

Hy-Lok SO Series

Swing Out Ball Valves

Catalog No. H-SOBV
Fed. 2004



Design & Engineering

- Positive leak tight shut off
- Live loaded design
 - Compensates for wear, pressure and temperature changes
- Swing-out three piece design
 - Easy and fast replace seats, seals and ball without major disruption in-line.

Application

- Chemical Processing
- Oil & Gas Production
- Pharmaceutical
- Power and Utilities
- Biotech
- Food and Beverage

Hy-Lok

HY-LOK CORPORATION

Features and Benefits

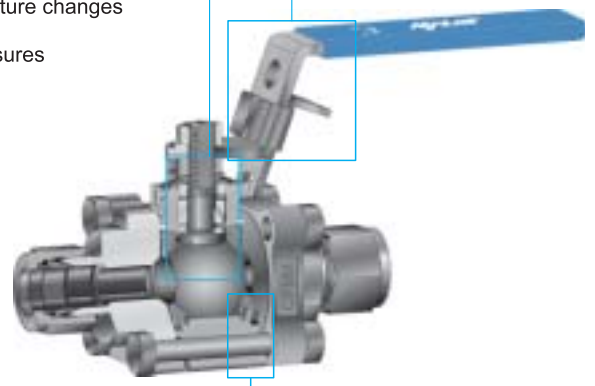
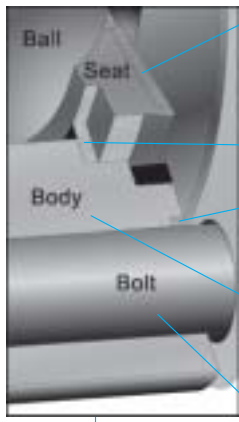
- **Stem disc spring** compensates for temperature/ pressure changes
- **Ground spring** for Anti static
- **Chevron Stem Packing**
 - low operating torque
 - compensates for wear
- **Stem Bearing** is PEEK standard
- **Stem**
 - prevent stem blow-out
 - open/close indication
- **Precision machined ball** reduces torque & increases sealing



- **Lever Handle**
 - oval or extended handle option
 - low operation torque
- **Self-Locking device & pad lock**



- **Disc Spring & Seat**
 - compensates for wear and pressure / temperature changes
 - protects seats from pressure surge
 - allows leak-tight operation under various pressures
- **Support Ring** prevents seat bulging and wear
- **End packing with PTFE**
 - allows leak tight sealing between center
 - body and end connection flange
- **Center Body**
 - Swing-out design
 - available 3-Way (Switching)
- **High-strength 4-Bolt & Nut**



Specification

Pressure Rating up to 3000 psig(206bar) @ 100°F(38°C)
 Temperature Range from -20°F(-28°C) to 450°F(232°C)
 Size Range
 - Hy-Lok ends : 1/4" to 1" (6mm to 25mm)
 - Screwed ends : 1/8" to 1" (NPT, BSPT)
 - Butt-weld ends : 1/4" to 1" (Pipe)
 - Socket weld ends : 1/4" to 1" (Tube and Pipe)
 - ZCO O-Ring Face Seal ends : 1/4" to 1/2"
 - ZCR Metal Gasket Seal ends : 1/4" to 1/2"

Testing

- Each valve is tested with nitrogen @ 1000 psig (69 bar) to Max. leak rate of 0.1 SCCM.
- Hydrostatic shell test is performed at 1.5 times the working pressure as an option.
- Other tests are upon request.

