Masterguard® Series with Cabinet Assembly

Temperature Range: 95-150°F, Max Pressure: 145 psi.

Thermostatic Master Controller with Cabinet for Commercial and Industrial Applications

Fast acting, high quality thermostatic elements that sense the outlet temperature and react to maintain a stable delivery temperature even under varying and extremely low flows. The adjusting handle can be locked at a desired temperature. Each valve has integral mounting feet to allow it to be securely fixed to a wall or frame. Complete with 4 in1 service fittings on each inlet. Every valve is factory tested. Each cabinet assembly is made to order. The robustly designed cabinet allows for secure safety, peace of mind. The Masterguard® Series features a range of six high flow rate Thermostatic Mixing Valves that mix hot water with cold water to deliver tempered water at a controlled temperature, typically 120°F (49°C). Intended for installation in the plant room of commercial and industrial facilities to distribute controlled temperature water to the domestic hot water system of a whole building or a whole section of building. Sizes: 1/2" inlet X 3/4" outlet, 3/4" inlet X 3/4" outlet, 3/4" inlet X 1" outlet, 1" inlet X 1-1/4" outlet, 1-1/4" inlet X 1-1/2" outlet and 1-1/2" inlet X 2" outlet. The Masterguard® Series is certified to ASSE 1017 and CSA B125.3 and is listed by ASSE and IAPMO.

Heatguard® Fittings

Thermostatic Mixing Valve Fittings Kits

Furnished with three union nuts and face seals. The kits contain three fittings of the selected type. Kits available in sweat, barb/PEX, compression, threaded (NPT), and CPVC (all kits are available with check). For use with Heatguard® thermostatic mixing valves. Sizes: Sweat - 1/2", 3/4" and 1" (checks not available for 1"), Barb/PEX - 1/2", 3/4" and 1", Compression - 1/2" and 3/4", Threaded - 1/2", 3/4", CPVC - 1/2" and 3/4", Compression with check - 3/8", 1/2", and 3/4".

Thermostatic Retrofit Kit

Retrofit Tailpiece Kit

The Thermostatic Retrofit Kit comes with 3 CTS tailpieces and 3 gaskets. The kit aids in the quick and easy installation of a thermostatic mixing valve in a domestic application. Use with SharkBite® fittings to easily connect a Heatguard® valve to 1/2" and 3/4" pipe. Heatguard® 110-D purchased separately. For use with Heatguard® thermostatic mixing valves. Sizes: 1/2" (Part No. 24311-0000) and 3/4" (Part No.24312-0000)

Legionella and Scalding: A Clear Case For Thermostatic Mixing Valves

According to the U.S. Centers for Disease Control, an estimated 10,000 to 50,000 people get Legionnaires disease each year. The CDC also estimates that 10 to 30 percent of these cases result in death. Although Legionnella bacteria can be found in many types of water systems, the bacteria reproduce to high numbers in warm, stagnant water (78-122°F). The organism is spread when water, in the form of fine mist, is inhaled. A drastic reduction in the number of bacteria results from storing hot water at 140°F. This effectively lowers the risk of infection. In conjunction with a higher storage temperature, a thermostatic mixing valve should be installed, to once again lower water temperature to 122°F or below, thus providing greater protection from scalding. The Occupational Health and Safety Administration (OSHA) recommend the utilization of thermostatic mixing valves with a water heater installation. A simple solution to protect your family from Legionnaires Disease and scalding.

Internet links for more information:

www.osha.gov/SLTC/legionnairesdisease/index.html#alliances

www.awt.org/Legionella03.pdf

Getting More Hot Water

Thermostatic Mixing Valves are the Solution

When more hot water is needed, Cash Acme has an easy, cost effective solution. Our Thermostatic Mixing Valves allow the existing heater to store water at a high temperature that might otherwise scald, while delivering it at a safe 120°F or lower to all faucets. This makes the effective heater capacity much greater– typically 50% more gallons with electric heaters. And even more than that with gas. As shown in the chart, when the temperature is increased to 160°F on a 30 gallon water heater, the effective gallons available at 120°F will be 46 to 57 gallons depending on the cold water temperature. That's as much as an 89% increase in available hot water from the same water heater.

