



# Heatguard® 110-D Series—Lead Free

## DESCRIPTION

The **Heatguard® 110-D** is a Temperature Actuated Mixing Valve that mixes hot water with cold to deliver tempered water at a controlled temperature to 120°F (49°C) maximum. The **Heatguard® 110-D** is designed to assist in the prevention of scalding.

The **Heatguard® 110-D** is intended for installation at the water heater to distribute controlled temperature water through the domestic hot water system or at point-of-use applications. The valve delivers water at a maximum of 120°F (49°C), allowing the heater to be set at 140°F (60°C) or higher, thus providing a greater effective volume of hot water and reducing the chances of Legionella bacteria growth in the water.

The **Heatguard® 110-D** is a high quality mixing valve incorporating the latest in Thermostatic Technology. It features a robust design based on the expertise gained from years of experience in the design and manufacture of safety valves. Every valve is tested for performance on an automated testing station during the assembly process. The valve is third party listed for both distribution and point-of-use applications.

The **Heatguard® 110-D** incorporates a fast acting, high quality thermostatic element that senses the outlet water temperature and reacts to maintain a stable delivery temperature even under changing flows or variations in supply temperatures. The valve also greatly reduces the outlet flow in the event of a cold water supply failure.

The **Heatguard® 110-D** features a locking mechanism to prevent unwanted adjustment above 120°F (49°C).

The **Heatguard® 110-D** is shipped complete as a kit with your choice of end connections in 1/2", 3/4" & 1" sizes. Available end connections are sweat, CPVC, PEX, threaded and SharkBite®. All valves are supplied standard with check valves.



**HEATGUARD®**  
THERMOSTATIC MIXING VALVES

## FEATURES AND BENEFITS

Certified for distribution and point-of-use applications.

*Safer hot water from all outlets.*

Allows the water heater to be set at 140°F (60°C) or higher:

*Greater effective hot water volume yields less chance of Legionella within the cylinder.*

Every valve is tested for performance prior to shipping:

*Specify and install with confidence!*

Robust, low complexity construction:

*Superior reliability, improved user safety.*

Adjustable and lockable mechanism:

*Minimizes unauthorized tampering with valve setting  
Factory set, locked to maximum 120°F (49°C)*

Listed by IAPMO, CSA, and ASSE:

*Inspector friendly, peace of mind!*

**TRIPLE LISTED!**

ASSE 1017,  
ASSE 1069,  
ASSE 1070.

## SPECIFICATION

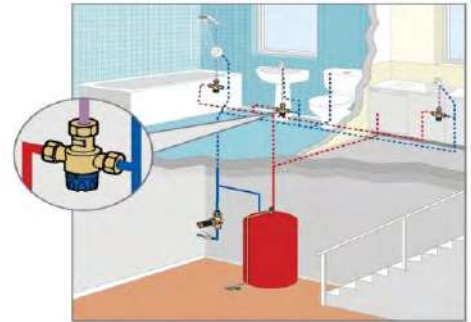
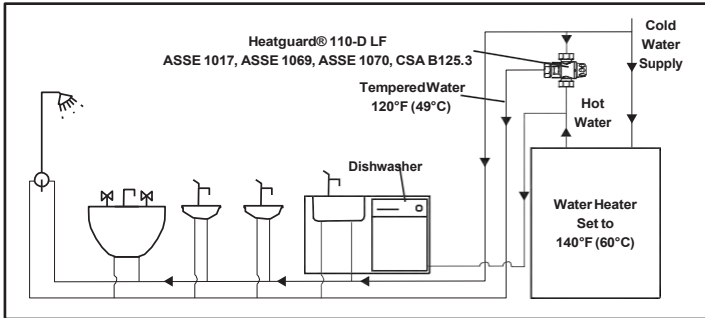
A Temperature Actuated Mixing Valve shall be installed at single point-of-use fixture or at the water heater to distribute tempered water throughout the domestic hot water system at a maximum temperature of 120°F (49°C). The valve shall be certified to ASSE 1017, ASSE 1069, ASSE 1070 and CSA B 125.3 standards and shall be listed by a third party. The Temperature Actuated Mixing Valve shall control the delivered water temperature via a regulating piston made from engineered polymer. The adjusting mechanism shall be protected by a lockable cover. The valve shall be a Cash Acme **Heatguard® 110-D LF**.



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## TYPICAL INSTALLATION

Domestic hot water distribution. To control water temperature at the source of heat (water heater) or individual/multiple point-of-use fixtures (sinks, lavatories, or bath tubs) to provide a safe distribution temperature. It can also be installed at gang shower applications where the bather has no access to the temperature adjustment means.



