

Style BVS3

Ball Valve

Carbon Steel (ASTM A 216, Grade WCB)

Stainless Steel (ASTM A 351, Grade CF8M)

NPT or Socket Weld Ends



Seal Welded High Pressure Ball Valve

APPLICATIONS

Industrial and Oil/Gas piping applications where the safety of seal welded construction is desired, any application that requires ASME B16.34 Class 1500 compliance and/or compliance with API 608, and operating pressures are 3600 PSIG or lower.

CONSTRUCTION

Keckley Style BVS3 seal welded high pressure ball valves are constructed from investment cast ASTM grade materials that are NACE MR0175 compliant. They are machined to exacting specifications. Full seal welding of body to tailpiece eliminates the possibility of the tailpiece unthreading, leaking or “blowing out” in service. All valves are shell and seat tested in accordance with API 598. ASME B16.34 Class 1500 compliance provides full conformance to ASME B31 Piping Codes.

FEATURES

- Seal Welded Construction
- Fully Compliant to ASME B16.34 Class 1500
- Fully Compliant to API 608
- API 607 6th Edition Fire-Safe
- Full and Reduced Port Sizes are available
- All Models are NACE MR0175 Compliant
- Elongated Packing Gland for Ease of Access When Automated
- Standard ISO Actuator Mounting Pads on All Sizes
- Standard Locking Stainless Steel Handles
- Electrically Grounded Stem
- Optional PEEK Seats for High Temp Services

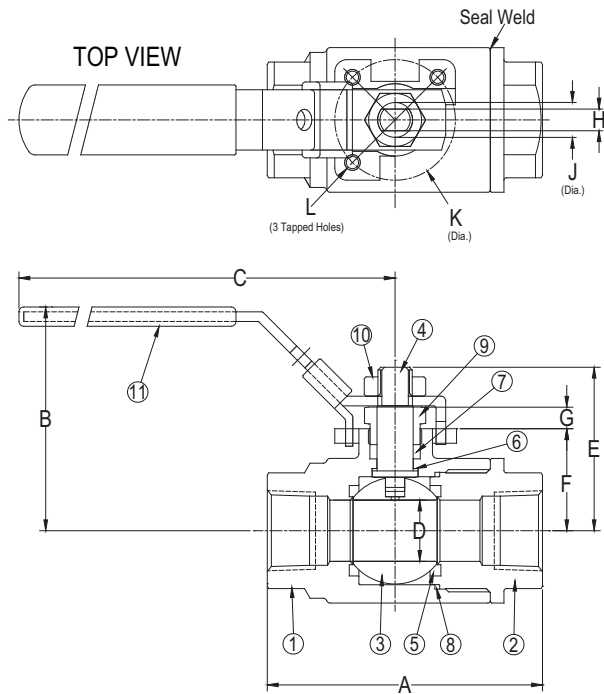
ORDERING

Reference *How to Order BVS3 Ball Valves* for building the Keckley Product Number.

WORKING PRESSURES - NON SHOCK

| MATERIAL | MEDIA | 1/4" to 2" | 8 mm to 50 mm |
|------------------------|-----------------------|--|---|
| ASTM A 216, Grade WCB | W.O.G. | 3705 PSI @ 100°F | 15306 KPa @ 38°C |
| | Saturated Steam (WSP) | Delrin AF Seats No Steam Rating | Delrin AF Seats No Steam Rating |
| | | Optional PEEK Seats 250 PSI @ 406°F | Optional PEEK Seats 1724 KPa @ 208°C |
| MATERIAL | MEDIA | 1/4" to 2" | 8 mm to 50 mm |
| ASTM A 351, Grade CF8M | W.O.G. | 3600 PSI @ 100°F | 24821 KPa @ 38°C |
| | Saturated Steam (WSP) | Delrin AF Seats No Steam Rating | Delrin AF Seats No Steam Rating |
| | | Optional PEEK Seats 250 PSI @ 406°F | Optional PEEK Seats 1724 KPa @ 208°C |