(based on a 30 gallon water heater)

Gallons of Hot Water by Storage Temp.				
	Cold Water Temp °F(°C)			
Storage Temp °F(°C)	45(7.2)	55(12.7)	65(18.3)	75(23.9)
120(48.9)	30	30	30	30
140(60)	38	39	41	43
160(71.1)	46	48	52	57
180(82.2)	54	58	63	70

Percentage Increase of Hot Water by Temp.				
	Cold Water Temp °F(°C)			
Storage Temp °F(°C)	45(7.2)	55(12.7)	65(18.3)	75(23.9)
120(48.9)	100%	100%	100%	100%
140(60)	127	131	136	144
160(71.1)	153	162	173	189
180(82.2)	180	192	209	233

CASH ACME®

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2400 7th Avenue SW
Cullman, AL 35055-0278
1-877-700-4242
FAX: 1-877-700-4280
www.cashacme.com

Cash Acme Canada
1051 Levis
Lachenaie, QC.
J6W 4L2
1-450-563-3436
FAX: 1-450-563-1802
Order Desk
1-888-820-0120
FAX: 1-888-820-0121
www.cashacme.ca

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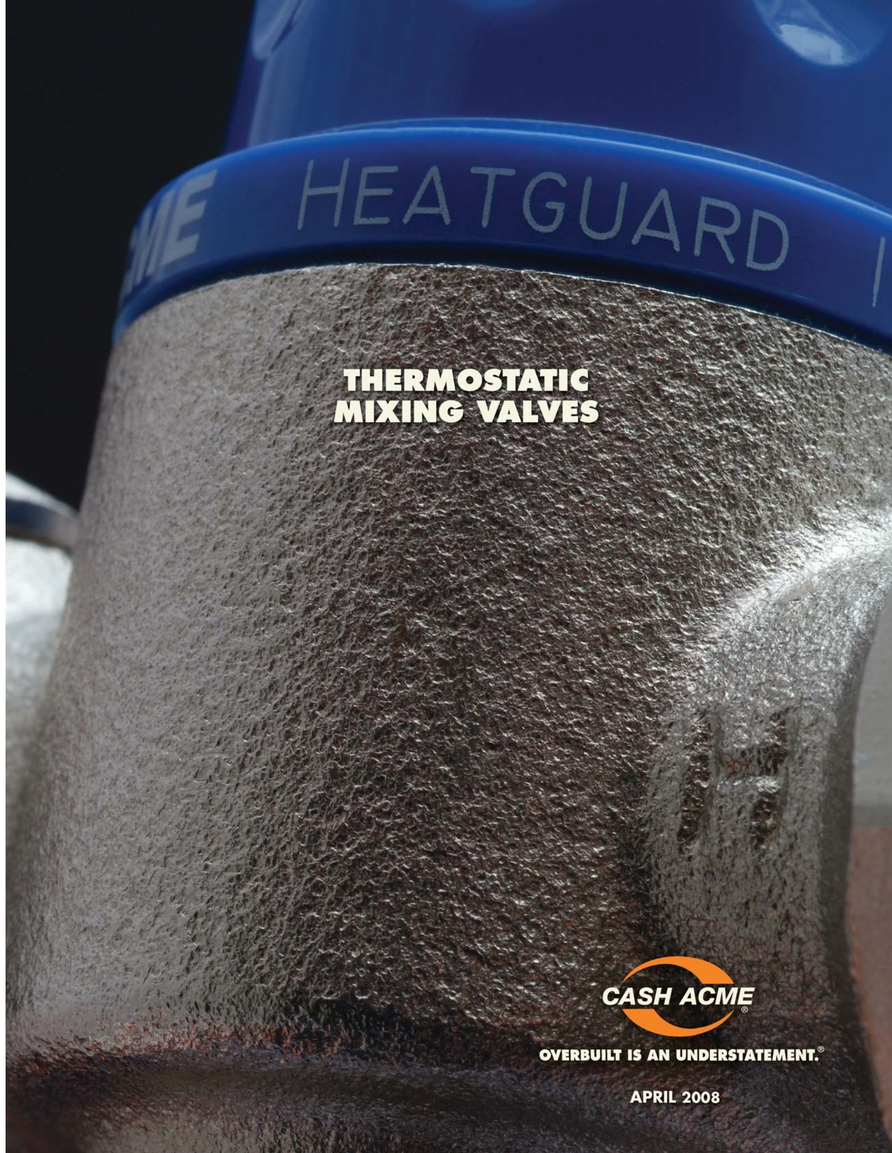

THERMOSTATIC MIXING VALVES

CASH ACME®

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APRIL 2008

TEMPERATURE CONTROL.

