

Heatguard® Series General Information

PRINCIPLE OF OPERATION

Thermostatic mixing valves are designed to mix hot and cold water supplies and deliver water at a safe, controlled temperature. The valve is controlled by constant monitoring of the outlet temperature by a thermostatic element which automatically adjusts the mix ratio of hot and cold water according to the temperature setting of the valve. The Cash Acme Heatguard® valves also offer the additional protection of a shutdown in case of cold water failure.

APPLICATIONS

Distribution: The Cash Acme Heatguard® Thermostatic Mixing Valve allows a higher water temperature at the heating source to maintain peak efficiency and to prevent the formation of bacteria in domestic supplies. While the water at the heating source can be stored at a much higher temperature, the water is distributed at a safer temperature by the thermostatic mixing valve.

Point of Use: In larger distribution systems or in single purpose usage when water is maintained at elevated levels, a valve can be fitted at the point of use to reduce the outlet temperature at a basin, bath or other facility. Valves can also provide water at a safe controlled temperature, therefore reducing the risk of scalding and also the growth of legionella bacteria.

MARKETS

Heating: The Cash Acme Heatguard® Series provides an accurate and inexpensive valve for hydronic heating system applications. These valves present outstanding characteristics including high flow rates and the lowest pressure drop with the widest temperature adjustment range available. Heatguard® also provides flexibility in installation with union fittings, a variety of tail pieces and offers a dummy valve for quick and sanitary installation. Heatguard® continues to be the preferred choice of informed contractors and designers.

Domestic/Potable Water: Heatguard® valves assist in the prevention of scalding with safe and reliable products. Since the bacteria Legionella pneumophila which causes Legionnaires disease is able to live in 120°F (49°C) water, water heaters should be set to a minimum of 140°F (60°C). In domestic applications, the Heatguard® valve placed at the hot water heater can insure that the water delivered to the fixtures remains in the 120°F (49°C) range while providing higher temperatures to the dishwasher and other appliances. In commercial/institutional applications, a high temperature can be controlled at individual points by a local thermostatic mixing valve for the system (single faucet or multiple showers/sinks etc.)

INSTALLATION ISSUES:

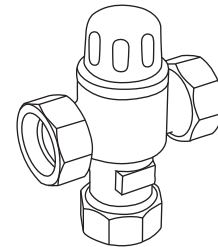
Some installation issues are necessary to be considered when using thermostatics. For example: *Where can they be installed?*
How many outlets will the valves supply?
What type of fittings do I use?
Do I need check valves?

This section only deals with the most common application questions surrounding the installation of thermostatic mixing valves. However, the installer must be cognizant of local regulations. Please consult the factory for further information.

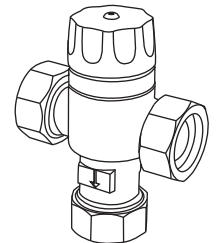
SITE CONDITION

Before the installation you must confirm that the site conditions are within the specified limits for the valve. In particular, check the hot and cold supply pressures and temperatures. Verify that site conditions are within the prescribed minimum and maximum operating factor of the valve.

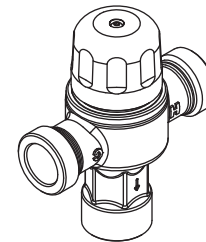
HEATGUARD® THERMOSTATIC MIXING VALVES



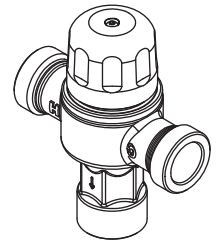
110-D



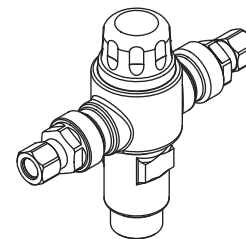
110-HX



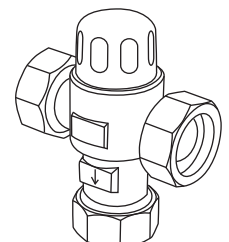
115-H



115-D



145



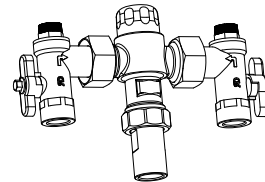
160

Heatguard® Series General Information

VALVE LOCATION

There is not one ideal location for all applications. It will vary from site to site. The most common location for installation is either at the water heater or directly at the fixture(s) to be serviced by the valve. However there are a number of considerations to make before choosing the best location for the valve installation. The most important consideration is compliance with the requirements of the application. Consideration must also be given by the installer to assure compliance with the codes and jurisdiction of the approvals.

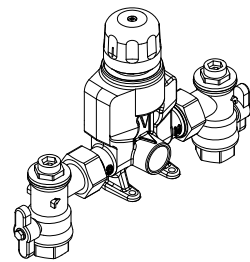
In residential/domestic applications it is often preferable to install the valve at the hot water heater to protect the entire system. From the cost point of view this is the best location as the valve can be easily installed and serviced. In some installations it might be preferable to install a valve right at the washroom to be serviced, usually located in the vanity or in an access door to permit future service of the valve.



160 4in1

COMMISSIONING

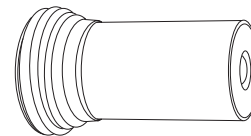
Each valve is tested and factory set. However, every valve must be commissioned on-site to take into account each particular installation's conditions. The valve can be commissioned by measuring the water temperature at the nearest outlet to the valve. A thermometer must be used so that an accurate measurement can be taken. Run the water until the temperature stabilizes. Adjust the valve as necessary, allowing the temperature to stabilize after each adjustment. Once the desired temperature has been reached, the installer must lock the valve into position using the locking tabs on the adjusting knob and locking ring or by protecting the adjuster by replacing the snap-on cover.



Masterguard

INSTALLATION PRECAUTION

Thermostatic mixing valves are temperature sensitive devices so they must not be subjected to extreme temperatures in use or installation. If using sweat fittings, do not solder with the main body of the valve. After flushing the system, install the actual valve and proceed with commissioning of the valve.



BathSafe 24109

SERVICING

The function of the valve can be simply checked by measuring the temperature of the water at the outlet nearest the valve. If the temperature remains the same as the original commissioned temperature then the valve is functioning correctly. If the temperature has changed, it might be due to a build-up of debris in the strainers or the valve or a change in the supply conditions. The valve should be disassembled and checked for foreign materials inside and cleaned and a new temperature adjustment should be made. Please contact the factory for further servicing/trouble-shooting instructions at 1-877-700-4242.



ShowerSafe 24110

FLOW RATES, VELOCITIES AND SUPPLY PRESSURES

All consideration of the system and its operation must be taken into account when selecting and installing a thermostatic mixing valve in a domestic system. While a single valve may be able to deliver sufficient amount of tempered water to supply two or more bathrooms, consideration must be given to all factors including: water velocity through the pipe, flow rate required at the furthest outlet, available pressure at the furthest outlet, lengths of branch outlets and fixture units requirements.



TapSafe 24108

CASH ACME HEATGUARD® RECOMMENDATION

We have developed a range of thermostatic mixing valves suitable for use in most applications related to individual systems in residential, commercial and institutional. Our recommendation with regards to temperature requirements is simple in that, to assist in complying with Codes, Standards and Safe Practices, the installation of a thermostatic mixing valve will assure delivery of hot water at a safe temperature. Our valves are certified under the applicable Industry Standards and meet or exceed performance guidelines.

Do not hesitate to contact our offices for any inquiries.