

PRECISION ROLLER CHAIN



A roller chain is a series of roller links and pin links alternately arranged, and joined throughout the length of the chain. Each roller link consists of two rollers, slipped into bushings, then press-fitted into (inner) side plates. The pin links are made up of two pins press-fitted into two (outer) side plates. When assembled, the two pins of the pin link slip into the bushings of the adjacent roller links. The bushings pivot on the pins while the rollers turn on the outside of the bushings, allowing smooth, free-moving operation, and access of lubrication to the various parts of the chain.

Roller chain sizes are determined by four primary dimensions: pitch, inside width of the roller link, roller diameter, and plate thickness. Pitch, the distance in inches between centers of adjacent flexing joints, forms the proportional basis for the remaining dimensions. Chain size is designated by the pitch dimension, and chain length is expressed in terms of pitch, or in feet and inches.

The selection of either riveted or cottered construction depends on the size of the roller chain. Riveted construction is available for chain sizes 25-160, and cottered construction for chain sizes 60 and larger. Multiple strands are also available.

Roller chain varies in assembly according to the kind of configuration and the number of pitches required. If chain is furnished "endless," it may be ordered "riveted endless" (a permanent connection) or "assembled endless with a connecting link."

A connecting link, either spring clip or cottered style, is supplied with chain lengths having an even number of pitches. Spring clip connecting links are used for 25-80 size chain, while cottered connecting links are recommended for 100 size chain and larger. The slip-fit assembly of the cover plate on the pins of the connecting link is appropriate for most applications involving low to moderate chain speeds and loads.

For roller chain measuring an odd number of pitches, an offset link is required. One-pitch offset links have a slip-fit pin milled flat on one end to prevent it from turning in the side plate. One-pitch offset links are available for all chain sizes, except number 25, which requires a two-pitch offset link. Two-pitch offset links consist of an offset link and a roller link. The pin is press-fitted in the offset side plate and riveted. This type of assembly increases the strength and rigidity of the two-pitch offset, making it especially suitable for heavy-duty service. Two-pitch offsets are available for all chain sizes.



Allied-Locke Industries Inc.

. . . the company that delivers

Toll Free:

Phone: 800-435-7752

Fax: 800-462-3130

Local:

Phone: 815-288-1471

Fax: 815-288-7945

www.alliedlocke.com



Pin link



Roller link



Roller Bushing
press-fitted
in the inner
link plate



Pin press-fitted
in the outer link
plate



Connector link



Offset link

PRECISION ROLLER CHAIN

Roller chain drives are one of several means of mechanical power transmission. Although none of these methods is suitable for all conditions and applications, the functional and constructional qualities of roller chain, as well as its cost effectiveness, make it an advantageous choice. Some of the positive characteristics of roller chain drives can be summarized as follows:

1 Power Transmission Efficiency

Since there is no slippage of the roller chain on the sprocket teeth, positive drive speed is maintained throughout the life of the chain. Roller chain drives perform at approximately 98% efficiency.

2 Service Durability

The even distribution of load-bearing roller chain over the sprocket teeth and the low surface friction and flexing joint pressure between lubricated chain and sprocket parts give roller chain substantial load-handling capacity and a long, reliable service life. Protected by oil, roller chain is minimally affected by adverse environmental conditions, such as high temperature, dust, and dirt. Roller chain manufactured with specialty materials or coatings resists moisture and corrosion.

3 Application Versatility

The efficiency and durability of roller chain suit it for a wide range of purposes, speeds, and load sizes. Roller chain drives are easily assembled, conserve space, and can be readily adapted to design changes.

4 Economical Choice

Taking into consideration the strength, reliability, and versatility of roller chain, the purchase price and maintenance costs are economical. Certain kinds of roller chain drives can be repaired or replaced as needed without disturbing the other components in the drive assembly. If stored in a reasonably protected environment, roller chain does not deteriorate with age.

HOW TO ORDER



Roller Chain with Connecting Link

When the number of pitches is even, a connecting link is included.



Example: 40 Riv. x 8 links including 1 connecting link.

Roller Chain with Offset Link

When the number of pitches is odd, an offset link is necessary.



Example: 50 Riv. x 9 links including an offset link and a connecting link.

Roller Chain with Roller Links on Each End

When connecting links are not required, indicate roller link on end.



Example: 80 Riv. x 9 links with a roller link on each end.

Roller Chain Endless

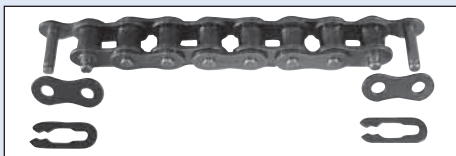
Specify number of links and “endless.”



Example: 60 Riv. x 20 links riveted endless.

Roller Chain with Connecting Links on Each End

For chain which is not used as endless, indicate the number of connecting links needed.



Example: 60 Riv. x 9 links including 2 connecting links.

To order roller chain, the following information is needed: quantity, size, type—cottered or riveted, and chain length. The style and spacing of attachments must be specified when ordering attachment chain.

Allied-Locke Industries Inc.
... chain - sprockets - buckets

Toll Free:

Phone: 800-435-7752

Fax: 800-462-3130

Local:

Phone: 815-288-1471

Fax: 815-288-7945

www.alliedlocke.com