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# Sharpe® Valve Solutions 2019

**USA 800-766-0076 • Fax 323-890-4456 • www.smithcooper.com**

Los Angeles, CA • Atlanta, GA • Vancouver, WA • Chicago, IL

## *Series 10* 2-Piece Full Port 600 PSI Brass Ball Valve

| | |
|---|---|
| Size Range: | 1/4” - 4” |
| Body Material: | Forged Brass |
| Seat Material: | PTFE |
| Ends: | Threaded |
| Max Pressure: | 600 CWP |
| Max Temp: | 400° F |

- ANSI/ASME B16.11
- Bottom Entry, Blowout Proof Stem Design
- Lockable Lever Handle

OPTIONS:
- Lockable Oval Handle

## *Series 58* 1-Piece Uni-Body Reduced Port 800 PSI Ball Valve

| | |
|---|---|
| Size Range: | 1/4” - 2” |
| Body Material: | 316 Stainless Steel |
| Seat Material: | PTFE |
| Ends: | Threaded |
| Max Pressure: | 800 CWP |
| Max Temp: | 400° F |

- ANSI/ASME B16.11
- ANSI/ASME B16.34
- Bottom Entry, Blowout Proof Stem Design
- Lockable Lever Handle

OPTIONS:
- Lockable Oval Handle

## *Series 58B7* 1-Piece Uni-Body Reduced Port 2000 PSI Ball Valve

| | |
|---|---|
| Size Range: | 1/4” - 2” |
| Body Material: | Carbon Steel |
| Seat Material: | RTFE |
| Ends: | Threaded |
| Max Pressure: | 2000 CWP |
| Max Temp: | 450° F |

- ANSI/ASME B16.11
- ASTM A108
- NACE MR0175: 2002
- Bottom Entry, Blowout Proof Stem Design
- Lockable Lever Handle

## Economy 3-Piece Full Port 1000 PSI Ball Valve ***Series 3903***

| | |
|---|---|
| Size Range: | 1/4” - 2” |
| Body Materials: | 316 Stainless Steel, Carbon Steel |
| Seat Material: | RTFE |
| Ends: | Threaded, Socket Weld |
| Max Pressure: | 1000 CWP |
| Max Temp: | 450° F |

- ANSI/ASME B16.11
- ANSI/ASME B16.34 - Shell & Seat Pressure Test
- Bottom Entry, Blowout Proof Stem Design
- Lockable Lever Handle

OPTIONS:

- Lockable Oval Handle
- Non-Locking Stem Extension

## Economy 3-Piece Full Port Ball Valve ***Series 5303***

| | |
|---|---|
| Size Range: | 1/4” - 4” |
| Body Materials: | 316 Stainless Steel, Carbon Steel |
| Seat Materials: | PTFE |
| Ends: | Threaded, Socket Weld, Butt Weld |
| Max Pressure: | 1000 CWP 1/4” - 2”<br>600 CWP 2 1/2” - 4” |
| Max Temp: | 450° F |

- ANSI/ASME B16.11
- ANSI/ASME B16.25
- ANSI/ASME B16.34 - Shell & Seat Pressure Test
- Integral Mounting Pad
- Bottom Entry, Blowout Proof Stem Design
- Lockable Lever Handle

OPTIONS:

- Lockable Oval Handle
- Non-Locking Stem Extension

## 2-Piece Standard Port 2000 PSI Ball Valve ***Series 5457***

| | |
|---|---|
| Size Range: | 1/4” - 2” |
| Body Materials: | 316 Stainless Steel, Carbon Steel |
| Seat Materials: | RTFE, Nova |
| Ends: | Threaded |
| Max Pressure: | 2000 CWP 1/4” - 1”*<br>1500 CWP 1 1/4” - 2”* |
| Max Temp: | 500° F* |

- ANSI/ASME B16.11
- ANSI/ASME B16.34
- Bottom Entry, Blowout Proof Stem Design
- Lockable Lever Handle

OPTIONS:

- Lockable Oval Handle
- Spring Return Handle
- Non-Locking Stem Extension

* Dependent on Size, Body, Seat Material & Valve Design.

## *Series 50M* 2-Piece Full Port 1000 PSI Ball Valve

| | |
|---|---|
| Size Range: | 1/4” - 3” |
| Body Material: | 316 Stainless Steel |
| Seat Material: | RTFE |
| Ends: | Threaded |
| Max Pressure: | 1000 CWP |
| Max Temp: | 450° F |

- ANSI/ASME B16.11
- ANSI/ASME B16.34
- Bottom Entry, Blowout Proof Stem Design
- Lockable Lever Handle

OPTIONS:
- Lockable Oval Handle
- Non-Locking Stem Extension

## *Series 50B* 2-Piece Full Port 2000/1500 PSI Seal Weld Ball Valve

| | |
|---|---|
| Size Range: | 1/4” to 3” |
| Body Materials: | 316 Stainless Steel,<br>Carbon Steel |
| Seat Material: | RTFE |
| Ends: | Threaded |
| Max Pressure: | 2000 CWP (1/4” - 2”)<br>1500 CWP (2 1/2” - 3”)<br>150 WSP |
| Max Temp: | 450° F |

- ANSI/ASME B16.10
- ANSI/ASME B16.34 - Shell & Seat Pressure Test
- NACE MR0175: 2002
- Bottom Entry, Blowout Proof Stem Design
- Lockable Lever Handle

