

# Model ST7017 (Omega)

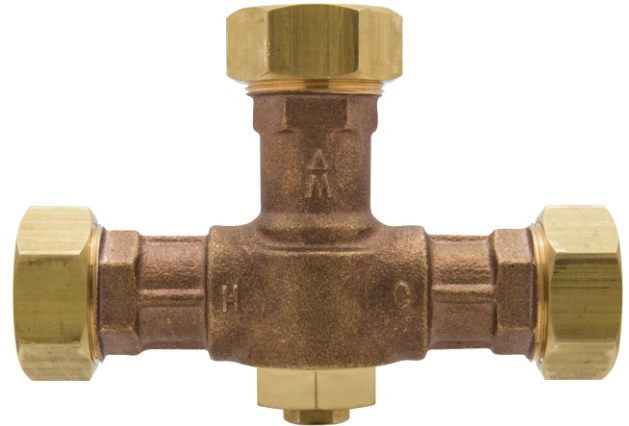
## Lead-Free Thermostatic Mixing Valve

### APPLICATION:

The Acorn ST7017 is an ASSE 1070 and ASSE 1017 certified, Lead-Free Thermostatic Mixing Valve that protects against dangerously hot water in any Tub, Sink and/or Lavatory applications. This Valve can be used with any type of Faucet for maximum flexibility and can accommodate up to 48 hand washing stations having a 0.5 GPM flow rate. Compliant with the temperature control requirements of ASSE 1017 and ASSE 1070 at all flow rates well below the ASSE standard tested flow rate. The ST7017 can safely deliver controlled tempered hot water to all your fixtures, at all times.

### FEATURES:

- ◆ Lead-Free DZR brass body with corrosion-resistant and Lead-Free internal components
- Integral cartridge-style Checks to prevent cross-flow and Strainers to filter debris from entering the Valve
- Temperature adjustment is made using an Allen wrench. A Locknut on the Bonnet prevents unauthorized or accidental temperature adjustment
- Commercial quality paraffin Thermal Actuator provides repeatable, reliable performance
- Factory set to 105°F (41°C) and field adjustable
- IAPMO certified to ASSE 1070 down to 0.25 GPM (1.0 LPM) within ± 7°F (5.5°C)
- IAPMO certified to ASSE 1017 down to 0.25 GPM (1.0 LPM)
- The ST7017 is capable of exceeding the temperature control accuracy requirements of ASSE 1070 and 1017 at all flow requirements without requiring a continuously Recirculating Pump



ST7017



Patent #9,898,017

### SPECIFICATIONS:

#### Valve Specifications:

Maximum Operating Pressure: ..... 125 PSI (861 kPa)  
 Flow Rate @ 45 PSI (310 kPa) differential:  
 Flow Rate: ..... 24 GPM (91 LPM)  
 Minimum Flow Rate\*: ..... 0.25 GPM (1.0 LPM)  
 Maximum Hot Water Temp: ..... 180°F (82°C)  
 Minimum Hot Water Supply Temp\*\*: ..... 5°F (3°C)  
 Above Set Point  
 Maximum Cold Water Supply Temp\*\*: ..... 5°F (3°C)  
 Below Set Point  
 Minimum Cold Water Temp: ..... 39°F (4°C)  
 Temperature Range\*: ..... 95°F-130°F (35°C-54°C)  
 Connections Available ..... 1/2" & 3/4"

\* In accordance with ASSE 1070 and ASSE 1017 as certified by IAPMO  
 \*\* 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 independent lab certified per ASSE 1070, ASSE 1017 and CSA B125.3 at 0.25 GPM. Valve shall have a Lead-Free Brass Body and Bonnet along with corrosion-resistant internal components. It shall include Integral Checks with Screens to prevent backflow and to filter debris from entering the Valve. Temperature adjustment shall be made using an Allen wrench and a Locknut on the Bonnet to prevent unauthorized or accidental temperature adjustment. Valve shall provide 24 GPM (91 LPM) capacity at 45 PSI (310 kPa) differential. Temperature range shall be 95°F-130°F (35°C-54°C). Valve shall be Acorn model ST7017.

PRESSURE DROP PSID (KPA)	CV	5 (34)	10 (69)	15 (103)	20 (138)	30 (207)	45 (310)	60 (414)
1/2" TUBE FLOW RATE GPM (LPM)	2.8	6 (22.7)	9 (34)	11 (41.6)	13 (49.2)	15 (56.8)	19 (72)	22 (83.3)
3/4" TUBE FLOW RATE GPM (LPM)	3.2	7 (26.5)	10 (37.9)	12 (45.4)	14 (53)	18 (68.1)	21 (79.5)	25 (94.6)

Acorn Controls assumes no responsibility for use of void or superseded data. © Copyright Acorn Controls, City of Industry, CA, Division of Acorn Engineering Company, a member of Morris Group International. Please visit [www.acorneng.com](http://www.acorneng.com) or most current specifications.

