flare)

 Side Tapped 1/8" for connection to a manometer which allows line pressure to be tested at the valve, eliminating the need for an additional test tee. All pilot tap valves come with a brass plug

Stem Packing Material: PTFE

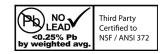




## **BITAL CHROME PLATED SUPPLY STOP VALVES - 1/4 TURN**

- Sweat connections conform to ANSI B16.18
- CPVC connections conform to ASTM D2846
- PEX connections conform to ASTM F1807
- Push Fit connections conform to ASSE 1061
- Compression connections conform to SAE J512
- Cold Expansion PEX connections conform to ASTM F1960
- Threads conform to ANSI/ASME B1.20.1
- Max Pressure Rating: 125 PSI
- Max Temperature Rating: 180°F (82°C)
- Chrome Plated No Lead Brass Body
- Double EPDM O-Ring Stem Packing
- PTFE Seats
- Chrome Plated ABS Handle
- NSF/ANSI Standard 61 & 372 Certified
- CSA Standard B125.1 Certified

Straight Design
Angle Design
Dual Outlet Design
Dual Outlet Dual Shut-Off Multi Turn Design
Ice Maker
Washing Machine - Angle Design





Standard compression valves can be used to make connections between Copper, Brass, Aluminum, Plastic, CPVC & PEX tubing. Not recommended for use with steel tubing. They are designed for use with tube manufactured to CTS-OD copper tubing sizes (outside diameter controlled).

NOTE: A brass insert must be inserted into Soft Copper, Aluminum, Plastic, CPVC & PEX tubing to put 360° of even pressure on the tubing, to make a round rigid profile that will ensure a tight seal.

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# **BRASS BENT HOSE / SILLCOCK**

- Max Pressure Rating: 125 PSI
- Max Temp Rating: 160°F (71°C)
- Seat material: Rubber (NBR)
- CSA Standard B125.1 Certified

# NO LEAD BRASS BENT HOSE GARDEN VALVE 0872-NL Series

- Packing material: Graphite
- NSF/ANSI Standard 372 Certified
- Green rubber coated handle

### NO LEAD BRASS SILLCOCK 0873-NL Series 0873C-NL Series

Packing material: Rubber (NBR)





LEAD

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### **HOSE BIBBS**



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#### NO LEAD ROUGH BRASS HOSE BIBB

0871-NL Series 0874-NL Series

■ Max Pressure Rating: 125 PSI Max Temp Rating: 160°F (71°C) Packing material: Rubber (NBR)

Seat material: Rubber (NBR)

NSF/ANSI Standard 61 & 372 Certified

Brass plated tee handle



■ Max Pressure Rating: 200 PSI Max Temp Rating: 180°F (82°C)

Packing material: Rubber (NBR) O-ring

Seat material: PTFE

NSF/ANSI Standard 61 & 372 Certified

Black tee handle

### STAINLESS STEEL HOSE BIBB - 1/4 TURN **SSHB52 Series** SSSF52 Series

Max Pressure Rating: 200 PSI Max Temp Rating: 248°F (120°C)

Packing material: PTFE Seat material: PTFE

NSF/ANSI Standard 372 Certified

304 stainless steel construction

### **PLASTIC HOSE BIBB**

#### **PHB Series**

■ Max Pressure Rating: 145 PSI Max Temp Rating: 180°F (82°C)

Packing material: Rubber (NBR)

Seat material: PTFE White ABS construction

• Red tee handle

#### NO LEAD BRASS HOSE BIBB - NO KINK

■ Max Pressure Rating: 125 PSI

 Max Temp Rating: 160°F (71°C) Seat material: Rubber (NBR)

NSF/ANSI Standard 61 & 372 Certified

CSA Standard B125.1 Certified

### 0875-NL Series 0875F-NL Series

Packing material: Rubber (NBR)

Brass plated tee handle

#### 0875H-NL Series 0875HF-NL Series

Packing material: Graphite

Green epoxy coated tee handle













# BILL

### SEDIMENT FAUCETS / BOILER DRAINS

#### NO LEAD BRASS SEDIMENT FAUCETS - O-RING DESIGN

**0845SF-NL Series** 1/2" - 3/4" Threaded (MPT x MGHT)

0845SFA-NL Series (Angle Valve) 1/2" - 3/4" Threaded (MPT x MGHT)

**0846SF-NL Series** 1/2" - 3/4" Threaded (MPT x MGHT)

Max Temp Rating: 160°F (71°C)