Note: Optional PEEK Seats WSP is 250 PSIG @ 406°F (1724 KPa @ 208°C)



Style BVS3

Seal Welded High Pressure Ball Valve
NPT or Socket Weld Ends*

| PARTS LIST | | | |
|------------|-----------------------|----------------------|----------------------|
| ITEM | DESCRIPTION | MATERIAL | |
| 1 | Body | A 216, WCB | A 351, CF8M |
| 2 | Tailpiece | A 216, WCB | A 351, CF8M |
| 3 | Ball | A 351, CF8M or 316SS | A 351, CF8M or 316SS |
| 4 | Stem** | A 276, 316 | A 276, 316 |
| 5 | Seat (2) [†] | Delrin AF | Delrin AF |
| 6 | Thrust Washer | Delrin AF | Delrin AF |
| 7 | Stem Packing | Graphite | Graphite |
| 8 | Body Seal | Graphite | Graphite |
| 9 | Packing Gland | A 276, 316 | A 276, 316 |
| 10 | Lock Nut | 304SS | 304SS |
| 11 | Handle | 300 Series SS | 300 Series SS |

Note: Socket Weld Ends require PEEK seats.
*Size 1-1/2" & 2" S17400 SS.
†Optional PEEK Seats for High Temp Service are available.

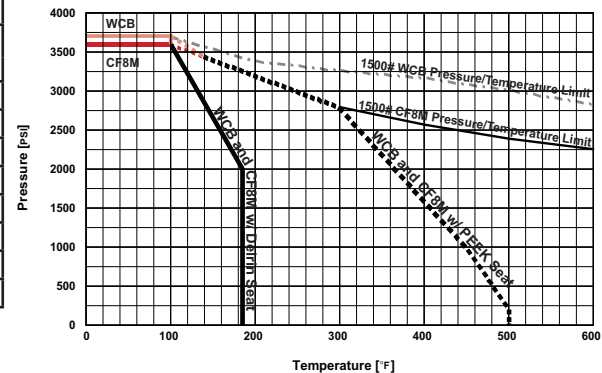
| SIZE | | DIMENSIONS | | | | | | | | | | | | | | WEIGHTS | |
|------------|----|------------|-------|-----|-------|------|-------|------|------|------|-------|------|-------|------|-------|---------|-----|
| | | A | | B | | C | | D | | E | | F | | G | | | |
| in (Port) | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | lbs | kgs |
| 1/4 (FP) | 8 | 3.0 | 76.2 | 2.4 | 61.0 | 5.1 | 129.6 | 0.25 | 6.4 | 1.63 | 41.41 | 0.89 | 22.61 | 0.42 | 10.67 | 1.6 | 0.7 |
| 3/8 (RP) | 10 | 3.0 | 76.2 | 2.4 | 61.0 | 5.1 | 129.6 | 0.25 | 6.4 | 1.63 | 41.41 | 0.89 | 22.61 | 0.42 | 10.67 | 1.6 | 0.7 |
| 1/2 (FP) | 15 | 4.0 | 101.6 | 2.4 | 61.0 | 5.1 | 129.6 | 0.50 | 12.7 | 1.63 | 41.41 | 0.89 | 22.61 | 0.42 | 10.67 | 1.8 | 0.8 |
| 3/4 (FP) | 20 | 4.3 | 109.3 | 3.0 | 76.2 | 5.6 | 142.3 | 0.75 | 19.1 | 2.22 | 56.39 | 1.29 | 32.77 | 0.42 | 10.67 | 3.1 | 1.4 |
| 1 (RP) | 25 | 4.3 | 109.3 | 3.0 | 76.2 | 5.6 | 142.3 | 0.75 | 19.1 | 2.22 | 56.39 | 1.29 | 32.77 | 0.42 | 10.67 | 2.9 | 1.3 |
| 1 (FP) | 32 | 4.5 | 114.3 | 3.5 | 88.9 | 7.4 | 188.0 | 1.00 | 25.4 | 2.80 | 71.12 | 1.65 | 41.91 | 0.43 | 10.93 | 4.4 | 2.0 |
| 1-1/2 (FP) | 40 | 5.3 | 134.7 | 4.6 | 116.9 | 14.0 | 355.6 | 1.50 | 38.1 | 3.87 | 98.30 | 2.49 | 63.25 | 0.52 | 13.21 | 10.9 | 4.9 |
| 2 (RP) | 50 | 6.3 | 160.1 | 4.6 | 116.9 | 14.0 | 355.6 | 1.50 | 38.1 | 3.87 | 98.30 | 2.49 | 63.25 | 0.52 | 13.21 | 12.3 | 5.6 |

