

Model MV17 Series

Lead-Free Thermostatic Mixing Valve



APPLICATION:

The model MV17 Series Master Mixing Valve can be accurately referred to as a High/Low valve, compliant with the temperature control requirements of ASSE 1017 at flow rates well below the ASSE standard tested flow rate. Therefore the MV17 is ideal for applications without recirculating pumps where the minimum flow for accurate control can be met by the actual demand of but a few fixtures. It's also ideal for recirculating systems where demand can vary from the pump draw alone (no user demand) up to an very high user usage. From small to large commercial applications, the MV17 series is offered in 5 models/sizes in order to allow you to select the valve with the capacity and performance capable of delivering safely controlled tempered hot water to all your fixtures, at all times.

FEATURES:

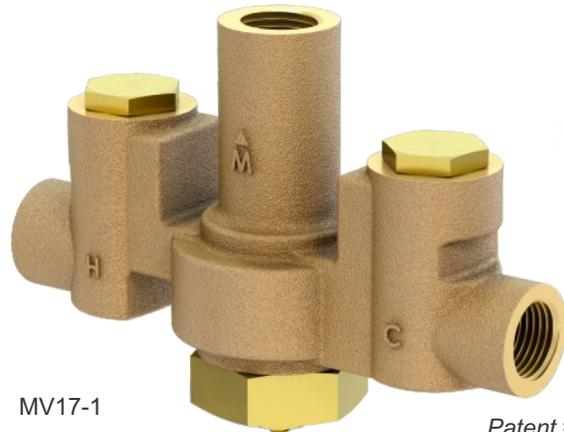
- ◆ Lead-Free solid DZR brass body with corrosion resistant and lead-free internal components.
- Integral cartridge style checks with screens to prevent backflow and to filter debris from entering the valve.
- Includes 2 lockable full port brass ball valves for inlet connections, shipped loose
- Temperature adjustment is made using an Allen wrench. A locknut on the bonnet prevents unauthorized or accidental temperature adjustment.
- Commercial quality paraffin actuator provides repeatable, reliable performance.
- Temperature gauge on outlet is optionally available.
- IAPMO certified per ASSE 1017 and CSAB125.3.
- The MV17 is capable of exceeding the temperature control accuracy requirements of ASSE 1017 at Zero GPM actual user demand. The system must include a continuously operating recirculation pump capable of meeting the minimum flow rate shown on the nearby chart (.5 to 4 GPM based on the model) with a correctly adjusted balancing valve.

* Under Normal Operating Conditions.

- ◆ The wetted surface of these valves contacted by consumable water contains less than 0.25% of lead by weight in conformance with national lead free law.

GUIDE SPECIFICATION:

The Thermostatic Mixing Valve shall be IAPMO lab certified to ASSE 1017 and CSA standards and capable of meeting the control accuracy requirements of these standards at the manufacturer's listed minimum flow rates. The valve shall contain an advanced paraffin sensor with a temperature range of 100°F to 160°F (37.8°C to 71°C) and factory set at 120°F (38°C) with a lock nut to prevent unauthorized temperature changes. Checks and screens must be integral to the valve. External inlet shut-offs will be included with the valve and shall be a reliable ball valve design. Body material shall be "lead-free" brass with corrosion resistant internal components. Valve shall be **MGI CONTROLS®** model MV17- (1, 2, 3, 4 or 5).



MV17-1



Patent #9,898,017

SPECIFICATIONS:

Valve Specifications:

Maximum Operating Pressure: 125 PSI (861 kPa)
 Maximum Hot Water Supply Temp: 180°F (82°C)
 Outlet Temp. Range: 100°F-160°F (38°C-71°C)
 Minimum Hot Water Supply* 5°F (3°C)
 Above Set Point

Flow Rate at 45 psi (310 kpa) differential:

MV17-1: 15 GPM (56.8 LPM)
 MV17-2: 45 GPM (170 LPM)
 MV17-3: 90 GPM (341 LPM)
 MV17-4: 150 GPM (568 LPM)
 MV17-5: 225 GPM (852 LPM)

NOTE:

ASSE 1017 performance based on actual demand or recirculation pump flow rate or a combination of both. See FEATURES regarding control performance at ZERO GPM user demand.

