

STEAMIST®

Blowdown Tempering Valve

Product Number: HC-BTV

The HC-BTV provides a convenient, economical alternative to a Blowdown Tank for tempering the Blowdown water. Since the HC-BTV is only open when the flow exceeds the set-point temperature, it also conserves water by automatically turning off cold water when not needed.

Product features

- Compliant with drain temperature limitations of plumbing code
- Prevents damage to PVC piping due to overtemperature conditions
- Easy to install
- Rugged, clog resistant valve design
- Operates in any orientation
- Modulates to conserve water
- Effluent tempering capacity limited only by cold water flow rate through the valve

Dimensions and Capacities

- Water inlet size is ½"NPT.
- Drain size is 1"NPT.
- Maximum water inlet pressure 125 PSIG (8.6BAR)
- Maximum temperature is 250°F (121°C)
- Full open set temperature 120°F (49°C)
- Closing temperature 110°F (43°C)

Operation

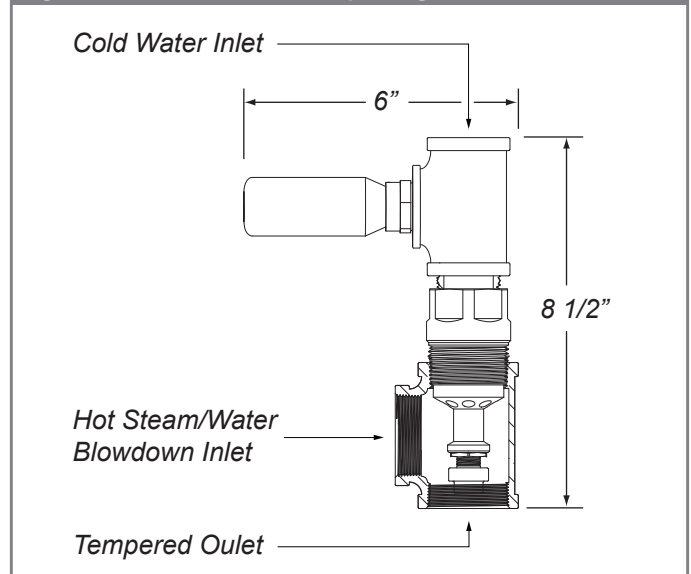
The HC-BTV is fully automatic requiring no electric. The HC-BTV is installed into the drain line such that the hot blowdown water passes over the thermal actuator of the HC-BTV and this thermal actuator controls the cold water inlet port. When the thermal actuator senses water in excess of 120°F the HC-BTV opens to allow an injection of cold tap water. As the hot blowdown water cools, the HC-BTV automatically modulates to reduce cold water inlet water flow. At about 110° degrees the cold water inlet is fully closed.

Installation

Included with the HC-BTV from Steamist is a Drain Tee and Water Hammer Arrestor along with some of the necessary fittings. **Not** included is a Back Flow Preventer. Different codes have different requirements for Back Flow prevention and you must provide one that is acceptable to meet your local code. When connected to a Steamist HC model steam generator, you may use one Back Flow Preventer for both, the water inlet connection to the steam generator and the water connection to the HC-BTV.

1. For maximum cold water flow tempering, the cold water connection to the HC-BTV must be a minimum of ½".
Important: A #20 mesh strainer is recommended where needed.
2. The HC-BTV should typically be installed as close to the steam generator as possible in order to allow cold water to mix fully before running down the drain.
3. The HC-BTV has been preassembled with a drain tee and a water hammer arrestor. If this assembly is modified you must follow these guidelines.
 - a. Make sure the cold water inlet fitting into the HC-BTV has a large enough inside diameter (.622" minimum) and short enough length so that it does not interfere with the valve plug inside the water inlet fitting.
 - b. Insure the thermal actuator does not touch the opposite side of the fitting.
4. Check local codes as to the type of check valve or backflow preventer that may be required.
5. Refer to drawing to comply with plumbing code and air gap requirement (Figure 3).
6. Always test for proper operation after installation.

