

Installation Instructions for the Capillary Element on Dynacon Freezestats

The bellows and capillary elements on all Dynacon freezestats are filled with refrigerant in the vapor state. The capillary is responsive to the temperature sensed along any one foot section of its length.

When the capillary element senses a spot on the water coil where the temperature is lower than the set point of the freezestat, the vapor fill in the capillary at that spot condenses into a liquid state. As vapor continues to condense, the pressure in the capillary and bellows assembly increases and “trips” the freezestat putting the control into lockout.

The freezestat control case and bellows assembly must be located where the ambient temperature will always be warmer than the set point of the freezestat. Avoid installing the control case or capillary element in a location which is subject to excessive vibration.

Fig A shows the correct method of installing the capillary element on the downstream side of the water coil. The control case is mounted at the top of the coil. The capillary element is installed in a downwards serpentine fashion across the face of the coil with vertical lengths kept to a minimum.

Fig B shows *improper* installation of the freezestat’s capillary element. Due to the long vertical lengths in the capillary, gravity can cause condensed liquid in the capillary at a cold spot on the coil to move down to a warmer location where it flashes back into a vapor before the freezestat trips into lockout.

Fig C shows the control case of the freezestat mounted at the bottom of the coil, with the capillary element installed in an *upwards* serpentine fashion across the face of the coil. This type of capillary installation is not recommended because gravity can cause condensed liquid in the capillary at a cold spot at the bottom of the coil to move down to the bellows where it flashes back into a vapor before the freezestat trips into lockout.

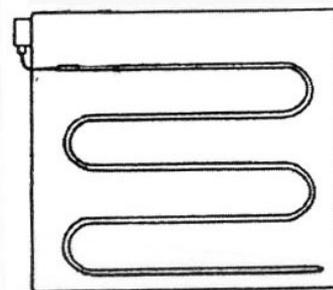


Fig A. Proper Installation of Capillary Element

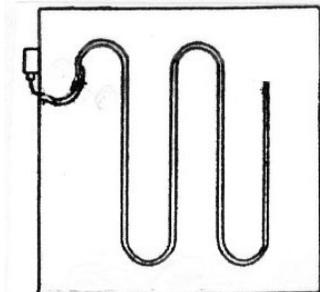


Fig B. Improper Installation of Capillary Element

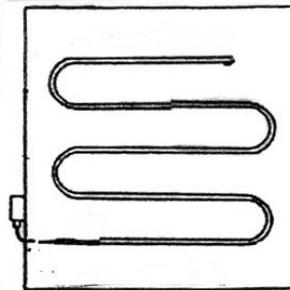


Fig C. Control Case and Capillary Element Installation which is NOT RECOMMENDED