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TEC-FL



TEC-SM



TEC-WD



TEC Thermal Expansion Compensator Installation Instructions

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TFC

INSTRUCTIONS

- 1. See additional "Bronze connector installation" steps for TEC-SW and TECL-SW.
- 2. All compensators include labels identifying the rated pressure, temperature and specific installation instructions. Make sure that all system designs include adequate anchors, guides and supports.
- Female copper tube model "TEC-SW/TECL-SW" is manufactured with high temperature brazed joints. Protect these models to ensure the temperature does not exceed 350°F (177°C) during installation.
- 4. Be certain that the piping configuration or the installation method does not subject the bellows to twisting or torque for any model. Bellows can be damaged by excessive torsion. Subjecting a compensator to torsion of any amount may drastically affect operating life and will void the warranty. Vibro-Acoustics' expansion compensators include anti-torque devices.
- 5. A shipping restraint is tack welded or soldered in place at the factory to ensure the rated measurement of travel. DO NOT remove this device until installation is complete (all anchors, guides and supports are adjusted). Remove the restraint prior to pressure testing and remove the tack weld or solder flash after installation. The restraint is not designed to react to pressure thrust.
- 6. Compensators used in risers and radiation lines require adequate anchoring and guiding. Main anchors are necessary at the end of each straight pipe run containing a compensator. With guides installed to prevent the line from bowing, buckling or becoming misaligned because of thermal expansion or internal pressures.
- 7. Pipe hangers and rollers are not considered to be adequate as guides. Anchors should be located per the Expansion Joint Manufacturers Association (EJMA) standards. The main anchors must restrain the ends of the pipe so that all expansion is directed into the compensator. The main anchors must also withstand the end thrust force of the internal pressure, plus all the other piping system loads.
- 8. Compensators should not be subjected to hydrostatic pressure beyond their rated working pressures.
- 9. Before the pipe lines are hydro-statically tested, all anchors and pipe guides must be secured. The contractor installing sweat end type compensators are advised to use a soft (Tin-Lead) solder. Excessive heat used to make the solder joint may have a detrimental effect on the compensator. The manufacturer's warranty is null and void if the installing temperature exceeds 350 °F (177 °C) on the end fittings.

