

# Extending the Life of Your Hoses

# Swagelok®

H. E. Lennon, Inc.

When selecting a hose, it's important to first know the required pressure, temperature and media for the system you are building. Once these factors are established and you have selected your hose, using our Hose Selection Guide, you may want to follow these installation hints in an effort to extend the life of your hoses.

## Length

Take into consideration hose movement, system pressurization, and thermal expansion when determining hose length. Installing hose that does not have sufficient length to accommodate these factors may reduce hose life.

## Vibration

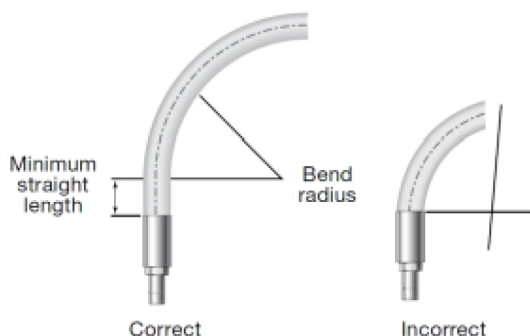
Evaluate the amount of system vibration when selecting hose. Metal hose may not be appropriate for systems with constant or severe vibration.

## Electro Static Discharge

Static electricity can be generated by fluid passing through the hose. If this is possible within an application, choose a static dissipative hose and properly ground to earth.

## Minimum Bend Radius

Follow the minimum bend radius requirements for your hose. This information can be found in the technical data for each hose in the Swagelok Hose Catalog (MS-01-180). Installing hose with smaller bends may kink hose and reduce hose life.



## Rupture or Leakage

Keep in mind the minimum straight length for your hoses. Hose rupture or leakage may result from bending too close to the hose/fitting connection.



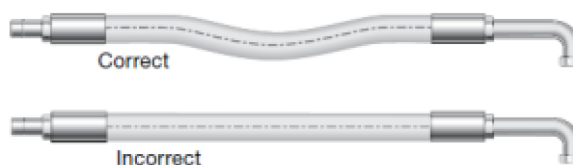
## Hose Strain

Elbows and adapters should be used to relieve hose strain wherever possible.



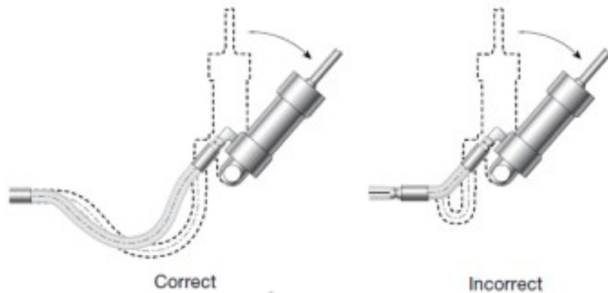
## Machine Tolerance

Allow for changes in length resulting from machine motion and tolerances.



## Motion Absorption

Distribute movement and prevent bends smaller than the hose's minimum bend radius by providing

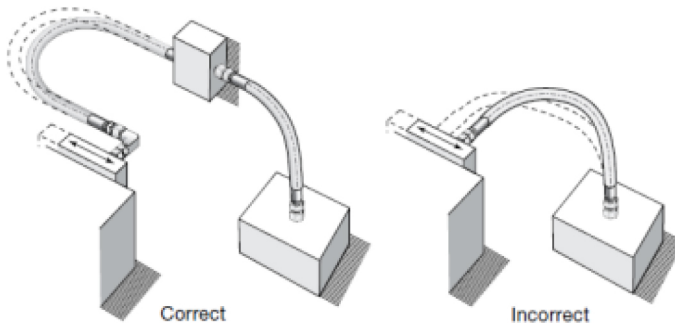


## System Pressure Changes

Allow sufficient hose length to accommodate changing system pressures. Do not connect high and low pressure hoses.

## One Plane Bending

Avoid twisting the hose by bending it in one plane only. For a compound bend, use multiple hose pieces or other isolation methods.



## Hose Options

Consider using these hose options for added protection against harsh environments, corrosive material, abrasion and kinking.



**Fire Jacket** — woven fiberglass coated with aerospace-grade silicone rubber



**Thermosleeve** — braided fiberglass with saturated synthetic material coating



**Spiral Guard** — highly flexible, helical HDPE plastic



**Armor Guard** — interlocking, flexible 302 stainless steel



**Spring Guard** — highly flexible, helical 302 stainless steel



**Elbow End Connections** — 45 and 90 degree elbows help to prevent kinking

## Inspection—Hose Audit

It's important to establish an inspection schedule based on your system application and replacement history. We recommend our **Hose Audit**.

Our trained specialists will visually inspect the hoses at your facility and help determine the best function and fit for your application. These inspections can assist in reducing the costs and downtime of your systems.

## **Hoses When You Need Them**

We have added a **Custom Hose Fabrication Center** to our facility. This will allow us to rapidly **make, test and ship** high performance Swagelok hoses to you **when you need them!**

## Interested in more information?

Please contact one of our sales and service representatives!



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