

PENFLEX

RECOMMENDED INSTALLATION INSTRUCTIONS

STANDARDS OF THE EXPANSION JOINT MANUFACTURERS ASSOCIATION 10th EDITION

Metal bellows expansion joints have been designed to absorb a specified amount of movement by flexing of the thin-gauge convolutions. If proper care is not taken during installation, it may reduce the cycle life and the pressure capacity of the expansion joints which could result in an early failure of the bellows element or damage the piping system.

The following recommendations are included to avoid the most common errors that occur during installation. When in doubt about an installation procedure, contact the manufacturer for clarification before attempting to install the expansion joint. The manufacturer's warranty may be void if improper installation procedures have been used.

Do	Don't
<p>Inspect for damages during shipment, i.e., dents, broken hardware, water marks on carton, etc.</p> <p>Store in clean dry area where it will not be exposed to heavy traffic or damaging environment.</p> <p>Use only designated lifting lugs.</p> <p>Make the piping systems fit the expansion joint. By stretching, compressing, or offsetting the joint to fit the piping, it may be overstressed when the system is in service.</p> <p>It is good practice to leave one flange loose until the expansion joint has been fitted into position. Make necessary adjustment of loose flange before welding.</p> <p>Install joint with arrow pointing in the direction of flow.</p> <p>Install single Van Stone liners pointing in the direction of flow. Be sure to install a gasket between the liner and Van Stone flange as well as between the mating flange and liner.</p> <p>With telescoping Van Stone liners, install the smallest I.D. liner pointing in the direction of flow.</p> <p>Remove all shipping devices after the installation is complete and before any pressure test of the fully installed system.</p> <p>Remove any foreign material that may have become lodged between the convolutions.</p> <p>Refer to EJMA Standards for proper guide spacing and anchor recommended.</p>	<p>Do not drop or strike carton.</p> <p>Do not remove shipping bars until installation is complete.</p> <p>Do not remove any moisture-absorbing desiccant bags or protective coatings until ready for installation.</p> <p>Do not use hanger lugs as lifting lugs without approval of manufacturer.</p> <p>Do not use chains or any lifting device directly on the bellows or bellows cover.</p> <p>Do not allow weld splatter to hit unprotected bellows. Protect with wet chloride-free insulation.</p> <p>Do not use cleaning agents that contain chlorides.</p> <p>Do not use steel wool or wire brushes on bellows.</p> <p>Do not force-rotate one end of an expansion joint for alignment of bolt holes. Ordinary bellows are not capable of absorbing torque.</p> <p>Do not hydrostatic pressure test or evacuate the system before installation of all guides and anchors.</p> <p>Pipe hangers are not adequate guides.</p> <p>Do not exceed a pressure test of 1 1/2 times the rated working pressure of the expansion joint.</p> <p>Do not use shipping bars to retain thrust if tested prior to installation.</p>