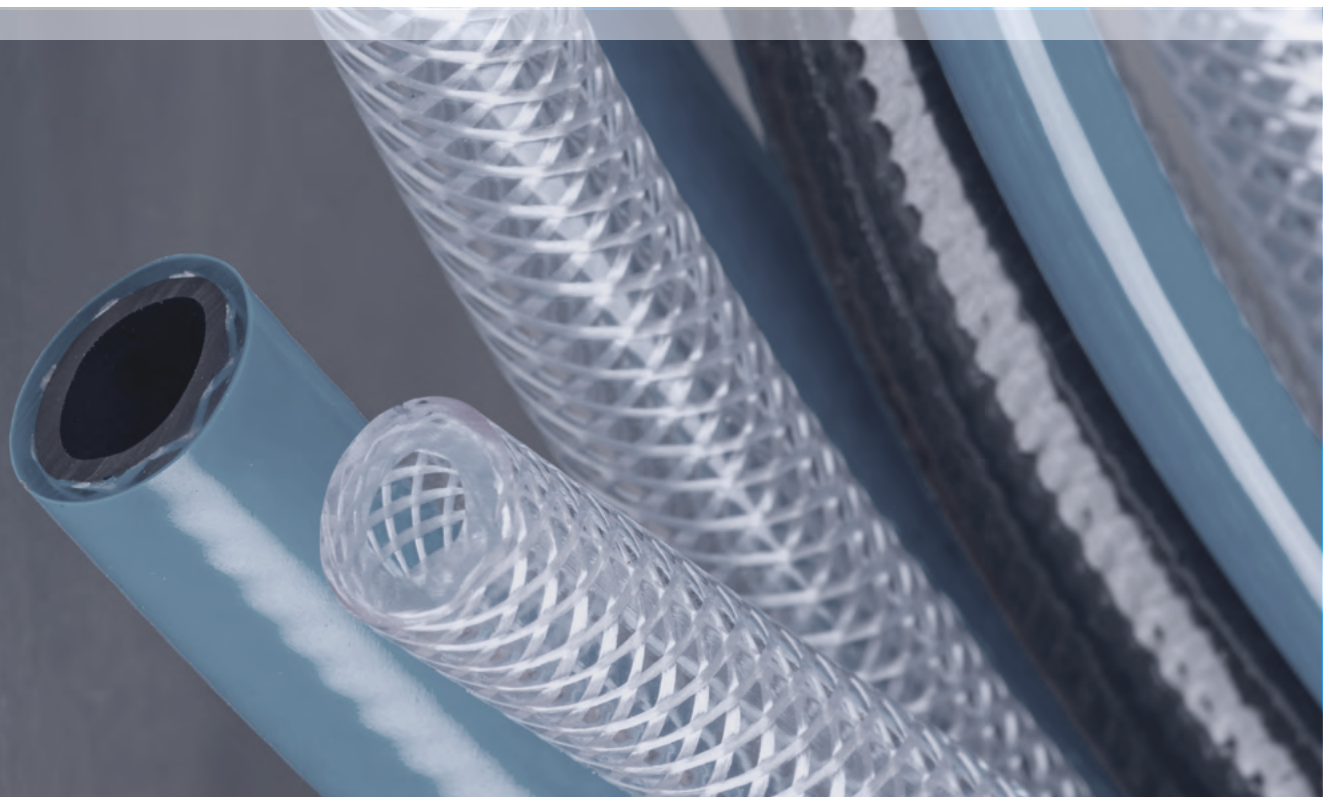


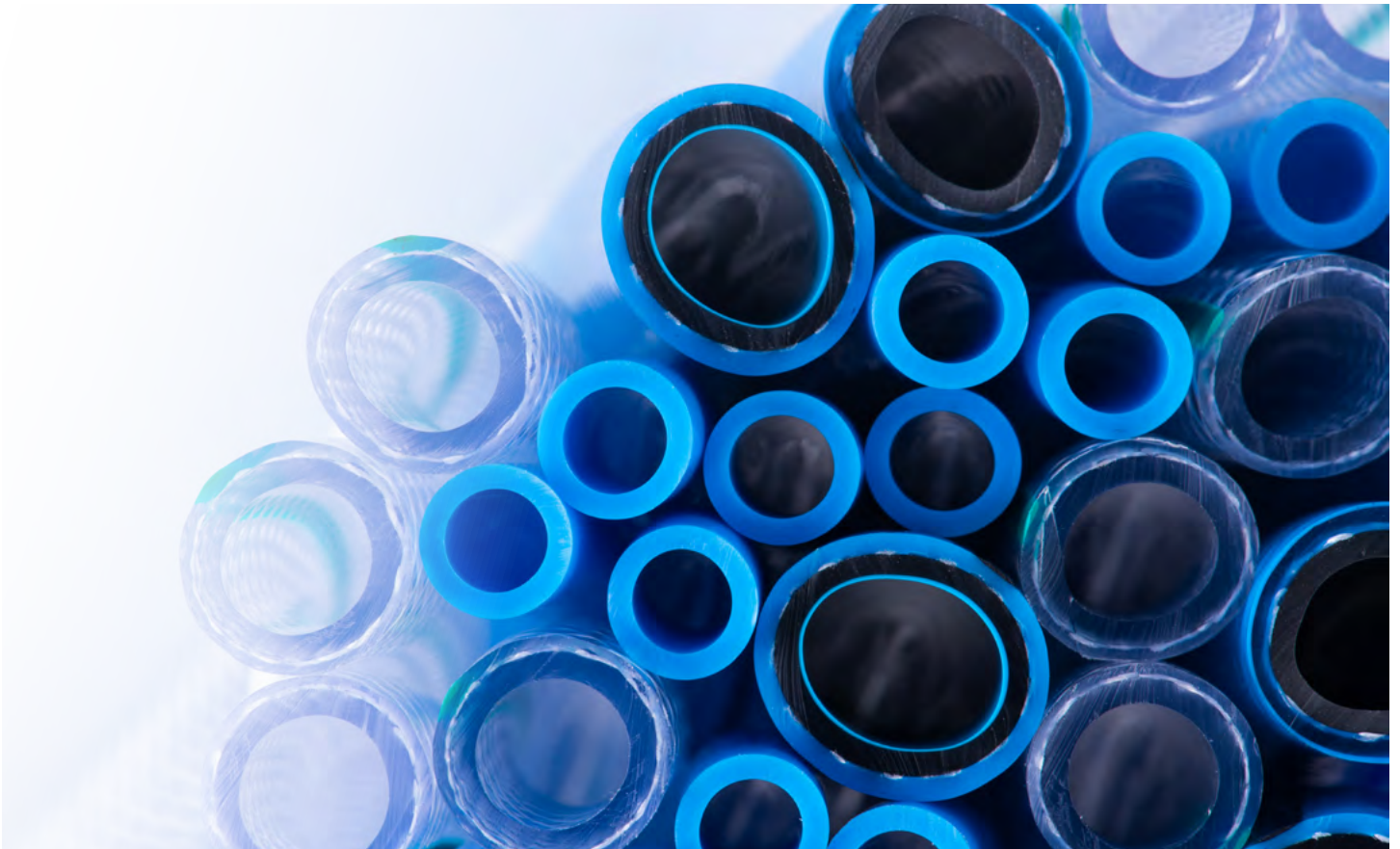
Key Benefits and Applications of Silicone Rubber Hoses



Key Benefits and Applications of Silicone Rubber Hoses

Tubing systems connect critical equipment components in various industrial operations. These tubes can be used for various purposes, including sheathing electrical wires, fluid transfer, and more. Silicone is a popular choice for rubber tubing due to its impressive properties, such as temperature resistance, flexibility, and noise and vibration absorption.

Natural silicone tubing provides excellent insulation properties, but manufacturers can also produce conductive rubber silicone by adding conductive particles to raw silicone. At [Fournier Rubber](#), we use extrusion technology to manufacture extruded silicone tubing with customized profiles and shapes.