Max Pressure Rating: 125 PSI

Packing material: Rubber (NBR) O-ring

Seat material: Rubber (NBR)

NSF/ANSI 372 Certified

CSA B125.1 Certified

#### **BOILER DRAINS**

**0853-NL Series** 1/2" - 3/4" Threaded (MPT x MGHT)

**0853F-NL Series** 1/2" - 3/4" Threaded (FPT x MGHT)

**0851P-NL Series** 1/2" PEX (PEX x MGHT)

**0851\* Series** 1/2" - 3/4" Threaded (MPT x MGHT)

Max Temp Rating: 212°F (100°C)

Max Pressure Rating: 125 PSI

Packing material: Rubber (NBR)

Black cast hand wheel

Seat material: Rubber (NBR)

CSA B125.1 Certified

NSF/ANSI 61 Certified

\* 0851 Series Not for Conveying Potable Water



NO LEAD

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# BII

# STOP / STOP & WASTE

### NO LEAD BRASS STOP/STOP & WASTE VALVES

**0843-NL Series** 1/2" - 3/4" Threaded Stop Valves

**0843C-NL Series** 1/2" - 3/4" CxC Stop Valves

**0844-NL Series** 1/2" - 3/4" Threaded Stop & Waste

**0844C-NL Series** 1/2" - 3/4" CxC Stop & Waste

**0844CPR-NL Series** 1/2" - 3/4" Compression Stop & Waste

- Max Temp Rating: 180°F (82°C)
- Packing material: Rubber (NBR)
- Black cast hand wheel
- NSF/ANSI 61 & 372 Certified

Standard compression valves can be used to make connections between Copper, Brass, Aluminum, Plastic, CPVC & Pex tubing. Not recommended for use with steel tubing. They are designed for use with tube manufactured to CTS-OD copper tubing sizes (outside diameter controlled). NOTE: A brass insert must be inserted into Soft Copper, Aluminum, Plastic, CPVC & Pex tubing to put 360° of even pressure on the tubing, to make a round rigid profile that Aluminum, Plastic, CPV will ensure a tight seal.



# BII

### **SWING CHECK VALVES**

0806xx11NL Series 1/2" - 4" Threaded (IPS) 0806xx12NL Series 1/2" - 3" CxC (Sweat)

- Max. Working Pressure: 200 PSI WOG
- Cast Brass body, disc and cap
- Brass rod pin and screw
- Max. Working Temperature 212°F (100°C)
- Threads to ANSI B1.20.1
- CxC to ANSI B16.18









### **WALL HYDRANTS / LAWN FAUCETS**



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- Max Pressure Rating: 125 PSI
- Black cast handle
- CSA Standard B125.1 Certified

0865-NL Series 0865P-NL Series 0865\* Series 0865P\* Series

- Max Temp Rating: 140°F (60°C)
- Built in spring loaded check valve for back flow prevention
- Packing material: Rubber (NBR)
- Seat material: Rubber (NBR)
- Chrome plated body and tube
- NSF/ANSi Standard 61 & 372 Certified (\* no lead series only)
- Plastic mounting flange included
- ASSE Standard 1019 Certified
- \* 0865 & 0865P Series Not for Conveying Potable Water



### 08QTWH05-NL Series 08QTWH07-NL Series 08QTWH05P-NL Series

The 08QTWH- series has a built in spring loaded check valve for back flow prevention

- Max Temp Rating: 140°F (60°C)
- Packing material: Rubber (NBR)
- Seat material: Viton O-ring
- Chrome plated body and tube
- Plastic mounting flange included
- NSF/ANSI Standard 61 & 372 Certified
- ASSE Standard 1019 Certified



#### 0861-NL Series

- Max Temp Rating: 120°F (48°C)
- Packing material: Rubber (NBR)
- Seat material: Rubber (NBR)
- Chrome plated body and tube
- NSF/ANSI Standard 61 & 372 Certified
- Plastic mounting flange included

#### 0861BR-NL Series

- Max Temp Rating: 140°F (60°C)
- Packing material: Rubber (NBR) O-ring
- Seat material: Rubber (NBR)
- Brass finish
- NSF/ANSI Standard 372 Certified



# BRASS AND NO LEAD BRASS VACUUM BREAKER BILL

- Complete with a break away set screw
- CSA Standard B64.2 Certified
- ASSE Standard 1011 Certified

**0881-NL Series** 3/4" Threaded (MGHT x FGHT) **0881 Series** 3/4" Threaded (MGHT x FGHT)

- Standard 3/4" female hose thread for inlet connection
- Standard 3/4" male hose thread for outlet connection

#### **0882-NL Series** 3/4" Threaded (MHT x FHT)

 Automatically self-drain when all hose attachments are removed, protecting the valve or faucet from freezing in colder weather.