Figure 1 - Blowdown Tempering Valve



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Figure 2

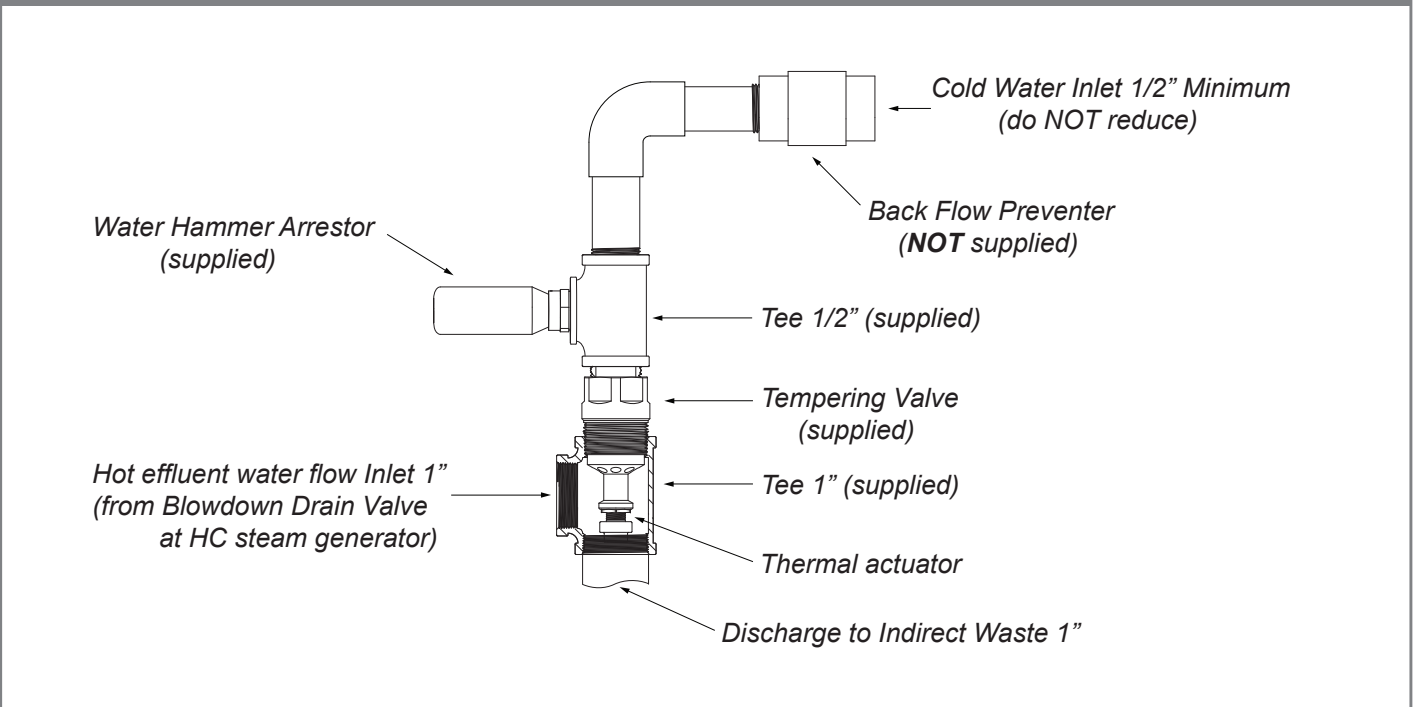
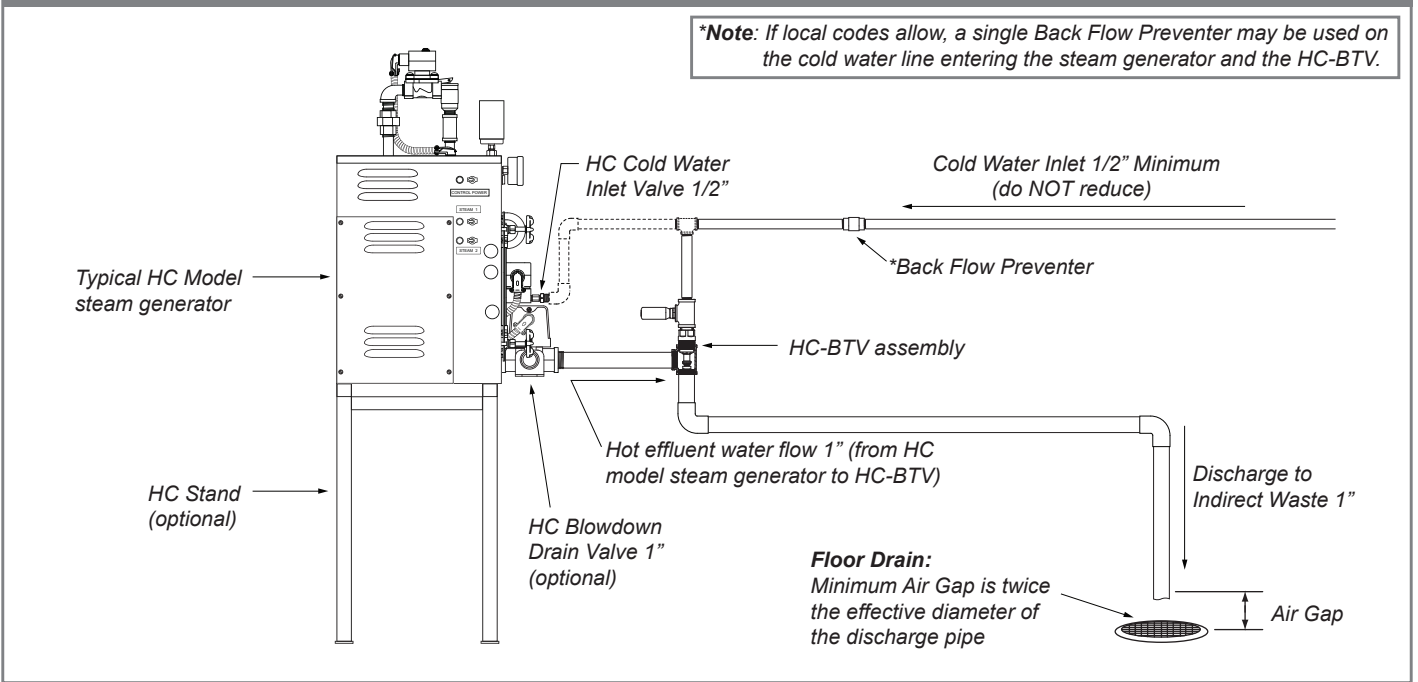


Figure 3



Warning: This product can expose you to chemicals, for example lead, nickel, acrylonitrile, which are known to the State of California to cause cancer, birth defects, or reproductive harm. For more information, go to: www.P65Warnings.ca.gov