

## Installation Procedure

**Application:** Series 5500 Bellows Pump Connectors are designed for applications requiring isolation of mechanical equipment such as pumps that produce vibration or motion. The pump connector is design to connect directly to the equipment to reduce forces and moments on the equipment flanges. Refer to page 2 for a typical installation.

**Operating Conditions:** Series 5500 pump connectors are supplied with a tag attached stating the Part Number and Design Pressure. Standard designs are 150 psig and 300 psig, and the test pressures are 225 psig and 450 psig respectively. The design temperature for all standard joints is 500°F. Be certain that the system conditions and test conditions do not exceed the design values. All 5500 pump connectors are designed for a full vacuum.

**Movement:** Bellows pump connectors are designed to absorb vibration and should be installed in the neutral or manufactured position whenever possible. If necessary, they can be used for installation misalignment. Refer to Table 1 for the allowable displacements.

**Flow Direction and Orientation:** The flow direction can be either direction for Series 5500 expansion joints that do not include flow liners, and they can be mounted in the horizontal or vertical plane. Flow liners are offered as an option – be certain the flow is from the fixed end to the free end of the liner. The direction will be marked on the exterior.

**Limit Rods:** All standard Series 5500 Bellows Pump Connectors include rods which are intended to prevent over-travel of the bellows. They are designed to react the full pressure thrust but they are intended to be installed loose to take full advantage of the movement capability of the bellows. Sizes 1-1/2" through 14" have three rods – 16" and over have four. One rod is removable if required for installation. This rod should be replaced and adjusted as illustrated.

**Shipping Restraints:** External restraints are installed at the factory to insure installation at the correct length and alignment. For sizes 1-1/2" through 6" wood spacers are installed between the flanges. Sizes 8" and over include steel bars that are painted yellow and labeled – Shipping Bars, Remove after Installation. Leave the restraints installed until after the

installation of the pump connector is complete - but they must be removed prior to pressure testing.

*CAUTION: Shipping Bars are not designed to react the pressure thrust – they must be removed prior to testing. Shipping restraints that are installed by welding should be removed by cutting and grinding welds flush.*

### Post Installation Inspection

1. Inspect the pump connector for damage.
2. Is the pump connector installed at the correct location?
3. Are the Shipping Restraints removed?
4. Is the pump connector free to move and is the anchor/equipment rigidly secured?
5. If the pump connector includes a flow liner, is the flow direction correct?

