

## For Industrial Applications

Job Name \_\_\_\_\_

Contractor \_\_\_\_\_

Job Location \_\_\_\_\_

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

Contractor's P.O. No. \_\_\_\_\_

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# Models: 91, 92, 93

## Cast Iron or Cast Bronze Compact Wafer Silent Check Valves

Sizes: 2" – 12" (50 – 300mm)

### Typical Service

- Designed for liquids and gases where flow reversal can cause surge and water hammer.

### Features

- Spring closes the disc before flow reversal, preventing surge and water hammer
- Mating surfaces of the disc and seat are hand lapped for best possible sealing.
- Disc is fully guided at top and bottom to insure alignment and sealing at any installation angle.
- Disc begins to open at .5psi (34.5 kPa).
- Disc opens 1/3" per inch of line size, greater than similar competitive products, for enhanced flow.

### Construction

- Compact Wafer design for lightweight and space saving.
- Bodies are designed to accommodate 110% flow of equivalent pipe size.
- 302SS springs are standard. Many variations in material and weight are available on specification, consult factory.
- Designed to fit within ANSI bolt circles.
- 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 standard materials and How To Order Instructions.

### 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 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.



Model 91

### ASTM A126-B

Pressure/Temperature – Non-Shock		
Model	Sizes	Rating
91	2" – 6" (50 – 150)	200psi @ 150°F
92	8" – 12" (200 – 300)	200psi @ 150°F
93	8" – 10" (200 – 250)	200psi @ 150°F

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

Not recommended for Steam Service.

### NOTICE

- 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.

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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## 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 as ordered.

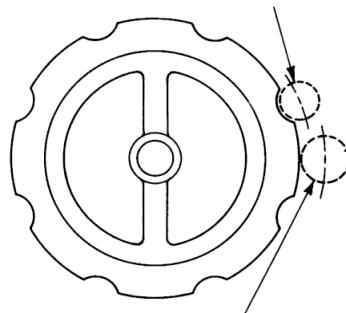
## Materials

	91A, 92A, 93A	91B, 92B, 93B
Body	Cast Iron ASTM A126-B	Aluminum Bronze ASTM B148
Trim	316 SS	316 SS
Spring	302 Stainless Steel, ASTM A276	302 Stainless Steel

## Pressure Drop

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

## Dimensions and Weights



Model 91

SIZE		DIMENSIONS											WEIGHT					
in.	mm	Face to Face		Bolting									91AP/AT		92AP		93AP	
		in.	mm	Qty.	Size	Length	Qty.	Size	Length	Qty.	Size	Length	lbs.	kgs.	lbs.	kgs.	lbs.	kgs.
2	50	2 $\frac{5}{8}$	67	4	$\frac{5}{8}$	5 $\frac{3}{4}$	–	–	–	–	–	–	5	2	–	–	–	–
2 $\frac{1}{2}$	65	2 $\frac{1}{8}$	73	4	$\frac{5}{8}$	6	–	–	–	–	–	–	8	4	–	–	–	–
3	80	3 $\frac{1}{8}$	87	4	$\frac{5}{8}$	6 $\frac{1}{2}$	–	–	–	–	–	–	10	5	–	–	–	–
4	100	4	102	8	$\frac{5}{8}$	7 $\frac{3}{4}$	–	–	–	–	–	–	17	8	–	–	–	–
5	125	4 $\frac{5}{8}$	118	8	$\frac{3}{4}$	8 $\frac{1}{2}$	–	–	–	–	–	–	27	12	–	–	–	–
6	150	5 $\frac{9}{16}$	141	8	$\frac{3}{4}$	9 $\frac{1}{2}$	–	–	–	–	–	–	39	18	–	–	–	–
8	200	6 $\frac{1}{2}$	165	–	–	–	8	$\frac{3}{4}$	10 $\frac{3}{4}$	12	$\frac{7}{8}$	12 $\frac{1}{4}$	–	–	86	39	98	45
10	250	8 $\frac{1}{4}$	210	–	–	–	12	$\frac{7}{8}$	13	16	1	14 $\frac{3}{4}$	–	–	159	72	170	77
12	300	11 $\frac{1}{4}$	286	–	–	–	24	$\frac{7}{8}$	4	–	–	–	–	–	337	153	–	–

Apply For Certified Drawings.

Models 91BP, 92BP, 93BP available upon request. Consult factory for weights and dimensions and pressure / temperature ratings.



A **WATTS** Brand

USA: Tel: (800) 334-6259 • Fax: (800) 421-6772 • MuellerSteam.com

Latin America: Tel: (52) 81-1001-8600 • MuellerSteam.com