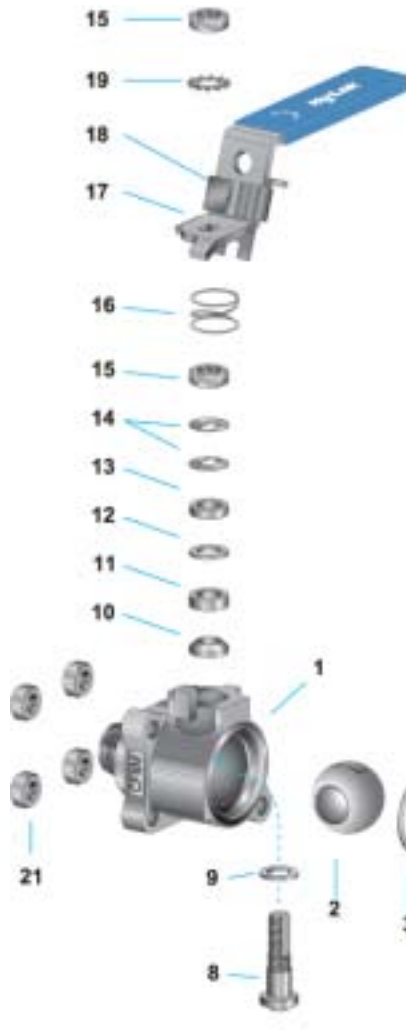
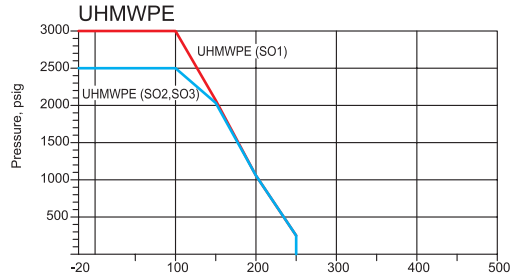
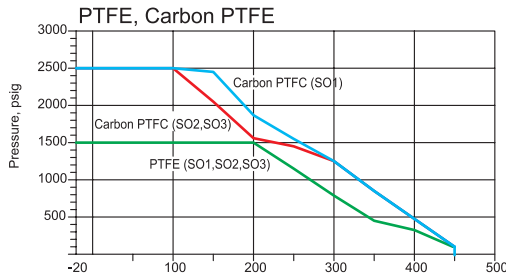
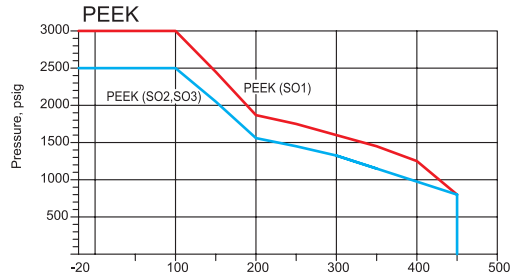
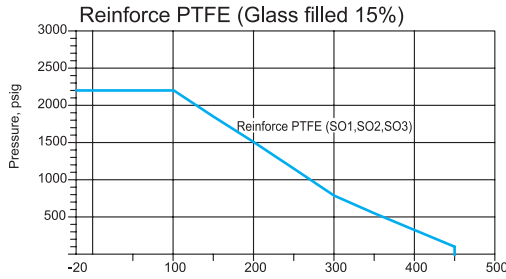
Pressure and Temperature Rating

| Seat Material | Valve Series | Pressure Rating at -20 °F to 100 °F (-28 °C to 38 °C) psig (bar) | Pressure Max. Temperature |
|----------------------------|--------------|------------------------------------------------------------------|-----------------------------------------|
| Reinforced PTFE (Standard) | SO1B | 2200 (151) | 100 psig at 450 °F (7 bar at 232 °C) |
| | SO2B | | |
| | SO3B | | |
| PTFE | SO1B | 1500 (103) | 100 psig at 450 °F (7 bar at 232 °C) |
| | SO2B | | |
| | SO3B | | |
| UHMWPE (Polyethylene) | SO1B | 3000 (206) | 250 psig at 250 °F (17 bar at 121 °C) |
| | SO2B | | |
| | SO3B | | |
| Carbon PTFE | SO1B | 2500 (172) | 100 psig at 450 °F (7 bar at 232 °C) |
| | SO2B | | |
| | SO3B | | |
| PEEK | SO1B | 3000 (206) | 800 psig at 450 °F (55 bar at 232 °C) |
| | SO2B | | |
| | SO3B | | |

Note

Pressure rating of switching valve is 1000psig(69bar) @ -20 °F to 100 °F (-28 °C to 38 °C)

Pressure & Temperature of Seat Material



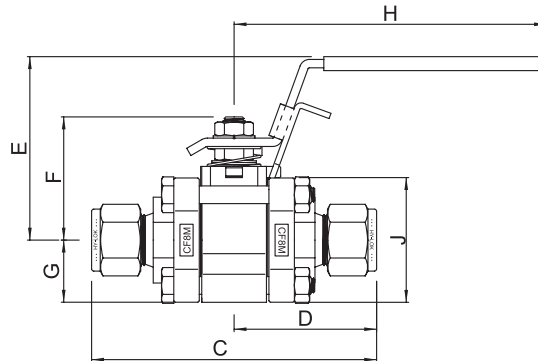
Materials of Construction

| Description | Material / ASTM Specification |
|----------------------|---------------------------------|
| * 1 Body | CF8M / A351 |
| * 2 Ball | Type 316 / A479 |
| * 3 Support Ring (2) | Type 316 / A479 |
| * 4 Seats (2) | Reinforced PTFE |
| * 5 Seat Spring (2) | 17-7PH |
| * 6 Flange Seal (2) | PTFE |
| * 7 Flange (2) | CF8M / A351 or Type 316L / A479 |
| * 8 Stem | Type 316 / A479 |
| * 9 Stem Bearing | PEEK (Polyetheretherketone) |
| * 10 Lower Packing | Reinforced PTFE |
| * 11 Upper Packing | Reinforced PTFE |
| 12 Packing Support | PEEK (Polyetheretherketone) |
| 13 Gland | Type 316 / A479 |
| 14 Stem Spring (2) | Strain Hardned 316 |
| 15 Stem Nut (2) | Strain Hardned 316 |
| 16 Grounding Spring | Strain Hardned 316 |
| 17 Handle | Stainless Steel |
| 18 Locking Device | Stainless Steel |
| 19 Tooth Washer | Stainless Steel |
| 20 Body Bolt (4) | Gr. B8M / A193 |
| 21 Body Nut (4) | Gr. 8M / A194 |

In case welding type, End connection is made of A479 TYPE 316L
 "*" marked are wetted parts.

