

Mueller Steam Specialty

Model: 71, 71U

Cast Iron Sure Check™ Valve

| Pressure Temperature Rating | | | |
|-----------------------------|--------------|-----------|------------------|
| Model | Size | Material | Pressure |
| 71 | 2"-12" | Cast Iron | 200PSI @ 100°F |
| 71 | 50mm-300mm | Cast Iron | 13.8 bar @ 38° C |
| 71 | 14"-54" | Cast Iron | 150PSI @ 100°F |
| 71 | 350mm-1380mm | Cast Iron | 10.3 bar @ 38° C |

* Max. temp. depends on seat and spring material. See ordering code.

71 Class 125
71U Class 125



Model 71U
4", 6", 8", 10" and 12"
100mm - 300mm



Model 71
2", 2-1/2", 3", 4", 5", 6", 8", 10", 12", 14" and 16"
50mm - 400mm

SERVICE RECOMMENDATIONS

These elastomer seated valves are designed for liquid and gas service to prevent surge and water hammer due to flow reversal. Specially designed springs close the discs before flow reversal can occur.

FEATURES

The extremely short fact-to-face dimension and compact design of this valve allow installation and service in tight spaces. The specially designed torsion springs exert a lifting motion on the discs to prevent excessive wear of the "heel" area of the elastomer seats. On site service may be done without special tools. The independent, dual shaft design allows interchangeability of shafts. The stop shaft stabilizes the discs during high flow rates.

ORDERING INFORMATION

We require all pertinent conditions relating to the proposed use of the check valve. They are: operating pressure, temperature, flow rate or velocity and type of pump in the system. If corrosive fluids are involved we should be advised. Consult factory for applications such as pump suction and volatile liquid handling.

INSTALLATION

Sure Check™ is equally effective for vertical or horizontal flow. Horizontal flow shafts should be oriented vertically. Consult factory for downward vertical flow. Sure Check™ is designed to fit inside ANSI bolt circles. We strongly suggest the installation of a strainer ahead of the pump to ensure protection of the pump and the working parts of the valve.

CONSTRUCTION

#71 Sure Check™ is normally furnished with cast iron (ASTM A126-B) bodies. #71U Sure Check™ is furnished with ductile iron bodies. The disc material for sizes through 5" (125mm) is bronze (85-5-5-5, ASTM B62); sizes 6" (150mm) through 54" (1380mm) can be supplied with nickel coated ductile iron or bronze discs. Discs in 316 stainless steel are also available in all sizes. Standard shaft and spring material is 316 stainless steel. The elastomer seat normally furnished is Buna-N. Consult factory for high temperature service.

TESTING

The shell and seat of each valve are hydrostatically tested in accordance with ANSI standards.

APPROVALS

Sure Check™ Valves conform to ANSI specifications, API specifications, Factory Mutual requirements and U.L. requirements. Consult factory about specific models and sizes.

MATERIALS

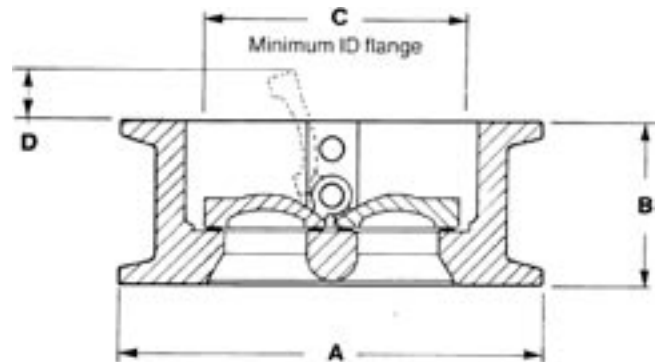
Body- 71: Cast Iron ASTM A 126-B
71U: Ductile Iron
Disc- Bronze ASTM B62, Ductile Iron ASTM A536
316 Stainless Steel ASTM A351 Grade CF8M D18.