Certified dimensional drawings are available upon request.
*This table reflects only the nearest metric equivalents.

| SIZE | | DIMENSIONS | | | | | | | | ISO PATTERN |
|------------|----|------------|------|------|-------|------|------|--------------|-----|-------------|
| | | H | | J | | K | | L | | |
| in (Port) | mm | in | mm | in | mm | in | mm | in | | |
| 1/4 (FP) | 8 | 0.20 | 5.08 | 0.31 | 7.88 | 1.42 | 36.1 | 1/4"-20 UNC | F03 | |
| 3/8 (RP) | 10 | 0.20 | 5.08 | 0.31 | 7.88 | 1.42 | 36.1 | 1/4"-20 UNC | F03 | |
| 1/2 (FP) | 15 | 0.20 | 5.08 | 0.31 | 7.88 | 1.42 | 36.1 | 1/4"-20 UNC | F03 | |
| 3/4 (FP) | 20 | 0.28 | 7.12 | 0.44 | 11.18 | 1.65 | 42.0 | 1/4"-20 UNC | F04 | |
| 1 (RP) | 25 | 0.28 | 7.12 | 0.44 | 11.18 | 1.65 | 42.0 | 1/4"-20 UNC | F04 | |
| 1 (FP) | 32 | 0.35 | 8.89 | 0.56 | 14.23 | 1.97 | 50.1 | 1/4"-20 UNC | F05 | |
| 1-1/2 (FP) | 40 | 0.39 | 9.91 | 0.62 | 15.75 | 2.76 | 70.2 | 5/16"-18 UNC | F07 | |
| 2 (RP) | 50 | 0.39 | 9.91 | 0.62 | 15.75 | 2.76 | 70.2 | 5/16"-18 UNC | F07 | |

Certified dimensional drawings are available upon request.
*This table reflects only the nearest metric equivalents.

PRESSURE vs. TEMPERATURE CHART



FLOW COEFFICIENTS

| Size (Port) | C _v | Size (Port) | C _v | Size (Port) | C _v |
|-------------|----------------|-------------|----------------|-------------|----------------|
| 1/4" (FP) | 10 | 3/4" (FP) | 32 | 1-1/2" (FP) | 140 |
| 3/8" (RP) | 10 | 1" (RP) | 45 | 2" (RP) | 125 |
| 1/2" (FP) | 16 | 1" (FP) | 65 | | |

MAX TORQUE

| Size (Port) | in/lb (Delrin AF) | in/lb (PEEK) | Size (Port) | in/lb (Delrin AF) | in/lb (PEEK) | Size (Port) | in/lb (Delrin AF) | in/lb (PEEK) |
|-------------|-------------------|--------------|-------------|-------------------|--------------|-------------|-------------------|--------------|
| 1/4" (FP) | 75 | 100 | 3/4" (FP) | 120 | 270 | 1-1/2" (FP) | 750 | 1200 |
| 3/8" (RP) | 75 | 100 | 1" (RP) | 200 | 270 | 2" (RP) | 750 | 1200 |
| 1/2" (FP) | 75 | 100 | 1" (FP) | 400 | 700 | | | |