

# 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**  
**109MBP**

**Class 150**  
**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.

### 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

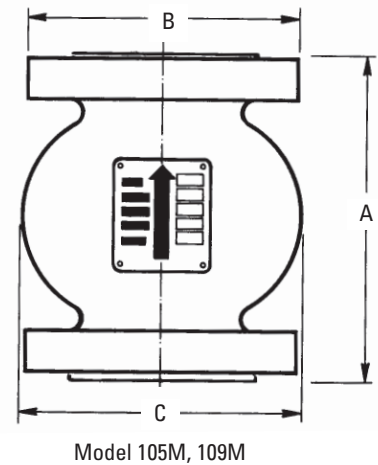
Also available in "M" metal (ASTM B61)

## 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	
		A		B		C			
in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.
<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	21¾	552	440	200
14	350	19½	495	21	533	24	610	638	290
16	400	21	533	23½	597	26⅝	670	935	424
18	450	22½	572	25	635	29⅝	752	1210	550
20	500	24	610	27½	698	32¾	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	9⅞	232	10	254	8⅝	219	68	30
5	125	10⅝	264	11	279	10	254	92	41
6	150	11⅝	289	12½	318	11⅝	289	128	58
8	200	13	330	15	381	14½	368	210	95
10	250	15⅝	391	17½	445	17⅞	435	335	152
12	300	19½	495	20½	521	21¼	540	530	240
14	350	21	533	23	584	23⅝	594	810	368
16	400	22⅝	575	25½	678	25⅝	657	934	424
18	450	24⅞	613	28	711	30	762	1500	681
20	500	25⅝	651	30½	775	33¼	844	1754	797
24	600	–	–	–	–	–	–	–	–
30	750	–	–	–	–	–	–	–	–



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