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## RII

### **BALL VALVES**

#### **PVC BLOCKED TRUE UNION BALL VALVES**

- Threads conform to ANSI/ASME B1.20.1
- Slip connections conform to ASTM D2466
- Working Temperature Range: 41°F to 122°F (5°C to 55°C)
- Max Pressure Rating: 150 PSI @ 73°F(22°C)

#### **0924 Series** 1/2" - 2" Threaded (FPT)

- Grey PVC body, suitable for both schedule 40 & 80 pipe
- Seal material: EPDM O-ring
- Seat material: PTFE
- Ends are blocked with bayonet style lock to prevent ball from being blown out
- Blue ABS handle is equipped with removable spanner device
- Shipped complete with both thread and slip interchangeable connections
- Double union/double block design permits in-line maintenance without disconnecting pipe

**0925-NL Series** 1/2" - 4" EPDM "O" Ring Seal **0926 Series** 1/2" - 4" VITON "O" Ring Seal

- Seat material: PTFE
- Double union / double block design permits in-line maintenance without disconnecting pipe
- Ends are blocked with bayonet style lock to prevent ball from being blown out
- Blue (0925-NL) or Red (0926) ABS handle is equipped with removable spanner device
- NSF/ANSI Standard 61 & 372 Certified (0925-NL series only)
- Shipped complete with both thread and slip interchangeable connections

#### **PVC SINGLE UNION BALL VALVES**

**0933 Series** 1-1/2" - 2" Threaded (FPT)

0933\$ Series 1-1/2" - 2" Slip

- White PVC body, suitable for both schedule 40 & 80 pipe
- Seal material: EPDM O-ring
- Seat material: EPDM

#### **MOLDED-IN-PLACE BALL VALVE**

- Working Temperature Range 32°F to 122°F (0°C to 50°C)
- 150 PSI Working Pressure at 73°F (22°C)
- Suitable for both Schedule 40 and 80 PVC Pipe

**0929 Series** 1/2" - 4" Threaded (FPT)

**0929S Series** 1/2" - 4" Slip

NSF/ANSI Standard 372 Certified

0921 Series 1/2" - 4" Threaded (FPT) NSF APPROVED 1/2" TO 2" ONLY

0921S Series 1/2" - 4" Slip NSF APPROVED 1/2" TO 2" ONLY

0923 Series 1/2" - 2" Threaded (FPT) NOT NSF APPROVED

0923S Series 1/2" - 2" Slip NOT NSF APPROVED

- Shock-resistant PVC body, ball and handle. (2-1/2" 4" have polypropylene ball)
- NSF/ANSI Standard 61 & 372 Certified (0921/0921S series only)

NOTE: EPDM seats are recommended for most cold water system applications. PTFE seats are chlorine and chemical resistant and are recommended for most pool/spa applications.

# CPVC HOT WATER SYSTEM BALL VALVES 0922CTS Series 1/2" - 2" Threaded (CTS x CTS)

- High heat resistance Max. Service Temperature Continuous 32°F - 194°F (0°C - 90°C) Short hours 212°F (100°C)
- Test Pressure: 225 PSI
- Working Pressure: 150 PSI

- EPDM O-Ring
- PTFE (polytetrafluoroethylene) Seat
- CTS (Copper Tube size) Socket for CPVC pipe
- NSF/ANSI Standard 61 & 372 Certified











### **TECHNICAL - PVC BALL VALVES**

#### **CHEMICAL & TEMPERATURE CHARACTERISTICS**

MATERIAL	ABBRE	GENERAL CHEMICAL RESISTANCE
Rigid Polyvinyl Chloride	PVC	Resistant against most acids, alkalis and salts of high to low concentration level. However, the material tends to be attacked by some chemicals; such as aromatic hydrocarbon ketones, esters and chlorinated hydrocarbon.
Ethylene Propylene Rubber	EPDM	Provided with an excellent ozone-resistance and chemical-resistance. Comparatively resistant against ketone and ester, but less resistant against aromatic & aliphatic families and gasoline and oil.
Polytetra- fluoroethylene	PTFE	Resistant against ordinary acid and alkali and not dissolved nor changed by ordinary solvent medium. Attacked by melted alkali metal and in high temperature (PTFE) by fluorine and chlorine trifluoride.

