Anchors

Piping systems incorporating Type 6501–6506 expansion joints must include structural reactions or main anchors as shown in the application diagrams on Page 4 that are designed to react the full pressure thrust force based on the effective area of the expansion joint, and the joint seal resistance force.

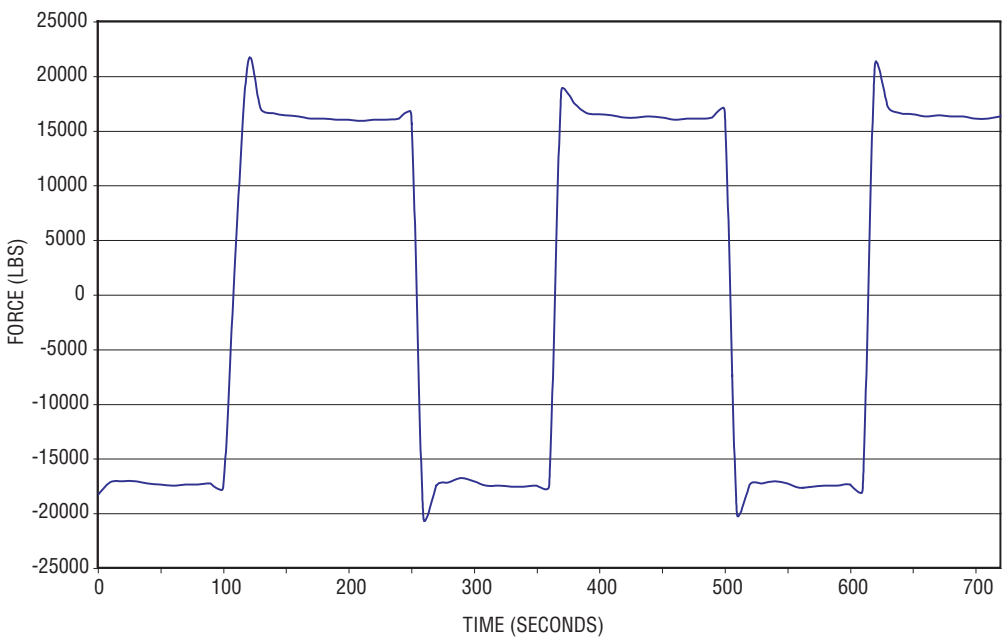
Main Anchor Force (lbs.)	=	Pressure Force Table 3 (lbs)	+	Joint Seal Resistance Force Column 3 Table 3 (lbs)

The pressure thrust force must be based on the highest pressure anticipated during service and testing.

The joint seal force values tabulated in Column 3 of Table 3 are the highest anticipated—at “break away”. These values are reduced by approximately 25% after motion starts.

Piping systems incorporating dual anchor base expansion joints (6505 & 6506) or multiple single joints (6501 & 6502) in long runs must include structural reactions or intermediate anchors as shown in the application diagrams on Page 4. Intermediate anchors react the seal resistance force—the purpose of the intermediate anchor is to ensure that the pipe expansion in each segment of the run is absorbed by the expansion joint in that segment.

Intermediate Anchor Force (lbs)	=	Joint Seal Resistance Force Column 3 Table 3 (lbs)



Each Series 6500 expansion joint is cycled a minimum of ten complete cycles with the force continuously measured by a load cell with the measurements analyzed by a computer program. The program determines if the force exceeds specifications at any point during the cycling. The illustration shows a profile of each cycle as the joint is compressed to the design travel (4", 8" or 12") and extended to the manufactured length. The “peaks” illustrate the breakaway force which is reduced as the travel progresses.