Features of Silicone Hoses

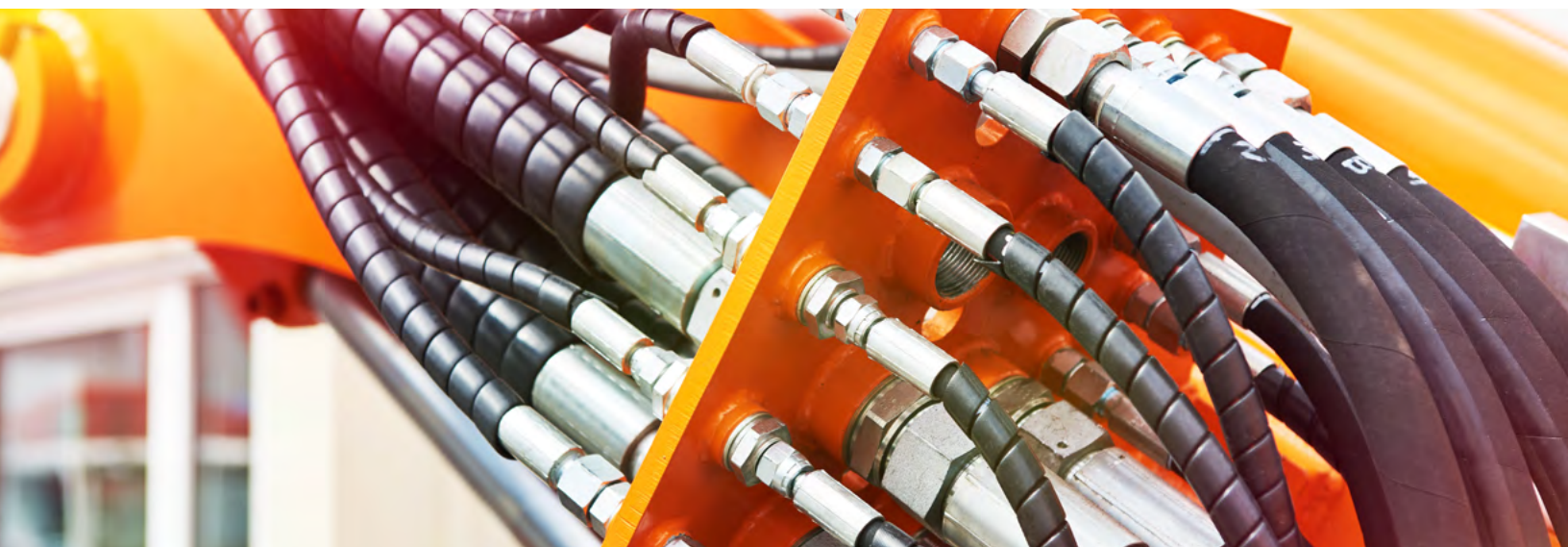
Silicone hoses offer various beneficial properties, including:

Temperature Resistance

Choosing industrial hoses and tubing with excellent temperature resistance is crucial as it prevents issues such as melting and degradation that can lead to leaks, safety hazards, and system failures. Silicone hoses have better temperature resistance than traditional rubber, making them an ideal solution for applications exposed to temperature extremes. They can perform well in temperature ranges between -60° C to 180° C.

Flexibility

Silicone hoses are more flexible than rubber, making them a better choice for most industrial tubing applications. They can bend and twist into tight spaces without kinking or collapsing, allowing for easier installation and routing. Silicone also maintains flexibility over a long time, unlike traditional rubber hoses, which harden and brittle with time.



Noise and Vibration Absorption

Noise and vibration control is important in industrial tubing applications, particularly in fields such as automotive, aerospace, and electronic parts manufacturing. Traditional rubber creates unwanted noise and vibration when mated to another surface. Unlike rubber, silicone has inherent physical properties that allow it to dampen noise and absorb vibration. This makes silicone hoses a better choice than traditional rubber for smoother, quieter performance.

Benefits of Silicone Tubing

Silicone hoses offer a range of benefits that make them an ideal choice for several applications. These benefits include:

Weather Resistance

Silicone offers a higher level of weather resistance compared to rubber. This is an extremely important factor to consider when living or working in climates that are exposed to challenging weather conditions such as humidity and rain. Silicone tubing will hold up for longer periods of time in areas where weather is a concern.

Chemical and Corrosion Resistance

Silicone hoses are more resistant to corrosive chemicals and substances than traditional rubber. They maintain their integrity when exposed to acids, alkalis, and other harsh chemicals, which makes them ideal for industries with high chemical usage, such as chemical processing, pharmaceutical, and food and beverage. Rubber, on the other hand, degrades quickly when exposed to harsh chemicals such as coolant.

