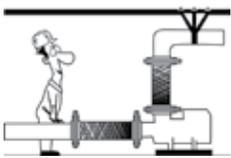


INSTALL TIPS FOR FLEXIBLE METAL HOSE

Flexible metal hose connectors are designed specifically to compensate for pipe misalignment, absorb vibration and harmonics and minimize stress on the piping system. When installed properly, flexible pump connectors will provide an extensive service life with minimal service repair costs. Follow the "Do's" and "Don'ts" for a successful metal hose installation.

DO



DO USE HANGERS AND PIPE GUIDES on all adjacent piping. Install hangers and guides before installing hose, to be certain weight of pipe is on the hangers and guides.

DO REMOVE SHIPPING RESTRAINTS after installation of hose. After shipping bars are removed, it is recommended that a visual inspection occurs and a functionality test is completed.

DO ANCHOR PIPES at each change of direction where flexible hose is being used to avoid torsional stress. Use anchors at end of hose, opposite from motion source.

DO MEASURE CAREFULLY to be certain connecting pipe is cut to exact length. Be sure to install the metal hose at the exact normal free length as supplied. If metal hose is too long, shorten the piping.



DO LINE UP BOLT HOLES. Make sure all bolt holes are perfectly lined up before welding pipe flange into place. It is best practice to use a floating flange on one of the connector's ends to allow for bolt hole alignment in the field.

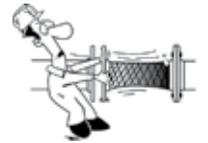
DO FOLLOW TCH RECOMMENDATIONS Do not exceed the maximum permissible offset. For large offsets, factory pre-bent units can be supplied.

DON'T

DON'T COMPRESS a flexible connector to make it fit! Installing the connector under compression will stress the corrugated hose, loosen the braid pressure restrainer, which will reduce further compressive movement, and will generally result in early failure.



DON'T STRETCH the connector to fit a gap longer than its factory-furnished length. Stretching the connector places excessive residual stresses on braid and fittings, thus ultimately resulting in rupture.



DON'T LET HOSE SUPPORT any weight except its own. The flexible hose has a light wall which is designed to contain internal pressure, but not to carry external loads. Extra weight will stress and stretch the hose and cause failure.

DON'T FAIL TO ANCHOR PIPING. If hose is not securely anchored, it will transmit all vibration to the piping system. A loose hose will often act like a spring and amplify the vibrations. Whenever possible, it is best to install flexible connector to the pump, compressor, or other vibrating equipment before valves, pipe line and fittings. Doing this will ensure that most of the vibration is absorbed and isolated instead of being transmitted throughout the piping system.



DON'T IMPOSE TORQUE onto the hose connector when matching up fittings. Force rotating the hose creates residual torque stress in the connector, which will cause cracking of corrugations on the fitting joint.

DON'T BEND HOSE SHARPLY NEAR END FITTINGS. End fittings must always remain perfectly perpendicular to axis of hose. If piping meets at an angle, install hose with a shallow curve along its entire length, leaving a small straight section at each end. This kind of hose installation will generally require a slightly longer hose. Follow the recommended minimum bend requirements for the hose being installed.

DON'T FORCE HOSE into too much lateral offset. This puts the hose under great strain. A hose with too much lateral offset cannot handle movement of any kind. It is best to avoid using any excessive force.



DON'T LET WELDING SPARKS HIT THE BRAID; they may burn some of the braid strands. Protect the metal hose braid with a non-flammable cloth or place another type of non-flammable protective material in front of it when piping must be welded very close nearby.



DON'T USE A WRENCH ON THE HOSES FERRULE OR ITS BRAID. If possible use a hex end fitting, if not, use the wrench on the fitting length provided. Always use two wrenches on end fittings to keep the hose from being torqued.