OPTIONS:
- Lockable Oval Handle
- Non-Locking Stem Extension

## *Series 50C* 2-Piece Full Port 3000 PSI Seal Weld Ball Valve

| | |
|---|---|
| Size Range: | 1/4” to 3” |
| Body Materials: | 316 Stainless Steel,<br>Carbon Steel |
| Seat Materials: | Delrin® (NPT), PEEK (SW) |
| Ends: | Threaded & Socket Weld |
| Max Pressure: | 3000 CWP |
| Max Temp: | 500° F PEEK Seats<br>180° F Delrin Seats |

- ANSI/ASME B16.11
- ANSI/ASME B16.34 - Shell & Seat Pressure Test
- NACE MR0175: 2002
- ISO 5211 Integral Mounting Pad
- Blowout Proof Stem Design
- Anti-Static Device
- Live-Loaded Stem Seal
- Lockable Lever Handle

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## 2-Piece Full Port 6000 PSI Seal Weld Ball Valve ***Series 50F***

| | |
|---|---|
| **Size Range:** | 1/4” to 2” |
| **Body Materials:** | 316 Stainless Steel, Carbon Steel |
| **Seat Materials:** | Delrin® |
| **Ends:** | Threaded |
| **Max Pressure:** | 6000 CWP |
| **Max Temp:** | 180° F |

- ANSI/ASME B16.11
- ANSI/ASME B16.34 - Shell & Seat Pressure Test
- NACE MR0175: 2002
- ISO 5211 Integral Mounting Pad
- Blowout Proof Stem Design
- Anti-Static Device
- Live-Loaded Stem Seal
- Lockable Lever Handle

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## Flanged 2-Pc Full Port/1-Pc Standard Port Ball Valve ***Series 50/54 & FS50/FS54***

| | |
|---|---|
| **Size Range:** | 50 Series: 1/2” - 8”<br>54 Series: 1 1/2” - 8”<br>FS50 Series: 1/2” - 12”<br>FS54 Series: 1 1/2” - 4” |
| **Body Materials:** | 316 Stainless Steel, Carbon Steel |
| **Seat Materials:** | TFM®, RTFE |
| **Ends:** | 150#, 300# & 600# Flanged |
| **Max Pressure:** | 1480 PSI* |
| **Max Temp:** | 500° F* |

- ANSI/ASME B16.34
- ANSI/ASME B16.5
- ANSI/ASME B16.10
- API 607 4th Edition (FS Series)
- NACE MR0175: 2002
- ISO 5211 Integral Mounting Pad
- Blowout Proof Stem Design
- Anti-Static Configuration
- Live-Loaded Stem Seal
- Lockable Lever Handle
- Optional Lockable Stem Extension

* Dependent on Size, Body, Seat Material & Valve Design.

## Butterfly Valve ***Series 17***

| | |
|---|---|
| **Size Range:** | 2”- 48” |
| **Body Materials:** | Ductile Iron |
| **Disc Materials:** | 316 Stainless Steel |
| **Seat Materials:** | Buna-N, EPDM |
| **Connections:** | Lug or Wafer |
| **Max Pressure:** | 2” - 12” rated to 200 PSI*<br>14” - 48” rated to 150 PSI* |
| **Max Temp:** | 275° F* |

- API 609
- MSS SP-67
- MSS SP-25 Markings
- ISO 5211 Integral Mounting Pad
- Pinless Disc & Stem Design
- One Piece, Epoxy Painted Wafer & Lug Body
- Bidirectional
- Lug is Suitable for Dead-End Service

* Dependent on Size, Body, Seat Material & Valve Design.

## *Series 84/99 & FS84/FS99* 3-Piece Standard/Full Port Ball Valve

| | |
|---|---|
| Size Range: | 1/4" to 4" 84<br>1/4" to 2-1/2" FS84<br>1/4" to 3" 99<br>1/4" to 2" FS99 |
| Body Materials: | 316 Stainless Steel, Carbon Steel, Alloy 20, Hastelloy C |
| 84/99 Seat Materials: | PTFE, TFM®, RTFE, Nova, Delrin®, UHMWPE, Virgin Peek |
| FS84/FS99 Seat Materials: | PTFE, TFM®, RTFE, Nova |
| Ends: | Threaded, Socket Weld, Butt Weld & Flanged End Options |
| Max Pressure: | Vacuum to 1480 PSI* |
| Max Temp: | -50° to 600° F* |

- ANSI/ASME Class 600; 84/FS84 Series up to 2-1/2" 99/FS99 Series up to 2"
- ANSI/ASME Class 300; 84/FS84 Series 3" & 4" 99 Series 2-1/2" & 3"
- API 607 4th Edition (FS Series)
- ANSI/ASME B16.5
- ANSI/ASME B16.11
- ANSI/ASME B16.25
- ANSI/ASME B16.34
- NACE MR0175: 2002 (Optional)
- ISO 5211 Integral Mounting Pad
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- Encapsulated Body Bolts & Seals
- Weldable In-Line Without Disassembly of ends**
- Lockable Lever Handle

* Dependent on Size, Body, Seat Material & Valve Design.

