

## Interior Flex Line

Midwest Flexible Hose, Inc. - Monel 400 corrugated interior hose with stainless steel cover; 1/4 in. I.D. & 1/2 in. NPT Monel male ends.

Ton Vessel Hose - 38" in length

150# Single Vessel Hose - 24" in length

150# Dual Vessel Hose - 18" in length

150# Twin Vessel Hoses - 24" in length

- Inspect the flex line visually and with an ammonia wick with each use of the vessel.
- **IMMEDIATELY REPLACE if any crimping, fraying or leak occurs.**
- **DO NOT EXPOSE FLEX LINE TO ANY MOISTURE.**



## MONEL CHLORINE TRANSFER HOSES ASSEMBLIES

Manufactured in accordance with Chlorine Institute Recommendations per Pamphlet 6 - Appendix A.

- Minimum design pressure 375 psig.
- Burst pressure of not less than 5 times minimum design pressure.
- Gas pressure tested at a minimum of 750 psig.
- Cleaned, baked, and capped.
- Permanently tagged with the following information:

Manufactured by Penflex.

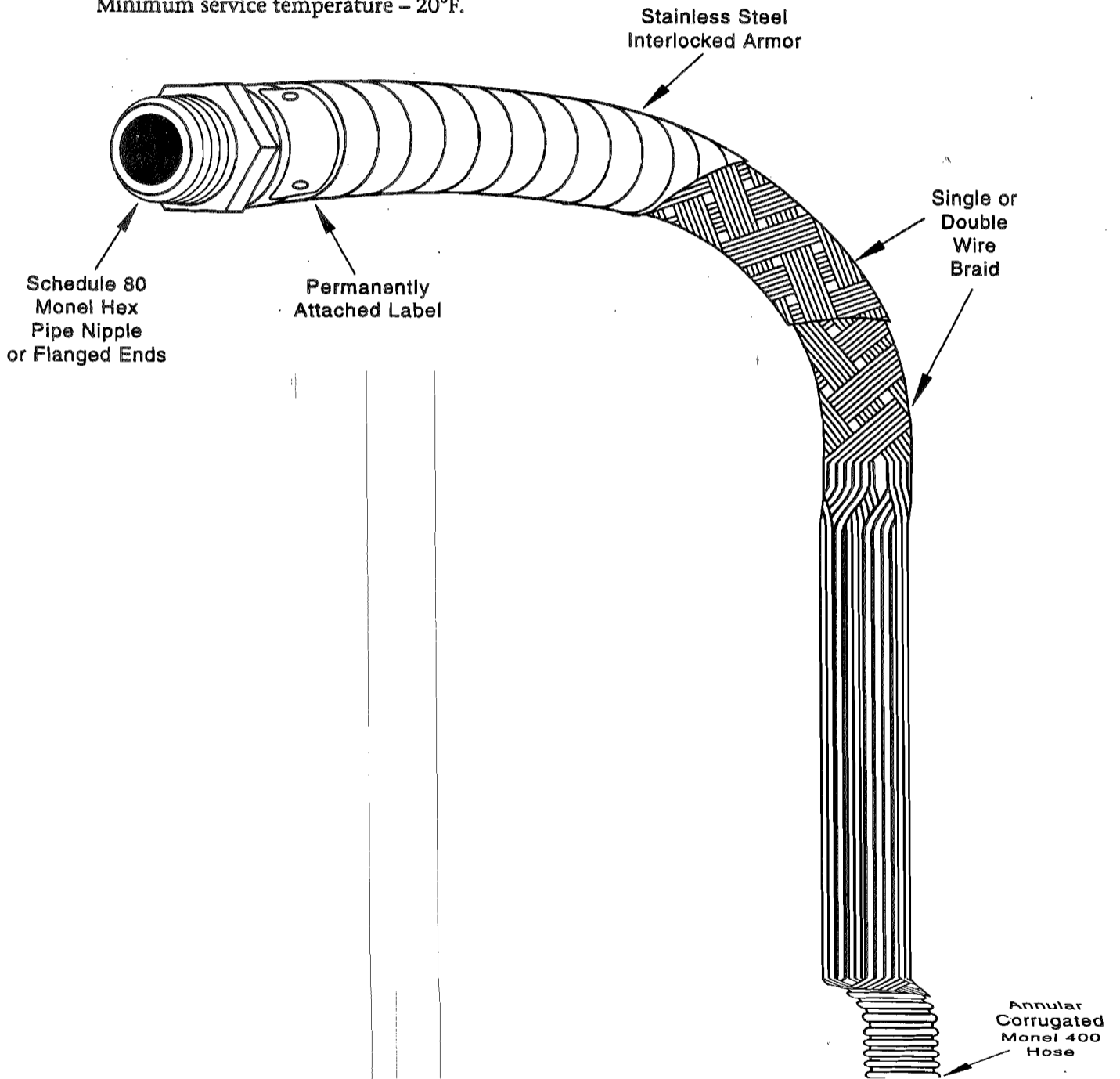
Manufacturing date \_\_\_\_/\_\_\_\_/\_\_\_\_.