OVERBUILT.

Cash Acme's Heatguard® Thermostatic Mixing Valve addresses a hot issue with cold precision. The problem: water that's stored hot enough to prevent *Legionella* bacteria could scald. Heatguard solves it by delivering water at a safe 120° or lower, while allowing the heater to be set at a germ-killing 140° or higher. So safer hot water is available from all outlets. And the higher tank temperature means that hot water demands can be satisfied longer. Heatguard's extremely rugged, simple construction incorporates the latest in thermostatic technology, with an ultra-high precision engineered polymer piston at its heart– and our design philosophy at its core: Don't just build it, overbuild it. That's the Cash Acme standard you can count on. Faithfully.

Heatguard® 110-D, 110-DSB

Temperature Range: 95-120°F, Flow Range: 1-20 gpm.

Thermostatic Mixing Valve for Domestic Applications

Delivers water at a maximum of 120°F (49°C) throughout the system and yields safer hot water from all outlets while aiding in preventing the growth of Legionella bacteria in the water heater. Robust, low complexity construction. Every valve is tested for performance prior to shipping. Unique purpose designed adjuster tool minimizes unauthorized tampering with valve setting. Size (base valve): 3/4" Size (fittings): 1/2", 3/4" and 1" Approvals: The Heatguard® 110-D is certified to ASSE 1017 and CSA B125.3 and is listed by ASSE and IAPMO.

Heatguard® 110-HX

Temperature Range: 95-176°F, Flow Range: 1-20 gpm.

Thermostatic Mixing Valve for Domestic Heating and Radiant Applications

The 110-HX includes all of the features of the 110-H, along with an adjustable and lockable handle for the prevention of tampering. Outlet temperature range extending to 176°F (80°C), making it ideal for application in heating systems. It also applies to any installation requiring the delivery of reduced temperature hot water. Size (base valve): 3/4" Size (fittings): 1/2", 3/4" and 1" Approvals: The Heatguard® 110-HX is certified to ASSE 1017 and CSA B125.3 and is listed by ASSE and IAPMO.

Heatguard® 115-D

Temperature Range: 95-120°F, Flow Range: 2.5-50 gpm.

Thermostatic Mixing Valve for Large Domestic and Standard Commercial Water Applications

The 115-D offers the same reliable protection of the 110-D, but on a larger scale. The 115-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 115-D also features an adjusting knob that can be locked at a desired temperature. Alternatively it can function in an adjusting mode. The Heatguard® 115-D is intended for installation at the water heater to distribute controlled temperature water throughout a domestic hot water system. 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 valve flows 30 gpm at 45 psi, making it suitable for larger residential and commercial installations. Size (base valve): 1" Size (fittings): 3/4", 1" and 1-1/4" Approvals: The Heatguard® 115-D is certified to ASSE 1017 and CSA B125.3 and is listed by ASSE and IAPMO.

Heatguard® 115-H

Temperature Range: 95-140°F, Flow Range: 2.5-50 gpm.

Thermostatic Mixing Valve for Large Heating Applications

The 115-H features a robust design based on the expertise gained from years of experience in the design and manufacture of safety valves. The 115-H incorporates a thermostatic element that senses the outlet water temperature and reacts to maintain a stable delivery temperature. It also features an adjusting handle that can be locked at a desired temperature setting. Every valve is tested for performance on an automated testing station during the assembly process. The Heatguard® 115-H has an outlet temperature range extending to 140°F (60°C) and a flow rate of 30 gpm at 45 psi, making it ideal for application in large heating systems. It also applies to any installation requiring the delivery of reduced temperature hot water. Size (base valve): 1" Size (fittings): 3/4", 1" and 1-1/4" Approvals: The Heatguard® 115-H is certified to ASSE 1017 and CSA B125.3 and is listed by ASSE and IAPMO.

Heatguard® 145

Temperature Range: 95-115°F, Flow Range: .5-5.5 gpm.

