WIRE ROPE FITTINGS GLOSSARY







Lexco Cable aims to delight customers by supplying value added wire rope related products.

Wire Rope Fittings Glossary

Button Stop

Nicknames: stop-sleeve, ferrule, swage button, cylindrical terminal



A button stop is a cylinder with an inside diameter designed to accept one wire rope. Typically, a button stop is crimped at the end of a cable, but may also be crimped at an intermediate point. A button stop can act as a stopping mechanism in an assembly. Aluminum and copper button stops can be crimped with a hand tool; however, carbon steel and stainless steel button stops are designed to be machine-swaged.

Sleeve



An aluminum or copper sleeve comes in an hourglass shape. A stainless steel sleeve comes in an oval shape, with the exception of a stainless steel flemish sleeve. A carbon steel sleeve is typically oval, again except for the flemish version. Both carbon steel and stainless steel flemish sleeves are round with a tapered nose. The #1 use of sleeves is to form loops on wire rope or fiber rope. Both oval and hourglass sleeves can also be used to connect parallel cables in a lapover slice. Aluminum and copper sleeves can be hand-crimped, as can some stainless steel sleeves, but with greater difficulty. All sleeves are designed to be machine-swaged with a round after-swage diameter.

Wire Rope Clip Nicknames: cable clamp,

wire rope clamp



A wire rope clip is comprised of a u-bolt with a saddle and hex nuts. It is most commonly used to form loops. Because you only need a wrench to tighten the nuts, the wire rope clip is ideal for field installations. For diameters 7/16" and below, a minimum of 2 wire rope clips is recommended for a loop. For diameters 1/2" - 5/8", a minimum of 3 wire rope clips is recommended for a loop. For diameters 3/4" - 7/8", a minimum of 4 wire rope clips is recommended for a loop.



Thimble



A teardrop-shaped stamping installed on the inside of a loop. Thimbles protect a loop from fraying or kinking by distributing load at the bearing point.

Single Shank Ball MS20663. Double Shank Ball MS20664



Typically installed at the end of a wire rope assembly, single shank balls may also be installed at an intermediate point. Single shank balls are widely available in stainless steel per MS20664. In some sizes, Lexco also carries single shank balls in zinc-plated steel. Single shank balls are designed to be rotary-swaged with tool and die (not recommended to handcrimp).

Double shank balls are a swaged ball with shanks on both sides of the ball. One instance where double shank balls get chosen is when its being swaged at a point along the middle of an assembly. In those cases, there could be a load from both directions making the double shank a useful feature.

Plain Ball



A plain ball is a spherical version of a button stop. Due to its spherical shape, the plain ball is designed to be rotary-swaged with tool and die (not recommended to hand-crimp). Plain balls are typically stainless steel but some sizes can be made in brass or zinc plated steel and they are weaker than single-shank balls because they have less surface area to attach to the wire rope.

Eye End



The common characteristic of an eye end is the round hole in The eyes head. This hole is the perfect connection point for a screw, bolt, clevis pin, etc. Lexco's most popular eye end is the stamped eyelet (nickname: stake eye). This type of eyelet stamping is very economical when produced in diameters between 1/32" and 3/16". Stamped eyelets are widely used for many types of lanyards, tethers, and related assemblies. Another common eye end is MS20668. Eye ends used in large diameter wire rope assemblies utilize a type called a closed swage socket. These are designed for machine-swaging.

Wire Rope Fittings Glossary

Fork/Jaw End

Nickname: Clevis end



A fork/jaw end is a clevis-shaped wire rope fitting, available in both fixed and toggle types. Ideal for attachment to a flat plate and available in mil-spec per MS20667, a fork/jaw end is simple to connect with a bolt or clevis pin. Designed for machine-swaging.

Threaded Stud



The threaded stud has a blind hole on one side where a wire rope is inserted, and external thread on the other. The name "threaded plug" is typical when the crimp area and cable hole within are both short. Overall, the entire length of a threaded plug is smaller than its counterparts in this product line. "Threaded terminal" is a term that's used when the threaded stud is for an architectural cable railing or marine cable application. "Swage stud" is an alias for a threaded stud.

Spelter Socket



A spelter socket is attached to the end of a wire rope by either resin compound or poured zinc. Spelter sockets come in different styles, such as closed eye and open clevis. Installation of spelter sockets is recommended to be performed in a controlled environment, such as a wire rope rigging shop.

Swageless Fitting



A swageless fitting is installed to the end of wire rope without crimping. This product line contains a number of different varieties. For example, Push-Lock® and Pull-Lock® are available for 1/8" and 3/16" cable railing projects. Electroline® is an industrial-duty type that requires some assembly but has higher breaking strength in comparison to a cable railing type.

Wire Rope Fittings Glossary

Kwik-Grip



Kwik-Grip is typically used for cable suspension applications such as suspended lighting, suspended signs, and suspended displays. It can be field installed and is easy to adjust. This product is typically used with 1/16" - 1/8" cable diameter. It allows the cable to be inserted through the fitting, exiting either out the side or through the opposite end of the Kwik-Grip. Also within this product line are cable coupler products, which have internal thread on one side and a cable exit hole opposite. These are also used for hanging cables, as long as there is a factory-installed ball on the 1/16" diameter wire rope.

Cable Jointer (Kwik-Loc)



The Cable Jointer is used for field installing loops on the end of wire rope in the diameter range of 1/32" - 1/4", most often for hanging signs, lighting, and HVAC. No crimping is required.

Marine Rigging Turnbuckle & Marine **Fitting**



This stainless steel turnbuckle has a closed pipe-shaped body. It's similar to a cable railing turnbuckle except that it's designed for higher load rating. This product line also contains stainless steel non-tensioning fixed fittings, such as marine eyes and swage jaws.

Zinc Die-Cast Fittings



This type of cable fitting is molded. In other words, the zinc is injected into a mold where it meets the end of a cable. The one reason to have a die-cast fitting is the fitting shape, for example you can die-cast a barrel which makes a 'T' shape with the cable but it would be very difficult to create that perpendicular shape in a crimped fitting. Another reason die-cast fitting might be chosen is because of size considerations. For example, in small diameters you can die-cast an eye fitting smaller than you could crimp the eye fitting. Another reason is for cost reasons. In some cases, where the assembly volume is very high, the end fitting can be die-cast more economically than a crimped fitting when you take the material cost into account. One draw-back of die-cast fittings is that the expense of the mold.

Who We Are:

Lexco Cable is an ISO 9001 certified manufacturer of custom wire rope and bungee cord assemblies, specializing in small and medium sized custom orders with quick turnaround times. We can fabricate assemblies with end fittings of any variety, shape, or size — the only limits are your requirements.

At Lexco Cable, being available to our customers is our top priority, and we understand that your needs are multifaceted. We work collaboratively with our customers in order to ensure they receive the utmost success from their projects.

> Wire rope products are utilized in vastly diverse industries and environments. Our job at Lexco Cable is to guide our customers' decisions in selecting the optimal combination of wire rope products for their unique applications.

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