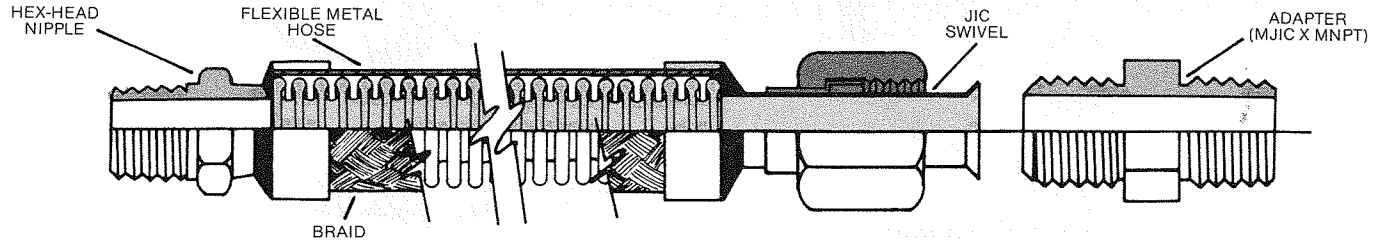


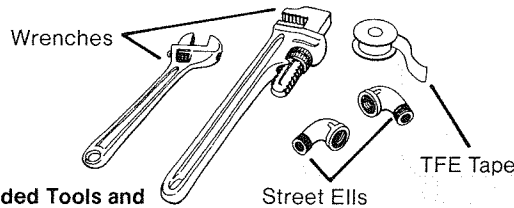
Installation of CSI Flexible JUMPOVERS

Scope

The information herein describes the recommended installation procedures for CSI Flexible Jumpovers used to couple jacketed components which utilize steam as a heating medium—pipe, valves, fittings and pumps, as well as ControHeat® and ControTrace™ Heating Elements and other removable-type jacketing. The accompanying diagram identifies the jumpover component terminology used throughout the text.

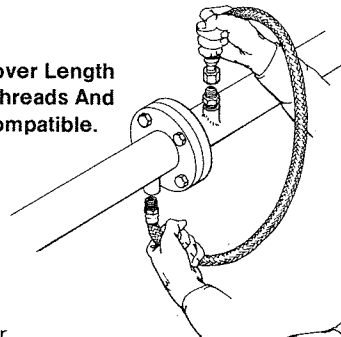


Section I – Installation

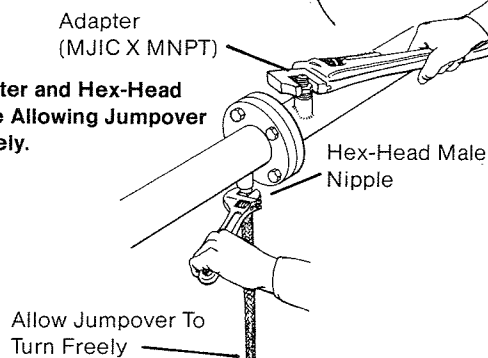


Recommended Tools and Plumbing Supplies

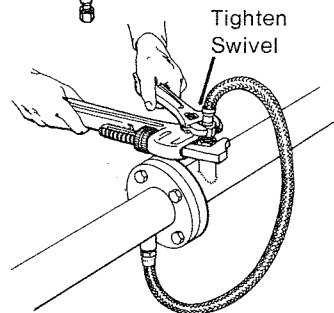
Check For Proper Jumpover Length And Verify That Nipple Threads And Coupling Threads Are Compatible.



Install Adapter and Hex-Head Male Nipple Allowing Jumpover To Turn Freely.



Complete Installation By Coupling JIC Swivel With Adapter While Holding Single Rigid Position.



Tools Required.

The following tools and plumbing supplies are recommended for the installation of CSI Flexible Jumpovers:

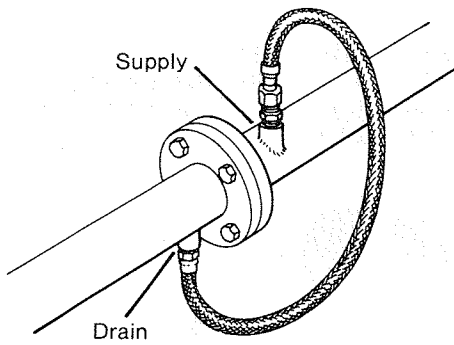
1. Two pipe or adjustable wrenches with sufficient span to fit the JIC swivel and adapter.
2. TFE pipe tape to wrap threaded nipples on either end of the jumpover.
3. Two high-pressure carbon steel street ells to be held in reserve should one or both be needed to reduce the live length of the jumpover between couplings.

