

2 Piece Threaded Full Port Ball Valves: 1/2" - 3"



Series 85

Flow-Tek's Series S85 ball valves have been designed for ease of automation. Standard 2-piece valve bodies are investment cast Stainless Steel, solution annealed for the highest quality and added strength. All body castings are marked with a foundry heat number for full traceability.

These valves offer quarter turn operation and low operating torque. The S85 features live-loaded, self-adjusting stem seals that automatically adjust packing to

compensate for changes in wear and temperature. Other features include replaceable seats and seals, anti-static devices, blowout proof stems, and stainless steel safety latch handles.

Secure Mount The Series S85 features Flow-Tek's Secure Mount integrally cast actuator mounting pad. The Secure Mount fully complies with ISO 5211, ensuring positive alignment and interchangeability of the actuator.

Pressure Rating 1000 psi WOG

Steam Rating 150 psi WSP

Temperature Range

-50°F to +450°F

-46°C to +232°C

End Connections Threaded - NPT

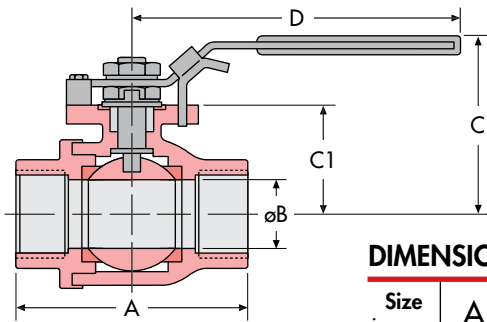
Body Material Stainless Steel

Technical Data

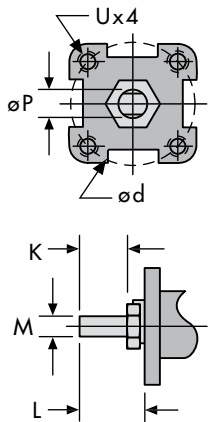
COMPONENTS AND MATERIALS

| Item | Name | Material | Qty. |
|--------|--------------------|--------------------|------|
| 1 | Body | ASTM A351 Gr CF8M | 1 |
| 2 | End Cap | ASTM A351 Gr CF8M | 1 |
| 3 | Ball | ASTM A351 Gr CF8M | 1 |
| 4 | Seat* | RPTFE | 2 |
| 5 | Stem | ASTM A479 Type 316 | 1 |
| 6 | Body Seal* | RPTFE | 1 |
| 10 | Anti-Static Device | SS304 | 2 |
| 11 A/B | Thrust Bearing* | PEEK | 1/1 |
| 12 | Thrust Washer* | 50% PTFE + 50% 316 | 1 |
| 14 | Stem Packing* | PTFE/RPTFE | 4 |
| 15 | Packing Gland | SS304 | 1 |
| 18 | Belleville Washer | SS301 | 2 |
| 19 | Tab Lock Washer | SS304 | 1 |
| 23 | Stop Set Sleeve | SS304 | 1 |
| 24 | Stop Bolt | SS304 | 1 |
| 25 | Handle | SS304 | 1 |
| 26 | Nut | SS304 | 2 |
| 28 | Handle Sleeve | Vinyl | 1 |
| 29 | Locking Device | SS300 | 1 |

*Parts included in the repair kits



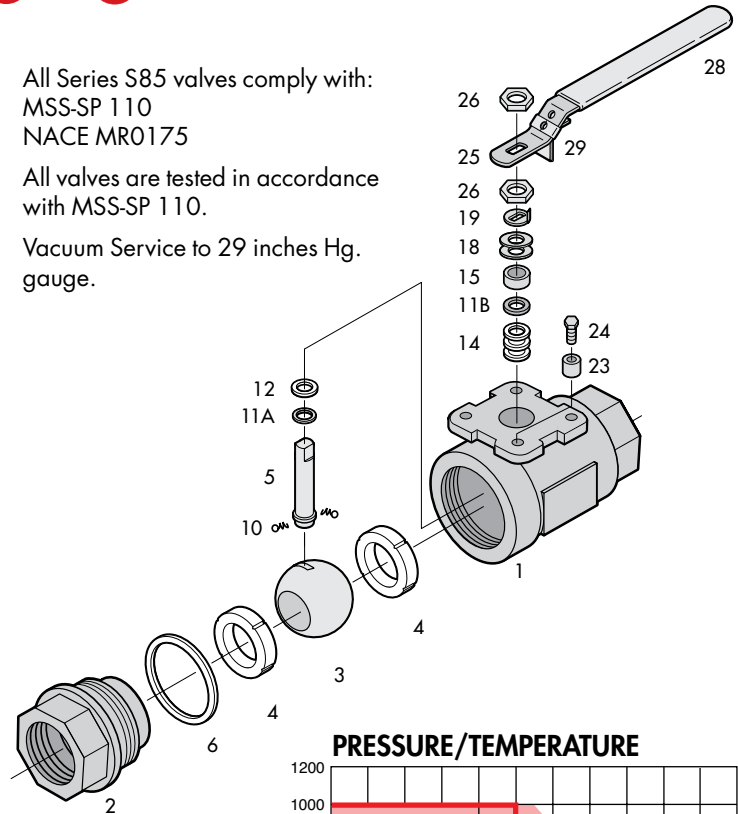
Verify mounting dimensions before manufacturing mounting hardware.



