

ENERGY SAVING DOUBLE PLUS CHAIN CONVEYS OBJECTS AT 2.5 TIMES CHAIN SPEED

Tsubaki's Double Plus conveyor chain, part of its innovative Free Flow series, is capable of conveying object 2.5 times faster than the actual chain speed. The result is improved operating life and reduced energy use – as motor speeds need only run at 60% of previous speeds – which combine to offer the user increased cost savings throughout the life of the product. Chain noise is also reduced by as much as 15dB compared to outboard plastic roller chains.

Double Plus conveyor chain features a unique design that utilises two rollers of different diameter. A large centre roller, which conveys the pallets, sits on a smaller outer roller which supports the chain on a guide rail. The friction between the large and small roller causes them to rotate in unison; however, since the diameter of the large rollers is approximately 2.5 times that of the smaller ones, conveyed objects move along approximately 2.5 times faster than the chain.

In response to the improved conveying speeds offered by the large roller, the actual chain speed can be up to 60% slower without affecting production. As a consequence smaller motors can be driven at lower speeds, which leads to substantial power savings and reduced noise levels of some 15dB over plastic side roller chain. Start-up is also improved as the large diameter roller ensures rapid acceleration. This is in line with Tsubaki's very high internal 'Eco/Eco' standards; offering the user improved economy through improved ecological operation.

The Free Flow conveyor chain series by Tsubaki, which Double Plus chain is a part of, allows the base chain to continue running while the conveyed product can remain stationary at designated points in the production line. When a small braking force is applied to the conveyed product slip occurs between the two rollers. This simplifies the production set-up and allows a single length of chain to run through several processes.

Double Plus is available in five pitch sizes - 75mm / 100mm / 125mm / 150mm / 200mm – and in a number of material options. Carbon steel is recommended for normal applications, with Hard Chrome Plated steel for clean room applications and the option of stainless steel for corrosive environments. There is also a choice of roller materials, including two kinds of electrically-conductive types (which release static energy and prevent the build-up of dust) and a lube-free design.

Tsubaki offers integrated snap covers for conveyor applications where small parts, such as nuts and bolts, can fall into the gaps between the guides and rollers. Using snap covers and new guide rails, the gaps between the rollers and/or rollers and guides are minimised. As a result, parts cannot fall into the conveyor and prevent its operation while safety is enhanced as it prevents fingers from being caught in the chain.

The Double Plus Free Flow series is suitable for a wide range of industries where product accumulation is necessary within the production process. Typical applications include smaller electronic components, TV's/ PC monitors and the automotive industry.

About Tsubaki

Established in 1917, Tsubakimoto Chain Company is the world's premier manufacturer of power transmission products with strong market positions in premium quality ANSI & BS roller conveyor & engineering chains and associated power transmission components such as cam clutches, reducers & linear actuators. With a turnover exceeding \$1.4 Billion US Dollars & 5,000 employees, the Tsubaki group includes 28 production locations and 22 group companies worldwide. Our production and sales networks are now more developed than ever.

Tsubakimoto Europe B.V. serves Power Transmission customers in the Pan-European market, Africa and the Middle East from European headquarters located in Dordrecht, the Netherlands, along with two locally based subsidiaries. One in Nottingham, serving the markets of the UK, Ireland & Iceland with the other serving the German market.