Procedures

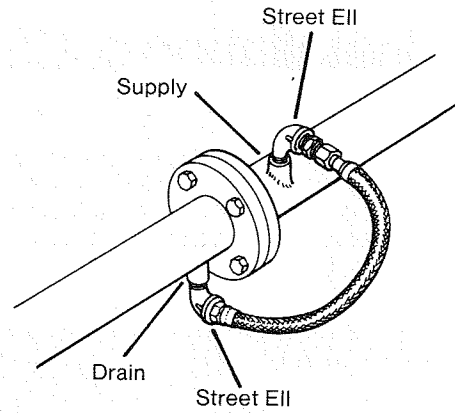
Note: The hose component of CSI Flexible Jumpovers is a thin-walled pressure containing device specially formed to offer superior cycle life. However, this cycle life can be adversely affected by improper installation practices such as utilizing puncturing-type tools (nails and screwdrivers) near the hose braid, clamping pipe wrenches or vice grips on the braid or braid sleeve components of the hose, and torquing or twisting the hose component during installation of the jumpover.

1. With flexible jumpover fully assembled (as shipped) check for proper length between components to be coupled by holding the jumpover between couplings. Do not permanently deform the jumpover to assure the fit. If it appears that the jumpover is too short, check to see if a street ell inserted into the coupling of the jacketed component will reduce the live length sufficiently to assure easy installation. If length is still not right, use a longer length of flexible jumpover or combine two jumpovers.
2. Verify that the male nipples on either end of the jumpover hose are the same size as the coupling threads.
3. Remove the adapter from the JIC swivel on the jumpover.
4. Wrap TFE plumbing tape around MNPT end of the adapter removed in Step 3 and the hex-head male nipple on the other end of the jumpover.
5. Install the adapter removed from the jumpover in Step 3 in the coupling (or street ell) of the jacketed component.
6. Install the TFE-wrapped hex-head nipple on end of jumpover into the other coupling. Note: Allow the jumpover to turn freely as the hex-head nipple is tightened.
7. Tighten nut of the JIC swivel onto adapter installed in jacket coupling in Step 5. Use two wrenches for this procedure—one to turn the swivel and one to hold the adapter while the swivel is tightened. Do not use TFE tape on the JIC threads because it can interfere with the metal-to-metal seat of the adapter and tube flare.

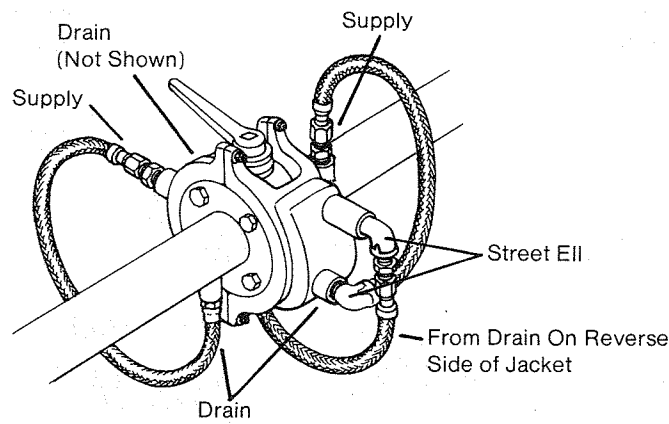
Section II – Typical Installations



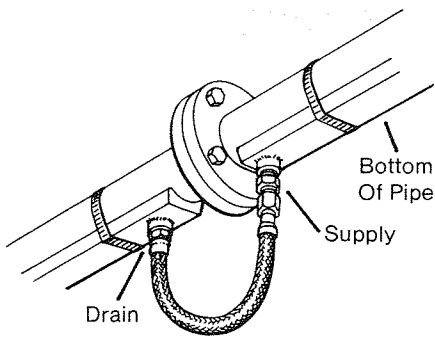
Jacketed Pipe Installation.



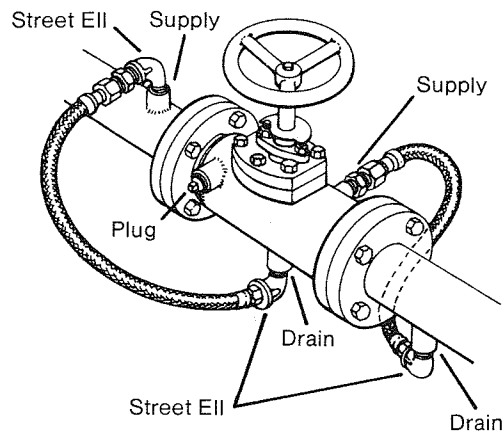
Jacketed Pipe Installation With Street EIlIs To Reduce Live Length.



ControHeat Thermal Jacket Installation With Street EIlIs Utilized As Required To Reduce Live Length.



ControTrace Thermal Tracing Installation



Fabricated Fully Jacketed Valve Installation.

For additional information and quotations, write or call:

P.O. Box 7500 Charlotte, N.C. 28241 Phone 704/588-3030
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