Mini Thermostatic Mixing Valve for Point-Of-Use Applications

The 145 provides a stable operation at flow rates as low as 0.5 gpm, or as high as 5.5 gpm. The valve also reduces the outlet flow to a trickle in the event of cold water supply failure. The 145 has inlet connections to suit a 3/8" flexible hose connector or a compression connection to 3/8" OD tube. It has 3/8" NPT female thread on the outlet which allows adaptation to any connection type. Compact design, easily fits under or behind a single basin. Specifically intended for use in conjunction with individual faucets and electronic faucets. Size (base valve): 1/2" Connection Sizes: 1/4" ID (3/8" OD) and 1/2" ID (5/8" OD) Approvals: The Heatguard® 145 is certified to ASSE 1070, ASSE 1016-96 and CSA B125.3 and is listed by ASSE and IAPMO.

Heatguard® 160

Temperature Range: 95-115°F, Flow Range: 1-5.5 gpm.

Thermostatic Mixing Valve for Commercial Point-Of-Use Applications

"Next generation" thermostatic technology provides optimum water temperature control. Long life and scale resistance ensured by use of high quality engineering polymers and inherently scale resistant design. Every valve is extensively factory tested. Adjustable from 95°F - 115°F (35°C - 46°C). The Heatguard® 160 supplies hot water of controlled temperature directly to the point-of-use, such as showers, lavatory faucets, electronic sensor faucets etc., in commercial installations. Size (base valve): 3/4" Size (fittings): 3/8", 1/2" and 3/4" Approvals: The Heatguard® 160 is certified to ASSE 1016-96, ASSE 1069, ASSE 1070 and CSA B125.3 and is listed by ASSE and IAPMO.

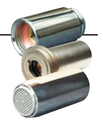
Heatguard® 160 4in1

Temperature Range: 95-115°F, Flow Range: 1-11 gpm.

Thermostatic Mixing Valve for Point-Of-Use with 4in1 Service Fittings

Each is complete with service fittings on each inlet. The fittings have a 1/2" female inlet thread and connect to the base valve via union connections. The valve reduces the outlet flow to a trickle in the event of cold water supply failure. Every valve is tested for performance on an automated testing station prior to shipping. Accurate temperature control even under varying supply conditions. The Heatguard® 160 4in1 is intended to supply controlled temperature hot water to any outlet requiring a higher level of protection, such as a tub or basin in a nursing home or lavatory faucets in a public place. Size (base valve): 3/4" Size (fittings): 1/2" Approvals: The Heatguard® 160 is certified to ASSE 1016-96, ASSE 1069, ASSE 1070, and CSA B125.3 and is listed by ASSE and IAPMO.

Heatguard® TAFR



Temperature Actuated Flow Reducers

Thermal element senses high temperature water and shuts off flow to protect user. Device will only reset when water temperature drops to a safe level. The Heatguard® TARF is used for shower, tub or faucet spouts to act as a "hot water fuse" to shut off flow of water if it reaches 120°F (49°C). Size: Available to suit shower heads, faucets (male and female thread) and tub spouts. The Heatguard® TAFR are certified to ASSE 1062, CSA B125.3 and NSF-61 and are listed by ASSE and IAPMO.

Masterguard® 800 Series

Temperature Range: 95-150°F, Max Pressure: 145 psi.

Thermostatic Master Controller for Commercial and Industrial Applications

Fast acting, high quality thermostatic elements that sense the outlet temperature and react to maintain a stable delivery temperature even under varying and extremely low flows. The adjusting handle can be locked at a desired temperature. Each valve has integral mounting feet to allow it to be securely fixed to a wall or frame. Complete with 4in1 service fittings on each inlet. Every valve is factory tested. The Masterguard® Series features a range of six high flow rate Thermostatic Mixing Valves that mix hot water with cold water to deliver tempered water at a controlled temperature, typically 120°F (49°C). Intended for installation in the plant room of commercial and industrial facilities to distribute controlled temperature water to the domestic hot water system of a whole building or a section of a building. Sizes: 1/2" inlet X 3/4" outlet, 3/4" inlet X 3/4" outlet, 3/4" inlet X 1" outlet, 1" inlet X 1-1/4" outlet, 1-1/4" inlet X 1-1/2" outlet and 1-1/2" inlet X 2" outlet. Approvals: The Masterguard® series is certified to ASSE 1017 and CSA B125.3, and is listed by ASSE and IAPMO.

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