

Engineering Specification

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

Screwed End Silent Check Valves

Model: 303
Sizes: 1/4" – 2" (8 – 50mm)

Typical Service

- Designed to prevent surge, backflow, and water hammer in liquid service.
- Pressure and temperature conditions will dictate appropriate body material.
- For air and gas applications, consult factory.

Features

- Spring closes the disc before flow reversal, preventing surge and water hammer.
- On metal-seated valves, the mating surfaces of the disc and seat are the same as the body material.
 - Available in Cast Iron, Bronze, and Stainless Steel
- On soft-seated valves, seats are field-replaceable without special tools.
 - Soft seats available in Buna N, EPDM, Viton®, TFE.
- Disc is center guided to insure alignment and to prevent misalignment in both fully open and fully closed positions.
- A stop on the disc stops travel before total spring compression.
- Disc begins to open at .5psi.
- Disc opens 1/4" per inch of line size.
- Bodies are designed to accommodate 100% flow of equivalent pipe size.

Construction

- Two piece design.
- Cap is gasketed for positive sealing and to allow field maintenance if required.
- On soft-seated valves, the soft seat is on the disc, and seats against the cap.
- Center guided disc.
- Variety of trim and seat materials are available.
 - See introductory pages of the Silent Check Valves section of the Mueller Steam Specialty Engineering binder for the Standard Materials and How To Order Instructions.
 - Stainless Steel guide pins and bushings.

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 303

Pressure/Temperature–Non-Shock		
Model	Material	Rating
303AP 303AT	Cast Iron	200psi @ 150° F
303BP	Bronze	400psi @ 150° F
303HT	Stainless Steel	600psi @ 150° F

Max. temp. can be limited by seat or spring material. Consult Factory.

Not Recommended for Steam Service.

Installation

- Can be installed horizontally, vertically or at any angle.
 - Consult factory for downward vertical flow applications.
- Good piping practice recommends installing a distance of 5 to 10 pipe diameters from elbows, pumps, or others 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.

CAUTION

- Not for use with reciprocating compressors or pumps.
- Not for use in sewage ejector piping.
- Consult factory for other specific service conditions.

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

Ordering Information

- All pertinent information relating to the operating conditions for which the valve is intended should be supplied. These include operating pressure, temperature, flow rates, velocity, pump type, conveyance of corrosive fluids, etc.
- For certain applications such as pump suction or handling of volatile liquids, lighter or heavier springs may be required, consult factory.
- Barring specific information, standard springs and materials will be supplied.

Materials

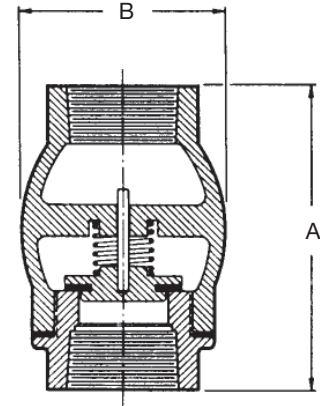
	303AP	303AT	303BP	303HT
Body	Cast Iron, ASTM A126 Gr. B	Cast Iron, ASTM A126 Gr. B	Bronze ASTM B62	Stainless Steel, ASTM A351 CF8M
Cap	12L14 CRS Carbon Steel	12L14 CRS Carbon Steel	Bronze ASTM B62	Stainless Steel, ASTM A351 CF8M
Guide Pin	420 SS	420 SS	420 SS	420 SS
Disc	Brass ASTM B505	Stainless Steel, ASTM A351 CF8M	Brass ASTM B505	Stainless Steel, ASTM A351 CF8M
Seal	EPDM	EPDM	EPDM	Viton®
Gasket	Compressed Fiber	Compressed Fiber	Compressed Fiber	Compressed Fiber
Spring	302 Stainless Steel, ASTM A276	302 Stainless Steel, ASTM A276	302 Stainless Steel, ASTM A276	302 Stainless Steel, ASTM A276

Pickling and Passivation available on request for Stainless Steel valves, consult factory.

Dimensions and Weights

SIZE		DIMENSIONS				WEIGHT							
		A		B		AP		AT		BP		HT	
in.	mm	in.	mm	in.	mm	lbs.	kgs.	lbs.	kgs.	lbs.	kgs.	lbs.	kgs.
¼	8	2⅞	60	1¾	44	1	.45	1	.45	1	.45	1	.45
⅜	10	2⅞	60	1¾	44	1	.45	1	.45	1	.45	1	.45
½	15	2⅞	60	1¾	44	1	.45	1	.45	1	.45	1	.45
¾	20	2¾	70	1 ¹⁵ / ₁₆	49	1	.51	1	.54	1	.54	1	.54
1	25	3 ⁵ / ₁₆	84	2 ⁷ / ₁₆	60	2	.82	2	.91	2	.97	2	.97
1¼	32	4 ¹ / ₈	111	3 ³ / ₈	86	4	1.95	5	2.1	5	2.27	5	2.2
1½	40	4 ¹ / ₈	111	3 ³ / ₈	86	4	1.9	4	2.0	5	2.15	5	2.1
2	50	4 ⁹ / ₁₆	125	4 ⁷ / ₁₆	102	6	2.86	7	3.1	8	3.46	8	3.4

Apply For Certified Drawings.



Model 303

Pressure Drop

- See Technical Data Section of the Mueller Steam Specialty Engineering binder for Pressure Drop Charts and C_v values.

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.

Some States do not allow limitations on how long an implied warranty lasts, and some States do not allow the exclusion or limitation of incidental or consequential damages. Therefore the above limitations may not apply to you. This Limited Warranty gives you specific legal rights, and you may have other rights that vary from State to State. You should consult applicable state laws to determine your rights.



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