Submission # **ST7017**  
 New: 07/20/2020

#### Certifications:



ASSE 1070  
 ASSE 1017  
 CSA B125.3



Est. 1954  
**ACORN ENGINEERING COMPANY**  
 Manufacturer of Engineered Products

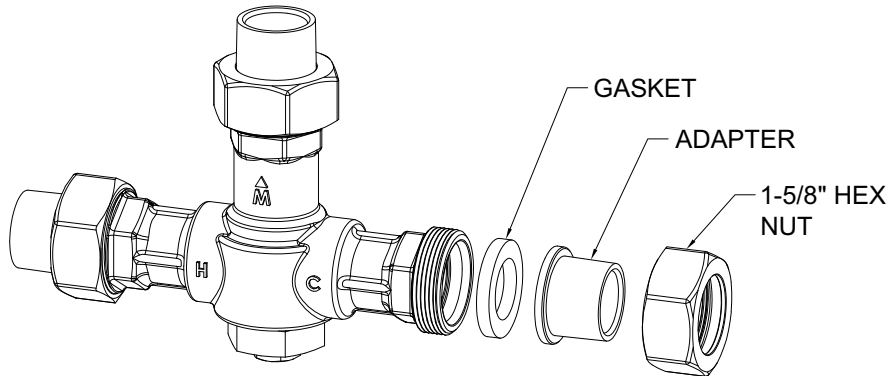
Member of Morris Group International™

ACORN ENGINEERING  
 COMPANY  
 P.O. BOX 3527  
 City of Industry, CA  
 91744, U.S.A.  
 Phone 800-488-8999  
 626-336-4561  
 Fax 626-961-2200  
[www.acorneng.com](http://www.acorneng.com)

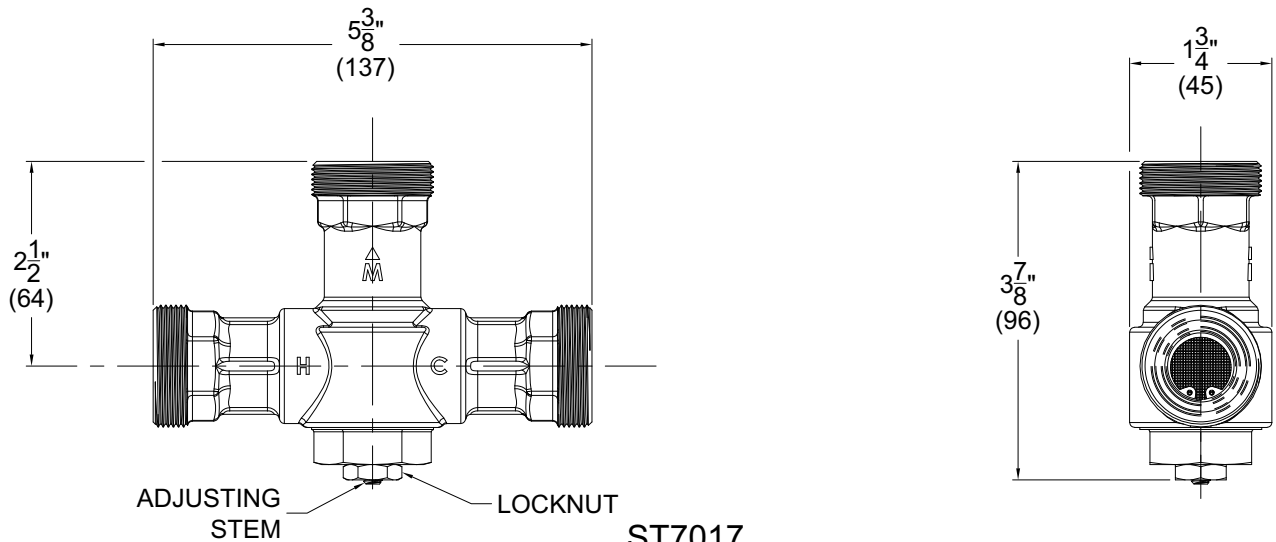
**VALVE SELECTION:**

- ST7017-12CU Brass Valve Body With Kit for 1/2" Copper Tube
- ST7017-12PEX Brass Valve Body 1/2" PEX Tubing
- ST7017-12CPVC Brass Valve Body With Kit for 1/2" PVC
- ST7017-34CU Brass Valve Body With Kit for 1/2" Copper Tube
- ST7017-34PEX Brass Valve Body 3/4" PEX Tubing
- ST7017-34CPVC Brass Valve Body With Kit for 3/4" PVC

**TECHNICAL DIMENSIONS:**



ST7017-34CPVC, SHOWN  
 DETAIL NOT TO SCALE



**ST7017**

# **ST7017** New: 07/20/2020

**⚠ WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

Acorn Controls warrants that its products are free from defects in material or workmanship under normal use and service for a period of one year from date of shipment. Acorn's liability under this warranty shall be discharged solely by replacement or repair of defective material, provided Acorn is notified in writing within one year from date of shipment, F.O.B. Industry, California.

SELECTION SUMMARY & APPROVAL FOR MANUFACTURING

Model Number & Options \_\_\_\_\_ Quantity \_\_\_\_\_

Company \_\_\_\_\_

Contact \_\_\_\_\_ Title \_\_\_\_\_

Signature (Approval for Manufacturing) \_\_\_\_\_ Date \_\_\_\_\_

ACORN  
**CONTROLS™**

**800-488-8999**  
 or 626-336-4561  
[www.acorneng.com](http://www.acorneng.com)