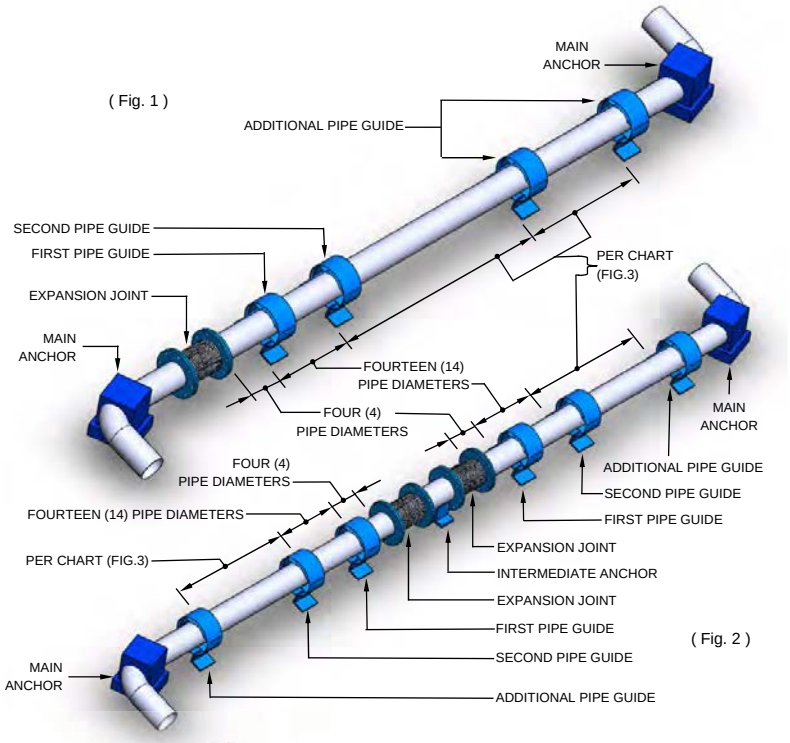
# ANCHORING AND GUIDING

In a piping system containing expansion joints that absorb axial motion, it is important to properly anchor and guide the pipes to insure the expansion joint absorbs the motion for which it was designed.

Inadequate anchoring and improper guiding can cause stresses that reduce the expansion joint's life, cause pipe buckling and system failure. When an expansion joint is pressurized, internal thrust forces are created which react on the system and anchors. This force is due to internal pressure acting on the effective area of the bellows element in the expansion joint.

This force created by pressure must be absorbed in the piping system by anchors to prevent the bellows element from extending. Anchors in a piping system are generally of two kinds: main anchors to absorb full pressure thrust forces generated by the expansion joint, and intermediate anchors to absorb forces generated by the expansion joint bellows spring forces.

( Fig. 1 )




( Fig. 2 )

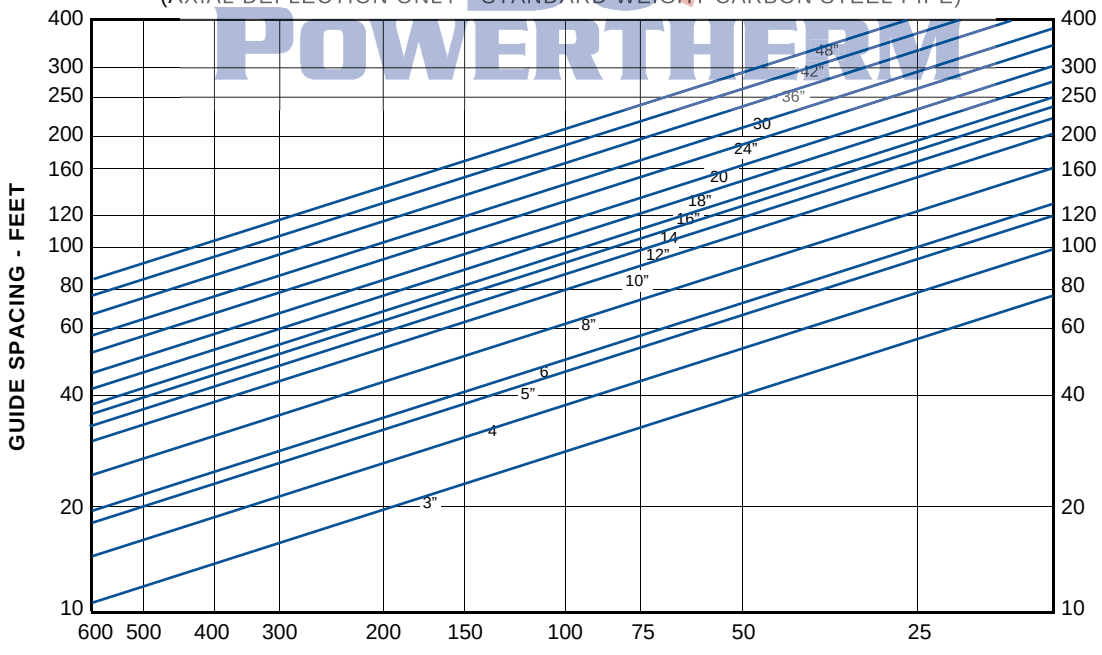
## Spacing for Pipe Guides in Expansion Joint Applications

These recommendation are shown in the diagram (fig. 1 - fig. 2) and the accompanying guide spacing chart (fig. 3). Examples of main anchors and intermediate anchors are also shown in the diagram. It should be noted that pipe guides are intended to guide the pipes in a system and not support the weight of pipes and media conveyed through them.



## MAXIMUM RECOMMENDED SPACING FOR PIPE GUIDES

(AXIAL DEFLECTION ONLY - STANDARD WEIGHT CARBON STEEL PIPE)




(Fig.3)