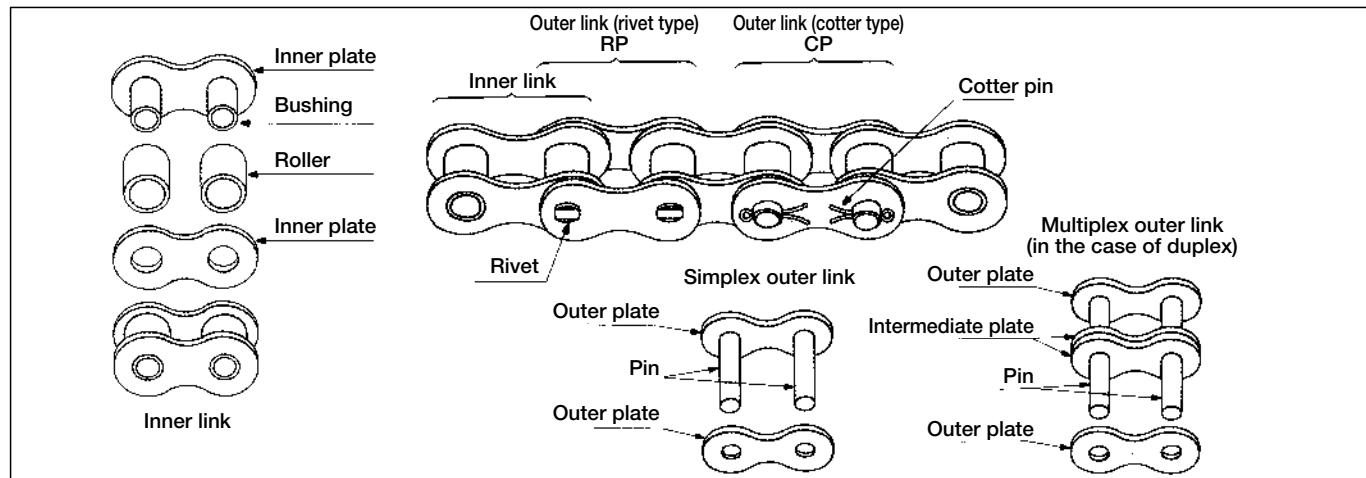


Construction and Components of Chain

A roller chain has a structure as illustrated below, and the names of the components are stated in the drawing. These components act as described below, and are designed to suit the respective actions.

Components	Pin	Pins support all the load acting on the chain, together with inner and outer plates, and when the chain is engaged with a sprocket, the pins slide as bearings. They are required to be high in shearing strength and bending strength, and especially wear resistance.
	Bushing	Bushings act to prevent the shock received through rollers when the chain is engaged with a sprocket from being directly transmitted to pins, and also act as bearings, along with the pins. So, they are required to be high in shock fatigue strength and wear resistance.
	Roller	Rollers act to smoothly bend the chain when the chain is engaged with a sprocket, to protect the chain from shock with the sprocket. They are required to be high in shock fatigue strength, collapse strength and wear resistance.
	Plate	Plates are subject to repeated tension of the chain, and sometimes a large shock. So, they are required to be high in tensile strength, and also in shock resistance and fatigue strength.



Connecting links

The following four types of connecting links are available (R, F, C and H).

Clip type connecting link	 <ul style="list-style-type: none"> Outer plate Connecting pin Connecting plate Clip <p>Clip type connecting link in which the connecting pins are clearance-fitted with the connecting plate is called an R connecting link (RJ), and that, interference-fitted, is called an F connecting link (FJ).</p>
Cotter pin type connecting link	 <ul style="list-style-type: none"> Outer plate Connecting pin Connecting plate Cotter pin <p>A cotter type connecting link in which the connecting pins are clearance-fitted with the connecting plate is called a C connecting link (CJ), and that, interference-fitted, is called an H connecting link (HJ).</p>
Spring pin type connecting link	 <ul style="list-style-type: none"> Outer plate Spring pin type connecting pin Connecting plate Spring pin <p>In a standard spring pin type connecting link, the connecting pins are interference-fitted with the connecting plates (H connecting link). HI-PWR-S, HK and HI-PWR-SHK series adopt this type.</p>

Offset link

An offset link is used for increasing or decreasing the length of a chain by one pitch, and the following two types are generally available.

 <ul style="list-style-type: none"> Offset plate Offset pin Cotter pin <p>One-pitch offset link (OJ)</p>
 <ul style="list-style-type: none"> Offset plate <p>Two-pitch offset link (2POJ)</p>

Since the "connecting link" and "offset link" are lower than the base chain in strength, consult us when using them for any service condition in excess of the Max. kilowatt ratings.

* Clearance fit

In this fit, a clearance is always formed between the pin and the hole when they are assembled. This method is used in standard connecting links.

* Interference fit

In this fit, an interference always occurs when the pin and the hole are assembled. This method is adopted in base chains and H connecting links. However, in H connecting links, the interference is smaller than that of the chain body.