Maximum working pressure 375 psig.

Minimum bend radius \_\_\_\_\_.

Gas test pressure 750 psig.

Minimum service temperature - 20°F.



# Series 740 Monel Hose

Construction: Annular / Standard Pitch

Material: Hose: 400 Monel

Braid: 400 Monel — MB, see below

Characteristics: Medium Weight / Medium Flexibility

Packaging: Standard Cartons

	LOW	MED	HIGH
Flexibility	○	●	○
Cycle Life	○	●	○
Working Pressure	○	●	○
Chemical Resistance	○	○	●
Wall Thickness	○	●	○

Nom. I.D. (in.)	Part Number	Braid Layers	Nom. O.D. (in.)	Maximum Pressure @70°F (PSIG) <sup>ab</sup>			Centerline Bend Radius (in.)		Weight per Foot (lb.)	Carton Qty. <sup>c</sup> (ft.)	Reel Qty. (ft.)
				Working	Test	Nominal Burst	Dynamic	Static			
1/4	740-004	0	.50	144	216	—			.09		
	740-1MB-004	1	.58	1,882	2,822	7,527	5.00	1.00	.19	100	na
	740-2MB-004	2	.66	3,010	4,515	12,043			.29		
1/2	740-008	0	.82	64	96	—			.39		
	740-1MB-008	1	.90	701	1,051	2,805	8.00	1.50	.63	100	na
	740-2MB-008	2	.98	1,121	1,793	4,483			.87		
3/4	740-012	0	1.21	56	84	—			.48		
	740-1MB-012	1	1.29	542	814	2,171	8.00	2.00	.79	100	na
	740-2MB-012	2	1.38	867	1,301	3,469			1.10		
1	740-016	0	1.50	32	48	—			.79		
	740-1MB-016	1	1.58	464	696	1,857	9.00	3.00	1.00	100	na
	740-2MB-016	2	1.66	742	1,114	2,970			1.20		
1 1/2	740-024	0	2.19	16	24	—			.84		
	740-1MB-024	1	2.27	330	495	1,322	12.00	4.00	1.28	50	na
	740-2MB-024	2	2.35	528	792	2,112			1.72		
2	740-032	0	2.51	12	18	—			1.04		
	740-1MB-032	1	2.59	316	474	1,266	15.00	5.00	1.72	50	na
	740-2MB-032	2	2.67	506	758	2,022			2.40		
3	740-048	0	3.78	8	12	—			1.21		
	740-1MB-048	1	3.88	197	295	788	22.00	9.00	2.04	12-15	na
	740-2MB-048	2	3.98	314	471	1,258			2.87		

a. Pressures listed have been reduced to account for welding as the method of attachment. Other methods such as brazing, neck-down designs or crimping will result in different pressures. Contact the factory for details.

b. For chlorine transfer applications, consult factory for additional data.

c. Actual length may vary ± 20%.

## Monel Braid

Construction: Tubular

Material: Monel (MB)

Use for: Series 740 Monel Hose

Packaging: Standard Cartons

Nom. Size (in.)	Part Number	Braid Diameter (in.)	Braid Construction	Maximum Pressure @70°F (PSIG) <sup>ab</sup>		Braid Coverage (%)	Weight per Foot (lb.)	Carton Qty. <sup>c</sup> (ft.)
				Working	Nominal Burst			
1/4	1MB-004	0.50	24 x 4 x .016	1,882	7,527	84	.10	110
1/2	1MB-008	0.82	24 x 5 x .016	701	2,805	72	.12	110
3/4	1MB-012	1.21	36 x 6 x .016	542	2,171	82	.22	110
1	1MB-016	1.51	36 x 8 x .016	464	1,857	86	.29	110
1 1/2	1MB-024	2.19	48 x 9 x .016	330	1,322	87	.44	110
2	1MB-032	2.70	48 x 14 x .016	316	1,266	97	.68	110
3	1MB-048	3.78	48 x 11 x .020	197	788	82	.83	110

a. Pressures listed have been reduced to account for welding as the method of attachment. Other methods such as brazing, neck-down designs or crimping will result in different pressures. Contact the factory for details.

b. For chlorine transfer applications, consult factory for additional data.

c. Actual length may vary ± 20%.