#### TEMPERATURE CORRECTION FACTORS FOR VALVES

As temperature increases working pressure decreases. The optimal working pressure for PVC valves contained in this brochure is 150 PSI @ 73°F. If temperature increases above 73°F, use the PVC correction factor to determine working pressure.

MULTIPLY MAXIMUM WORKING PRESSURE BY CORRECTION FACTOR e.g.: @ 110°F WORKING PRESSURE WILL BE 91 PSI (110 X .83 = 91)

°F Temperature	73	90	100	110	120	130	140
PVC Correction Factor	1.00	1.00	1.00	0.83	0.66	0.50	0.33

PVC - NOT RECOMMENDED OVER 140°F

### IMPORTANT: PVC BALL VALVES TERMINOLOGY (SCH. 40 & 80)

Often the terms Schedule 40 & 80 are referred with regards to PVC socket (slip) connection valves. The fact is that these terms are incorrect! PVC valves do not have Schedule 40 or 80 ratings. These terms refer to the wall thickness of pipe only, not the valve wall thickness; the higher the Schedule number, the thicker the pipe wall. Equally important, the I.D. gets smaller as wall thickness increases, while the outer diameter remains the same. Therefore, any PVC valve can be installed on Schedule 40 or 80 pipe, and vice-versa.

Unfortunately, some Manufactures / Distributors describe PVC valves using pipe-descriptive terms causing confusion. It is important to remember that all valves are rated by pressure in relation to operating temperature, not wall thickness. Generally, white PVC is used for Schedule 40 and gray PVC is used for Schedule 80 PVC pipe & fittings. However, Schedule 40 fittings are available in both white & gray colours adding to the confusion. The terminology describing the pipe has been inaccurately "carried over" to describe PVC valves which also can be molded from either white or gray resins, these valves are rated by pressure only and can be in either piping system.

Therefore, Boshart Industries PVC valves, like all other PVC valves, can be used with either Schedule 40 or Schedule 80 pipe, the only issue is colour preference, some installers prefer gray PVC valves when installing a gray Schedule 80 piping system.



#### **CWP**

 Cold Working Pressure, indication of the pressure rating for valves at a temperature range of up to +100°F (37°C)

#### WOG

Non-Shock pressure rating based on ambient temperature.

#### **WSP**

Working Steam Pressure

**ANSI** American National Standards Institute



Underwriter's Laboratories



Meets ANSI / NSF 61-8 (1998) Certification



Canadian Standards Association



Symbol or marking indicating product has been approved by the Factory Mutual Laboratories

### Glossary of Approvals / Markings on Valves

Below is a brief description of each of the rating marks on the gas valves.

#### 1/2 PSI

Signifies 1/2PSIG rating for appliance manufacturer's use

■ ANSI Z21.15 (USA) CGA 9.1 CAN

"American National Standard/Canadian Gas Association Standard for Manually Operated Gas Valves
For Appliances, Appliance Connector Valves and Hose End Valves"

■ Temperature range of 0°C to 51.5°C (32°F to 125°F)

Must include manufacturing date (YY/MM)

Intended to be used as part of a gas fired appliance

Not for use in building piping systems

#### 5G

• Signifies 5PSIG rating for inline valves

Standard 3.88 (USA) & CR91-002 (CAN) Manually Operated Gas Valves For Use On Piping

■ CR91-002 Temperature range between -40°C to 52°C (-40°F to 125°F)

■ Standard 3.88 Temperature range between 0°C to 51.5°C (32°F to 125°F)

#### BRS125G

• Signifies 125PSIG rating for United States

 AŠME B16.33 Standard Manually Operated Metallic Gas Valves For Use in Gas Piping Systems Up to 125psig sizes 1/2" to 2"

■ Temperature range between -20°F to 150°F

#### **CAN-3.16**

Signifies 125PSIG rating for Canada for Outdoor Use

CAN/CGA-3.16 Standard Lever Operated Non-Lubricated Gas Shut-Off Valves

■ Suitable for continuous use over the temperature range of -30°C to 65°C (-22°F to 149°F)

#### **Notes:**

 CSA mark alone does not signify valve is gas rated, must still have the CAN-3.16, 5G or the 1/2 PSI markings.

 Having a 125 PSI rating does not override the 1/2 PSI or 5G marks. Approval marks must be shown for the application.

Valves with 5G rating are acceptable for use indoors and out in Canada only. Valves with a 5G rating are acceptable for use indoors only in the United States. The 1/2 PSI valves are for indoor use.

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