

INSULATING 90° BENDS AND P-TRAPS

Flexible closed cell insulation products are ideal for insulating pipework that has not been closed. The insulation can be slid onto the pipe, eliminating seams. This is the fastest way to install the product. The flexible insulation easily slides along straight runs and also around long radius drawn bends. Ease the insulation along the pipework by pushing, never pulling.

For optimum performance, 90° bends and P-Traps should be fabricated. Insulation slid around a 90° bend rather than mitered to fit, will be under stress, causing the insulation wall thickness to be reduced by as much as 40%. This reduced insulation thickness may result in condensation formation on chilled water and refrigeration applications. In addition, this practice greatly increases the stress on the insulation outer skin, which could result in premature surface cracking.

P-Traps are similar to 90° bends in recommended fabrication practices. Sliding insulation around a P-Trap results in even greater stresses being applied to the insulation. P-Traps can be fabricated from a single miter or ideally with two miter sections. P-Traps often create another difficulty in that there is limited space between the pipes to be insulated. It is often difficult to use 1" wall in these applications for this reason. 3/4" wall insulation will be sufficient to prevent condensation on 1-5/8" lines with -20°F refrigerant at 60% relative humidity. For more severe conditions, special fabrication techniques will be required.

It is a common practice to slide flexible insulation around 90° bends and P-Traps in an effort to eliminate seams and speed up the installation. This technique has been used successfully with wall thickness of 3/4" and below. Avoid this practice with 1" wall. The use of miter cut fittings is recommended with seam seal products.

Installation Guides are available for more information.