PEER Chain Company
2300 Norman Drive
Waukegan, IL 60085 USA
847.775.4600 • 800.523.4567
Email: info@peerchain.com

FAQ's

1) Does Peer chain meet the ASME Standards for the chain industry?
..All Peer Chain meets or exceeds the ASME standards for our industry. (The ASME – American Society of Mechanical Engineers – has replaced the ANSI -American National Standards Institute as the governing body to establish criteria for acceptance and interchangeability in the American chain industry.) All of our chain is made with the highest standards and materials to ensure quality that our customers find the highest in the chain industry.

2) Is your roller chain supplied with split rollers or solid rollers?
..All Peer carbon steel roller chain is manufactured with high quality, heat treated one-piece solid rollers. This unique cold forged process is one of the features that separates our roller chain product from other manufacturers.

3) What grade stainless steel chains do you offer?
..We offer three grades of stainless steel chain in the roller chain family. 304 Series (18-8), 600 series (PHSS – precipitated heat treated stainless steel and known as 17-7/17-7), and 316 Series are all stainless steel roller chains offered by Peer. Each grade has strong features for use in the marketplace. These chains are available with and without attachments. In the engineering chain family, we can supply chains with 300 series, 400 series and 600 series stainless steel chains. Please contact our engineering or sales department for a specific stainless steel chain for your application.

4) When is 600 series stainless a better choice than 304 series stainless?
..Often wear resistance on stainless steel chains is an important consideration. Our PHSS series chain (600 series stainless) has a 50% higher working load than 304 series chain due to the heat treatment of the round parts in the chain – the pins, bushings and rollers. The harder surfaces provide greater wear resistance for popular use in food equipment, lightweight equipment for fruit and vegetable processing, and industrial equipment. Keep in mind that same elements used to enhance the wear resistance of 600 series stainless steel slightly decrease the chain's resistance to corrosion. Consult with our engineering department for clarification as to specific assistance for your application.

5) Nickel plated chain seems to rust and stainless steel chain seems to wear out too soon. Does Peer Chain offer a chain that resists corrosion but maintains the tensile strength and wear properties of carbon steel chain?

..Yes, we do. Peer ProCoat® chain is a product manufactured for outdoor applications and salt water applications. Our ProCoat® chain resists corrosion dramatically as compared to nickel plated chains and is very cost effective compared to stainless steel chain. Very simple testing can show you it's resistance to corrosion in your application. Special care should be used in food application as Peer ProCoat® chain is not approved for FDA (Food and Drug Administration) applications. Contact our engineering and sales department for assistance.

6) Do connecting links or offset links in a chain reduce its tensile strength? Do they reduce a chain's effective wear life?
..Connecting links typically are supplied with a slip fit condition between the sideplate and the pin. This slip fit condition will effectively reduce the allowable load of the chain up to 15% versus its maximum. If your application is one that is one running near the upper limit of the chain's maximum allowable load, consider using a press fit or semi-press fit style connecting link. The same condition exists with a slip fit, single offset link. Try to avoid using a strand of chain with multiple slip fit connecting links and offset links in it.

7) What is chain stretch?
..Chain stretch is defined as the difference in length of a chain due to the reduction of the outside diameter of the chain pins and the increase in diameter of the chain's bushing. These two dimensions increase the length of the chain under load. This length difference between the chain's original length and its current length is considered stretch. It is important for a user of chain to keep this pin/bushing area of the chain clean and lubricated to enhance the chain's performance. Chain stretch can also be defined as the loss of material on the chain's pins and bushings due to these components rubbing against one another. Special care must be given to reduce or eliminate any outside material such as grit, dirt, contaminant that interferes with this key area of the chain.

8) When is it time to replace a roller chain on an application?
..Eventually as the chain's pin and bushing continue to wear, the chain's fatigue life will be reduced. Generally when a roller chain is stretched 3% it is time to replace the chain. Careful inspection of the chain periodically is required to check for cracked parts or sprocket teeth for improved function of the chain on the application. Chains are to be free of debris and dust to run to their useful life.

9) If my application is using carbon steel chain, can I switch to a stainless steel chain without any loss in tensile strength or wear life?
..Carbon steel components are all heat treated. 304 series stainless steel chains are not heat treated, therefore the wear surfaces of the pins and bushings (known as the bearing area of the chain) are softer than their carbon steel counterparts. This softer surface will reduce in a lower tensile strength but more importantly, there will less wear resistance on a 304 series chain versus its carbon steel counterpart. A simple switch from 50 riveted roller chain to 50 stainless

steel roller chain will not result in equal wear resistance. Consult with our engineering department for assistance in these types of circumstances to assist with the best selection.

