

# EXPANSION JOINT SELECTION

All Anaconda performance rating data applies to the entire Expansion Joint. This eliminates consideration of Spring Rate . . . the force required to extend or compress the Expansion Joint (expressed in pounds per inch).

Some piping engineers have considered Expansion Joints on a "per convolution" basis which necessitates computation of the performance and force characteristics. This is not necessary with Anaconda Standard units, because deflection forces are tabulated.

Suitable restraint must be designed into the pipe anchoring and guiding arrangement of a piping system utilizing Expansion Joints. Due to Anaconda's low profile construction, pressure thrust loads on anchors and equipment are reduced.

Thrust area, working pressure, deflection force and resistance to sliding friction are all influencing factors which determine the amount of anchoring to be provided. See "Installation Recommendations", page 10.

## PROPER SELECTION

1. Determine from piping system specifications:
    - a. Pipe size
    - b. Maximum working pressure
    - c. Maximum working temperature
    - d. Type of movement (axial, lateral)
    - e. Amount of movement
    - f. Desired cycle life (number of cycles)
  2. With the Information in Item 1 and Specifications, select the proper type of Standard Anaconda Expansion Joint. Check to make certain that:
    - a. Amount of movement and maximum working pressure (from Item 1) fall within limits of "Rated Movement for Desired Cycle Life" and "Maximum Working Pressure" in the Specifications. If maximum working temperature in Item 1 exceeds Room Temperature, "Rated Movement" and "Maximum Working Pressure" values in the Specifications must be reduced with proper temperature compensating factor (see "Temperature", page 7 and two examples, also fig. 3 & 4, page 8) before checking.
    - b. If axial and lateral movements are to be combined, check percentage of available movement to be utilized by the Unit, using formula in "Combined Movements," (page 8).
- If all conditions in "a" and "b" above are met, the Standard Expansion Joint selected is suitable. If not, a Non-Standard Expansion Joint should be considered or the piping system revised for a different arrangement of Standard Expansion Joints.
3. Select Fittings and check over-all length of Unit in the Specifications. Suitable dimensional allowances can then be made in piping system.
  4. See instructions as to "How to Specify E, M and F Series Anaconda Expansion Joints" on page 5.

**SPECIAL APPLICATIONS** . . . See page 30. Contact nearest Anaconda Metal Hose Sales Office listed on back cover for information regarding Non-Standard Anaconda Expansion Joints.