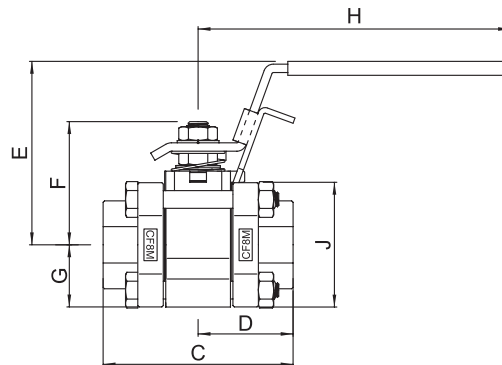
Dimensions 2-Way (Shut-off)

Hy-Lok Tube End Connections



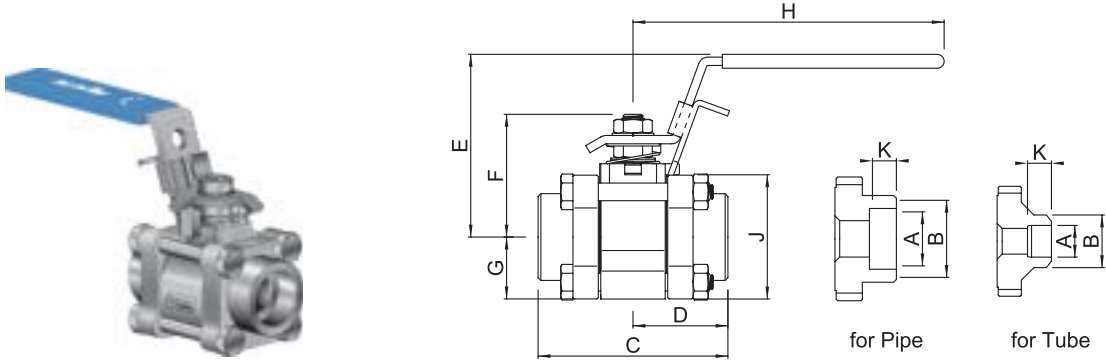
| Basic Order No. | End Connection Size | Orifice | | Cv | Dimensions (mm) | | | | | | |
|-------------------|---------------------|---------|------|------|-----------------|-------|------|------|-------|-------|------|
| | | in. | mm | | C | D | E | F | G | H | J |
| Fractional | | | | | | | | | | | |
| SO1BH- 4T | 1/4" | 0.188 | 4.8 | 1.2 | 80.8 | 40.40 | 47.7 | 31.8 | 16.75 | 57.2 | 33.0 |
| SO1BH- 6T | 3/8" | 0.281 | 7.1 | 3.8 | | | | | | | |
| SO2BH- 8T | 1/2" | 0.411 | 10.4 | 7.5 | 103.8 | 51.90 | 64.8 | 44.2 | 22.25 | 111.0 | 44.5 |
| SO2BH-12T | 3/4" | 0.516 | 13.1 | 13.6 | | | | | | | |
| SO3BH-16T | 1" | 0.875 | 22.2 | 40.0 | 136.7 | 68.35 | 79.0 | 61.9 | 31.00 | 149.4 | 62.0 |
| Metric | | | | | | | | | | | |
| SO1BH- 6M | 6mm | 0.188 | 4.8 | 1.2 | 80.8 | 40.40 | 47.7 | 31.8 | 16.75 | 57.2 | 33.0 |
| SO1BH- 8M | 8mm | 0.250 | 6.4 | 2.5 | | | | | | | |
| SO1BH-10M | 10mm | 0.281 | 7.1 | 3.8 | | | | | | | |
| SO2BH-12M | 12mm | 0.411 | 10.4 | 7.5 | 103.8 | 51.90 | 64.8 | 44.2 | 22.25 | 111.0 | 44.5 |
| SO3BH-25M | 25mm | 0.875 | 22.2 | 40.0 | 136.7 | 68.35 | 79.0 | 61.9 | 31.00 | 149.4 | 62.0 |

