

Engineering Specification

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

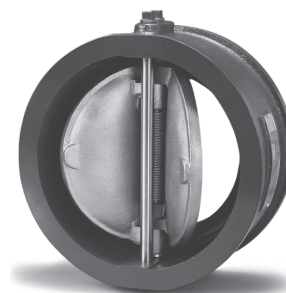
Approval _____

Representative _____

Cast Iron SURE CHECK™ Valves

Models: 71, 71U Class 125

Sizes: 2"– 54" (50 – 1350mm)



Models 71U, 4", 6", 8", 10", and 12", 100mm – 300mm



Models 71, 2", 2 1/2", 3", 4", 6", 8", 10", 12", 14", and 16", 50mm – 400mm, Domestic Only

Typical Service

- Designed for liquids and gases where flow reversal can cause surge and water hammer.
- Elastomer seats provide bubble-tight shutoff.

Features

- Compact design with short face-to-face dimensions for minimum space requirements.
- Dual shaft design allows interchangeability of shafts.
- Torsion springs close the valve prior to flow reversal.
- Torsion springs exert a lifting motion on the discs, enabling the center "heel" to open first. This prevents excessive wear of the seat in this area, and provides a consistent wear pattern and long sealing capability.
- Downstream stop shaft stabilizes the discs at high flow rates and prevents them from striking each other, which can cause premature wear, stress on the shaft, and chattering.

Construction

- Robust cast body is wafer style, featuring compact face-to-face dimensions.
- Designed to fit within ANSI bolt circles.
- Variety of trim and seat materials are available

Installation

- Can be installed horizontally or vertically.
 - Consult factory for downward vertical flow applications.
 - In horizontal applications, shaft should be in vertical orientation.
- Good piping practice recommends installing a distance of 5 to 10 pipe diameters from elbows, pumps, or others turbulence-creating devices.

Model 71, 71U

Pressure/Temperature-Non-Shock

Model	Material	Rating
71 2"-12"	Cast Iron	200psi @ -20°F to 150°F, 13.78 bar @ 65.56°C 150psi @ 353°F, 10.33 bar @ 178.33°C
71 14"-24"	Cast Iron	150psi @ -20°F to 150°F, 10.33 bar @ 65.56°C 105psi @ 325°F, 7.24 bar @ 162.78°C
71 30"-54"	Cast Iron	150psi @ -20°F to 150°F, 10.33 bar @ 65.56°C 100psi @ 225°F, 6.89 bar @ 107.22°C

* Ratings are for Model 71 only. See limitations for UL model 71U, sizes 4" - 12"

- Mueller Steam Specialty strongly recommends the installation of a strainer ahead of the pump to ensure protection of both the pump and the valve from foreign particles.

Approvals/Specifications

- Applicable ASTM, ANSI, and API standards
- FM Approved
 - Model 71, sizes 2" – 16" - Domestic Only
- UL Listed / ULC Listed
 - Model 71U, sizes 4", 6", 8", 10", and 12"

Testing

- API 598

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

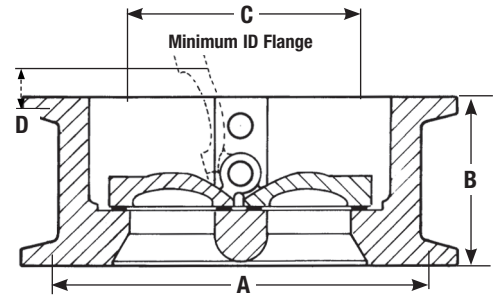
Mueller Steam Specialty product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Mueller Steam Specialty Technical Service. Mueller Steam Specialty reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Mueller Steam Specialty products previously or subsequently sold.

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Materials

	71	71U
Body	Cast Iron ASTM A126-B	ASTM A126-B
Disc	316 SS	Aluminum/Bronze C954
Shaft/spring	316 SS	316 SS
Seat	Buna-N	Buna-N

See SURE CHECK™ Valves information section of the Mueller Steam Specialty binder for alternate materials and How to Order options.



