Installation Instructions: Expansion Compensators

Piping should be lined up accurately before installing the compensator. Excessive misalignment, and/or torque, will cause shearing stresses and will severely limit the life of the compensator. The system must be piped to eliminate misalignment. Expansion compensators are designed for axial movement (compression/extension) only; not lateral movement or misalignment.

When installing threaded compensators, don't impose torque when making up to piping. Use two wrenches with one of them backing up on the compensator end fitting, not the shroud. Don't let the compensator support any weight other than its own. The system piping must be properly supported and hung. Don't stretch, compress, or force the compensator.

When installing copper sweat compensators, care must be exercised in making the sweat connections. Direct the flame away from the factory brazed joints. Use a soft solder. Do not exceed 850°F installation temperature or you will weaken or damage the factory brazed joints. After installation, clean all flux from the installed compensator to prevent possible corrosion and premature failure.

*Installer, please note*: The manufacturer's warranty is null and void if the copper sweat compensator fails because the installing temperature exceeded 850°F, or if there is corrosion as the result of excessive flux or failure to clean the flux from the compensator.

Piping systems that contain expansion compensators may tend to buckle under the compressive forces in the system. The pipeline may act as a column that must be properly guided to prevent buckling. Anchors may also be required to isolate each piping segment to prevent failures due to pressure thrust and deflection loading. Important: Be sure to refer to the Anchoring and Guiding Instructions.

Be sure all supports, guides, and anchors are properly installed and functioning before pressurizing the system. Remove the retaining clip after installing the compensator, but before pressurizing the system. Don’t hydro-test the system at pressures greater than the rated test pressure of the compensator or the system design.

Never install a compensator where it's temperature, pressure, or axial movement ratings could be exceeded. Be sure you know the ratings for the compensator and for the piping system.