

# Thermostatic Temperature Control For Emergency Equipment



Emergency safety showers and eyewash stations are a necessity in any facility where chemical spills are a potential threat. ThermOmegaTech® provides Tepid Water Solutions to ensure these emergency fixtures meet OSHA requirements at all times.



# Therm-O-Mix® Station

The **Therm-O-Mix**® **Station** provides an instant and reliable source of tepid water for a safety shower and eyewash station system using a facility's existing steam and water supplies.



## **How It Works**

- When an emergency shower or eyewash station is activated, the pressure drop opens the steam control valve.
- 2. The steam heats the cold water via a thermal heat exchanger.
- 3. The water then travels through an initial tempering valve that adds cold water and reduces the water temperature to around 100°F (37.8°C).
- 4. The water goes through a second mixing valve that adds additional cold water and lowers the temperature to 80°F (26.7°C).
- 5. The tepid water is then delivered to the emergency fixtures.

# **Advantages**

- Self-operating controllers: requires no external power source
- Uses existing plant steam and water supply
- Maintains constant 80°F (26.7°C) output regardless of inlet water temperature
- Self-purging: no need for an elaborate drainage system
- Fail-safe valves to prevent accidental scalding
- Easy to retrofit on existing emergency drench systems

### **Features**

- Plant steam and water never mix: uses compact heat exchanger
- Two pressure units available:
  - 45-60 PSIG steam pressure
  - 15-30 PSIG steam pressure
- Durable enclosure can be readily removed for service
- Conforms to OSHA and ANSI recommendations
- Designed to meet ASSE 1071 requirements
- Can be used in explosion proof environments

For product dimensions and specifications, visit www.ThermOmegaTech.com



# Therm-O-Mix® Station/WWM

In facilities where steam is not readily available, the Therm-O-Mix® Station/Water-Water Mix (WWM) provides an instantaneous and reliable source of tepid water for safety showers and eyewash stations utilizing a facility's existing hot and cold water supply.



## **Advantages**

- Self-operating controllers: requires no power source
- Utilizes existing hot and cold water supply
- Easy to retrofit on existing emergency drench systems
- Offered in 70°F (21°C), 75°F (24°C), 80°F (27°C), or 85°F (30°C) output temperature models
- High visibility LDPE all weather enclosure option available

### **Features**

- Conforms to OSHA and ANSI recommendations
- Compact, lightweight (under 15 lbs/6 kg) design
- Easy installation with standard connections
- Provides tepid water from 3 GPM to 25 GPM with water inlet pressure of at least 40 PSIG

# **Emergency Safety Shower Water Heater (ESS)**

The ESS is an electric water heater packaged with a thermostatic mixing station to meet the requirements of ANSI Z358.1 for tepid water delivery to an emergency drench system.

# **Advantages**

- Tepid water will continue to be supplied from the heated tank even when electricity fails
- Fail-safe design prohibits delivery of overheated water to prevent scalding
- Reduces the risk of Legionella because water is stored at an elevated temperature

## **Features**

- Factory packaged with Therm-O-Mix® Station/WWM, simplifies installation and ensures a safe, reliable supply of tepid water
- Heavy Duty Construction with Hydrastone cement lining provides tank longevity
- 3" thick polyurethane foam insulation reduces standby heat loss by over 24% compared to industry standard 2" insulated tanks
- Maintains outlet water temperature of 85°F regardless of inlet pressure or temperature
- Conforms to OSHA and ANSI recommendations



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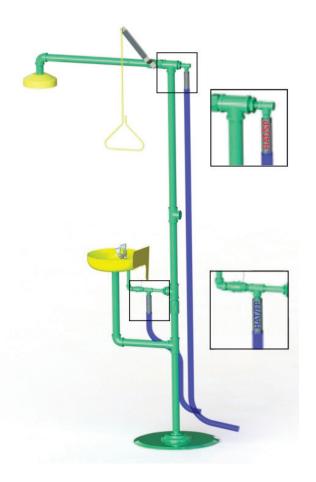
Exposed water lines on safety shower and eyewash stations are often left unprotected from freezing and overheating conditions. This can cause an extremely high or low temperature at the point of use. Relying on personnel to manually open valves to prevent freeze damage or scalding allows for human error.

# **Freeze Protection**

The HAT/FP or the IC/FP thermostatic freeze protection valve can be installed at the lowest point on the station to monitor either the ambient or water temperature. Once the temperature reaches the valve's set-point it will open to bleed off the cold water and allow warmer water to backfill to prevent the pipes from freezing.

# **Advantages**

- Automatically protects emergency equipment from freeze damage and manfunctioning
- Self-operating: requires no external power source
- Discharges the minimum amount of water required
- Fast-acting response to falling temperatures
- Used as primary protection or fail-safe backup





# **Scald Protection**

Installed at the highest point on the station to monitor either the ambient or water temperature; the HAT/SP or the IC/SP will bleed off the excessively hot water and allow cooler water to backfill to prevent an individual from being scalded.

## Advantages

- Protects safety showers from over-temperature conditions, keeping personnel safe
- Self-operating: requires no external power source
- Discharges the minimum amount of water required to keep water temperature within safe limits
- Fast-acting response to rising temperatures



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