



ISO 9001:2000 CERTIFIED

Installation, Operating & Maintenance Instructions

CC-VL2 Ventless Condensate Cooler

Introduction:

The Colton CC-VL2 condensate cooler are horizontal mounted stainless steel shell & coil heat exchangers designed to cool up to 2 usgpm (1000 lbs/hr) of high temperature condensate from 212F. to 140F using city water at 50F before discharging to an open drain.

Note: Differences in above listed temperatures will affect the cooling capacity of the unit.

Description of Operation:

Hot condensate is to be piped to enter the unit coil at connection N1 (Figure 1). City water is to be piped to enter the unit shell at connection N4. A factory installed thermostatic cooling control valve is located on the unit cold water outlet connection, and temperature sensing bulb for this valve is factory installed at connection N5. As hot condensate enters the coil inside the shell and causes the cold water temperature to rise to the thermostatic cooling valve setpoint, the sensing bulb sends a signal to the valve to discharge the heated cold water to allow more cold water to enter the shell to maintain the desired setpoint of 140F. The condensate that will flow through the coil and overflow to drain will be maintained at the same 140F temperature of the heated cooling water.

Warning:

Piping systems can be dangerous - safety precautions must be observed. Before working on equipment, make sure that it has been isolated, the pressure released and, where necessary, the unit has been cooled.

Installation:

The CC-VL2 condensate cooler is designed for horizontal installation as shown in Figure 1 and Figure 2. Hot condensate is to be piped to connection N1. Cooled condensate from connection N2 is to be piped to an open drain by gravity with no lift in piping from connection N2. Cold water is to be piped to connection N4. Heated cold water is to be piped to an open drain by gravity with no lift in piping from connection N3.

It is recommended that an isolation valve and check valve or backflow preventer (depending on local codes) be installed on the cold water line before entering the equipment at connection N4. If your steam trap(s) do not have discharge isolation valves, then it is recommended that an isolation valve be installed on the hot condensate line before entering the equipment at connection N1.

Maintenance:

The CC-VL2 condensate cooler is fabricated from stainless steel material and seal welded. The heat exchanger has no moving parts and are relatively maintenance free. An optional dial thermometer could be installed in the cooled condensate discharge piping to allow visual troubleshooting over time which will provide visual indication of a temperature increase which could mean either thermostatic cooling valve failure or heat exchanger coil fouling. A separate manual will be provided for the thermostatic cooling control valve, and the maintenance instructions for this valve from the manufacturer should be followed.

