



THERM-OMEGA-TECH

ISO 9001 CERTIFIED

THERM-O-MIX[®] STATION

ALL WEATHER INSTANT TEPID WATER SUPPLY

**FREEZE PROBLEMS?
CALL THERM-OMEGA-TECH
TOLL-FREE 1-877-379-8258**

DESIGN FEATURES

- ◆ Uses existing plant steam and water supply
- ◆ Provides 3 to 25 GPM of 85°F
- ◆ Easy to install on any existing shower or eyewash/shower combination
- ◆ Compact, lightweight design easily supported by pipe connections or factory mounting kit
- ◆ Plant steam and water never mix... uses compact heat exchanger
- ◆ Maintains constant 85°F output regardless of inlet water temperature (between 40°F and 85°F)
- ◆ Preheated to provide instantaneous 85°F water
- ◆ Freeze and solar overtemperature protection and bleeder valves included
- ◆ No insulated tanks or expensive recirculation systems required
- ◆ Operates on typical plant steam pressure (45-60 PSIG recommended)
- ◆ Self-purging... no need for elaborate drainage system
- ◆ All components are in-line field serviceable
- ◆ Durable NEMA-4 enclosure can be readily removed for servicing
- ◆ Union connections allow for quick and easy installation
- ◆ Conforms to OSHA and ANSI recommendations
- ◆ Steam trap on steam inlet included

REDUNDANT CONTROL

Level 1: (V-1) This valve mixes heated and cold water and compensates for the pressure drop through the heat exchanger and associated piping.

Level 2: (V-2) This valve senses the temperature of the hot water outlet from the heat exchanger and modulates inlet steam flow to maintain hot water outlet design temperature.

Level 3: (V-3) When water flow is activated at shower or eyewash, the pressure sensing diaphragm of V-3 opens the steam valve to begin water heating.

Level 4: (V-4) Heat sensor valve V-4 opens and equalizes pressure on the high and low pressure side of the V-3 diaphragm control valve preventing steam flow if outlet water is above design temperature.



OPERATION

When the shower or eyewash is activated, the pressure drop on a diaphragm opens the steam control valve (V-3). Water and steam flow are established instantly heating the water and condensing the steam. A mixing valve (V-1) then blends the heated water with cold water to produce an output of 85°F water. Additional valves keep the system preheated, freeze protected and scald protected. Steam valve remains closed should water supply be interrupted.

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PARTS AND MATERIALS

<p>THERM-O-MIX® Tepid Water Supply</p> <p>HAT/FP Freeze Protection Valve</p> <p>HAT/SP Overtemperature Protection Valve</p>		ITEM	DESCRIPTION
		1	WATER MIXING VALVE (V1)
	2	HOT WATER TEMP. CONTROL (V2)	
	3	STEAM CONTROL (V3)	
	4	TEPID WATER (85°F) CONTROL (V4)	
	5	HEAT EXCHANGER (STAINLESS STEEL)	
	6	PREHEATING VALVE (BEHIND V1)	
	7	ENCLOSURE (NEMA-4)	
	8	BRAIDED HOSE (STAINLESS STEEL)	
	Note #2	FREEZE PROTECTION VALVE	
		SCALD PROTECTION VALVE	

SPECIFICATIONS

Type	Height		Width		Depth		Weight		Steam Inlet (Note 1)	Condensate Outlet	Cold Water Inlet (note 1)	Tepid Water Outlet	Capacity (note 1)
	in	cm	in	cm	in	cm	Lb	Kg					
BPHE	26.0	66.0	16.7	42.4	14.5	36.8	90	41	1" NPT Union	1" NPT Union	1-1/4" NPT Union	1-1/4" NPT Union	3-25 GPM
DWHE	34.5	87.6	13.5	34.3	21.0	53.3	200	91					

TO ORDER SPECIFY:

Part Number	Description
387-112000-000	Therm-O-Mix® Station (BPHE)
387-112100-000	Therm-O-Mix® Station (BPHE) (S/S unions and nipples)
387-120000-000	Therm-O-Mix® Station (DWHE)

NOTES:

1. Recommended regulated supply pressure for both steam and water – 45-60 PSIG.
2. One each included with station. See HAT/FP and HAT/SP product fact sheets for operation.
3. BPHE model shown. Special design Therm-O-Mix® stations also available – consult factory.
4. Where unit is to be used as a Safety Shower or Eyewash supply, the final outlet temperature should be specified by the Facilities Medical Supervisor or other authorized personnel.

Therm-Omega-Tech, Inc. reserves the right to change the design and specifications without notice



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