Female Pipe Thread End Connections



| Basic Order No. | End Connection Size | Orifice | | Cv | Dimensions (mm) | | | | | | |
|----------------------------------|---------------------|---------|------|------|-----------------|-------|------|------|-------|-------|------|
| | | in. | mm | | C | D | E | F | G | H | J |
| Female NPT (ASME B1.20.1) | | | | | | | | | | | |
| SO1BF- 2N | 1/8" NPT | 0.281 | 7.1 | 3.8 | 55.4 | 27.70 | 47.7 | 31.8 | 16.75 | 57.2 | 33.0 |
| SO1BF- 4N | 1/4" NPT | | | 12.0 | | | | | | | |
| SO2BF- 6N | 3/8" NPT | 0.516 | 13.1 | 12.0 | 68.9 | 34.45 | 64.8 | 44.2 | 22.25 | 111.0 | 44.5 |
| SO2BF- 8N | 1/2" NPT | | | 31.0 | | | | | | | |
| SO3BF-12N | 3/4" NPT | 0.875 | 22.2 | 31.0 | 92.0 | 46.00 | 79.0 | 61.9 | 31.00 | 149.4 | 62.0 |
| SO3BF-16N | 1" NPT | | | 38.0 | | | | | | | |
| Female ISO Tapered | | | | | | | | | | | |
| SO1BF- 4R | 1/4" ISO Tapered | 0.281 | 7.1 | 3.8 | 55.4 | 27.70 | 47.7 | 31.8 | 16.75 | 57.2 | 33.0 |
| SO2BF- 8R | 1/2" ISO Tapered | 0.516 | 13.1 | 12.0 | 68.9 | 34.45 | 64.8 | 44.2 | 22.25 | 111.0 | 44.5 |
| SO3BF-12R | 3/4" ISO Tapered | 0.875 | 22.2 | 31.0 | 92.0 | 46.00 | 79.0 | 61.9 | 31.00 | 149.4 | 62.0 |
| SO3BF-16R | 1" ISO Tapered | | | 38.0 | | | | | | | |

