



## Externally Pressurized Expansion Joints

### Application:

1. Externally Pressurized (EP) joints are designed for axial compression only. EP joints are not designed for lateral, angular movement, or torques. Install only one joint in between anchors.
2. All expansion joints require guiding and anchoring in accordance to EJMA (Expansion Joint Manufacturers Association) guidelines.
3. EP joints as a standard are supplied to absorb pipe growth in hot systems. If expansion joint is for pipe contraction in a chilled system, notify EFP.
4. EP joints are not flow directional. When installing an EP joint on vertical applications, the traveling end should be installed on the top to allow for proper drainage.
5. Location of expansion joints should be reviewed to insure proper operation.

### Installation:

1. Inspect joint for shipping damage, insure that the shipping bar is intact.
2. Installation of expansion joint and anchors must be made as close to the design ambient temperature as possible. If expansion joint is installed into a hot pipeline or at other than design ambient temperature, consult EFP.
3. Single joints are ideally installed near an anchor. Dual joints are supplied with an intermediate anchor and must be installed at an equal length between the main anchors.
4. Do not remove shipping bar before the installation of guides and anchors.

### Testing:

1. EP Joints may be one-time tested to 225psig for 150lb class joints, or 450psig for 300lb class joints. Do not exceed maximum pressure or temperature during operation.
2. EFP recommends hydrostatic test will all the air in the system removed. If an air test is preformed, appropriate safety precautions must be made.
3. Do not test until joint is properly anchored and guided. The shipping bar is not designed to restrain the hydrostatic end load that will be developed by the expansion joint under pressure.

### Precautions:

1. Joint will develop hydrostatic end loads equal to pressure time effective area, and must be included in anchor load calculations.

### Post Installation Inspection:

1. Inspect the expansion joint for damage
2. Is the compensator installed at the at the correct location; and are anchors, guides and supports installed in accordance with the system design?
3. Are the guides and support free to allow the movement of the compensator?
4. Are the Shipping Restraints removed?

### Maintenance:

1. EP joints have no serviceable parts and do not require maintenance.