

PENFLEX

ENGINEERING BULLETIN #107

Assembly Installation Handling Precautions

Penflex corrugated hose is engineered to provide maximum service life when properly installed. Improper assembly installation, incorrect flexing or careless handling in an application will reduce the effective service life of the hose and cause premature failure of an assembly.

The following assembly installation and handling precautions should be observed to achieve optimum performance from your corrugated hose assemblies.

- **Avoid torque.** Do not twist the hose assembly during installation when aligning the bolt holes in a flange or in making up pipe threads. The utilization of lap joint flanges or pipe unions will minimize this condition. It is recommended that two wrenches be used in making the union connection, one to prevent the hose from twisting and the other to tighten the coupling.
- **In plane lateral offset installation.** Prevent out-of-plane flexing in an installation. Always install the hose so that the flexing takes place in only one plane. This plane must be the plane in which the bending occurs.
- **Avoid over bending.** The repetitive bending of a hose to a radius smaller than the radius listed in the specification tables for corrugated hose will result in premature hose failure. Always provide sufficient length to prevent over bending and to eliminate strain on the hose.
- **Avoid sharp bends.** Utilize sound geometric configurations that avoid sharp bends, especially near the end fittings of the assembly.
- **Provide support.** When installing the assembly in a horizontal loop, provide support for the arms to prevent the hose from sagging.
- **Do not extend or compress axially.** A piping system which utilizes metal hose to absorb movement must be properly anchored and/or guided. Always support the piping to prevent excessive weight from compressing the hose and relaxing the braid tension.
- **Handle with care.** Avoid careless handling of the hose assembly. Always lift or carry metal hose to prevent abrasion damage particularly to braided corrugated hose. Store metal hose assemblies away from areas where it can be subjected to spillage, corrosive fumes or sprays, weld splatter, etc.

If you have any questions or comments, please [contact us](#).