

Installation Instructions / Rubber Connectors

Store these connectors in a cool, dry, indoor place. **Store them flange face down on a pallet or wooden skid.** Don't let them sit vertically on the edges of the flanges. Don't store any heavy items on top of them. Be careful not to damage the connectors when lifting or rigging, or while fitting.

These connectors are designed for HVAC piping systems. **Piping should be lined up accurately before installing the connectors.** Misalignment will reduce the rated movements of the connectors and can cause stresses that severely reduce the service life of the connectors. Use special care during installation to **avoid rolling the rubber leading edge of the joint** out of its flange groove.

Be sure the face to face opening between the mating flanges is the proper dimension for each connector. The connectors may need to be slightly compressed to fit the correct face to face opening. Install the flange bolts so the bolt head is against the connector flange and tighten the bolts using the criss-cross method until leak tight. Retighten the bolts after start up, and periodically as required. **Don't let the flange bolts protrude where they could damage the connector surface when the connectors flex.** Over-torquing the flange bolts can deform the connector and result in connector failure.

The connectors should be mounted close to the equipment. When using the connectors to absorb thermal motion (expansion - contraction) in a piping system, **piping must be properly guided and anchored.** Anchors are also required wherever a piping system changes direction.

If the piping is not anchored, or if the equipment is spring mounted, or if they are specified for the system, **control units must be installed on the connectors** to prevent excessive extension due to pressure thrust and/or piping movement:

To install the Thermo Tech Inc "No Hassle" control units, simply slide the two limit bolts, along with the washers - rubber side against the flange lug, through the lugs on the outside of the flanges and turn the nuts onto the bolts to the specified setting.

To install the add-on type of control units, **bolt the gusset plates to the outside of the mating flanges**, being sure all the flange bolt heads are on the inside of the connector flanges. Install the control rods, nuts and washers on the gusset plates and snug them up hand tight.

Important: If double nuts are used on the control rods, tighten them against each other so they won't vibrate loose. Don't use the control rods for a piping system anchor or for piping supports or hanger rods. If the system design requires **extension** of the joint, **leave the specified space** (but, no more) between the washers and the nut surface.

Don't let the connectors support any weight other than their own. **The system piping must be properly supported and hung.** Since the connectors are flexible, any extra weight will stress them.

Operating and installation conditions must never exceed the pressure and temperature ratings of the connectors and also must never exceed the movement ratings of the connectors. **Anchors, supports, guides, control units, and piping must be properly installed so the connectors are never allowed to over compress or hyper extend.** Be sure you know the maximum pressure and temperature ratings, and the maximum movement limitations of the connectors.

Don't weld near the connectors without protecting them from heat and weld splatter. **Don't bolt the connectors directly to any component with a resilient face** unless you install a spacer such as a plate flange or full face metallic gasket between the connector and the component to protect the resilient sealing surface and to prevent any damage to the rubber flange bead of the connector.

Do not install the connectors to other than a standard flange, (such as greater than 1/16" raised face, or a grooved adaptor flange, etc.) It may be necessary to install a plate flange or full face metallic gasket against the non standard flange to prevent damage to the rubber flange bead of the connector during installation.

Insulation is not recommended over the connectors. **Be sure to protect the connector cover from sunlight, ultraviolet rays and ozone.** Don't install the connectors underground, or submerged, or in areas where the connectors can't be inspected. **Never install these connectors to carry hazardous, dangerous or toxic substances.**