Pneumatic temperature switch (PTS-DB)

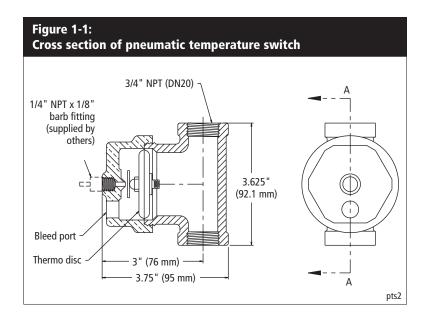


Figure 1-2: Location of pneumatic temperature switch Pneumatic Pneumatic valve operator Set point airflow switch controlling 20 psi humidistat (138 kPa) air supply Duct 0.007" restrictor must hiah limit he used humidistat Pneumatic temperature switch **Humidifier separating** chamber Steam trap (See "Optional stainless steel components" at right)

The DRI-STEEM pneumatic temperature switch, designed to be used with a pneumatic control system, prevents condensate discharge from a steam injection humidifier during the warm-up period. This is accomplished by bleeding off the pneumatic signal from the controlling humidistat and preventing the pneumatic humidifier valve from opening until the humidifier has reached operating temperature.

The pneumatic temperature switch has a selfcontained air valve operated by a thermo disc that is normally open, bleeding off control air pressure. See Figure 1-1.

When steam comes in contact with the thermo disc, the fluid inside the disc expands, causing the air valve to close, thus allowing the pneumatic control system air pressure to build up and to activate the steam control system.

New installation

Locate the tee containing the pneumatic temperature switch in the condensate drainage pipe (as shown at right), between the separating chamber and the inlet to the steam trap. See Figure 1-2.

Optional stainless steel components

Components shown here are for a typical Steam Injection humidifier. Humidifiers may have optional stainless steel components, such as a stainless steel thermostatic trap.