EXPANSION LOOP JOINT
SEISMIC MOVEMENT

OPERATION, INSTALLATION AND MAINTENANCE INSTRUCTIONS

OPERATION: An Expansion Loop is designed to allow pipe movement in the +/- X, +/- Y, and +/- Z planes of direction. It is typically installed spanning a building's seismic joint and/or on connections of equipment.

INSTALLATION: A loop can be installed in any orientation with the pipe vertical, horizontal or any angle in-between. The only critical element is that the return bend must be free to move as the loop moves.

Steam applications: Ideally the loop should be installed horizontally to minimize the entrapment of condensate

WARNING: Steam condensate, when allowed to collect, can create potentially hazardous operating conditions. Steam condensate must be allowed to drain to a location where it can be removed from the system. The loop must be oriented at installation so that steam condensate drains from the loop and does not collect in the loop. Questions regarding orientation must be determined by the authority having responsibility for the piping system.

Shipping Bar must be removed after installation

The return bend support should be designed with enough slack to allow the return bend to move 100% of the loop's designed movement. For example: a loop designed for +/- 4" of seismic movement will see the return bend move +/- 4".

Combination Movement: Thermal and Seismic – Use the guidelines for both movements.

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

Guided Requirements: Seismic Movement – When spanning a building's seismic expansion joint, guides are not required.

Maintenance: Loops require no field adjustments and they only have no serviceable parts – no operation or maintenance required.