Valve Location - Single Fixture

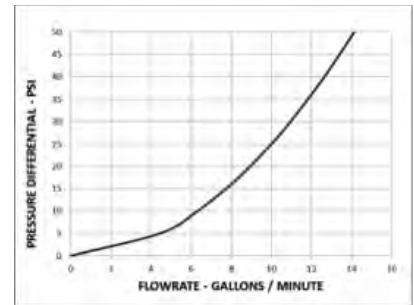
## SPECIFICATION DATA

### Performance:

Outlet temperature range	85 – 130°F (29 – 54°C)
Factory set and locked	120°F (49°C)
Temp. hot supply	120 – 180°F (48.9 – 82.2°C)
Temp. cold supply	39 – 80°F (3.9 – 26.7°C)
Maximum pressure	230 psi (1600 kPa)
Flow rate, minimum	1 gpm (3.8 l/min)
Flow rate, maximum	20 gpm (76 l/min)

### Materials:

Body	DZR Brass
Seals	EPDM
Springs	Stainless Steel
Internal cap	Brass
Piston	Engineered Polymer



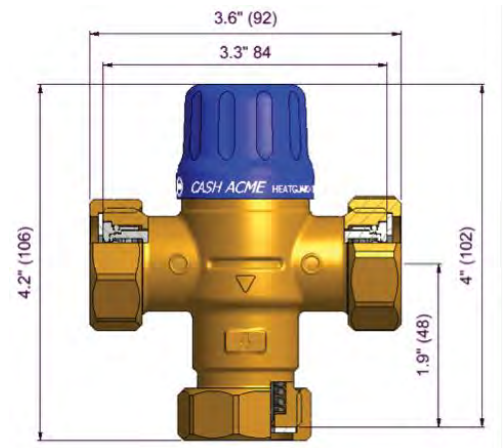
Note: Flow rate determined on a Heatguard® 110-D LF with ½" sweat fittings

## AVAILABLE CONNECTIONS

Sweat	1/2", 3/4" and 1"
Barb (PEX)	1/2" and 3/4"
Threaded (NPT)	1/2" and 3/4"
CPVC	1/2" and 3/4"
SharkBite	1/2" and 3/4"

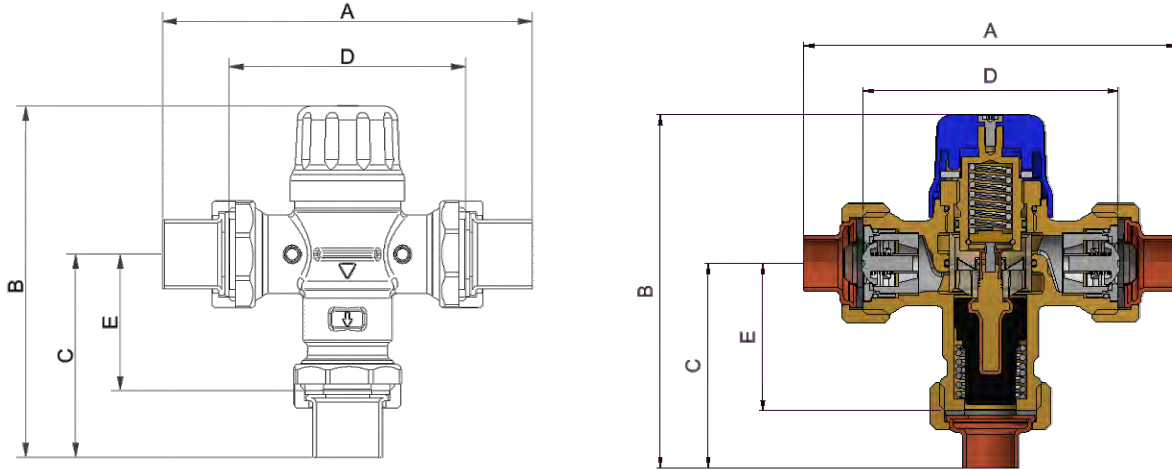
## CERTIFICATIONS

The Cash Acme Heatguard® 110-D LF is certified to ASSE 1017, ASSE 1069, ASSE 1070, CSA B125.3, NSF/ANSI 372, NSF/ANSI/CAN 61 and listed by IAPMO, CSA, and ASSE for use in accordance with U.S and Canadian plumbing codes.





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Type	Size	Description	Part	A		B		C		D		E	
				in	mm	in	mm	in	mm	in	mm	in	mm
Heatguard® 110-D	½"	Sweat	24501	4.79	121.60	4.74	120.34	2.65	67.19	3.07	84.00	1.91	49.39
	¾"	Sweat	24502	5.17	131.40	4.91	124.69	2.84	72.09				
	1"	Sweat	24503	7.57	192.20	6.13	155.64	4.04	102.59				
	½"	Sharkbite Union	24504	6.12	155.50	5.41	137.29	3.31	84.14				
	¾"	Sharkbite Union	24505	6.47	164.30	5.58	141.69	3.49	88.54				
	½"	Barb (PEX)	24506	5.29	134.38	4.99	126.73	2.90	73.58				
	¾"	Barb (PEX)	24507	5.29	134.38	4.99	126.73	2.90	73.58				
	½"	CPVC	24508	6.92	175.80	5.81	147.44	3.71	94.29				
	¾"	CPVC	24509	6.93	176.00	5.81	147.54	3.72	94.39				
	½"	Threaded NPT	24510	5.68	144.32	5.17	131.27	3.09	78.59				
	¾"	Threaded NPT	24511	6.19	157.32	5.42	137.77	3.35	85.09				
	½"	Sharkbite	24548	5.94	150.96	5.36	136.23	3.27	83.08	4.08	103.60	2.34	59.40
¾"	Sharkbite	24549	5.89	149.60	5.34	135.55	3.24	82.40					