**Dependent on Seat Material.

## *Series 80/89 & FS80/FS89* 3-Piece Standard/Full Port Ball Valve *API 608*

| | |
|---|---|
| Size Range: | 1/4" to 4" 80/FS80<br>1/4" to 3" 89/FS89 |
| Body Materials: | 316 Stainless Steel, Carbon Steel, Alloy 20, SMO 254® |
| 80/89 Seat Materials: | PTFE, TFM®, RTFE, Nova, Super Nova, Delrin®, Virgin Peek |
| FS84/FS99 Seat Materials: | PTFE, TFM®, RTFE, Nova, Super Nova |
| Ends: | Threaded, Socket Weld & Butt Weld |
| Max Pressure: | Vacuum to 1970 PSI* |
| Max Temp: | -50° to 600° F* |

- ANSI/ASME Class 800; 80/FS80 Series up to 2-1/2", 89/FS89 Series up to 2"
- ANSI/ASME Class 300; 80/FS80 Series 3" & 4", 89/FS89 Series 2-1/2" & 3"
- API 608 Compliant (with Stainless Steel Stem)
- API 607 6th Edition (FS Series)
- ANSI/ASME B16.11
- ANSI/ASME B16.25
- ANSI/ASME B16.34
- NACE MR0175/ISO 15156
- ISO 5211 Integral Mounting Pad
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- Encapsulated Body Bolts & Seals
- Weldable In-Line Without Disassembly of Ends**
- Unique Lockable Lever Handle

* Dependent on Size, Body, Seat Material & Valve Design.

**Dependent on Seat Material.

## 3-Piece Standard/Full Port Ball Valve ***Series HP80/HP89***

| | |
|---|---|
| Size Range: | 1/4” to 2-1/2” HP80<br>1/4” to 2” HP89 |
| Body Materials: | 316 Stainless Steel,<br>Carbon Steel |
| Seat Materials: | Delrin®, Virgin Peek |
| Ends: | Threaded, Socket Weld |
| Max Pressure: | Vacuum to 3000 PSI* |
| Max Temp: | -50° to 600° F* |

- ISO 5211 Integral Mounting Pad
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- Encapsulated Body Bolts & Seals
- Weldable In-Line Without Disassembly of Ends**
- Unique Lockable Lever Handle

* Dependent on Size, Body, Seat Material & Valve Design.

**Dependent on Seat Material.

## ***API 608*** Flanged 2-Pc Full Port/1-Pc Std Port Ball Valve ***Series 70/74 & FS70/FS74***

| | |
|---|---|
| Size Range: | 1/2” to 4” - 70/FS70<br>1” to 4” - 74/FS74 |
| Body Materials: | 316 Stainless Steel,<br>Carbon Steel, Alloy 20 |
| 70/74<br>Seat Materials: | PTFE, TFM®, RTFE,<br>Nova, Super Nova,<br>Virgin PEEK |
| FS70/FS74<br>Seat Materials: | PTFE, TFM®, RTFE,<br>Nova, Super Nova, |
| Ends: | 150#, 300# Flanged |
| Max Pressure: | 740 PSI* |
| Max Temp: | 600° F* |

- API 608 Compliant (with Stainless Steel Stem)
- API 607 6th Edition (FS Series)
- ANSI/ASME B16.34
- ANSI/ASME B16.5
- ANSI/ASME B16.10
- NACE MR0175/ISO 15156
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- ISO 5211 Integral Mounting Pad
- Unique Lockable Lever Handle
- Integrated Fugitive Emission Ports (Optional)

* Dependent on Size, Body, Seat Material & Valve Design.

## Lug & Wafer, Uni-Body Design Full Port Ball Valve ***Series 40***

| | |
|---|---|
| Size Range: | 1/2” - 8” |
| Body Materials: | 316 Stainless Steel,<br>Carbon Steel |
| Seat Materials: | TFM®, RTFE |
| Ends: | 150# Flanged |
| Max Pressure: | 285 PSI |
| Max Temp: | 500° F* |

- ANSI/ASME B16.34 - Wall Thickness
- ANSI/ASME B16.5
- NACE MR0175
- ISO 5211 Integral Mounting Pad
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- Lockable Handle

* Dependent on Size, Body, Seat Material & Valve Design.

## *Series 60* 3-Piece High pressure Ball Valve Standard Port

| | |
|---|---|
| Size Range: | 1/4” - 2” |
| Body Materials: | 316 Stainless Steel, Carbon Steel |
| Seat Materials: | Delrin®, PEEK |
| Ends: | Threaded, Socket Weld, Butt Weld Sch. 160 & Flanged End Options |
| Max Pressure: | Vacuum to 6000 PSI* |
| Max Temp: | -50° to 600° F* |

- ANSI/ASME Class 2500
- ANSI/ASME B16.34
- NACE MR0175: 2002 (Optional)
- Integral Mounting Pad
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- Encapsulated Body Bolts & Seals
- Lockable Lever Handle

* Dependent on Size, Body, Seat Material & Valve Design.

## *Series M80/89 M70/74* Metal Seated Standard/Full Port Ball Valves

| | |
|---|---|
| Size Range: | 3-Piece: 1/4” to 4” (3” M89)<br>Flanged: 1/2” to 4” (Larger Szes POA) |
| Body Materials: | 316 Stainless Steel, Alloy 20, Carbon Steel |
| Seat Materials: | Stainless Steel Stellite 6 Coated |
| Ends: | Threaded, Socket Weld, Butt Weld, 150#, 300# Flanged |
| Max Pressure: | 1970 PSI Max |
| Max Temp: | 1000° F Max |

- ANSI/ASME FCI 70-2, Class V
- ANSI/ASME B16.5
- ANSI/ASME B16.11
- ANSI/ASME B16.25
- ANSI/ASME B16.34
- ISO 5211 Integral Mounting Pad
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- Integrated Fugitive Emission Ports (Optional)
- Unique Lockable Lever Handle

* Dependent on Size, Body, Seat Material & Valve Design.

