

METRALOOP™ EXPANSION JOINT THERMAL APPLICATION

INSTALLATION INSTRUCTIONS

INSTALLATION: The MetraLoop™ can be installed in any orientation with the pipe vertical, horizontal or any angle in-between. The only critical element is that the 180 degree return bend must be free to move as the MetraLoop™ expands and contracts.

Loops can be installed in a neutral, pre-compressed or pre-extended condition as required for the application.

Steam applications: ideally the MetraLoop™ should be installed horizontally to minimize the entrapment of condensate. **WARNING: ENTRAPPED CONDENSATE CAN BE HAZARDOUS. IT IS THE RESPONSIBILITY OF THE SYSTEM DESIGNER AND THE INSTALLER TO ELIMINATE THE COLLECTION OF CONDENSATE.**

Shipping bar must be removed after installation.

Centered in a pipe run: When the loop is installed in the middle of a pipe run, the loop will flex symmetrically and the 180 will move toward and away from the pipe. The 180 support should be designed with enough slack to allow the 180 to move 10% of the loops designed movement. For example a loop designed for ± 4 inches of axial movement will see the 180 return bend move 4 tenth (0.4") of an inch.

One end anchored: When installed at or near an anchor the 180 will have a lateral component to its movement, in addition to the movement described above ("Centered in a pipe run"). The lateral movement will be 50% of the thermal expansion or contraction and will be in the same direction as the pipe movement. Again a sufficiently slack hanger rod or slide support is all that is required.

Guiding Requirements: Thermal movement – Being the most flexible component of your piping system, the MetraLoop™ is the path of least resistance. As long as the loops design parameters are not exceeded the loop does not need guides.

However, the Mechanical Contractors Association of America "Guidelines for Quality Piping Installations" section 3 Pipe Hangers and Supports, suggests to ensure movement is directed as expected and if your piping is supported on pipe hangers that will swing more than 4 degrees from vertical when the pipe moves it is recommended that a pipe guide be installed anywhere within 15 pipe diameters on each side of the MetraLoop™. Loops anchored on one side need only one guide on the traveling side.

CUSTOMER _____

PROJECT _____

ENGINEER _____

ARCHITECT _____

PRO. OR P.O. NO. _____



DESCRIPTION:

METRALOOP EXPANSION JOINT THERMAL APPLICATION

Installation Instructions

DRAWING BY:
JT

DATE:
08-15-06

DRAWING NO.
LOOP THRM-INS