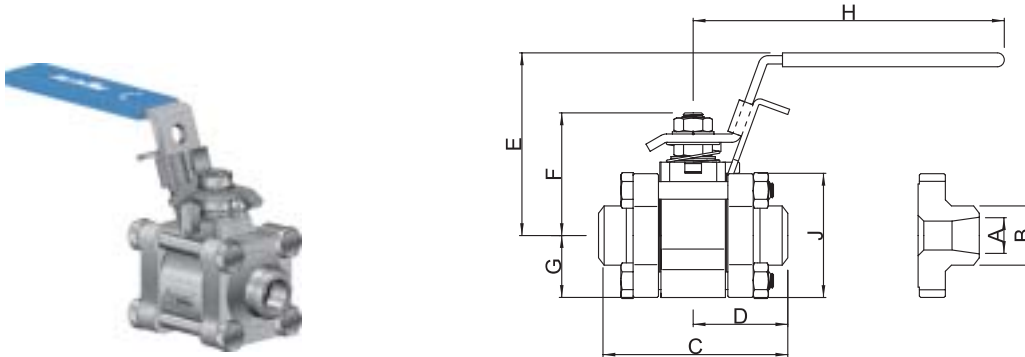
Pipe & Tube Socket Weld End Connections



Tube Socket Weld

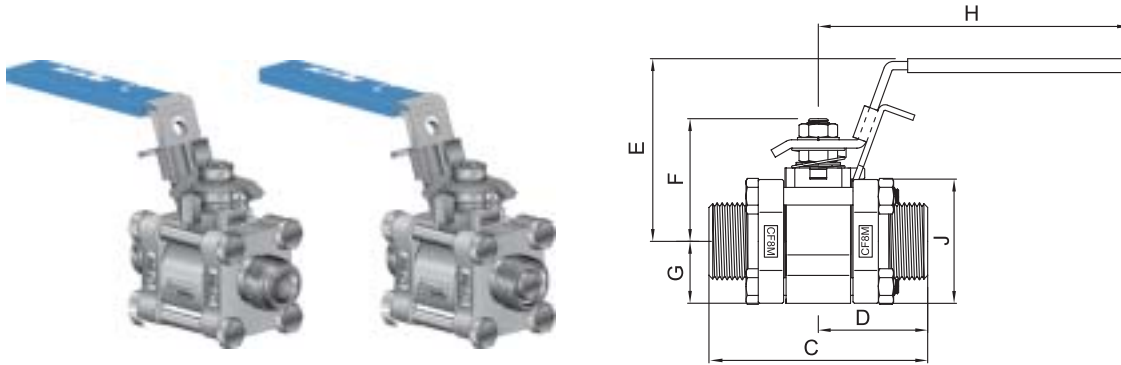
| Basic Order No. | End Connection Size | Orifice | | Cv | Dimensions (mm) | | | | | | | | | |
|-------------------------|---------------------|---------|------|------|-----------------|-------|------|-------|------|------|-------|-------|------|------|
| | | in. | mm | | A | B | C | D | E | F | G | H | J | K |
| Tube Socket Weld | | | | | | | | | | | | | | |
| SO1BSW- 4T | 1/4" | 0.188 | 4.8 | 1.2 | 6.50 | 13.70 | 55.4 | 27.70 | 47.7 | 31.8 | 16.75 | 57.2 | 33.0 | 7.1 |
| SO1BSW- 6T | 3/8" | 0.281 | 7.1 | 3.8 | 9.70 | 17.10 | 55.4 | 27.70 | 47.7 | 31.8 | 16.75 | 57.2 | 33.0 | 7.9 |
| SO2BSW- 8T | 1/2" | 0.411 | 10.4 | 7.5 | 12.90 | 21.30 | 68.9 | 34.45 | 64.8 | 44.2 | 22.25 | 111.0 | 44.5 | 9.7 |
| SO2BSW-12T | 3/4" | 0.516 | 13.1 | 13.6 | 19.20 | 26.70 | 68.9 | 34.45 | 64.8 | 44.2 | 22.25 | 111.0 | 44.5 | 11.2 |
| SO3BSW-16T | 1" | 0.875 | 22.2 | 40.0 | 25.65 | 33.40 | 92.0 | 46.00 | 79.0 | 61.9 | 31.00 | 149.4 | 62.0 | 16.0 |
| Pipe Socket Weld | | | | | | | | | | | | | | |
| SO2BSW- 8P | 1/2" | 0.516 | 13.1 | 15.0 | 21.80 | 31.20 | 68.9 | 34.45 | 64.8 | 44.2 | 22.25 | 111.0 | 44.5 | 9.7 |
| SO3BSW-12P | 3/4" | 0.875 | 22.2 | 36.0 | 27.20 | 42.16 | 92.0 | 46.00 | 79.0 | 61.9 | 31.00 | 149.4 | 62.0 | 12.7 |
| SO3BSW-16P | 1" | | | 42.0 | 33.90 | 45.30 | | | | | | | | |

Pipe Butt Weld End Connections



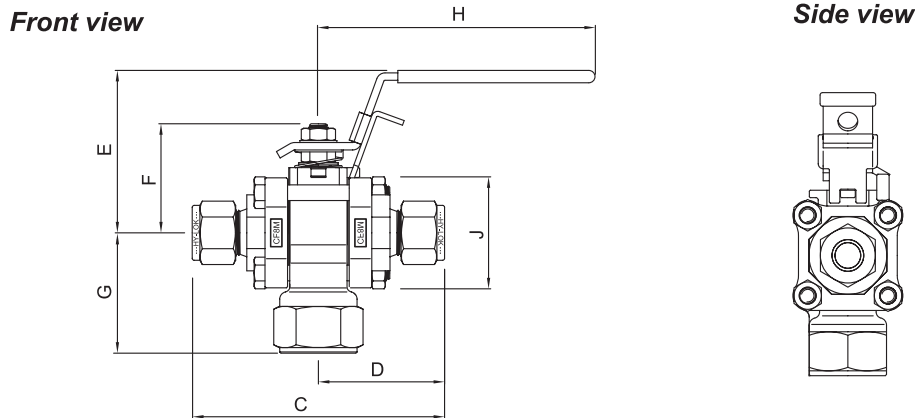
| Basic Order No. | End Connection Size | Orifice | | Cv | Dimensions (mm) | | | | | | | | | |
|--------------------|---------------------|---------|------|------|-----------------|-------|------|-------|------|------|-------|-------|------|------|
| | | in. | mm | | A | B | C | D | E | F | G | H | J | |
| Schedule 10 | | | | | | | | | | | | | | |
| SO1BBW- 4P-S10 | 1/4" | 0.188 | 4.8 | 1.2 | 10.40 | 13.70 | 52.4 | 26.20 | 47.7 | 31.8 | 16.75 | 57.2 | 33.0 | |
| SO2BBW- 8P-S10 | 1/2" | 0.516 | 13.1 | 15.0 | 17.10 | 21.30 | 68.9 | 34.45 | 64.8 | 44.2 | 22.25 | 111.0 | 44.5 | |
| SO3BBW-12P-S10 | 3/4" | 0.875 | 22.2 | 36.0 | 22.45 | 26.67 | 92.0 | 46.00 | 79.0 | 61.9 | 31.00 | 149.4 | 62.0 | |
| SO3BBW-16P-S10 | 1" | | | 40.0 | 27.90 | 33.40 | | | | | | | | 88.9 |
| Schedule 40 | | | | | | | | | | | | | | |
| SO1BBW- 4P-S40 | 1/4" | 0.188 | 4.8 | 1.2 | 9.20 | 13.70 | 52.4 | 26.20 | 47.7 | 31.8 | 16.75 | 57.2 | 33.0 | |
| SO2BBW- 8P-S40 | 1/2" | 0.516 | 13.1 | 15.0 | 15.80 | 21.30 | 68.9 | 34.45 | 64.8 | 44.2 | 22.25 | 111.0 | 44.5 | |
| SO3BBW-12P-S40 | 3/4" | 0.875 | 22.2 | 36.0 | 20.93 | 26.67 | 92.0 | 46.00 | 79.0 | 61.9 | 31.00 | 149.4 | 62.0 | |
| SO3BBW-16P-S40 | 1" | | | 40.0 | 26.60 | 33.40 | | | | | | | | 88.9 |
| Schedule 80 | | | | | | | | | | | | | | |
| SO1BBW- 4P-S80 | 1/4" | 0.188 | 4.8 | 1.2 | 7.70 | 13.70 | 52.4 | 26.20 | 47.7 | 31.8 | 16.75 | 57.2 | 33.0 | |
| SO1BBW- 6P-S80 | 3/8" | 0.281 | 7.1 | 3.8 | 10.70 | 17.10 | 52.4 | 26.20 | 47.7 | 31.8 | 16.75 | 57.2 | 33.0 | |
| SO2BBW- 8P-S80 | 1/2" | 0.411 | 10.4 | 7.5 | 13.90 | 21.30 | 68.9 | 34.45 | 64.8 | 44.2 | 22.25 | 111.0 | 44.5 | |
| SO2BBW-12P-S80 | 3/4" | 0.516 | 13.1 | 13.6 | 18.80 | 26.70 | 68.9 | 34.45 | 64.8 | 44.2 | 22.25 | 111.0 | 44.5 | |
| SO3BBW-16P-S80 | 1" | 0.875 | 22.2 | 40.0 | 23.90 | 33.40 | 88.9 | 44.45 | 79.0 | 61.9 | 31.00 | 149.4 | 62.0 | |