# **MIDWEST FLEXIBLE HOSE, INC.**

P.O. BOX 249 5181 N. 125th STREET BUTLER, WISCONSIN 53007

PHONE: 262-781-4610 FAX: 262-781-2398

## **INSTALLATION AND MAINTENANCE** **MONEL CHLORINE TRANSFER HOSE ASSEMBLIES**

### **Installation**

A chlorine type ball valve is often recommended for the contained end of the hose. This valve protects the hose from internal contamination by moisture in the air when the hose is disconnected from the chlorine container. Protection by plugging or capping is an acceptable alternative.

The fixed end of the hose should be attached to vertical piping so the hose will hang vertically when not in use. As an alternate, a boom may be used to provide support for the weight of the hoses when they are not in use.

Use two wrenches to make up threaded fittings to avoid torquing. Place holding wrench on pipe fittings only, never on hose section. Make up fixed flanges first on assemblies containing fixed end floating flanges.

A hose should be in one plane only. Compound bends which induce torque, i.e. twisting, should be avoided. Recommended centerline bend radii or offsets should not be exceeded. Use two or more men on long or heavy assemblies to prevent hose distortion.

### **Maintenance**

Hose is a non-repairable item and should be replaced if the following conditions are noted:

- A. Leakage
- B. Frayed or Worn Braid
- C. Ballooned or Bunched Braid
- D. Hose Elongation or Deformation
- E. Corrosion

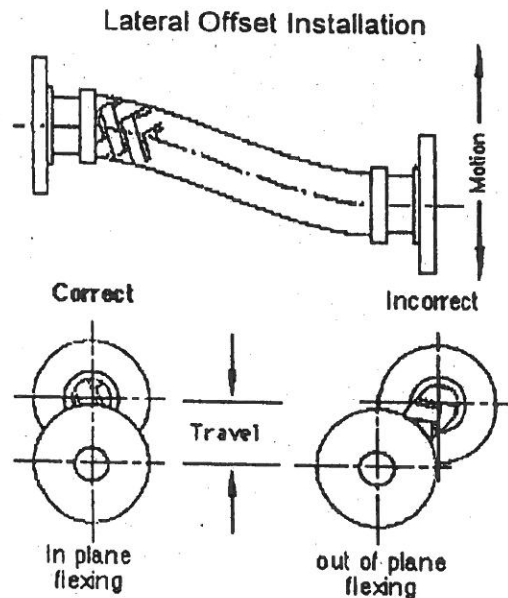
## ASSEMBLY INSTALLATION

Midwest corrugated hose is engineered to provide maximum service life when properly installed. Improper 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 installation and handling precautions should be observed to achieve optimum performance from your corrugated hose assemblies.

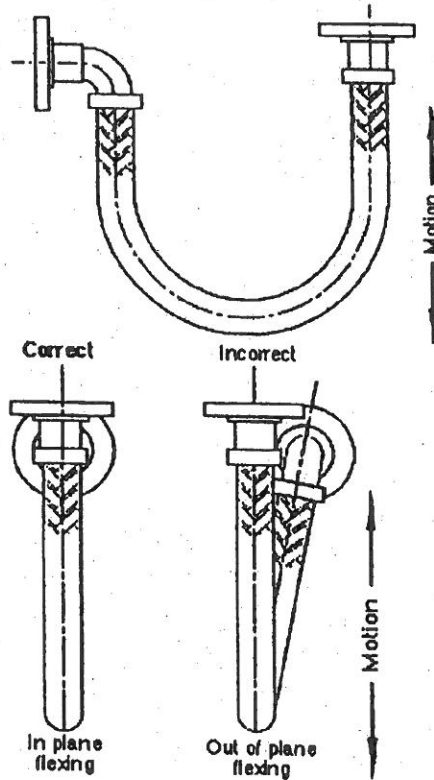
### Avoid torque.

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.

**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.



## Traveling Loop Installation

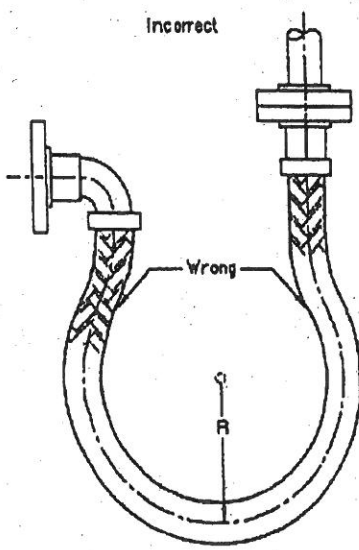
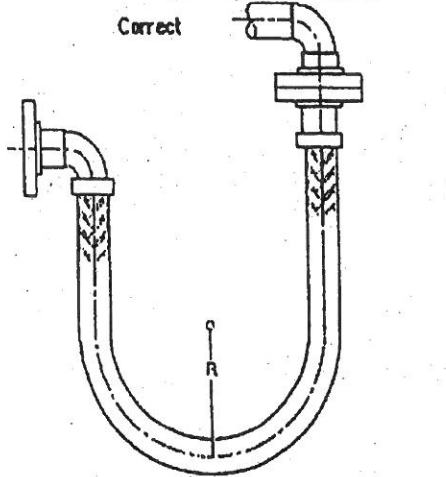


