

## TMVs provide protection, peace of mind

BY RYAN PFUND,  
contributing writer

Whether a facility is brand new or a historical landmark, safety is still the top priority when it comes to managing a large-scale plumbing system. And one of the biggest challenges can often be regulating water temperature and pressure in order to avoid potential scalding incidents.

Over the years, there have been many documented cases of scalding injuries and many of the plumbing codes that exist today are designed to prevent accidental scalding. While turning down the hot water heater may reduce injury potential in some cases, large multi-use buildings need a more effective solution. Thermostatic mixing valves (TMV) may be the answer.

TMVs are designed to control water temperatures at a safe level for showering, hand washing and emergency care. These valves come in a variety of shapes and sizes depending on the potential number of users. For example a restroom with one or two lavatories would need a smaller TMV to control water temperature from 0.5 to 4.0 gallons per minute. Larger restrooms with dozens of lavatories would need a TMV designed to control water temperatures from 0.5 to 8.0 gpm or even 15.0 gpm.

To provide tempered water to an entire building a large "high low" thermostatic mixing valve may be needed. The exact size depends on a variety of factors such as the facility type and application, the number and types of fixtures to which the valve will provide water and the expected demand from those fixtures.

Two-year old Gwinnett Center in Duluth, Georgia and 128-year-old University of Hartford in Hartford Connecticut are examples of two large organizations that solved their plumbing challenge by installing thermostatic mixing valves.

The Gwinnett Center, which features a 13,000 seat arena that hosts events from Broadway shows to hockey games and concerts, discovered during a routine health inspection that while their plumbing was working fine, the original construction plans had omitted hot water to the lavatories.

After learning that this was a health code problem, Josh Robison, director of engineering for the Gwinnett Center, knew quick action would be required.

"When we realized that we'd have to go back and put in a tempered water loop to serve the restrooms, adding a thermostatic mixing valve to regulate water temperatures really seemed like the way to go," said Robison.

After reviewing various products,

Robison selected a Bradley high-low Navigator TMV to help control water temperatures across the 14 restrooms and 85 lavatories in the main concourse of the arena. This single-valve technology blends hot and cold water to preset temperatures with pinpoint accuracy, providing superior user protection. The Navigator valve also makes set-up and start-up easier than ever, especially in a re-circulated system. Using an integral port, the tempered water recirculation line is attached directly to the valve body. Therefore, the Navigator valves require fewer connections than a multi-valve system, making installation quick and easy.

Its universal mounting capability further reduces installation time and costs. According to Alan Daly, a service manager for B&W Mechanical who installed the Navigator at the Gwinnett Center, the thermostatic mixing valve was an ideal solution to the problem.

"The public areas at the arena typically go from zero usage to full load in a matter of minutes — such as during intermission at a concert," said Daly. "The TMV's ability to handle the mixing capacity under these conditions was a huge advantage."

For the University of Hartford, which serves 3,200 students, scald protection was also a primary concern as thousands of students shower each day in

dorms and locker rooms across the campus. So the staff decided to install thermostatic mixing valves in seven student apartment clusters to better control water temperatures and reduce the risk of scalding. Lou Perleoni, head of plumbing services for the University particularly appreciates the compact Navigator TMV design.

"We decided to try Bradley valves because they have a simple cartridge with individual parts that can be easily replaced," said Perleoni. "I'm amazed by the lack of maintenance on these valves."

Available in high-low, standard and emergency fixture models, Navigator valves effectively handle both high and low water demand. Each unit is



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preassembled and fully tested for guaranteed performance.

For anyone looking to select the right TMV for their project, an interactive sizing tool is available in the thermostatic mixing valve (TMV) section at [www.bradleycorp.com](http://www.bradleycorp.com). This tool will help users specify the appropriate valve for their specific application and number of restroom or locker room fixtures.

It's a good idea to contact the valve manufacturer for help in sizing and specifying the right thermostatic mixing valve for your particular application. If chosen properly, a thermostatic mixing valve can provide you with the peace of mind that you are providing the ultimate in scalding protection. ■

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