Zero Clearance Face Seal End Connections



| Basic Order No. | End Connection Size | Orifice | | Cv | Dimensions (mm) | | | | | | |
|-------------------------------|---------------------|---------|------|-----|-----------------|------|------|------|-------|--------|------|
| | | in. | mm | | C | D | E | F | G | H | J |
| O-Ring Face Seal | | | | | | | | | | | |
| SO1BZCO-4 | 1/4" ZCO | 0.188 | 4.8 | 1.2 | 66.6 | 33.3 | 47.7 | 31.8 | 16.75 | 57.15 | 33.0 |
| SO2BZCO-8 | 1/2" ZCO | 0.411 | 10.4 | 7.5 | 82.8 | 41.4 | 64.8 | 44.2 | 22.25 | 111.00 | 44.5 |
| Metal Gasket Face Seal | | | | | | | | | | | |
| SO1BZCR-4 | 1/4" ZCR | 0.188 | 4.8 | 1.2 | 63.6 | 31.8 | 47.7 | 31.8 | 16.75 | 57.15 | 33.0 |
| SO2BZCR-8 | 1/2" ZCR | 0.406 | 10.3 | 7.5 | 92.0 | 46.0 | 64.8 | 44.2 | 22.25 | 111.00 | 44.5 |

3-Way (Switching)



| Basic Order No. | End Connection Size | Orifice | | Dimensions (mm) | | | | | | | |
|----------------------------------|---------------------|---------|------|-----------------|-------|------|------|------|-------|------|--|
| | | in. | mm | C | D | E | F | G | H | J | |
| Hy-Lok Tube Connections | | | | | | | | | | | |
| SO1B3H-4T | 1/4" | 0.188 | 4.8 | 80.8 | 40.40 | 47.7 | 31.8 | 43.6 | 57.2 | 33.0 | |
| SO1B3H-6T | 3/8" | 0.281 | 7.1 | | | | | 44.5 | | | |
| SO2B3H-8T | 1/2" | 0.411 | 10.4 | 103.8 | 51.90 | 64.8 | 44.2 | 59.0 | 111.0 | 44.5 | |
| SO2B3H-12T | 3/4" | 0.516 | 13.1 | | | | | | | | |
| SO3B3H-16T | 1" | 0.812 | 20.6 | 136.7 | 68.35 | 79.0 | 61.9 | 74.9 | 149.4 | 62.0 | |
| Female NPT (ASME B1.20.1) | | | | | | | | | | | |
| SO1B3F- 4N | 1/4" NPT | 0.281 | 7.1 | 55.4 | 27.70 | 47.7 | 31.8 | 36.5 | 57.2 | 33.0 | |
| SO2B3F- 8N | 1/2" NPT | 0.516 | 13.1 | 68.9 | 34.45 | 64.8 | 44.2 | 49.0 | 111.0 | 44.5 | |
| SO3B3F-12N | 3/4" NPT | 0.812 | 20.6 | 92.0 | 46.00 | 79.0 | 61.9 | 62.5 | 149.4 | 62.0 | |
| SO3B3F-16N | 1" NPT | | | | | | | | | | |
| Female ISO Tapered | | | | | | | | | | | |
| SO1B3F- 4R | 1/4" ISO Tapered | 0.281 | 7.1 | 55.4 | 27.70 | 47.7 | 31.8 | 36.5 | 57.2 | 33.0 | |
| SO2B3F- 8R | 1/2" ISO Tapered | 0.516 | 13.1 | 68.9 | 34.45 | 64.8 | 44.2 | 49.0 | 111.0 | 44.5 | |
| SO3B3F-12R | 3/4" ISO Tapered | 0.812 | 20.6 | 92.0 | 46.00 | 79.0 | 61.9 | 62.5 | 149.4 | 62.0 | |
| SO3B3F-16R | 1" ISO Tapered | | | 114.3 | 57.15 | | | | | | |

