

McGill Hose & Coupling

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Keeping Connected

Providing Solutions for:

- Chemical Transfer Compressed Air
- Fluid Power Fume Removal
- Dry-Bulk Transfer

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A Division of McGill Hose & Coupling, Inc.

Industrial Equipment Supply

www.IEShose.com

Information and Applications about Safe Fluid and Bulk Handling

Preventive Maintenance Protects Your Investment

A typical industrial hose is often subjected to physical abuse while in service, so the first step of a maintenance program is to educate operators on the elimination of avoidable misuse. You should strive to prevent a hose from being kinked or run over, and never use a hose above its rated working pressure. Two common causes of hose assembly damage are excessive pulling by the fittings and bending beyond the assembly's maximum bend radius. Operators must realize that the hose is part of the pressurized system and any damage created could result in an unsafe operation for them, as well as a reduction in the life of the hose.

To ensure safety, hose and fitting inspections should be regularly scheduled, since worn or damaged hoses can put workers and the environment in jeopardy. Periodic inspections, corrective actions and replacement are ultimately less expensive than unscheduled repairs and downtime. In addition, they can prevent unsafe conditions from occurring on the job site. Inspection frequency and requirements vary depending on hose application. In general, conditions to be considered are operating temperatures, operating pressures, the work environment and the hose application.

In addition to scheduled thorough inspections, a hose should be routinely inspected with eyes and hands to determine if it is suitable for continued service. Look for and correct:

- · Damage to a hose cover, such as cuts, cracks, abrasions and exposure of reinforcement
- · Color variations that may come from chemicals, ozone, heat and aging

See "Preventive Maintenance" on page 3...



In addition to scheduled thorough inspections, hoses should be routinely checked for wear and damage.

Look for the following:

- External damage
- Discoloration
- Stiffness
- Kinks
- Exposed or rusted wire



McGill Hose & Coupling Provides 400-foot-long Hose Assemblies with No Splices or Connections

For customers who need extra-long continuous lengths of hose, McGill Hose & Coupling offers Goodyear hose in lengths up to 400 feet. Our long-length capabilities provide several benefits. Fewer fittings mean lower costs, as well as easier handling due to lighter weight and increased flexibility. Furthermore, the number of possible leak points is reduced, improving safety.

The accompanying photo shows McGill personnel coupling 400foot lengths of Goodyear's Fabchem chemical transfer hose. We provided this product for a customer who wanted flexible temporary piping, with no splices or connections, to transfer chemicals safely and easily.

Feetured Capability Crimping

McGill Hose & Coupling is experienced in the design and fabrication of crimped assemblies. In many cases crimping uses lower-cost materials and is an easier, more efficient assembly process.

Crimped assemblies are high quality and repeatable. They look better than clamps and have the following unique features and benefits:

- Provides precisely measured, repeatable assemblies
- Allows for higher working pressures than band clamps
- Improves "dragability"... low profile, no sharp edges, reduces weight
- Ferrules interlock with couplings/fittings, offering the ultimate in hose retention
- Ferrules and sleeves provide a neat, simple, attractive hose assembly system

Glossary of Crimping Terms

Crimp chart: A chart designed to assist in determining the crimp spec, which includes allowance for serration style, fitting, and ferrule/sleeve O.D. and design.

Crimp spec (or specification): The outside diameter of the ferrule/sleeve after assembling and crimping.

Cut-slots: Notches cut into the turned-in end of a ferrule that

allow the interlock portion to crimp straight down into the fitting interlock without opening outward during crimping.

Ferrule: A tube-like product with one end turned in so as to affect an interlock into a groove on a matting fitting or coupling.

Ferrule length: The overall length of the ferrule as measured from the turned-in end to the open end.

Ferrule/Sleeve I.D.: The inside bowl diameter of the ferrule; the inside diameter of the sleeve; the inside diameter of either where the hose is placed.

Gauge: The thickness of the ferrule/sleeve material.

Interlock groove: A groove designed into the fitting/coupling to accept the turn-in end of the ferrule.

Shank length: The hose barb area measured from the end of the fitting to the interlock groove.

Sleeve: The tubelike product with no interlock provisions.

Turn-in: The interlocking end of the ferrule.

Employee Spotlight: Carl Reimers

Carl Reimers has been a member of McGill Hose's sales team for almost 29 years. Before joining us, he studied mechanical engineering and accounting in college and also worked as a machinist, auto mechanic and automotive parts/equipment salesman. Carl says that his primary goal as a salesman for McGill Hose is "to make my customers more



successful by showing them how to increase their productivity and reduce their cost of doing business."

In order to do this, Carl researches what a potential customer produces (either a product or a service) and gains an understanding of the basic processes that the customer uses. He then decides which McGill products can provide both immediate and long-term positive results to this customer. Carl explains, "After 28 years of selling hose and hose fittings, I have found that some customers have accepted poor product performance under the excuse of 'We have always done it that way.' My goals are realized when I can show them a better way."

Carl and his wife, Kathy, have been married for 29 years and have two grown children. His hobbies include hunting and motorcycle riding.