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## *Series C80/C89 C70/C74* Cryogenic Standard/Full Port Ball Valve

| | |
|---|---|
| Size Range: | 3-Piece: 1/4” - 4” (3” C89)<br>Flanged: 1/2” - 4” |
| Body Material: | 316 Stainless Steel |
| Seat Materials: | PCTFE (Kel-F®), PTFE, TFM®, RTFE, Nova |
| Ends: | Threaded, Socket Weld, Butt Weld, 150# & 300# Flanged |
| Max Pressure: | 1480 PSI* |
| Max Temp: | -400° F* |

- ANSI/ASME B16.5
- ANSI/ASME B16.11
- ANSI/ASME B16.25
- ANSI/ASME B16.34
- BS 6364 Test Specification Compliant
- ISO 5211 Integral Mounting Pad
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- Encapsulated Body Bolts & Seals
- Unique Lockable Lever Handle

* Dependent on Size, Body, Seat Material & Valve Design.

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## 3-Piece V-Port Control Valve ***Series V84***

| | |
|---|---|
| **Port:** | **15° V, 30° V or 60° V** (Special Configurations Available) |
| **Size Range:** | **1/4" - 4"** |
| **Body Materials:** | **316 Stainless Steel, Carbon Steel** |
| **Seat Materials:** | **PTFE, TFM®, RTFE, Nova, Delrin®, Virgin PEEK** |
| **Ends:** | **Threaded, Socket Weld, Butt Weld & Flanged End** |
| **Max Pressure:** | **Vacuum to 1480 PSI*** |
| **Max Temp:** | **-50° to 600° F*** |

- ANSI/ASME Class 600 ¼" – 2 1/2"
- ANSI/ASME Class 300 3"- 4"
- ANSI/ASME B16.5
- ANSI/ASME B16.11
- ANSI/ASME B16.25
- ANSI/ASME B16.34
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- Encapsulated Body Bolts & Seals
- Weldable in-line without disassembly of ends**
- 15°, 30° & 60° "V" Balls (Special Configurations Optional)
- "No Play" Coupler

* Dependent on Size, Body, Seat Material & Valve Design. **Dependent on Seat Material.

## 3 Piece Steam and Thermal Fluid Ball Valves ***Series W84/W99***

| | |
|---|---|
| **Size Range:** | **1/2" - 4" (3" W99)** |
| **Body Materials:** | **316 Stainless Steel, Carbon Steel** |
| **Seat Materials:** | **Nova, Virgin Peek** |
| **Ends:** | **Threaded, Socket Weld & Butt Weld** |
| **Max Pressure:** | **500 PSI - Maximum Working Steam Pressure*** |
| **Max Temp:** | **600° F for Thermal Fluids*** |

- ANSI/ASME Class 600 ¼" – 2 1/2" W84 Series (1/4"-2" W99)
- Class 300 3"- 4" 84 Series (2 1/2"-3" W99)
- ANSI/ASME B16.11
- ANSI/ASME B16.25
- ANSI/ASME B16.34
- ISO 5211 Integral Mounting Pad
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- Encapsulated Body Bolts & Graphite Seals
- Weldable in-line without disassembly of ends**
- Lockable Lever Handle

* Dependent on Size, Body, Seat Material & Valve Design. **Dependent on Seat Material.

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## 3-Piece Chlorine Standard/Full Port Ball Valve ***Series CL***

| | |
|---|---|
| **Size Range:** | **1/4" - 4" (3" CL99)** |
| **Body Material:** | **Carbon Steel** |
| **Seat Materials:** | **PTFE, TFM®, RTFE, Nova, Super Nova, Delrin®, Virgin PEEK** |
| **Ends:** | **Threaded, Socket Weld, Butt Weld, 150#, 300#, 600#, Flanged** |
| **Max Pressure:** | **1480 PSI*** |
| **Max Temp:** | **550° F*** |

- ANSI/ASME B16.5
- ANSI/ASME B16.11
- ANSI/ASME B16.25
- ANSI/ASME B16.34
- ISO 5211 Integral Mounting Pad
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- Encapsulated Body Bolts & Seals
- Weldable in-line without disassembly of ends**
- Degreased and Sealed in a Bag for Chlorine Applications
- Tank Pad Made From Solid Bar
- Lockable Lever Handle

* Dependent on Size, Body, Seat Material & Valve Design. **Dependent on Seat Material.

## *Series D84* 3-Piece Standard Port Diverter Ball Valve

| | |
|---|---|
| Size Range: | 1/2” - 4” |
| Body Materials: | 316 Stainless Steel, Carbon Steel |
| Seat Materials: | PTFE, TFM®, RTFE, Nova, Delrin®, PEEK |
| Ends: | Threaded, Socket Weld & Butt Weld |
| Max Pressure: | 1480 PSI* |
| Max Temp: | 600° F* |

- ISO 5211 Integral Mounting Pad
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- Encapsulated Body Bolts & Seals
- Weldable in-line without disassembly of ends**
- Bottom or Side Port Entry
- Lockable Lever Handle

* Dependent on Size, Body, Seat Material & Valve Design.