10) Should roller chain be used for lifting applications?
..Roller chain is designed for power transmission between two drive centers. It is not meant for lifting. Leaf chain – a series of heat treated pins and sideplates – is designed for lifting and counterweight applications. Typically Peer Leaf Chain is designed to be connected to fixed anchors or clevises. Special care should be used to exclude slip fit connecting links to these applications. Slip fit connecting links in leaf chain reduce the chains tensile strength and ultimately, the performance of the chain. Only BL series leaf chain is covered by the ASME standards. AL series chains were dropped by the standards many years ago due to their limited use in the marketplace.

11) How should leaf chains be maintained?
..Special care should be given to leaf chain to keep it clean and free from corrosion. Proper inspection and maintenance should be given to leaf chain to prolong its life. If any corrosion is present on the chain, the chain should be replaced. For normal applications where temperature is ambient, medium grade oil should be used for relubrication 30 or 40 weight oil). For extreme temperature applications, consult our engineering department.

12) Are Peer chains prestretched?
..Yes, all of our chain products are prestretched. Prestretching is the loading of a new chain, after assembly. This preloading is meant to duplicate a normal load pattern to the chain during operation and it takes out some of the normal clearances that are present in the chain immediately after chain assembly. Typically the preload done to the chain is 25-30% of the chain's minimum tensile strength. Upon request, chains can be supplied with a higher prestretch.

13) Do you offer chains stronger than standard ASME roller chains?
..There are applications where chain is used that require stronger and longer lasting roller chains. Those chains need greater fatigue strengths and must perform at a higher level than standard roller chain. We offer a series of chains, in single strand variety and multiple strand chain, that all meet these criteria. Heavy Series chains with through hardened pins to resist shock loads and Super Series chains – both with ASME series sideplates as well as Heavy series sideplates are offered to the market for more difficult applications. We offer chains that meet the API (American Petroleum Institute) set of standards as well.

14) Does Peer offer a chrome plated pin chain?
..Increasing the hardness of pin surfaces of chain is important to improving a chain's wear life. One technique to increase the surface hardness of a chain's pin is to provide a hard chrome finish on the chain's pin. It is possible to increase the pin hardness TWO times and to provide a

better wear surface and provide a chain that has dramatically improved wear life. Please contact our engineering department for more information and a review of your application.

15) We are using a named brand chain and we want a chain that will stretch less. Do you have a roller chain product that can help us?
..We offer a high quality product that is specifically geared to improving chain stretch. Peer Quest® chain with solid bushings is meant for tough applications that require less stretch than standard roller chain. This series chain has the highest quality one-piece bushings but that's not all. A better bearing area between the pin diameter and the bushing inside diameter give a more accurate, precise contact point to increase the chain's wear resistance. Pitch hole quality, plate surface control for greater fatigue strength, and improved lubrication are some of the additional features of this product. This series chain has a slightly higher tensile strength than our standard chain, but its best feature is the ability to reduce stretch on your application. Quest® technology can be used in many of our roller chain items to provide a better wear resistant chain.

16) We are using chains in pairs on our application. Can you provide chains in pairs that are matched to one another?
..When chains are used in pairs or even in sets of three or more strands, we can provide chains in pairs in two methods. If the chains have attachments on them, we can provide the chains so the attachments line up with one another in the strand length. Please specify this requirement at the time of ordering. A second technique is to provide the overall length of the two (or more) strands to a "matched length" where the chain strands are literally measured. Then the chain strands are supplied accurately to one another with tighter tolerances between the pair or set of chains. Please specify the tolerances necessary at the time of the inquiry/order.

17) I have been having problems with the spring clips coming off on my roller chain. Is there a proper method of installing the spring clips?
..Special care should be given to ensure proper installation of spring clips on your connecting links. It is important that the spring clips are assembled snug in the retaining ring grooves on the connecting links. Secondly, there are two styles of spring clip connecting links - open end and closed end (Q-type) style connecting links. In both cases the opening of the spring clip should ALWAYS face opposite the direction of travel of the chain strand. If problems persist, contact us for further assistance.

18) I have a special attachment on the chain I use. Can you provide special attachments?
..We supply over 20,000 different chain items. They include all types of standard and special attachments. Consult our engineering or sales department for further assistance.

19) We have an application where grit is part of the environment. Do you have a chain for this application?

..It's important that grit is kept out of the critical pin/bushing area. Try to cover the chain to prevent grit from getting on the chain as much as possible. Peer O-Ring chain is a product that can serve these applications. The technology that has gone into the design of the rings traps lubrication in the pin/bushing area and our chain will outperforms other brands.

20) How can we reduce chain stretching in our application?

..There are a number of ways to reduce stretch or elongation in a chain application. Some of the ways are listed below:

-Improve the lubrication itself and the process of applying the lube to the chain ensuring the lube is penetrating the pin/bushing area.

-Choose a chain that has a higher hardness of the chain's bushings and pins.

-Select a chain where tension is reduced in the bearing area (the pin/bushing area). Either reduce the tension on the chain or choose a chain with a larger pin diameter.

-Increase the number of teeth on the sprocket that the chain engaged with.

Should these techniques not yield the results you are looking for, consult with our engineering and sales departments.