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Dimensions and Weights

UL Model 71U Only - Pressure 175 WOG

| SIZE | in. mm. | 4 | 6 | 8 | 10 | 12 |
|----------------|------------|-------|-------|-------|--------|--------|
| | | 100 | 150 | 200 | 250 | 300 |
| A | | 6-7/8 | 8-3/4 | 11 | 13-3/8 | 16-1/8 |
| | | 174.6 | 222.3 | 279.4 | 333.9 | 409.6 |
| B | | 3-5/8 | 4-1/8 | 4-3/4 | 6 | 7-3/8 |
| | | 92.1 | 104.8 | 120.7 | 152.4 | 187.3 |
| C | | N/A | 4-1/8 | 6-5/8 | 8-1/4 | 9-7/8 |
| | | N/A | 104.8 | 168.3 | 209.6 | 250.8 |
| D | | N/A | 19/32 | 1-1/2 | 1-5/8 | 2 |
| | | N/A | 15.1 | 38.1 | 41.3 | 50.8 |
| WEIGHTS | lb | 15 | 33 | 58 | 89 | 160 |
| | kg | 6.8 | 15.0 | 26.3 | 40.4 | 72.6 |



Standard Model 71's Only

| SIZE | in. mm. | 2 | 2 1/2 | 3 | 4 | 5 | 6 | 8 | 10 | 12 |
|----------------|------------|-------|-------|-------|--------|---------|---------|-------|--------|--------|
| | | 50 | 65 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
| A | | 4-1/8 | 4-7/8 | 5-3/8 | 6-7/8 | 7-3/4 | 8-3/4 | 11 | 13-3/8 | 16-1/8 |
| | | 104.8 | 123.8 | 136.5 | 174.6 | 196.9 | 222.2 | 279.4 | 340 | 409.6 |
| B | | 2-1/8 | 2-1/8 | 2-1/4 | 2-1/2 | 2-3/4 | 3 | 3-3/4 | 4-1/4 | 5-5/8 |
| | | 54.0 | 54.0 | 57.2 | 63.5 | 69.9 | 76.2 | 95.3 | 108 | 142.9 |
| C | | NA | 1-1/8 | 2-1/2 | 3-7/16 | 4-1/2 | 5-3/8 | 7-1/2 | 9-1/2 | 11-3/4 |
| | | NA | 28.6 | 63.5 | 87.3 | 114.3 | 136.5 | 190.5 | 241.3 | 298.5 |
| D | | NA | 5/32 | 5/8 | 15/16 | 1-11/32 | 12-3/32 | 2-1/2 | 3-3/8 | 4-1/8 |
| | | NA | 4.0 | 15.9 | 23.8 | 34.1 | 43.7 | 63.5 | 85.7 | 105 |
| WEIGHTS | lb | 4 | 5-1/2 | 7-1/2 | 13-1/2 | 17-1/2 | 26-1/2 | 50 | 70 | 108 |
| | kg | 1.8 | 2.5 | 3.4 | 6.2 | 8.0 | 12.0 | 22.7 | 31.8 | 49 |

| SIZE | in. mm. | 14 | 16 | 18 | 20 | 24 | 30 | 36 | 42 | 48 | 54 |
|----------------|------------|--------|---------|---------|--------|----------|----------|--------|--------|--------|--------|
| | | 350 | 400 | 450 | 500 | 600 | 750 | 900 | 1050 | 1200 | 1380 |
| A | | 17-3/4 | 20-1/4 | 21-5/8 | 23-7/8 | 28-1/4 | 34-3/4 | 41-1/4 | 48 | 54-1/2 | 61 |
| | | 450.9 | 514.4 | 549.3 | 606.4 | 717.6 | 882.7 | 1048 | 1219.2 | 1384.3 | 1549.4 |
| B | | 7-1/4 | 7-1/2 | 8 | 8-3/8 | 8-3/4 | 12 | 15-1/4 | 17 | 20-5/8 | 21-1/4 |
| | | 184.2 | 190.5 | 203.2 | 212.7 | 222.3 | 304.8 | 387.8 | 431.6 | 523.9 | 539.8 |
| C | | 12 | 14-7/16 | 16-5/16 | 18-1/4 | 22-11/16 | 28-23/32 | 33-1/2 | 41 | 47 | 49 |
| | | 304.8 | 366.7 | 414.3 | 463.6 | 576.3 | 729.5 | 850.9 | 1041.4 | 1194 | 1244.6 |
| D | | 3-1/8 | 4-3/8 | 5-1/8 | 6 | 8-1/2 | 11 | 11-3/8 | 15-1/4 | 16-3/4 | 16-1/2 |
| | | 79.4 | 111.1 | 130.2 | 152.4 | 215.9 | 279.4 | 288.9 | 387.4 | 425.5 | 419.1 |
| WEIGHTS | lb | 170 | 225 | 280 | 390 | 590 | 1050 | 1600 | 2850 | 3400 | 6050 |
| | kg | 77.1 | 102 | 127 | 177 | 268 | 476 | 726 | 1293 | 1542 | 2744 |