



*Flow Control*

## **Flexible Piping Systems**

### **Installation Instructions**

To obtain maximum service life from metal hose, two IMPORTANT installation rules must be kept in mind:

#### **1. Do Not Torque**

A hose is subjected to torque by:

**1a.** Twisting in installation. To minimize possible torque damage to a hose, a union or floating flange should be used at one end of the hose assembly. Where flanges are used, the fixed flange end should be bolted into place before the floating flange end. Where a threaded nipple and a union are used, the nipple end should be threaded into place, and then the union tightened into place using two wrenches.

**1b.** Twisting on flexure. Always install the hose so that flexing takes place in one plane only, and in the plane of bending.

#### **2. Avoid Sharp Bends**

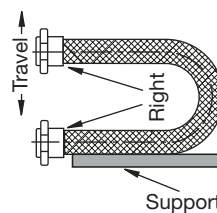
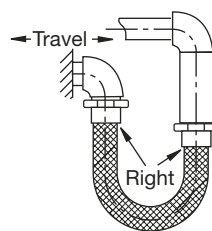
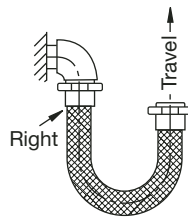
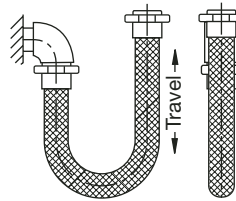
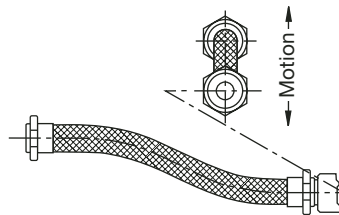
There are many ways a hose can be subjected to recurring sharp bends as a result of improper installation. A few examples are illustrated on right. The minimum centre line bend radius for intermittent flexing should never be less than the values specified in the Technical Data Section.

Should piping restrictions make it impractical to install hose in the proper manner, the use of an interlocked hose guard will limit the hose bending to a suitable radius, thus prolonging the life of the corrugated hose.

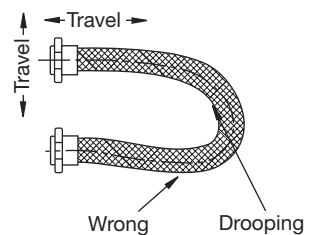
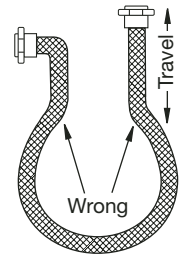
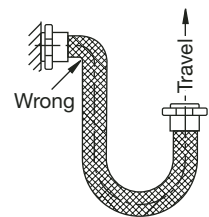
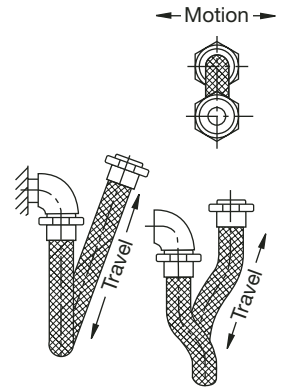
**Note:** Technical data is subject to change without notice.

### **Corrugated Metal Hose Installation Instructions.**

#### **Right**



#### **Wrong**



### Metal Hose Corrugated Installation Data.

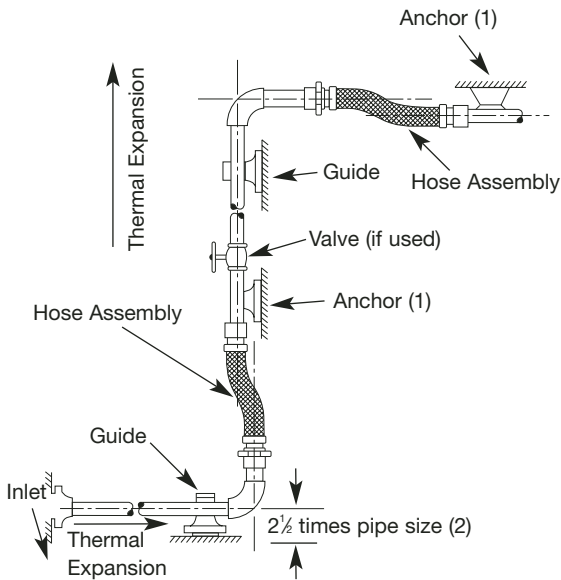
#### Pipe Anchoring and Guiding

A piping system which utilizes flexible metal hose to absorb pipe movement must be properly anchored and guided to assure correct functioning and maximum service life of the metal hose. The basic principles to be observed are:

1. The direction of pipe motion must be perpendicular to the centre line (axis) of the hose.
2. The pipe must be anchored at each change of direction where a flexible metal hose is employed to prevent torsional stress.

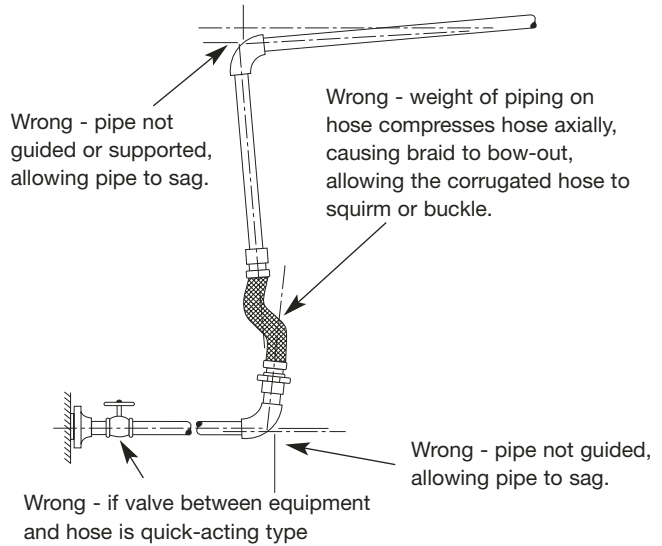
*Note: Typical examples of correct and incorrect guiding are shown below.*

Right

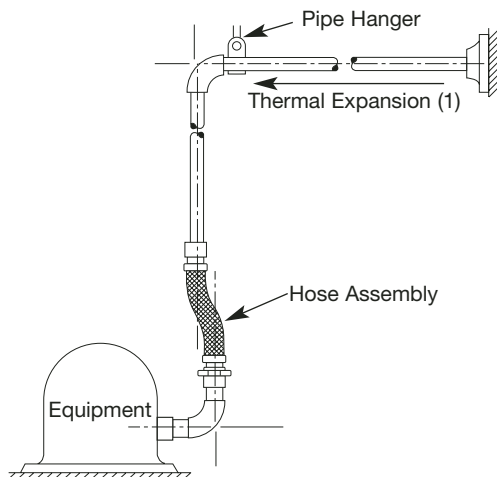


- (1.) Anchors are to be used at the end of the hose opposite from the source of motion.
- (2.) Approximate length to straighten flow rate before entering corrugated metal hose.

Wrong



Right



- (1) Direction of motion must be applied perpendicular to hose centre line (axis).

Wrong

