

# SEISMIC GATOR EXPANSION JOINT

## OPERATION, INSTALLATION, AND MAINTENANCE INSTRUCTIONS

**General:** Seismic Gator joints are used to allow pipe movement in the  $\pm X$ ,  $\pm Y$ , and  $\pm Z$  planes of direction in piping systems. The Seismic Gator features externally and internally pressurized stainless steel bellows and carbon steel housing.

**Application:**

1. The Seismic Gator is designed to allow pipe movement in the  $\pm X$ ,  $\pm Y$ , and  $\pm Z$  planes of direction. It is typically installed spanning a building's seismic joint.
2. If the Seismic Gator cannot span the building's seismic separation it may be installed with the closest end fitting not more than 24 – inches from the seismic separation.
3. Seismic Gator expansion joints are not flow directional.
4. Location of expansion joints should be reviewed to insure proper operation.

**Installation:**

1. Inspect joint for shipping damage, insure that the shipping bars are intact.
2. Installation of expansion joint and anchors must be made as close to the design ambient temperature as possible. If the joint is installed into a hot pipeline or at other than design ambient temperature, consult Metraflex.
3. Do not remove shipping bar before the installation of anchors.
4. Anchors to restrain the hydrostatic end loads should be installed within 24" of the seismic separation or Seismic Gator. Anchors are required on both sides of the seismic separation.

**Testing:**

1. Joint may be one-time pressure tested to 225 PSIG for 150 lb. class joints, or 450 PSIG for 300 lb. class joints. 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 is properly anchored. The shipping bar is not designed to restrain the hydrostatic end load that will be developed by the Seismic Gator under pressure.


**Precautions:**

1. Joint will develop hydrostatic end loads / anchor loads equal to max test pressure multiplied by the effective area, and must be included in anchor load calculations.
2. ANCHOR LOAD = (MAX PSI X EFFECTIVE AREA) + (SPRING RATE X MOVEMENT)

**Maintenance:**

- 1 Seismic Gator expansion joints have no serviceable parts and do not require maintenance.

Contact Metraflex or your local Metraflex Representative with ANY questions.

CUSTOMER _____ PROJECT _____ ENGINEER _____ ARCHITECT _____ PRO. OR P.O. NO. _____				
	<b>DESCRIPTION:</b> <b>Seismic Gator Externally Pressurized Expansion Joint</b> Operation, Installation and Maintenance Instructions			
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