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Certifications:



ASSE 1017
 CSA B125.3



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VALVE SELECTION:

- MV17-1 Brass Valve Body With (2), 1/2" NPT Brass Ball Valves, Shipped Loose
- MV17CP-1 Chrome Plated Brass Valve Body With (2), 1/2" NPT Ball Valves, Shipped Loose
- MV17-2 Brass Valve Body With (2), 3/4" NPT Brass Ball Valves, Shipped Loose
- MV17CP-2 Chrome Plated Brass Valve Body With (2), 3/4" NPT Ball Valves, Shipped Loose
- MV17-3 Brass Valve Body With (2), 1" NPT Brass Ball Valves, Shipped Loose
- MV17CP-3 Chrome Plated Brass Valve Body With (2), 1" NPT Ball Valves, Shipped Loose
- MV17-4 Brass Valve Body With (2), 1-1/4" NPT Brass Ball Valves, Shipped Loose
- MV17CP-4 Chrome Plated Brass Valve Body With (2), 1-1/4" NPT Ball Valves, Shipped Loose
- MV17-5 Brass Valve Body With (2), 1-1/2" NPT Brass Ball Valves, Shipped Loose
- MV17CP-5 Chrome Plated Brass Valve Body With (2), 1-1/2" NPT Ball Valves, Shipped Loose

OPTIONAL CABINET:

STYLE

- SMC Surface Mounted Cabinet

FINISH

- PRC Prime Coat Finish (16 Gage Mild Steel)
- SSTL Stainless Steel (18 Gage Type 304)

DOOR OPTIONS

- DRS Solid Door
- DRV Door Viewport

Must Specify: Hinge Location (N/A MV17-3, -4 & -5)

- L Left
- R Right

ACCESSORIES:

- OTG Outlet Temperature Gauge
- MB-1 Mounting Bracket Assembly (Models: MV17-1, MV17CP-1)
- MB-2 Mounting Bracket Assembly (Models: MV17-2, MV17CP-2)
- MB-3 Mounting Bracket Assembly (Models: MV17-3, MV17CP-3)
- MB-4 Mounting Bracket Assembly (Models: MV17-4, MV17CP-4)
- MB-5 Mounting Bracket Assembly (Models: MV17-5, MV17CP-5)

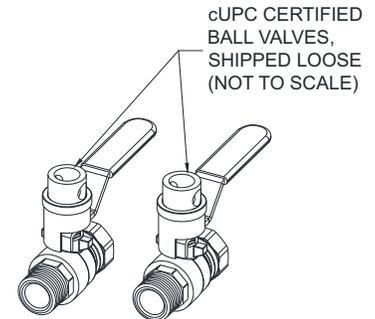
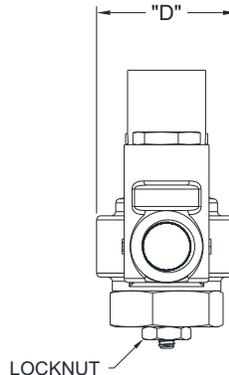
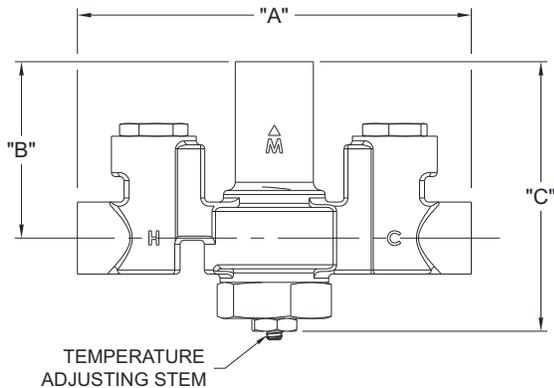
TECHNICAL DIMENSIONS:

