

# Models: 105MAT, 107MAT

## LEAD FREE\*

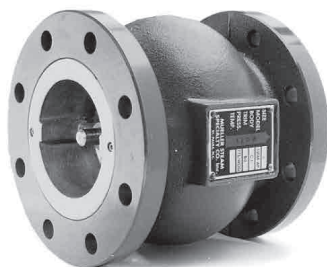
## Cast Iron Globe Body Silent Check Valves Sizes: 2" – 30" (50 – 750mm)

### Pressure/Temperature–Non-Shock

Model	Sizes	Rating
105MAT	2" – 12"	200psi @ 150° F
105MAT	14" – 30"	150psi @ 150° F
107MAT	2" – 12"	500psi @ 150° F
107MAT	14" – 30"	300psi @ 150° F

**105MAT**  
**107MAT**

**Class 125**  
**Class 250**



Model 105M

### NOTICE

- Not for use with reciprocating compressors or pumps.
- Not for use in sewage ejector piping
- Max. temp. can be limited by seat or spring material. Consult Factory.
- Not Recommended for Steam Service.
- 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 125 or 250 patterns.
- 302SS springs are standard. Many variations in material and weight are available on specification, consult factory.
- Designed to fit ANSI flanges.
- 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

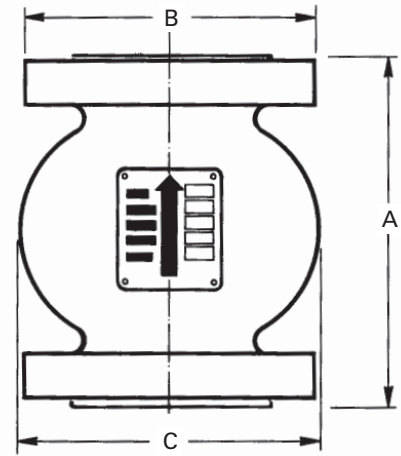
105MAT, 107MAT	
Body	Cast Iron ASTM A126 Grade B
Trim	316 SS
Spring	302 Stainless Steel, ASTM A276

## Pressure Drop

- See Technical Data Section of the Mueller Steam Specialty Engineering binder for Pressure Drop Charts and C<sub>v</sub> values.

## Dimensions and Weights

SIZE		DIMENSIONS						WEIGHT	
		A		B		C			
in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.
<b>105MAT</b>									
2	50	6¼	159	6	152	4⅝	117	20	9
2½	65	7	178	7	178	5½	140	24	10
3	80	7½	191	7½	191	6¼	159	32	14
4	100	8½	216	9	229	8⅞	219	56	25
5	125	9½	241	10	254	10	254	74	33
6	150	10½	267	11	279	11⅞	282	95	43
8	200	13½	343	13½	343	14⅞	371	178	80
10	250	16¼	413	16	406	17⅞	441	265	120
12	300	20¼	514	19	483	21¼	552	454	206
14	350	22¾	578	21	533	24	610	598	271
16	400	24¾	629	23½	597	26⅞	670	840	381
18	450	22½	572	25	635	29⅞	752	892	405
20	500	24	610	27½	698	32¼	832	1140	418
24	600	24	610	32	813	37	940	1540	700
30	750	30	762	38¾	984	42½	1080	—	—
<b>107MAT</b>									
2	50	6¾	171	6½	165	4⅞	124	24	10
2½	65	7⅝	194	7½	191	5¾	146	28	12
3	80	8¼	210	8¼	209	6⅝	168	46	20
4	100	9⅞	232	10	254	8⅞	225	76	34
5	125	10⅞	264	11	279	10⅞	263	134	60
6	150	11⅞	289	12½	318	11½	292	144	65
8	200	14	356	15	381	15	381	242	110
10	250	17	432	17½	445	17⅞	454	367	166
12	300	20⅞	530	20½	521	22⅞	561	672	305
14	350	23⅞	594	23	584	24¼	616	725	329
16	400	25⅞	651	25½	678	26⅞	683	1000	454
18	450	24⅞	613	28	711	30	762	1238	562
20	500	25⅞	651	30½	775	33¼	844	1775	806
24	600	24⅞	631	36	914	37	940	2500	1136



Model 105M

Apply For Certified Drawings.

\*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

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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