

INSULATING AT PIPE HANGERS

Metal hangers used to support the pipe being insulated create an insulation application problem. The weight of the pipe is concentrated at the hangers and will compress the insulation on the pipe in that area if not handled properly. The compressed insulation (as a result of the reduced thickness) would not perform as expected. Maintaining the correct insulation thickness is especially critical on cold piping systems, where a reduction in design thickness could result in condensation.

An alternative method when using metal or PVC hanger shields is to use a support to distribute the load over the shield. Supports are typically short lengths of wood dowels or wood or calcium silicate blocks, which are (same thickness as the insulation) inserted in the insulation. The holes cut into the insulation for the supporting devices should be undersized to insure a tight fit. The support devices should be coated with contact adhesive prior to inserting in the holes. They should be inserted while the adhesive is still wet, then the outer surface should be coated with adhesive to form a vapor seal.

Larger pipes would require wood blocks approximately 1" x 3" by the insulation thickness. Contouring the blocks to the shape of the pipe will provide even support. The hanger shields should be centered on the support device location. It may be necessary to use additional supports (dowels) placed along the curvature of the insulation (4 o'clock and 8 o'clock positions) to maintain the position of the pipe.

Another option when using sheet metal or PVC shields is to compensate for the anticipated thickness loss in the insulation due to compression by sleeving an additional section of insulation on the shield, extending the extra thickness beyond the shield.

Note: On hot piping systems where condensation control is not a consideration, it is not necessary to provide additional support for pipes up to 2" when sheet metal or PVC shields are used.

Proper pipe support or thickness compensation will insure the performance of the system.