Easier to Work With

Silicone hoses are much easier to work with than rubber hoses thanks to their:



Flexibility

They are highly flexible and can easily bend and twist to fit into tight spaces. This allows them to be quickly and easily installed.



Easy to remove

Rubber tubing tends to bond with fittings, making them difficult to remove. Silicone does not have this problem, making it easier to remove.



Smoother surface

Silicone hoses have smoother surfaces, making them easier to clean and sterilize.

Longer Life Expectancy

Silicone tubing has a higher life expectancy compared to traditional rubber because of its inherent resilience to heat. Rubber experiences something known as heat aging when exposed to prolonged periods of heat. When used in high-heat applications, rubber hoses become damaged and stiff, causing them to crack and fail. Silicone hoses, on the other hand, have excellent resistance to heat aging and can stay in proper working order over the long haul.

Common Applications of Silicone Industrial Hoses

Silicone hoses are used throughout various industries for many different applications. These applications include:



Chemical.

Industrial silicone hoses are specifically designed to transport and deliver solvents, chemicals, and acids. These hoses are typically formulated to prevent contamination of the materials flowing through the tube.



Food and beverage.

Silicone hoses are commonly used to transport and deliver food and beverages between the several stages of the manufacturing and packaging process. These hoses must be constructed with FDA-approved materials and often contain a microbe-resistance liner that does not affect product odor or taste.





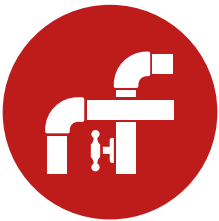
Oil and gas exploration.

Silicone rubber hoses used in oil and gas applications must be able to handle petroleum, crude oil, slurries, and other harsh substances. Within the oil and gas industry, silicone industrial hoses are often used for hot oilers, fracking, and pressure jetting.



Specialty.

When traditional industrial hoses aren't the best option, silicone hoses can be custom-designed for specific applications or tasks.



Water.

Wastewater and other water applications require quality silicone hoses for the suction and discharge of water, alkalis, glycols, slurries, and other mild chemicals. High-pressure hoses are also needed for waterjet cutting, stripping, cleaning, pressure washing, and other high-pressure stream applications.



Gaseous.

Industrial silicone hoses are used to reliably transport and deliver butane, natural gas, propane, and other popular gases.



Material handling.

Silicone hoses are great at handling abrasive materials such as dry cement, grout, plaster, and concrete. These hoses are specially designed to hold up against scuffing, weathering, and abrasion.



Petroleum.

Large industrial hoses transport liquid propane gas (LPG) from dispensers to large commercial vehicles and aircraft. Small silicone hoses can be used within gas pumps, fuel systems, and more. To handle LPG, hoses must meet UL 21 Approved LP-Gas/Natural Gas standards to enhance safety and ensure optimal performance.



Steam.

Silicone rubber steam hoses are designed to withstand moisture and extreme temperatures from superheated steam. These tubes are specifically developed to resist popcorning, heat, hardening, and cracking.

Get High-Quality Industrial Hoses and Assemblies from Fournier Rubber

Silicone rubber hoses and tubing offer a wide range of benefits that make them an ideal choice for numerous applications and industries. At Fournier Rubber, we've been providing quality industrial hoses since 1933. In addition to hoses, we can also supply fittings in bulk as well as complete hose assemblies. To meet your particular needs, we can distribute hydraulic and industrial hoses in several lengths and sizes.

For more information about our products and capabilities, or to get started on your custom silicone rubber tubing solution, [contact us](#) or [request a quote](#) today.

About Us

At Fournier Rubber, we've been providing quality industrial hoses since 1933. In addition to hoses, we can also supply fittings in bulk and complete hose assemblies.



www.fournierrubber.com | info@fournierrubber.com | 1.800.282.3474

Fournier Rubber & Supply Co. - Columbus
4849 Evanswood Dr., Columbus, OH 43229

Fournier Rubber & Supply Co. - Cincinnati
2002 Ford Circle Suite F, Milford, OH 45150