HP Expansion Compensators for Carbon Steel Pipe. OPERATION, INSTALLATION AND MAINTENANCE INSTRUCTIONS

General: HP expansion compensators are used to compensate for <u>axial</u> movement in piping systems, and are available in diameters of ³/₄" through 4" for 2" or 3" compression. The HP is an externally pressurized stainless steel bellows compensator with a carbon steel housing and is available in weld, thread or flanged ends.

Application:

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

Installation:

- 1. Inspect joint for shipping damage, insure that the shipping bar is intact.
- 2. Installation of compensator and anchors must be made as close to the design ambient temperature as possible. If compensator is installed into a hot pipeline or at other than design ambient, consult Metraflex.
- 3. Do not remove shipping bar before the installation of guides and anchors.

Testing:

- 1. Joint may be one-time pressure tested to 225 PSIG. Do not exceed maximum pressure or temperature during operation.
- 2. Metraflex recommends hydrostatic test with all air in the system removed. If an air test is performed, appropriate safety precautions must be made.
- 3. Do not test until joint it is properly anchored and guided. The shipping bar is not designed to restrain the hydrostatic end load that will be developed by the expansion compensator under pressure.

Precautions:

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

Maintenance:

1. HPFF Expansion compensators have no serviceable parts and do not require maintenance.

Contact Metraflex or your local Metraflex Representative with ANY questions.

| CUSTOMER PROJECT | Metra lex. for pipes in motion | | |
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| ENGINEER | DESCRIPTION: | | |
| ARCHITECT | HP Expansion Compensators for Carbon Steel Pipe Operation, Installation and Maintenance Instructions | | |
| PRO. OR P.O. NO | | | |
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