

Engineering Specification

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

Bronze, Ductile Iron, Carbon Steel or Stainless Steel SURE CHECK™ Valves

Models: 72, Class 150

Sizes: 2"– 54" (50 – 1350mm)

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, including overlay and metal-to-metal.

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 other turbulence-creating devices.
- 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.

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.



Model 72

Pressure/ Temperature–Non-Shock

Model	Material	Rating
72D	Carbon Steel	285psi @ -20°F to 100°F, 19.65 bar @ 37.78°C 140psi @ 600°F, 9.65 bar @ 315.140°C
72B	Bronze	225psi @ -20°F to 150°F, 15.51 bar @ 65.56°C 150psi @ 406°F, 10.34 bar @ 207.78°C
72H	Stainless Steel	275psi @ -20°F to 100°F, 18.96 bar @ 37.78°C 170psi @ 500°F, 11.72 bar @ 260.00°C
72I	Ductile Iron	250psi @ -20°F to 100°F, 17.24 bar @ 65.56°C 170psi @ 500°F, 11.72 bar @ 260.00°C

*Seat and Spring Materials may limit temperature. See "How to Order" chart for limitations.

Special Coatings or Treatments

- For Stainless Steel, pickling and passivation available on request, consult factory

Approvals/Specifications

- Applicable ASTM, ANSI, and API standards
- FM Approved
 - Sizes 2" – 14" with Carbon Steel, Bronze, and Stainless Steel Bodies.

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.

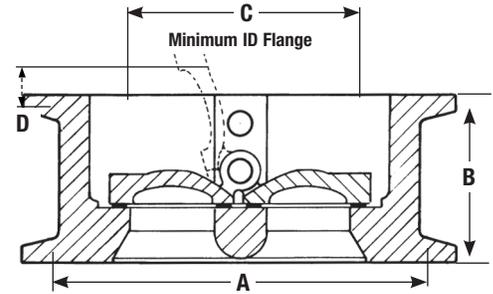


A WATTS Brand

Materials

	72B	72D
Body	Bronze ASTM B62(85-5-5-5)	Carbon Steel ASTM A216 Gr. WCB
Disc	Bronze ASTM B62(85-5-5-5)	Carbon Steel ASTM A216 Gr. WCB
Shaft/spring	316 SS	316 SS
Seat	Buna-N	Buna-N

	72H	72I
Body	Stainless Steel ASTM A351 Gr. CF8M	Ductile Iron ASTM 536
Disc	Stainless Steel ASTM A351 Gr. CF8M	Ductile Iron ASTM 536
Shaft/spring	316 SS	316 SS
Seat	Buna-N	Buna-N



Model 72

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

Dimensions and Weights

SIZE		DIMENSIONS								WEIGHT	
		A		B		C		D			
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.
2	50	4 ¹ / ₈	104.8	2 ³ / ₈	60.3	-	-	-	-	5	2.3
2 ¹ / ₂	65	4 ⁷ / ₈	123.8	2 ⁵ / ₈	66.7	-	-	-	-	7.5	3.4
3	80	5 ³ / ₈	136.5	2 ⁷ / ₈	73.0	2 ¹ / ₈	54.0	1 ¹ / ₄	6.35	9.5	4.3
4	100	6 ⁷ / ₈	174.6	2 ⁷ / ₈	73.0	3 ¹ / ₁₆	93.7	7 ⁷ / ₈	22.2	16	7.3
5	125	7 ³ / ₄	196.9	3 ³ / ₈	85.7	4 ⁷ / ₁₆	112.7	1	25.4	21	9.5
6	150	8 ³ / ₄	222.3	3 ⁷ / ₈	98.4	5 ⁵ / ₈	142.9	1 ³ / ₈	34.9	29	13.2
8	200	11	279.4	5	127	7 ¹ / ₄	184.2	1 ³ / ₄	44.5	52	23.6
10	250	13 ³ / ₈	339.7	5 ³ / ₄	146.1	9 ⁹ / ₁₆	242.9	2 ³ / ₄	69.9	93	42.2
12	300	16 ¹ / ₈	409.6	7 ¹ / ₈	181.0	11 ¹ / ₄	285.8	3	76.2	147	66.7
14	350	17 ³ / ₄	450.9	7 ¹ / ₄	184.2	12	304.8	3 ¹ / ₈	79.4	220	99.8
16	400	20 ¹ / ₄	514.4	7 ¹ / ₂	190.5	14 ⁷ / ₁₆	366.7	4 ³ / ₈	111.1	240	109
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 ⁷ / ₈	606.4	8 ⁵ / ₈	219.0	18 ¹ / ₄	463.6	6	152.4	400	182
24	600	28 ¹ / ₄	717.6	8 ³ / ₄	222.3	22 ¹¹ / ₁₆	576.3	8 ¹ / ₂	215.9	560	254
30	750	34 ³ / ₄	882.7	12	304.8	28 ²³ / ₃₂	729.5	11	279.4	1100	499
36	900	41 ¹ / ₄	1047.8	15 ¹ / ₄	387.4	33 ¹ / ₂	850.9	11 ³ / ₈	289.0	1415	642
42	1050	48	1219.2	17	431.6	41	1041.1	15 ¹ / ₄	387.4	2120	962
48	1200	54 ¹ / ₂	1384.3	20 ⁵ / ₈	523.9	47	1193.8	16 ³ / ₄	425.5	3660	1660
54	1350	61	1549.4	21 ¹ / ₄	539.8	49	1244.6	16 ¹ / ₂	419.1	4600	2087

Apply for Certified Drawings

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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