## *Series D88* 3-Piece High Purity Full Port Tube Diverter Ball Valve

| | |
|---|---|
| Size Range: | 1/2” - 4” |
| Body Material: | 316L Stainless Steel |
| Seat Materials: | PTFE, TFM®, RTFE, PTFE Cavity Filler |
| Ends: | Clamp, Butt Weld Tube Extended, Butt Weld Tube Short |
| Max Pressure: | 1200 PSI* |
| Max Temp: | 500° F* |

- ISO 5211 Integral Mounting Pad
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- Encapsulated Body Bolts & Seals
- Bottom or Side Port Entry
- All Wetted Parts Polished to 14-18 Ra
- Lockable Lever Handle
- Purge Ports (Optional)

* Dependent on Size, Body, Seat Material & Valve Design.

## *Series D54* Flanged 1-Piece Standard Port Ball Valve

| | |
|---|---|
| Size Range: | 1” - 8” |
| Body Materials: | 316 Stainless Steel, Carbon Steel |
| Seat Materials: | TFM®, PTFE, Nova |
| Ends: | 150# Flanged |
| Max Pressure: | 285 PSI |
| Max Temp: | 500° F* |

- ANSI/ASME B16.34
- ANSI/ASME B16.5
- ANSI/ASME B16.10
- NACE MR0175: 2002
- ISO 5211 Integral Mounting Pad
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- Lockable Lever Handle

* Dependent on Size, Body, Seat Material & Valve Design.

## 3 & 4 Way Sanitary Full Port Tube Ball Valve ***Series 75***

| | |
|---|---|
| Size Range: | 1/2” to 2”, 3” |
| Body Material: | 316 Stainless Steel |
| Seat Materials: | TFM®, TFM® Cavity Fillers |
| Ends: | Clamp |
| Max Pressure: | 1000 CWP 1/2” - 2”*<br>800 CWP 3”* |
| Max Temp: | -50° to 500° F* |

- 4 Seat Design
- Direct Mount ISO 5211 Integral Mounting Pad
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- 12 Different Flow Configurations
- “L”, or “T” Port Solid Ball
- Ball & Ends Polished to 20 Ra
- Lockable Lever Handle

* Dependent on Size, Body, Seat Material & Valve Design.

## 3-Way Full Port Ball Valve ***Series 76***

| | |
|---|---|
| Size Range: | 1/4” - 2” |
| Body Material: | 316 Stainless Steel |
| Seat Materials: | PTFE, TFM® |
| Ends: | Threaded |
| Max Pressure: | 1000 CWP |
| Max Temp: | 450° F |

- ANSI/ASME B16.11
- 4 Seat Design
- Direct Mount ISO 5211Integral Mounting Pad
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- 10 Different Flow Configurations
- “L”, or “T” Port Solid Ball
- Lockable Lever Handle

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## 3-Way and 4-Way Full port Ball Valve ***Series 77***

| | |
|---|---|
| Size Range: | 1/4” - 4” |
| Body Material: | 316 Stainless Steel |
| Seat Materials: | TFM®, TFM® Cavity Filler |
| Ends: | Threaded, Socket Weld,<br>Butt Weld,<br>150#, 300# Flanged |
| Max Pressure: | 600 CWP |
| Max Temp: | 500° F |

- ANSI/ASME B16.5
- ANSI/ASME B16.11
- ANSI/ASME B16.25
- 4 Seat Design
- Direct Mount ISO 5211Integral Mounting Pad
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- 14 Different Flow Configurations
- “L”, “T” or “LL” Port Solid Ball
- Lockable Lever Handle

## *Series N66* 3-Piece Economy 3-Piece Full Port Tube Ball Valve

| | |
|---|---|
| Size Range: | 1/2” - 4” |
| Body Material: | 316 Stainless Steel |
| Seat Materials: | TFM®, PTFE Cavity Fillers |
| Ends: | Clamp,<br>Butt Weld Tube Extended,<br>Butt Weld Tube Short |
| Max Pressure: | 1000 CWP 1/2” - 2”*<br>600 CWP 2 1/2” - 4”* |
| Max Temp: | 450° F* |

- ISO 5211 Integral Mounting Pad
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- Lockable Lever Handle

OPTIONS:

- Lockable Oval Handle

* Dependent on Size, Body, Seat Material & Valve Design.

## *Series 66* 3-Piece High Purity Full Port Tube Ball Valve

| | |
|---|---|
| Size Range: | 1/2” - 4” |
| Body Material: | 316L Stainless Steel |
| Seat Materials: | PTFE, TFM®, RTFE,<br>PTFE Cavity Fillers |
| Ends: | Clamp,<br>Butt Weld Tube Extended,<br>Butt Weld Tube Short |
| Max Pressure: | 1200 PSI* |
| Max Temp: | 500° F* |

- ISO 5211 Integral Mounting Pad
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- Encapsulated Body Bolts & Seals
- Lockable Lever Handle

* Dependent on Size, Body, Seat Material & Valve Design.