	INLET	OUTLET	"A"	"B"	"C"	"D"
MV17-1	1/2" NPT	1/2" NPT	5-3/4" (146)	2-5/8" (67)	4" (101)	2" (51)
MV17-2	3/4" NPT	1" NPT	8-1/2" (216)	3" (78)	5-1/2" (141)	3" (78)
MV17-3	1" NPT	1-1/4" NPT	14" (356)	5-1/4" (135)	8-3/4" (222)	5-3/4" (145)
MV17-4	1-1/4" NPT	1-1/2" NPT	14" (356)	5-1/4" (135)	8-3/4" (222)	5-3/4" (145)
MV17-5	1-1/2" NPT	2" NPT	15" (381)	4-3/4" (119)	9-7/8" (250)	6-1/4" (158)

FLOW RATE / PRESSURE DROP:

	PRESSURE DROP PSID (KPA)	CV	*MINIMUM FLOW GPM	CERTIFIED MINIMUM FLOW GPM	5 (34)	10 (69)	15 (103)	20 (138)	30 (207)	45 (310)	60 (414)
MV17-1 15 GPM (56.8 LPM)	FLOW RATE GPM (LPM)	2.2	0.1 (0.4)	0.5 (2)	5 (19)	7 (26.7)	8.7 (32.8)	10 (37.9)	12.3 (46.4)	15 (56.8)	17.3 (65.6)
MV17-2 45 GPM (170 LPM)	FLOW RATE GPM (LPM)	6.7	0.1 (0.4)	1 (4)	15 (56.8)	21.2 (80.3)	26 (98.4)	30 (113.6)	36.7 (139)	45 (170.3)	52 (196.7)
MV17-3 90 GPM (341 LPM)	FLOW RATE GPM (LPM)	13.4	0.1 (0.4)	2 (8)	30 (113.6)	42.4 (160.6)	52 (196.7)	60 (227.1)	73.5 (278.2)	90 (340.7)	104 (393.4)
MV17-4 150 GPM (568 LPM)	FLOW RATE GPM (LPM)	22.4	0.1 (0.4)	3 (11)	50 (189)	70.7 (267.7)	86.6 (327.8)	100 (378.5)	122.5 (463.6)	150 (567.8)	173.2 (655.7)
MV17-5 225 GPM (852 LPM)	FLOW RATE GPM (LPM)	33.5	0.1 (0.4)	4 (15)	75 (284)	106 (401.5)	130 (491.7)	150 (567.8)	183.7 (695.4)	225 (851.7)	259.8 (983.5)

*NOTE: MINIMUM FLOW WHEN THE VALVE IS INSTALLED AT OR NEAR HOT WATER SOURCE WITH RE-CIRCULATED TEMPERED WATER USING PROPERLY SIZED CONTINUOUSLY OPERATING RE-CIRCULATING PUMP



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⚠ WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