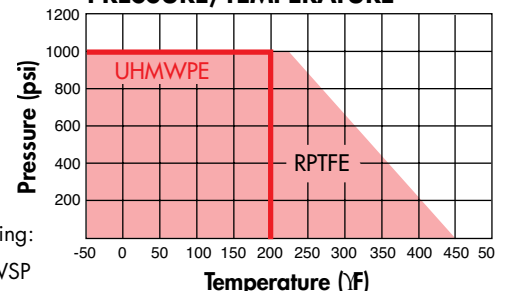
All Series S85 valves comply with:
MSS-SP 110
NACE MR0175

All valves are tested in accordance with MSS-SP 110.

Vacuum Service to 29 inches Hg. gauge.



PRESSURE/TEMPERATURE



DIMENSIONS AND WEIGHTS

| Size ins mm | A | øB Port | C | C1 | D | ød | K | L | M | øP | U UNC | C _v | Torque Weight | |
|----------------|-------|------------|-------|-------|-------|------|------|------|------|------|----------|----------------|---------------|-----------|
| | | | | | | | | | | | | | lbs-in* Nm | lbs kg |
| 1/2 | 2.56 | 0.59 | 2.52 | 1.13 | 6.50 | 1.65 | 0.35 | 0.65 | 0.25 | 0.37 | #10-24 | 38 | 60 | 65 |
| 15 | 65 | 15 | 64 | 28.7 | 165.1 | 42 | 9 | 16.5 | 6.4 | 9.4 | #10-24 | 7 | 7 | 0.3 |
| 3/4 | 2.99 | 0.79 | 2.80 | 1.40 | 6.50 | 1.65 | 0.35 | 0.65 | 0.25 | 0.37 | #10-24 | 66 | 96 | 1.45 |
| 20 | 76 | 20.1 | 71 | 35.5 | 165.1 | 42 | 9 | 16.5 | 6.4 | 6.4 | #10-24 | 11 | 11 | 0.7 |
| 1 | 3.46 | 0.98 | 3.11 | 1.61 | 7.87 | 1.97 | 0.55 | 0.87 | 0.32 | 0.43 | 1/4"-20 | 105 | 140 | 2.36 |
| 25 | 87.9 | 25 | 79 | 41 | 200 | 50 | 14 | 22 | 8 | 10.9 | 1/4"-20 | 16 | 16 | 1.1 |
| 1 1/4 | 3.82 | 1.26 | 3.66 | 2.16 | 7.87 | 1.97 | 0.55 | 0.97 | 0.32 | 0.43 | 1/4"-20 | 190 | 195 | 3.50 |
| 32 | 97 | 32 | 93 | 54.95 | 200 | 50 | 14 | 20 | 8 | 10.9 | 1/4"-20 | 22 | 22 | 1.6 |
| 1 1/2 | 4.33 | 1.50 | 3.94 | 2.28 | 9.84 | 2.76 | 0.59 | 1.02 | 0.37 | 0.62 | 5/16"-18 | 275 | 315 | 4.85 |
| 40 | 110 | 38.1 | 100.1 | 58 | 249.9 | 70 | 15 | 26 | 9.5 | 15.8 | 5/16"-18 | 36 | 36 | 2.2 |
| 2 | 5.28 | 2.00 | 4.25 | 2.60 | 9.84 | 2.76 | 0.59 | 1.02 | 0.37 | 0.62 | 5/16"-18 | 480 | 510 | 7.30 |
| 50 | 134.1 | 50.8 | 108 | 66 | 249.9 | 70 | 15 | 26 | 9.5 | 15.8 | 5/16"-18 | 58 | 58 | 3.3 |
| 2 1/2 | 6.18 | 2.56 | 5.00 | 3.39 | 9.65 | 4.02 | 0.75 | 1.14 | 0.47 | 0.75 | 5/16"-18 | 797 | 800 | 13.5 |
| 65 | 157 | 65 | 127 | 86 | 245.1 | 102 | 19 | 29 | 12 | 19.1 | 5/16"-18 | 91 | 91 | 6.1 |
| 3 | 7.52 | 2.99 | 5.71 | 3.94 | 5.98 | 4.02 | 0.88 | 1.28 | 0.47 | 0.75 | 5/16"-18 | 1150 | 1100 | 25.3 |
| 80 | 191 | 76 | 145 | 100 | 151.9 | 102 | 22.4 | 32.5 | 32.5 | 11.9 | 5/16"-18 | 125 | 125 | 11.5 |

*Based on RPTFE seats at full rated pressure.



Flow-Tek

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