Model 71, 71U

Dimensions and Weights

SIZE		DIMENSIONS								WEIGHT	
in.	mm	A		B		C		D		lbs.	kgs.
		in.	mm	in.	mm	in.	mm	in.	mm		
UL Model 71U Only – Pressure 175 CWP											
4	100	6 ⁷ / ₈	174.6	3 ⁵ / ₈	92.1	N/A	N/A	N/A	N/A	15	6.8
6	150	8 ³ / ₄	222.3	4 ¹ / ₈	104.8	4 ¹ / ₈	104.8	1 ⁹ / ₃₂	15.1	33	15.0
8	200	11	279.4	4 ³ / ₄	120.7	6 ⁵ / ₈	168.3	1 ¹ / ₂	38.1	58	26.3
10	250	13 ³ / ₈	333.9	6	152.4	8 ¹ / ₄	209.6	1 ⁵ / ₈	41.3	89	40.4
12	300	16 ¹ / ₈	409.6	7 ³ / ₈	187.3	9 ⁷ / ₈	250.8	2	50.8	160	72.6

SIZE		DIMENSIONS								WEIGHT	
in.	mm	A		B		C		D		lbs.	kgs.
		in.	mm	in.	mm	in.	mm	in.	mm		
71 Only											
2	50	4 ¹ / ₈	104.8	2 ¹ / ₈	54.0	NA	NA	NA	NA	4	1.8
2 ¹ / ₂	65	4 ⁷ / ₈	123.8	2 ¹ / ₈	54.0	1 ¹ / ₈	28.6	5 ³ / ₃₂	4.0	5 ¹ / ₂	2.5
3	80	5 ³ / ₈	136.5	2 ¹ / ₄	57.2	2 ¹ / ₂	63.5	5 ⁵ / ₈	15.9	7 ¹ / ₂	3.4
4	100	6 ⁷ / ₈	174.6	2 ¹ / ₂	63.5	3 ⁷ / ₁₆	87.3	1 ⁵ / ₁₆	23.8	13 ¹ / ₂	6.2
5	125	7 ³ / ₄	196.9	2 ³ / ₄	69.9	4 ¹ / ₂	114.3	1 ¹¹ / ₃₂	34.1	17 ¹ / ₂	8.0
6	150	8 ³ / ₄	222.2	3	76.2	5 ⁵ / ₈	136.5	1 ² 3 ³ / ₃₂	43.7	26 ¹ / ₂	12.0
8	200	11	279.4	3 ³ / ₄	95.3	7 ¹ / ₂	190.5	2 ¹ / ₂	63.5	50	22.7
10	250	13 ³ / ₈	340	4 ¹ / ₄	108	9 ¹ / ₂	241.3	3 ³ / ₈	85.7	70	31.8
12	300	16 ¹ / ₈	409.6	5 ⁵ / ₈	142.9	11 ¹ / ₄	298.5	4 ¹ / ₈	105	108	49
14	350	17 ³ / ₄	450.9	7 ¹ / ₄	184.2	12	304.8	3 ¹ / ₈	79.4	170	77.1
16	400	20 ¹ / ₄	514.4	7 ¹ / ₂	190.5	14 ⁷ / ₁₆	366.7	4 ³ / ₈	111.1	225	102
18	450	21 ⁵ / ₈	549.3	8	203.2	16 ⁵ / ₁₆	414.3	5 ¹ / ₈	130.2	280	127
20	500	23 ³ / ₈	606.4	8 ⁵ / ₈	212.7	18 ¹ / ₄	463.6	6	152.4	390	177
24	600	28 ¹ / ₄	717.6	8 ³ / ₄	222.3	22 ¹¹ / ₁₆	576.3	8 ¹ / ₂	215.9	590	268
30	750	34 ³ / ₄	882.7	12	304.8	28 ²³ / ₃₂	729.5	11	279.4	1050	476
36	900	41 ¹ / ₄	1048	15 ¹ / ₄	387.8	33 ¹ / ₂	850.9	11 ³ / ₈	288.9	1600	726
42	1050	48	1219.2	17	431.6	41	1041.4	15 ¹ / ₄	387.4	2850	1293
48	1200	54 ¹ / ₂	1384.3	20 ⁵ / ₈	523.9	47	1194	16 ³ / ₄	425.5	3400	1542
54	1350	61	1549.4	21 ¹ / ₄	539.8	49	1244.6	16 ¹ / ₂	419.1	6050	2744

Limited Warranty: Mueller Steam Specialty warrants each product to be free from defects in material and workmanship under normal usage for a period of one year from the date of original shipment. In the event of such defects within the warranty period, the Company will, at its option, replace or recondition the product without charge. This shall constitute the sole and exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental, special or consequential damages, including without limitation, lost profits or the cost of repairing or replacing other property which is damaged if this product does not work properly, other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemical, or any other circumstances over which the Company has no control. This warranty shall be invalidated by any abuse, misuse, misapplication or improper installation of the product. **THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** Any implied warranties that are imposed by law are limited in duration to one year.

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