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Nexus UltraFlex™ Hoses Installation Guidelines

INSTALLATION, OPERATION & MAINTENANCE INFORMATION

Nexus UltraFlex™ hoses are specifically designed for trouble free long term use when properly installed in hydronic applications. These hoses and associated pipe fittings are fabricated to specifications which exceed the normal temperatures, pressures, and environmental hazards associated with most hydronic applications. These hoses are fabricated to rigid specifications, including fire and smoke standards per ASTM E 84-00 and (NFPA 255, ANSI/UL 723 & UBC 8-1). Under the woven stainless steel reinforcing shield, the internal hose is of EPDM with integral internal Kevlar fabric reinforcement. Maximum pressure and temperature limits are stamped on one ferrule of each hose for easy identification.

The following installation requirements will insure proper performance.

1. When installing flexible hoses, do not impart a twist or torque load upon the hose. Be careful when tightening the threaded connections. When tightening the female threaded nut of a hose, hold the ferrule stationary by hand while tightening the screw connections. Male threaded connections do not swivel, hold the male fittings at the hexagonal shoulder provided at the base of the male connector when tightening. (See Fig. #1)

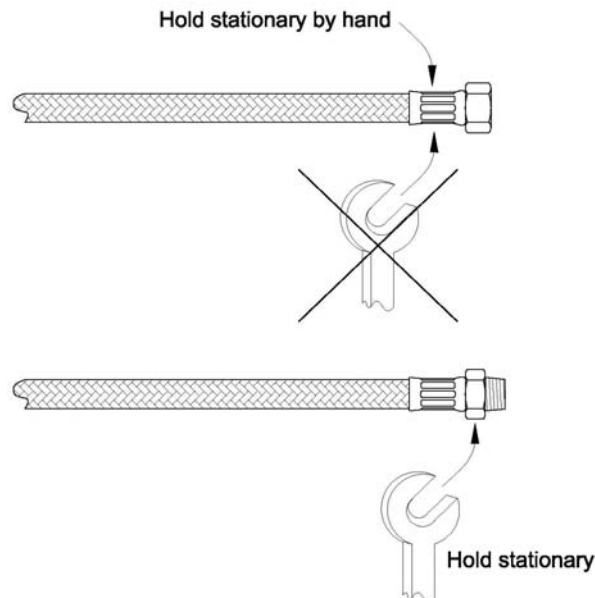


Fig. #1



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Nexus UltraFlex™ Hoses Installation Guidelines (Continued)

2. Never install the hose in tension. The hose is made to hold internal pressure, not to act as a means of support. The rigid piping attached to flexible hose should be anchored and its position fixed immediately prior to the hose connection to avoid imposing piping support and vibration loads on the flexible hose. Always allow an extra 5% in hose length to allow for shrinkage when the hose is subjected to internal pressure. (See Fig. # 2)

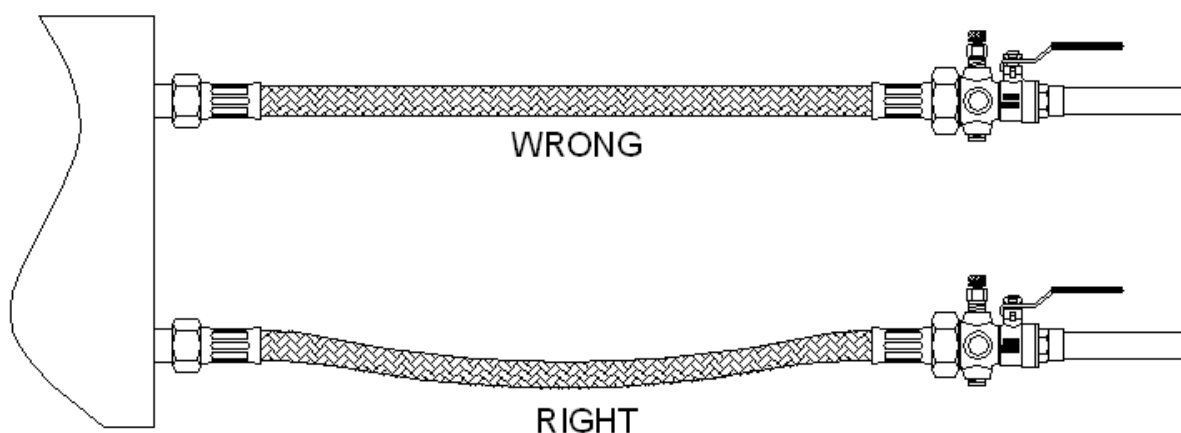


Fig. #2

3. Avoid tight bends in the flexible hose. Tight bends can reduce the flow capacity of the hose, induce high pressure drops and seriously reduce the service life of the flexible hose. The outside diameter of a bend should be no less than 12 times the nominal pipe size of the hose.

For example; if using a $\frac{1}{2}$ " hose, the outside bend diameter should be no less than ($\frac{1}{2}$ " x 12 = 6.0" [152.4 mm]).