Option

Oval Handle

Oval handle as an option.
For the ordering number of the oval handle, refer to the ordering information (page 8)



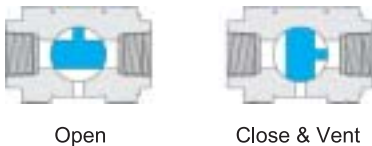
Vent Option

2-way valve is available with both internal or external vent and down stream or upstream vent

- Ball design for internal & external vent



- Downstream & Upstream vent



For the ordering number of downstream & upstream, refer to the ordering information (page 8)

Sour Gas Service

Valves are available in materials which comply with standard NACE MR-01-75 latest revision relating to metallic materials offering optimum resistance to sulfide stress cracking

Low Dead Space Inserts

2-Way is available with low dead space inserts. It prevents fluid entrapment around the ball and stem during operation. Low dead space insert is made of reinforced PTFE. Not suitable for steam, thermal and fire service.



Ordering Number
KIT- **** -LDSI

- * For a complete ordering number, insert the desired series designator as a suffix to the Low dead space insert kit basic ordering number. e.g : KIT-SO2B-LDSI

Mounting Bracket

panel mounting kit contains panel mounting bracket, body bolt for mounting, Round hex. socket head screw, cover plate.

- Horizontal and vertical mounting
- SO1B series - 3/16 in. (4.8mm)
- SO2B, SO3B series - 1/4 in. (6.4mm)
- Templets for panel drilling will be supplied.

Ordering Number
KIT- **** -PNM

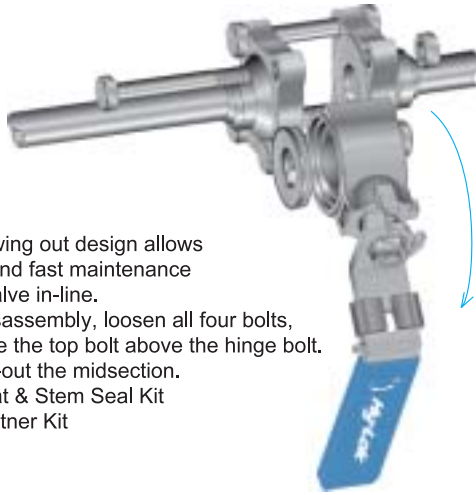
- * For a complete ordering number, insert the desired series designator as a suffix to the panel mounting kit basic ordering number. e.g : KIT-SO2B-PNM



Actuator

So Series Ball Valves are available with Pneumatic Actuator and Electric Actuator. So Series Ball Valves can be supplied with Actuator and Mounting Bracket used to connect Valves to Actuators. For Actuator option, contact your local distributors.

Maintenance kits



The swing out design allows easy and fast maintenance with valve in-line.
 For disassembly, loosen all four bolts, remove the top bolt above the hinge bolt. Swing-out the midsection.
 ■ Seat & Stem Seal Kit
 ■ Fastner Kit

Seat & Stem Seal Kits

Seat & stem seal kits contain components as below.

| Basic Ordering No. | Seat Material | Component |
|--------------------|---------------|---------------------------------------------------------------------------------------------------|
| KIT- **** -SEAL | RTFE | Seats, Seat springs, Support rings, End Packing, Stem bearings, Packings, Packing supports, Gland |
| | PTFE | |
| | RTFC | |
| | PEEK | |
| | UHMW | |

* For a complete ordering number, insert the desired series designator as a suffix to the seal kit basic ordering number e.g : KIT-SO2B-SEAL / RTFC (Vee tip, Carbon filled seat)

Fastner Kits

Fastner kit contains valve component as below.

| Basic Ordering No. | Bolt Material | Component |
|--------------------|---------------|-----------------------------|
| KIT- **** -FST | B8M | 4-Hex. bolt & Nut, Stem nut |

* For a complete ordering number, insert the desired series designator as a suffix to the fastner kit basic ordering number e.g : KIT-SO2B-FST