## *Series 88* 3-Piece High Purity BPE Compliant Full Port Tube Ball Valve

| | |
|---|---|
| Size Range: | 1/4” - 4” |
| Body Material: | 316L Stainless Steel |
| Seat Materials: | PTFE, TFM®, RTFE,<br>PTFE Cavity Fillers |
| Ends: | Clamp,<br>Butt Weld Tube Extended,<br>Butt Weld Tube Short |
| Max Pressure: | 1200 PSI* |
| Max Temp: | 500° F* |

- ASME/BPE - 2009 Compliant
- ISO 5211 Integral Mounting Pad
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- Encapsulated Body Bolts & Seals
- All Wetted Parts Polished to 14-18 Ra
- Lockable Lever Handle
- 8-10 Ra Electropolish (Optional)
- Purge Ports (Optional)

* Dependent on Size, Body, Seat Material & Valve Design.

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## 3-Piece Instrumentation Ball Valve ***Series 86***

| | |
|---|---|
| Size Range: | 1/4” - 1” |
| Body Material: | 316L Stainless Steel |
| Seat Materials: | PTFE, TFM®, RTFE, PTFE Cavity Filler |
| Ends: | Instrumentation, Threaded |
| Max Pressure: | 1200 PSI* |
| Max Temp: | 500° F* |

- ISO 5211 Integral Mounting Pad
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- Encapsulated Body Bolts & Seals
- Lockable Lever Handle
- Purge Ports (Optional)

* Dependent on Size, Body, Seat Material & Valve Design.

## Flush Bottom Tank Standard/Full Port Ball Valves ***Series FB***

| | |
|---|---|
| Size Range: | 1/4” - 4” (3” 99/89 Series) |
| Body Materials: | 316L Stainless Steel |
| Ends: | Threaded, Socket Weld & Butt Weld, Clamp, Extended Butt Weld, 150#, 300# Flanged |
| Max Pressure: | 1480 PSI* |
| Max Temp: | -50° to 600° F* |

- ISO 5211 Integral Mounting Pad
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- Encapsulated Body Bolts & Seals
- Weldable in-line without disassembly of ends**
- Tank Pad Made From Solid Bar
- Lockable Lever Handle

* Dependent on Size, Body, Seat Material & Valve Design.

**Dependent on Seat Material.

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## *Series 11* 2-Piece Full Port Direct Mount Ball Valve

Pictured with 4x4Actuator

| | |
|---|---|
| Size Range: | 1/4” - 2” |
| Body Material: | 316 Stainless Steel |
| Seat Material: | TFM® |
| Ends: | Threaded |
| Max Pressure: | 1000 CWP |
| Max Temp: | 450° F |

- ANSI/ASME B16.11
- ANSI/ASME B16.34
- Direct Mount ISO 5211Integral Mounting Pad
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- Low Profile, Space Saving, Dependable Automated Assemblies

## *Series 12 DIR-ACT™* 2-Piece Full Port Direct Mount Ball Valve

Pictured with SPNII Actuator

| | |
|---|---|
| Size Range: | 1/4” - 2” |
| Body Materials: | 316 Stainless Steel, Carbon Steel |
| Seat Material: | TFM® |
| Ends: | Threaded |
| Max Pressure: | 1500 CWP |
| Max Temp: | 450° F |

- ANSI/ASME B16.11
- ANSI/ASME B16.34
- Direct Mount ISO 5211Integral Mounting Pad
- Patented System Allows Adjustment of Stem Packing Nut with Actuator in Place (U.S. Patent No. 6,446935 B1)
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- Low Profile, Space Saving, Dependable Automated Assemblies
- Lockable Lever Handle

## *Series 13 DIR-ACT™* 3-Piece Full Port Direct Mount Ball Valve

Pictured with SEA Actuator

| | |
|---|---|
| Size Range: | 1/4” - 4” |
| Material: | 316 Stainless Steel |
| Seat Materials: | TFM®, RTFE |
| Ends: | Threaded, Socket Weld, Butt Weld |
| Max Pressure: | 1000 CWP 1/4” - 2” 600 CWP 2 1/2” - 4” |
| Max Temp: | 450° F |

- ANSI/ASME B16.11
- ANSI/ASME B16.25
- ANSI/ASME B16.34
- Direct Mount ISO 5211Integral Mounting Pad
- Patented System Allows Adjustment of Stem Packing Nut with Actuator in Place (U.S. Patent No. 6,446935 B1)
- Blowout Proof Stem Design
- Live-Loaded Stem Seal
- Low Profile, Space Saving, Dependable Automated Assemblies
- Lockable Lever Handle

## Pneumatic Actuator ***Series SPN II***

- Traditional Two-piston rack and pinion design
- Available in Double Acting and Spring Return configurations
- Anodized Hardening & Epoxy Coated Body and Epoxy Coated End Caps, Optional Nickel Infused Coating for Sanitary Applications.
- Standard Temperature Range with Buna O-Rings: -4°F to 180°F
- EPDM Kits for Temperatures from -40°F to 300°F
- Industry Standard ISO 5211 drilling and NAMUR patterns
- Bi-Directional Travel Stops for ±5° adjustment for precise control
- Pinion is specially designed with inserts that allows for Direct Mounting capabilities to Butterfly Valves that have Square, Double D, or Keyed shaft designs
- Adapter plates available, allows for mounting to different industry standard bolt circles

