

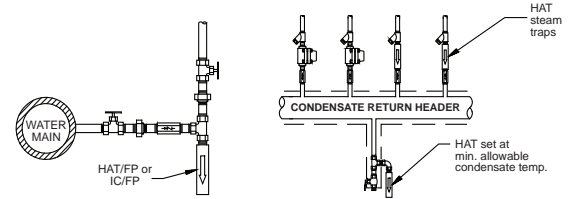


## INSTALLATION INSTRUCTIONS HAT/FP & IC/FP FREEZE PROTECTION VALVES HAT/SP & IC/SP OVERTEMPERATURE VALVES

If installed and maintained as recommended, the ThermOmegaTech, Inc. *HAT/FP*, *HAT/SP*, *IC/FP*, and *IC/SP* valves will yield reliable and trouble free service. **It is important that before installing you read these instructions carefully.**

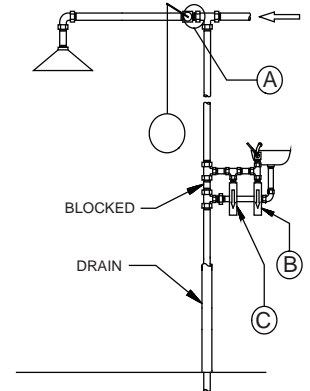
**REMEMBER:** The *FP* valve is full open at its stated temperature and full closed approximately 10°F higher. The *SP* is reverse acting, and is also full open at its stated temperature, but is full closed at approximately 10°F below its stated temperature. Unless otherwise stated, these valves are supplied at their greatest standard Cv or flow rate. Smaller Cv's are available on request. See the product specification sheets. Never undersize installations. A #20 mesh strainer is recommended to use with all port sizes.

**FP VALVES MAY SERVE AS PRIMARY PROTECTION ON UNTRACED SYSTEMS, OR AS A FAIL-SAFE BACKUP FOR TRACED WATER SYSTEMS:** Always place freeze valves at low points or where water will tend to be static or prone to accumulate or dead leg. Keep outlet piping short and discharge to a large diameter drain or ditch. Never create an "ice patch" hazard by discharging to a slab or walkway. A preferred method of installation is to place the valve close to the point of discharge and connect with a run of piping from the line to be protected to the inlet side of the *FP* valve. Source and inlet piping may be insulated and/or traced, but never insulate or trace the valve body.



**ON SAFETY SHOWERS AND EYEWASH STATIONS:** Always keep pipe length short (with close nipple) between inflow piping and operating valve (see A) and place *FP* valve close to the operating valve (see B). **REMEMBER:** It is the flow of water that keeps the pipe from freezing (even short dead legs will freeze in severe conditions).

*HAT/SP* valves are used to purge over-temperature water from the inlet pipe system. This keeps the shower piping filled with cooler water. Solar heating is the most common source of heating in remote installations. **ALWAYS** place the valve in the system as close to the point of use as possible. (see C). **NEVER** place the valve in the shade or in a cool place by comparison to the piping system, etc. Keep in mind that the valve itself has to heat up to open.



### CAUTIONS

Use only standard and proper connections • Do not over-tighten connections • Always test after installation and before use • Always test before winter and summer seasons • Test at regular intervals

### TO TEST FOR OPERATION WHILE IN LINE

**FP VALVE:** Cool with freeze spray, CO<sub>2</sub> or ice and water slurry. Valve will start to run or drip until warm water reaches actuator.

**SP OVERTEMPERATURE VALVE:** Heat inlet line and valve with electric heat gun (if explosion hazard permits). Heat until valve flows to purge hot liquid (**DO NOT** exceed maximum allowable temperature).

### TO TEST FOR PROPER SET POINT

**FP VALVE:** Remove from system and place entire valve in an ice and water slurry at 33-34°F (0.6-1.1°C). The valve should open fully within 5 minutes. Move the valve to an ice and water slurry at 40-42°F (4.4-5.6°C). The valve should close bubble tight.

**SP OVERTEMPERATURE VALVE:** Remove from system and place entire valve in water bath at upper limit of valve temperature range. Valve should open fully. Place in water bath at low end of range. Valve should close to bubble tight.

It should be understood that the use of these valves is not a substitute for regular and routine scrutiny of safe conditions. Installation and use of this product is outside the control of ThermOmegaTech, Inc. and is the sole responsibility of the end user. ThermOmegaTech, Inc. makes no guaranties, either expressed or implied, in connection with its installation or use.

Warranty information disclosed at [www.thermomegatech.com/terms-conditions/](http://www.thermomegatech.com/terms-conditions/)