LES Keeps Up with Latest Changes in Petroleum Products

In order to meet the quickly changing demands of the companies that supply the automobile fuel that we use every day, IES offers the latest equipment available for use with gasoline containing the newest additives. The gasoline we currently use contains 10% ethanol, making it somewhat more aggressive than basic gasoline. In response, IES now supplies multi hoses that can handle 100% ethanol, as well as 100% biofuel, for a longer period of time than previously possible. Additionally, we now have multi-composite hoses that withstand biofuel. These flexible and durable composite hoses also stand up to the vigorous ozone and weather issues of New England.

As a side note: IES has introduced sales and repair of home heating oil delivery hose. We can now provide customers in the home delivery business with "while you wait" repair service to keep them up and running.

Preventive Maintenance

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- Stiffness, which is usually the result of aging, environment, heat and chemical exposure
- Kinks that restrict the flow of conveyed liquids and weaken the hose construction
- Blisters on a cover that can break and expose reinforcement or lead to leakage
- Damage to wire or fabric reinforcement, which results in weakened hose construction
- Leakage, which can lead to peripheral damage or problems with attachments or couplings
- Hose with exposed or rusted wire, which should be replaced immediately

Scheduled hose inspections require more thorough evaluations and accurate record retention. Detailed records should be kept for liability purposes, as well as to track any failure rates. Inspections should be scheduled at a minimum of every three months, with more demanding applications requiring much shorter intervals between inspections. Visual inspections should be performed before beginning each job. In addition, hydrostatic tests can be performed on a routine schedule (reference the procedure outlined in RMA publication The Hose Handbook). Fittings should also be surveyed during scheduled hose inspections. A hose should be removed from service if there is any sign of fitting movement from the hose, or if there is damage to the fitting that could prevent it from operating as intended (threads damaged, swivel does not work, excessive corrosion, etc.).

The following are guidelines to follow in order to properly maintain a hose and receive maximum expected service:

- Never exceed the rated working pressure of a hose, except during a valid hydrostatic pressure test, as exceeding rated working pressure can cause the hose to burst prematurely.
- Ambient and fluid temperatures should not exceed supplier recommendations.

(Manufacturers often supply the hose printed with the temperature and pressure limits. If this information cannot be found on the hose, contact the hose manufacturer to verify these critical operating parameters.)

- Never exceed the specified minimum bend radius or pull a hose by its fitting. It could lead to kinking and loosened couplings. Consider using a kink guard near couplings.
- Remember that a high-abrasion environment will be better served by a hose with a high-abrasion hose cover.
- When storing rubber industrial hose, pay attention to temperature, humidity, ozone and sunlight. A room with moderate humidity and a temperature range of 50° to 75°F is recommended for storing most hose.
- If exposed to freezing conditions, a stiff hose should be allowed to thaw and given additional inspections before being used.
- Rotate stored hose stock to avoid exceeding its shelf life.

Ultimately, the storage, preventive maintenance, applications and replacement of hose are dictated by the work environment, end-user, manufacturer, fabricator, operator and many other factors. Giving careful consideration to hose selection, installation, care, maintenance and storage can provide optimum value, safety and performance, as well as a solid return on the investment.

Now Available from IES:

Kuriyama's New Biofuel-Compatible Hose Line

As a distributor of products manufactured by Kuriyama, Industrial Equipment Supply is pleased to offer that company's new line of biofuel-compatible hoses.

The line was developed in response to the growing demand for products compatible with

products compatible with alternative fuels, otherwise known as biofuels. The recently passed Energy Independence and Security

Act calls for a five-fold increase in biofuel usage in motor vehicles by the year 2022, as reported by the Petroleum Equipment Institute.

These new higher-concentration ethanol and biodiesel fuels are known to permeate the liners of traditional nitrile drop hoses, causing them to become stiff and heavy. This

can lead to premature cracking or damage to the hose. Kuriyama's innovative Tigerflex $^{\text{TM}}$ hoses are designed to address this problem. The hoses use specially developed

polyurethane compounds and reinforced construction that resist the added strain caused by new alternative fuel blends such as E-85 and biodiesel.



Included in the Tigerflex line are the Tigerdrop[™] fuel gravity drop hoses



and Tigervapor™ vapor recovery hoses. They provide the user-friendly characteristics of other polyurethane hoses – light weight, flexibility and see-through features – and can also be used with conventional gasoline and diesel fuel blends. Please contact IES to learn more about Kuriyama's Tigerflex hose products.



McGill Hose & Coupling

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McGILL RECEIVES CHAMBER OF COMMERCE AWARD FOR GROWTH

We are proud to have recently received a 2008 Super 60 Award for Growth from the Affiliated Chambers of Commerce of Greater Springfield (Massachusetts). The Super 60 Awards are presented annually to the top local businesses that have made significant contributions to the strength of the regional economy. McGill was one of 30 companies recognized for their exceptional revenue growth from 2006 to 2007.

We at McGill believe that our growth is due to the quality of our materials and the commitment of our staff to providing customers with the best possible products and services. Receiving the Super 60 Award was gratifying, but the loyalty of our customers provides us with a great deal of satisfaction, as well.