

Freezeton III Temperature Actuated Drain Trap

Description and Operation

Freeze Protection for Outdoor Water Lines and Outdoor Equipment, which requires flow or drain down. The type **FREEZETON III** has 1/2" NPT connections and operates up to 200 PSIG/13.8 BAR. The unit contains a tamper-proof wax expansion thermostat which is normally closed but begins to open at 35°F (1.7°C) is full open at 32°F (0°C) and is re-closed tight at 40°F (4.5°C). The lower temperature increases the opening causing enough flow to prevent freezing of a pressurized water, condensate line or complete drain out of pipe lines, tanks, vessels, steam traps, pumps, etc.

Installation - Connect to the end of the exposed water main or low point of any equipment requiring flow or drain down containing water to the **FREEZETON III** as shown in typical hookups.

NOTE: A #20 mesh strainer is recommended.

For application where the exposed main re-enters a warmer building, pipe tunnel etc., the **FREEZETON III** must be installed just ahead of the line re-entry point. Be sure to determine correctly which end is the downstream part of the line so that the exposed portion of the line will have to flow through it when the **FREEZETON III** opens.

Source and inlet piping may be insulated and/or traced to within a couple inches of the **FREEZETON III**, but *never* insulate or trace the **FREEZETON III**. A pipeline strainer is not recommended between the liquid line and the **FREEZETON III** to prevent the possibility of its screen becoming clogged and thereby preventing drainage.

NOTE: When draining an unpressurized line, tank, coil, or any vessel, a vacuum breaker such as a VB14 or VB21 must be on that device to allow vacuum to be broken for drainage to occur.

The preferred positioning of the **FREEZETON III** is to go vertical down or at a minimum with adequate pitch this to insure there is no obstruction to allow ice build up and dump direct over discharge point. Discharge into **LARGE** diameter drain or ditch. **NEVER** create an "ICE PATCH" hazard by discharging on to a slab or walkway.

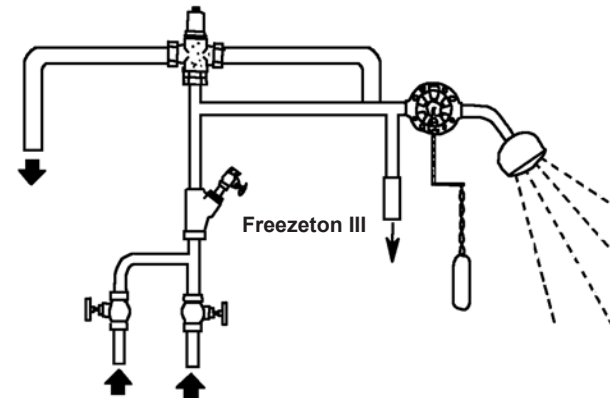
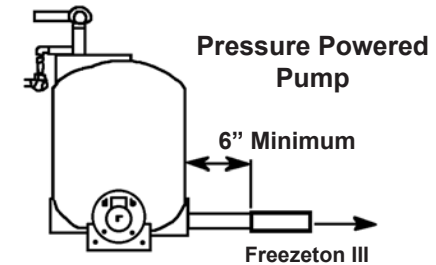
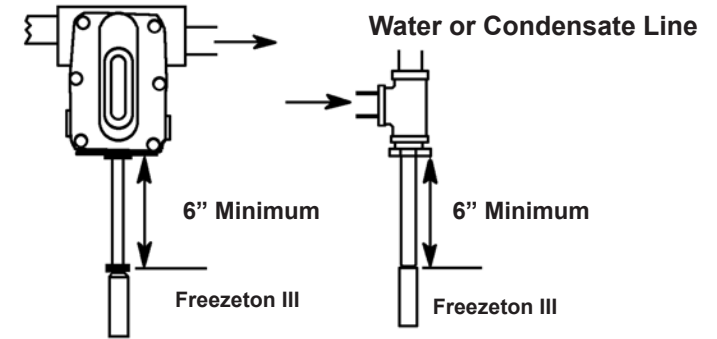
Cautions - Use only standard and proper connection. Do not over-tighten connection. Always test after installation and before use. Always test before winter. Test at regular intervals.

Maintenance - If unit will not shut tight when ambient temperatures are above 40°F dirt would be suspected preventing tight closure. The **FREEZETON III** can be removed from the line and flushed out with water. To be sure that thermostat has opened, soak the **FREEZETON III** for 15 minutes in ice water or place in freezer. Then pour cold water through or best connect inlet to a garden hose to power flush. The unit will blast than shut tightly if dirt has been displaced.

Testing - To test for operation in line cooling with CO₂ or ice water slurry. Valve will start to run or drip until warm water reaches the thermostat.

To test proper setpoint, remove **FREEZETON III** from the system and place the entire unit in an ice slurry at 32°-34°F. The valve should open within 5 minutes. Move the entire **FREEZETON III** to an ice slurry at 45°F. Valve should close tight.

Float & Thermostatic Trap



For additional information, contact Spirax Sarco Applications Engineering Department Toll free 1-800-833-3246