

Installation Instructions: VEE Expansion / Seismic Loops

Piping should be lined up accurately before installing the Vee loop. Angular, lateral, axial misalignment, and / or torque, will cause shearing stresses. The system must be piped to eliminate misalignment at the loop. Be sure the face to face opening between the pipeline end fittings is the proper dimension for the loop.

On flanged loops, be sure that flanges are parallel. Pull up the flange bolts evenly using the criss/cross method. If the loop has grooved ends, be sure the pipe ends are clean and true. Check the gasket and the coupling to be sure they meet the specifications for the service required, lube the gasket and install with the coupling according to the manufacturer's instructions. Note: groove gaskets and couplings; flange bolts and gaskets are all furnished by others. On threaded loops, don't impose torque on the loop when making up to piping. Use two wrenches with one wrench backing up. Don't put a wrench on the collar or band or braid. Use the wrench on the end fitting.

On *copper sweat loops*, use care to direct the flame away from the braid and the factory brazed joints. A heat sink wrapping, cold pack, or other device can dissipate the heat. Use a soft solder. Do not exceed 850° F installation temperature or you will weaken or damage the factory brazed joint. Be sure to clean up all flux residues to prevent corrosion and premature failure. *Installer, please note: The manufacturer's warranty is null and void if the copper sweat loop fails because the installing temperature exceeded 850° F, or if there is corrosion as the result of failure to clean the flux from the loop.*

Vee loops 2 1/2" and larger, not installed with the "V" shape hanging straight down, must be supported at the 90° Ell with conventional pipe hangers or supports. Be sure they don't restrict the movement of the loop. The loop must be free to move in order to function correctly. Good piping practice recommends concentric pipe guides be installed in the pipeline at the unanchored side(s) of the loop, as with any expansion joint. The guides keep the piping on centerline. Piping may need to be anchored to direct movement into the loop. Be sure to refer to the Anchoring and Guiding Instructions.

The Vee loops may be installed in any configuration along the centerline axis of the piping run, vertical up or down, horizontal side to side, and anywhere in between, as long as the piping movement is directed into the flexing capability of the loop. Loops may be easily nested for parallel multiple piping runs. Be sure to leave enough room between the parallel pipes to accommodate hanging hardware and for free movement of nested loops.

For steam applications, the Vee loop must be installed and supported horizontally, on the same plane as the pipeline, in order to prevent harmful condensation from collecting in the Vee 90° ell. Don't install the loop hanging up or hanging down for steam applications.

Leave any angle iron bars or shipping blocks in place during handling and installation. After the loop and any piping anchors and guides are installed, but before the system is pressurized, remove the angle iron bars or shipping blocks. If you're doing any welding near or above the expansion loop, cover it with a chloride free, heat resistant protector, to prevent arc strikes, weld spatter, etc. from damaging the loop.

Never install a loop where its temperature, or pressure, or movement ratings could be exceeded. Be sure you know all the ratings of the expansion loop and of the system.