Avoid tight bends immediately adjacent to the hose fitting.

Hose Size	Outside Bend Diameter
$\frac{1}{2}$ "	6" [152.4 mm]
$\frac{3}{4}$ "	9" [228.6 mm]
$\frac{3}{4}$ "	12" [304.8 mm]
$1\frac{1}{4}$ "	15" [381.0 mm]
$1\frac{1}{2}$ "	18" [457.2 mm]
2"	24" [609.6 mm]

Note: Over-bending most frequently occurs immediately adjacent to either end of the flexible hose. (See Fig. #3, 4 & 5)



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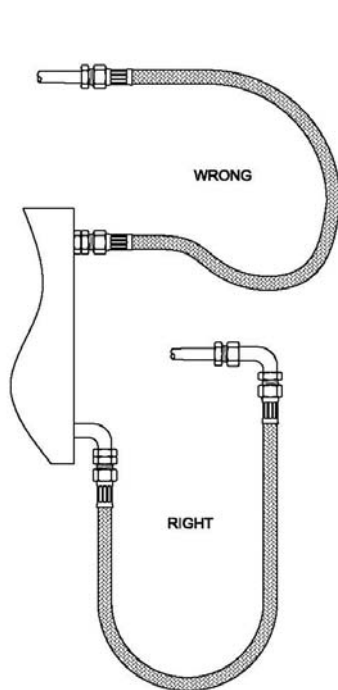


Fig. #3

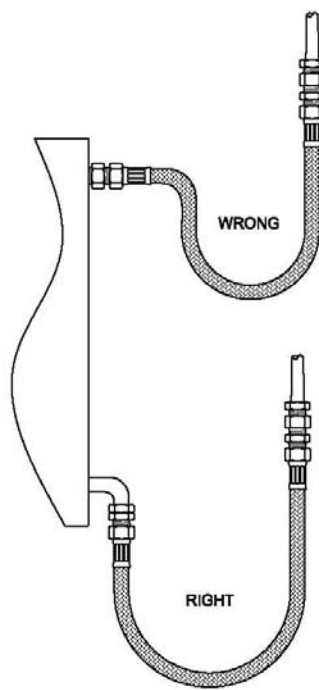


Fig. #4

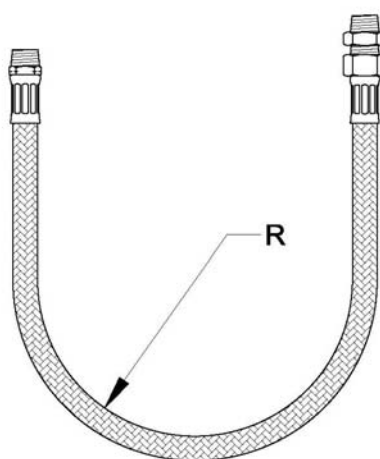


Fig. #5



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4. The bend in a flexible hose should all be in one plane.
Example; A hose may be bent downwards or upwards to handle an offset in piping, but should not bend downward and then to the right or left. Bends create a torsional load on the hose. (See Fig. #6)

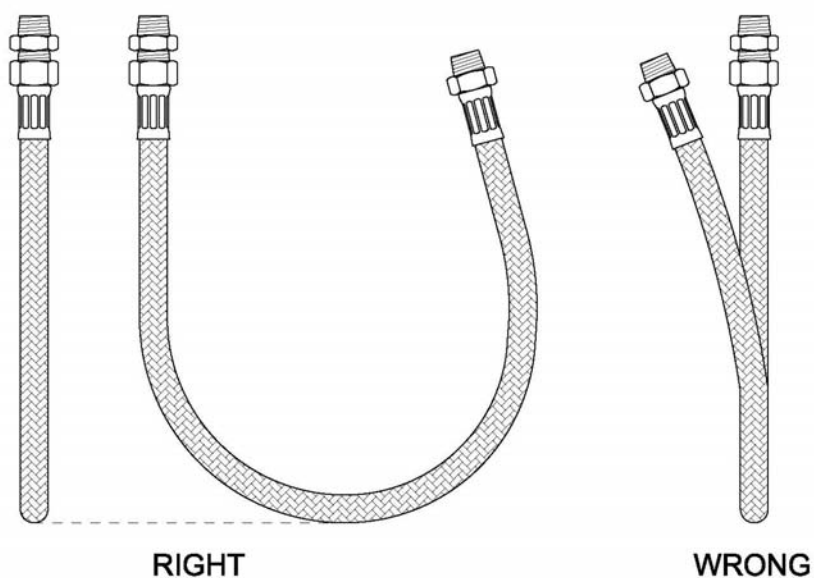


Fig. #6

5. Verify that the proper gasket or O-ring type seal is present and properly positioned before completing any screwed connection that has a straight mechanical thread rather than tapered self sealing threads.
6. Do not over pressure the hose or expose the hose to temperatures above or below the specified allowable limits. Maximum pressure and temperature limits are stamped on one ferrule of each hose for easy identification.