

# Models: 105MBP, 109MBP

## Cast Bronze Globe Body Silent Check Valves Sizes: 2" - 30" (50 - 750mm)

| Pressure/Temperature–Non-Shock |          |                 |
|--------------------------------|----------|-----------------|
| Model                          | Material | Rating          |
| 105MBP                         | Bronze   | 225psi @ 150° F |
| 109MBP                         | Bronze   | 500psi @ 150° F |

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

Not Recommended for Steam Service.

**105MBP**                      **Class 150**  
**109MBP**                      **Class 300**



Model 105M,109M

### CAUTION

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

### Typical Service

- Designed for liquids and gases where flow reversal can cause surge and water hammer.
- Used extensively in pump suction and discharge

### 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.
- Disc opens 1/3" per inch of line size, greater than similar competitive products, for enhanced flow.
- Bodies are designed to accommodate 110% flow of equivalent pipe size.

### Construction

- Globe body design for greatest flow capacity in a silent check valve.
- Integrally cast flanges for ease of installation, Class 150 and 300 patterns.
- 302SS springs are standard. Many variations in material and weight are available on specification, consult factory.
- 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.
  - Silicon Bronze guide pins and bushings supplied with Bronze trim
  - Stainless Steel guide pins and bushings supplied with Stainless Steel trim.

### 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.

### 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.

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

Contractor \_\_\_\_\_

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

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

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

Approval \_\_\_\_\_

Representative \_\_\_\_\_

## Materials

| 105MBP, 109MBP |                                |
|----------------|--------------------------------|
| Body           | Bronze ASTM B62 (85-5-5-5)     |
| Trim           | Bronze ASTM B62 (85-5-5-5)     |
| Spring         | 302 Stainless Steel, ASTM A276 |

Also available with Stainless Steel Trim and other seat materials

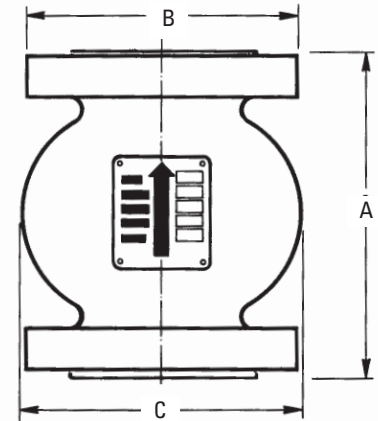
Also available in "M" metal (ASTM B61)

## Pressure Drop

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

## Dimensions and Weights

| SIZE          |     | DIMENSIONS |     |     |     |     |     | WEIGHT |      |
|---------------|-----|------------|-----|-----|-----|-----|-----|--------|------|
| in.           | mm  | A          |     | B   |     | C   |     | lbs.   | kgs. |
|               |     | in.        | mm  | in. | mm  | in. | mm  |        |      |
| <b>105MBP</b> |     |            |     |     |     |     |     |        |      |
| 2             | 50  | 6¼         | 159 | 6   | 152 | 4⅝  | 117 | 22     | 10   |
| 2½            | 65  | 7          | 178 | 7   | 178 | 5½  | 140 | 29     | 13   |
| 3             | 80  | 7½         | 191 | 7½  | 191 | 6¼  | 159 | 36     | 16   |
| 4             | 100 | 8½         | 216 | 9   | 229 | 8⅝  | 219 | 58     | 26   |
| 5             | 125 | 9½         | 241 | 10  | 254 | 10  | 254 | 72     | 32   |
| 6             | 150 | 10½        | 267 | 11  | 279 | 11⅞ | 282 | 93     | 42   |
| 8             | 200 | 12         | 305 | 13½ | 343 | 14⅝ | 371 | 172    | 78   |
| 10            | 250 | 14         | 356 | 16  | 406 | 17⅞ | 441 | 275    | 125  |
| 12            | 300 | 18         | 457 | 19  | 483 | 21¼ | 552 | 440    | 200  |
| 14            | 350 | 19½        | 495 | 21  | 533 | 24  | 610 | 638    | 290  |
| 16            | 400 | 21         | 533 | 23½ | 597 | 26⅞ | 670 | 935    | 424  |
| 18            | 450 | 22½        | 572 | 25  | 635 | 29⅞ | 752 | 1210   | 550  |
| 20            | 500 | 24         | 610 | 27½ | 698 | 32¼ | 832 | 1600   | 727  |
| 24            | 600 | 24         | 610 | 32  | 813 | 37  | 940 | —      | —    |
| 30            | 750 | —          | —   | —   | —   | —   | —   | —      | —    |
| <b>109MBP</b> |     |            |     |     |     |     |     |        |      |
| 2             | 50  | 6⅛         | 170 | 6½  | 165 | 4⅝  | 117 | 28     | 12   |
| 2½            | 65  | 7⅞         | 192 | 7½  | 191 | 5⅝  | 143 | 34     | 15   |
| 3             | 80  | 8¼         | 210 | 8¼  | 209 | 6¼  | 159 | 40     | 18   |
| 4             | 100 | 9⅛         | 232 | 10  | 254 | 8⅝  | 219 | 68     | 30   |
| 5             | 125 | 10⅞        | 264 | 11  | 279 | 10  | 254 | 92     | 41   |
| 6             | 150 | 11⅞        | 289 | 12½ | 318 | 11⅞ | 289 | 128    | 58   |
| 8             | 200 | 13         | 330 | 15  | 381 | 14½ | 368 | 210    | 95   |
| 10            | 250 | 15⅞        | 391 | 17½ | 445 | 17⅞ | 435 | 335    | 152  |
| 12            | 300 | 19½        | 495 | 20½ | 521 | 21¼ | 540 | 530    | 240  |
| 14            | 350 | 21         | 533 | 23  | 584 | 23⅞ | 594 | 810    | 368  |
| 16            | 400 | 22⅝        | 575 | 25½ | 678 | 25⅞ | 657 | 934    | 424  |
| 18            | 450 | 24⅛        | 613 | 28  | 711 | 30  | 762 | 1500   | 681  |
| 20            | 500 | 25⅞        | 651 | 30½ | 775 | 33¼ | 844 | 1754   | 797  |
| 24            | 600 | —          | —   | —   | —   | —   | —   | —      | —    |
| 30            | 750 | —          | —   | —   | —   | —   | —   | —      | —    |



Model 105M, 109M

Apply For Certified Drawings.

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A Watts Water Technologies Company

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