Ordering Information

| SO2B | 3 | H | 8T | PK | M | O | DV | SOG | S316 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------|-------------|------|----------------------------------------|---------------|-----------------------|-----------------------------------------|-----|-----|----|----|--------|----|---|-----|-----|----|----|--------|----|---|-----|------|----|-----|--------|----|---|-----|------|----|-----|--------|----|---|-----|------|-----|-----|---------|-----|---|---|------|-----|-----|---------|-----|---|
| <p>Valve Series Designator</p> <ul style="list-style-type: none"> • SO1B - 7.1mm Orifice • SO2B - 13.1mm Orifice • SO3B - 22.2mm Orifice | | <p>Body Pattern Designator</p> <ul style="list-style-type: none"> • Nil - Straight (Standard) • 3 - Switching | | <p>Panel Mounting Option*</p> <ul style="list-style-type: none"> • Nil - without • M - with | | <p>Handle Option*</p> <ul style="list-style-type: none"> • Nil - Lever (standard) • O - Oval with stop plate | | <p>Body Material Designator</p> <ul style="list-style-type: none"> • S316 - Stainless Steel A351 CF8M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>End Connection Designator</p> <ul style="list-style-type: none"> • H - Hy-Lok Tube Fittings • F - Female Thread • M - Male Thread • SW - Socket Weld • BW - Butt Weld • ZCO - O-Ring Face Seal Fittings • ZCR - Metal Gasket Face Seal Fittings | | <p>Seat Material Designator*</p> <ul style="list-style-type: none"> • Nil-Reinforce PTFE(Standard) • PK-PEEK • RC-Carbon PTFE • UH-UHMWPE | | <p>Size Designator</p> | | <p>Vent Option*</p> <ul style="list-style-type: none"> • Nil - without (standard) • DV - Downstream vent • UV - Upstream vent | | <p>Sour Gas Option*</p> <ul style="list-style-type: none"> • Nil - without (standard) • SOG - NACE MR-01-75 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Size</th> <th>Hy-Lok Tube Fitting & Tube Socket Weld</th> <th>NPT (ISO/BSP)</th> <th>Pipe Socket/Butt Weld</th> <th>ZCO O-Ring & ZCR Metal Gasket Face Seal</th> </tr> </thead> <tbody> <tr> <td>1/8</td> <td>3mm</td> <td>2T</td> <td>3M</td> <td>2N (R)</td> <td>2P</td> <td>-</td> </tr> <tr> <td>1/4</td> <td>6mm</td> <td>4T</td> <td>6M</td> <td>4N (R)</td> <td>4P</td> <td>4</td> </tr> <tr> <td>3/8</td> <td>10mm</td> <td>6T</td> <td>10M</td> <td>6N (R)</td> <td>6P</td> <td>-</td> </tr> <tr> <td>1/2</td> <td>12mm</td> <td>8T</td> <td>12M</td> <td>8N (R)</td> <td>8P</td> <td>8</td> </tr> <tr> <td>3/4</td> <td>20mm</td> <td>12T</td> <td>20M</td> <td>12N (R)</td> <td>12P</td> <td>-</td> </tr> <tr> <td>1</td> <td>25mm</td> <td>16T</td> <td>25M</td> <td>16N (R)</td> <td>16P</td> <td>-</td> </tr> </tbody> </table> | | | | | | | | | | Size | Hy-Lok Tube Fitting & Tube Socket Weld | NPT (ISO/BSP) | Pipe Socket/Butt Weld | ZCO O-Ring & ZCR Metal Gasket Face Seal | 1/8 | 3mm | 2T | 3M | 2N (R) | 2P | - | 1/4 | 6mm | 4T | 6M | 4N (R) | 4P | 4 | 3/8 | 10mm | 6T | 10M | 6N (R) | 6P | - | 1/2 | 12mm | 8T | 12M | 8N (R) | 8P | 8 | 3/4 | 20mm | 12T | 20M | 12N (R) | 12P | - | 1 | 25mm | 16T | 25M | 16N (R) | 16P | - |
| Size | Hy-Lok Tube Fitting & Tube Socket Weld | NPT (ISO/BSP) | Pipe Socket/Butt Weld | ZCO O-Ring & ZCR Metal Gasket Face Seal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1/8 | 3mm | 2T | 3M | 2N (R) | 2P | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1/4 | 6mm | 4T | 6M | 4N (R) | 4P | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3/8 | 10mm | 6T | 10M | 6N (R) | 6P | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1/2 | 12mm | 8T | 12M | 8N (R) | 8P | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3/4 | 20mm | 12T | 20M | 12N (R) | 12P | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 25mm | 16T | 25M | 16N (R) | 16P | - | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Note* : No designator is required for standard e.g. SO2B3H-8T - S316</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

SAFETY in VALVE SELECTION

Proper installation, materials compatibility, operation and maintenance of these valves is the responsibility of the user. The total system design must be taken into consideration to ensure optimal performance and safety