## 4 Piston Pneumatic Actuator ***Series 4x4***

- Unique Four-piston rack and pinion design
- Anodized Interior and Exterior aluminum body with Epoxy Coated End Caps
- Industry Standard ISO 5211 drilling and NAMUR patterns
- Multi-Function Visual Indicator can be used for Three–Way indication
- Bi-Directional Travel Stops for ±5° adjustment for precise control
- Available in Double Acting and Spring Return configurations
- Nested spring sets, with appropriate centering rings on piston face and end caps
- Four Pistons allow for shorter travel and faster response times
- Reduced size means less air consumption, reducing costs with quicker response
- Generates more torque for reduced cost, size and air consumption
- Pinion is supported by four pistons; as a result, piston side load is minimized

## Electric Actuator ***SEA***

- Enclosures Include: IP67 & NEMA 4X
- Enclosure Material: Dry Powder Coating Aluminum Alloy
- Motor: Standard extended duty cycle induction motor F insulation class for all models, Built-In Thermal Protection (275° F) prevents motor burning out, standard 120VAC, 30% duty cycle - various options available
- Position Indicator: All models except SEA-1 have continuous mechanical position indicator on the top of the actuator cover
- Manual Overrride: Non-clutch design, can be operated without any lever, clutch or brake upon power outage
- Gear Train: Lubricated, high alloy steel gear trains provide self-locking function to avoid back drive
- Working Conditions: -22° F to 149° F / Humidity 30% - 95%
- Certifications: CE / CSA (conforming to the test standard for outdoor use)
- Various Options: Heaters, additional limit switches, various voltages, thermostats, 75% duty rating, and more.

## *Series SL* Limit Switch

- Rugged powder coated aluminum enclosure
- UL/CE rated enclosure
- UL/CSA/CE rated switch elements
- NEMA 4/4X and NEMA 7/9 enclosures
- Shatterproof dome
- Various NAMUR brackets available
- Cams and bearings on shaft are splined to allow quick adjustment and protect against the effects of vibration
- Mechanical or proximity switch elements available
- Printed circuit board allows for quick, safe and easy wiring
- Solenoid terminations inside enclosure eliminates extra cost

## *Series SX* Solenoids

- Aluminum Body
- NBR Seats
- Manual Override
- High Flow: 1.8 CV
- 1/2” Conduit Connection to Coil
- 1/4” Port Size
- Changeable between Double Acting and Spring Return
- Coils are rated by CSA/UL
- Same Body accepts NEMA 4, NEMA 7, and ATEX Coils
- Voltage Options Available Upon Request

## *Series SG* Gear Operator

- Nine Sizes
- From 1,500 - 35,400 In/lb.
- ISO 5211 Bolt Circle
- Cast Iron Body
- Visual Position Indicator

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## 200 PSI Gate Valve ***Series 302***

| | |
|---|---|
| Size Range: | 1/4” - 2” |
| Body Material: | 316 Stainless Steel |
| Ends: | Threaded, Socket Weld |
| Max Pressure: | 200 WOG |
| Max Temp: | 350° F |

- Hydrostatic Shell Test at 300 PSI
- Hydrostatic Seat Test at 220 PSI
- Screwed Bonnet
- Non-Rising Stem
- Solid Wedge Disc
- Integral Seat

## 200 PSI Globe Valve ***Series 402***

| | |
|---|---|
| Size Range: | 1/2” - 2” |
| Body Material: | 316 Stainless Steel |
| Ends: | Threaded, Socket Weld |
| Max Pressure: | 200 CWP |
| Max Temp: | 350° F |

- Hydrostatic Shell Test at 300 PSI
- Hydrostatic Seat Test at 220 PSI
- Screwed Bonnet
- Non-Rising Stem
- Solid Wedge Disc

## 200 PSI Swing Check Valve ***Series 202***

| | |
|---|---|
| Size Range: | 1/4” - 3” |
| Body Material: | 316 Stainless Steel |
| Ends: | Threaded, Socket Weld |
| Max Pressure: | 200 CWP |
| Max Temp: | 350° F |

- Hydrostatic Shell Test at 300 PSI
- Screwed Cap

## *Series 34* Class 800 Forged Gate Valve

**Size Range:** 1/4" - 2"
**Body Materials:** Forged Stainless Steel (316L), Forged Steel
**Trim Material(s):**
Forged Steel: Trim #8
Seat: A276-410 + H/F STL
Disc: A276-410
Back Seat: A105
Stem: A276-410
Forged Stainless Steel: Trim #12
Seat: A276 316 + STL
Disc: A276 316
Back Seat: A182-F316
Stem: A276 316
**Gasket Material(s):**
Forged Stainless Steel: 316 + Graphite
Forged Steel: 304 + Graphite
**Ends:** Threaded, Socket Weld
**Max Pressure:** 1975 PSI A105/1600 PSI A182
**Max Temp:** 850° F A182/800° F A105

- ANSI/ASME Class 800
- ANSI/ASME B16.11
- ANSI/ASME B1.20.1
- API 598
- API 602 9th Edition
- NACE MR0175: 2002
- Bolted Bonnet
- Rising Stem

