

Wear protection technology improves bottle conveying

Effective conveying equipment is crucial to maximising production, particularly the conveyor chain, which is subject to wear. William Hall* explains how the latest protection technology has produced a new-generation silent chain.

Ramsey Products Corporation has recently introduced the newest addition to the company's line of wear protected conveying chains, Lifeguard. This chain incorporates the latest in wear protection technology (patent pending), coupled with the head protection found in other Ramsey chains. These exclusive features enhance smooth product transfer and protect the conveyor chain from lateral pin head wear.

How it works

Typical silent conveying chains have a number of features, which can produce problems in some production environments. For one, conveying chains usually contain pins that are headed on the ends and are exposed along the sides of the chain. During operation, these exposed pin heads may contact lateral guides or transfer plates, which can result in the gradual wearing away of pin heads.

In other cases, the exposed pin heads may snag or hang up on protruding edges along the conveyor's path. This snagging can lead to product flow disruption, as well as the chipping or shearing of the pin head. In each of these instances, the wearing away of the pin head will lead to chain failure.

The other feature of typical conveying chains that can produce problems is the presence of gaps between the adjacent side plates of the chain. These gaps can produce vibration and mishandling as articles are moved on to the chain. This is especially troublesome with small bottles and high-speed lines.

Lifeguard is designed to eliminate

these common problems by protecting the pin heads from wear and virtually eliminating the gaps between adjacent side plates. These advantages can be attributed to its unique, interlocking side links. These links, patent pending, nest close together, thus greatly reducing the size of gaps between links at the sides of the chain.

Each link also contains special, tapered, counter-bores that fully contain the ends of the chain pins. With the pin heads fully enclosed, they are protected from the chipping and abrasive wear that can shorten the life of a conveyor chain, thus Lifeguard can produce significant improvements in chain life and therefore productivity.

Chain guiding is simplified

An additional advantage of the product is that it eliminates the need for specially machined chain guides. Historically, it has been common practice for conveyor builders to use specially grooved or profiled guide strips, to protect against the wear of chain pin heads.

Because Lifeguard pin heads are recessed, it is not necessary to specially machine guide strips. Instead, more economical, solid guide strips can be used.

Many sizes available

Lifeguard chains are available to accommodate a wide range of conveying systems. They are available in widths ranging from less than one inch to more than 20 inches. Chains can be assembled with all links to maximise surface area, or they can be produced from links and



▲ Ramsey Lifeguard is the only silent conveying chain with a gap-free side profile and recessed pin heads.

spacers to reduce overall weight and enhance cooling. Links can also be double-stacked within the chain to achieve better air flow and bottle cooling.

Compatible with sprockets

Lifeguard's special side links also serve to guide chains onto sprockets and maintain chain tracking. When ordering a chain it is important to purchase compatible sprockets. If you plan to use existing Ramsey side guide sprockets, you should verify that the sprocket width is suitable for the chain width that you are buying. Ramsey representatives can help you make this determination.

Centre guide sprockets can also be used with Lifeguard, as long as the sprocket width is less than the chain's between guide dimension.

For more information on Lifeguard and its potential benefits, please contact Ramsey. Its staff will be happy to answer any questions and provide a risk-free product quotation. ■

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