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SELECTION SUMMARY & APPROVAL FOR MANUFACTURING

Model Number & Options _____ Quantity _____

Company _____

Contact _____ Title _____

Signature (Approval for Manufacturing) _____ Date _____



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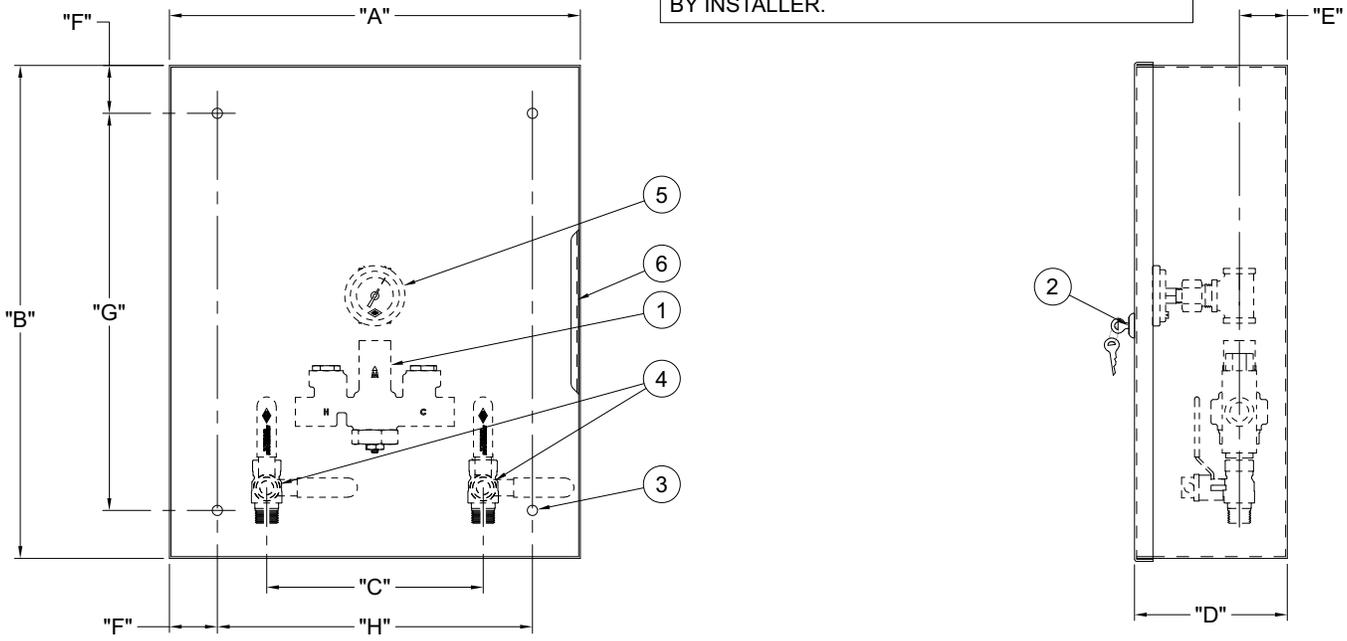
Model MV17 Series Cabinet

Thermostatic Mixing Valve Cabinets



TECHNICAL DIMENSIONS:

NOTE:
 ITEMS ①, AND ⑤ ARE SHOWN FOR REFERENCE ONLY.
 ALL PLUMBING CONNECTIONS ARE PROVIDED BY INSTALLER.



SHOWN LESS DOOR FOR CLARITY

- ① #MV17- SERIES THERMOSTATIC MIXING VALVE
- ② CYLINDER LOCK WITH KEYS
- ③ Ø3/8" MOUNTING HOLES (4) PLACES
- ④ -BVS BALL VALVE SHUT-OFF
- ⑤ OPTIONAL -OTG OUTLET TEMPERATURE GAUGE
- ⑥ DOOR STOP

	INLET	OUTLET	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"
MV17-1	1/2" NCT	1/2" NCT	15" (381)	18" (457)	7-7/8" (200)	5-5/8" (143)	1-3/4" (45)	1-3/4" (45)	14-1/2" (368)	11-1/2" (292)
MV17-2	3/4" NCT	1" NCT	21" (533)	22" (559)	11" (279)	6" (153)	2" (51)	1-3/4" (45)	18-1/2" (470)	17-1/2" (445)
MV17-3	1" NCT	1-1/4" NCT	28-1/2" (724)	29-1/2" (749)	16-7/8" (429)	7-3/4" (197)	3-1/4" (83)	2-1/2" (64)	24-1/2" (622)	23-1/2" (597)
MV17-4	1-1/4" NCT	1-1/2" NCT	30-1/2" (775)	33" (838)	17-3/4" (450)	7-3/4" (197)	3-1/4" (83)	2-1/2" (64)	28" (711)	25-1/2" (648)
MV17-5	1-1/2" NCT	2" NCT	33-1/4" (845)	38" (965)	18-1/2" (470)	8-3/4" (222)	3-1/4" (83)	2-1/2" (64)	33" (838)	28-1/4" (718)

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