## *Series 44* Class 800 Forged Globe Valve

**Size Range:** 1/4" - 2"
**Body Materials:** Forged Stainless Steel (316L), Forged Steel
**Trim Material(s):**
Forged Steel: Trim #8
Seat: A105 + H/F STL
Disc: A276-410
Back Seat: A105
Stem: A276-410
Forged Stainless Steel: Trim #12
Seat: A182 F316 + STL
Disc: A276 316
Back Seat: A182-F316
Stem: A276 316
**Gasket Material(s):**
Forged Stainless Steel: 316 + Graphite
Forged Steel: 304 + Graphite
**Ends:** Threaded, Socket Weld
**Max Pressure:** 1975 PSI A105/1600 PSI A182
**Max Temp:** 850° F A182/800° F A105

- ANSI/ASME Class 800
- ANSI/ASME B16.11
- ANSI/ASME B1.20.1
- API 598
- API 602 9th Edition
- NACE MR0175: 2002
- Bolted Bonnet
- Rising Stem

## *Series 24, 24-SC* Class 800 Forged Piston Check & Swing Check Valves

**Size Range:** 1/4" - 2"
**Body Materials:** Forged Stainless Steel (316L), Forged Steel
**Trim Material(s):**
Forged Steel: Trim #8
Seat: A105 + H/F STL
Disc: A276-410
Forged Stainless Steel: Trim #12
Seat: A182 F316 + STL
Disc: A276 316
**Gasket Material(s):**
Forged Stainless Steel: 316 + Graphite
Forged Steel: 304 + Graphite
**Ends:** Threaded, Socket Weld
**Max Pressure:** 1975 PSI A105/1600 PSI A182
**Max Temp:** 850° F A182/800° F A105

- ANSI/ASME Class 800
- ANSI/ASME B16.11
- ANSI/ASME B1.20.1
- API 598
- API 602 9th Edition
- NACE MR0175: 2002
- Bolted Bonnet

## Flanged Gate Valve *Series 35*

**Size Range:** 1/4" - 24"

**Body Materials:** 316 Stainless Steel, Carbon Steel

**Trim Material(s):**

Stainless Steel: Trim #10

| | |
|---|---|
| Seat: | A351 CF8M |
| Disc: | A351 CF8M |
| Back Seat: | A351 CF8M |
| Stem: | A182 F316 |

Cast Steel: Trim #8

| | |
|---|---|
| Seat: | A105 + H/F STL |
| Disc: | WCB + H/F 410 |
| Back Seat: | A276-410 |
| Stem: | A182-F6a |

**Gasket Material(s):**

| | |
|---|---|
| Stainless Steel: | 316 + Graphite |
| Cast Steel: | 304 + Graphite |

**Ends:** 150#, 300#, 600# Flanged

**Max Pressure:** 1480 PSI*

**Max Temp:** 1000° F*

- ANSI/ASME B16.5
- ANSI/ASME B16.10
- ANSI/ASME B16.34
- API 598
- API 600 (Cast Steel)
- API 603 (Stainless Steel)
- NACE MR0175: (Cast Steel Only)
- Outside Screw and Yoke
- Bolted Bonnet
- Rising Stem and Non-Rising Handwheel
- Flexible Wedge, Fully Guided
- Integral Seat

* Dependent on ANSI Class Rating

## Flanged Globe Valve *Series 45*

**Size Range:** 1/2" to 16" (12" 45614)

**Body Materials:** 316 Stainless Steel, Carbon Steel

**Trim Material(s):**

Stainless Steel: Trim #10

| | |
|---|---|
| Seat: | A351 CF8M |
| Disc: | A351 CF8M |
| Back Seat: | A351 CF8M |
| Stem: | A182 F316 |

Cast Steel: Trim #8

| | |
|---|---|
| Seat: | A105 + H/F STL |
| Disc: | WCB + H/F 410 |
| Back Seat: | A276-410 |
| Stem: | A182-F6a |

**Gasket Material(s):**

| | |
|---|---|
| Stainless Steel: | 316 + Graphite |
| Cast Steel: | 304 + Graphite |

**Ends:** 150#, 300#, 600# Flanged

**Max Pressure:** 1480 PSI*

**Max Temp:** 1000° F

- ANSI/ASME B16.5
- ANSI/ASME B16.10
- ANSI/ASME B16.34
- API 598
- NACE MR0175: (Cast Steel Only)
- Outside Screw and Yoke
- Yoke Integrated with Bonnet
- Bolted Bonnet
- Rising Stem and Non-Rising Handwheel
- Loose Disc
- Welded Seat

* Dependent on ANSI Class Rating

## Flanged Swing Check Valve *Series 25*

**Size Range:** 1/2" to 24"

**Body Materials:** 316 Stainless Steel, Carbon Steel

**Trim Material(s):**

Stainless Steel: Trim #10

| | |
|---|---|
| Seat: | A351 CF8M |
| Disc: | A351 CF8M |

Cast Steel: Trim #8

| | |
|---|---|
| Seat: | A105 + H/F STL |
| Disc: | A105 + H/F 410 (2"-14")<br>WCB + H/F 410 (16" & Larger) |

**Gasket Material(s):**

| | |
|---|---|
| Stainless Steel: | 316 + Graphite |
| Cast Steel: | 304 + Graphite |

**Ends:** 150#, 300#, 600# Flanged

**Max Pressure:** 1480 PSI*

**Max Temp:** 1000° F

- ANSI/ASME B16.5
- ANSI/ASME B16.10
- ANSI/ASME B16.34
- API 598
- NACE MR0175: (Cast Steel Only)
- Swing Type
- Bolted Cover
- Integral Seat

* Dependent on ANSI Class Rating

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