### Avoid over bending.

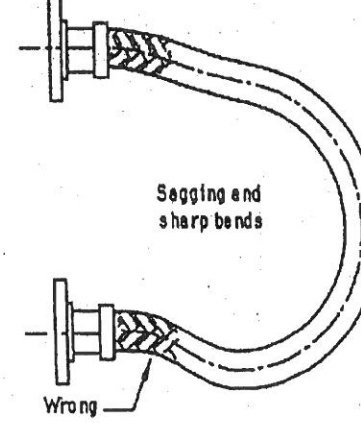
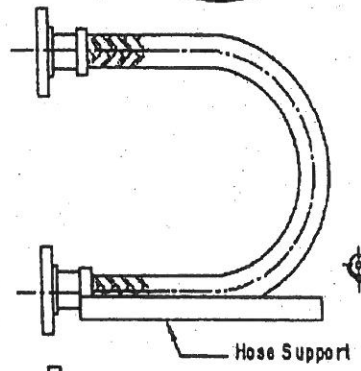
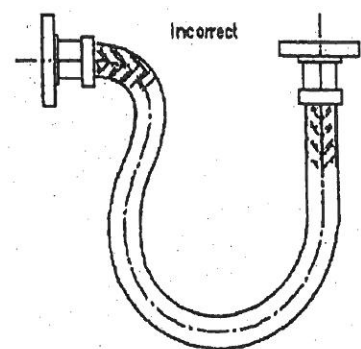
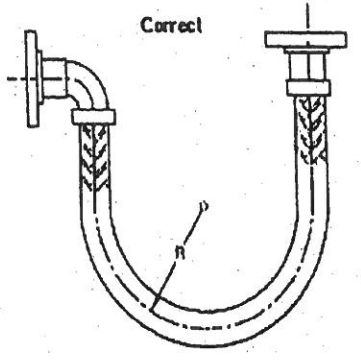
The repetitive bending of a hose to a radius smaller than the radius listed in the specification tables for corrugated hose will result in premature hose failure. Always provide sufficient length to prevent over bending and to eliminate strain on the hose.

**Avoid 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.

### Traveling Loop Installation

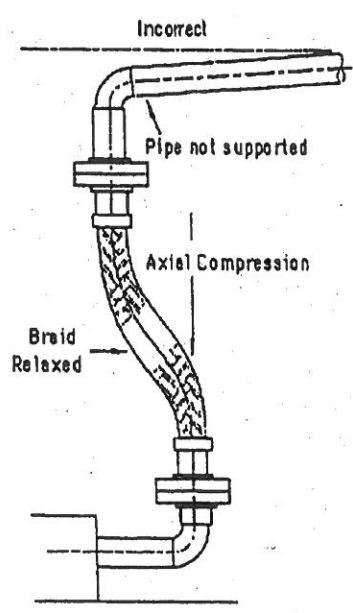
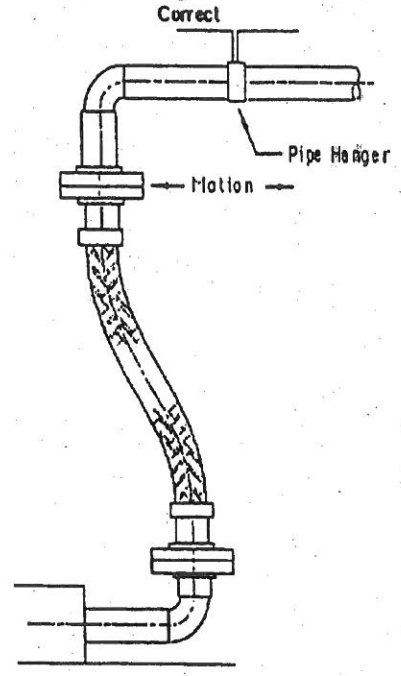


### Lateral Offset Installation



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.



Use common sense in determining the installation configuration. Utilize sound geometric configurations that avoid sharp bends, especially near the end fittings of the assembly. When installing the assembly in a horizontal loop, provide support for the arms to prevent the hose from sagging.