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Formsprag Clutch

Wichita Clutch

Marland Clutch

Industrial Clutch

Nuttall Gear

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Stieber Clutch

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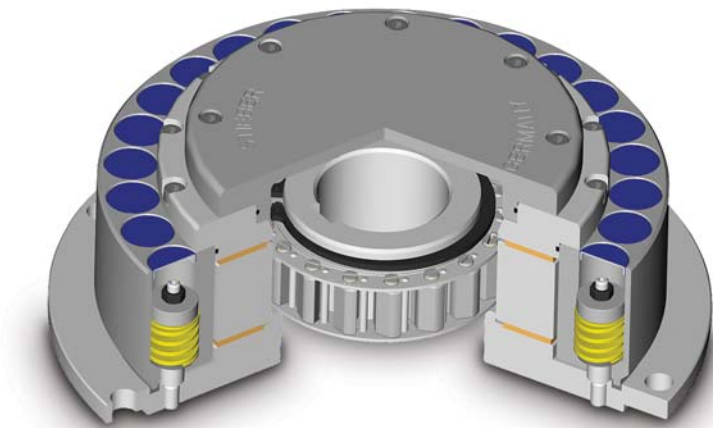
Twiflex Limited

Kilian Manufacturing

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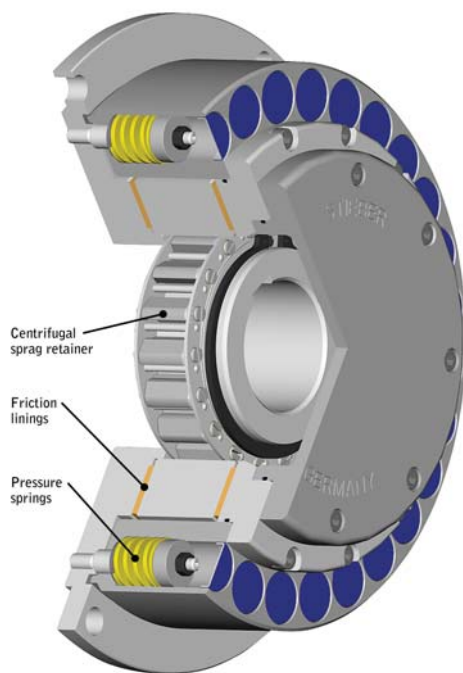


 **Stieber®**
Clutch

An Altra Industrial Motion Company

High-Speed Backstops Improved for Safety and Power Savings

by **John Chadwich**
Editorial Director, International Mining



High-speed backstops are mounted on the high/medium speed shaft of gear drives on inclined conveyors or rotary machines such as crushers or kilns. When the drive is running, the input/output components of the backstop work contact-free and therefore contribute to a reduction in power loss.

For over thirty years, Stieber Clutch has been providing high-speed backstops for applications in the mining industry. A load-sharing function and an optional release-underload function are two more recent Stieber backstop design developments.

The **load-sharing function** is normally used on large conveyors with multiple drives. This feature allows for the selection of smaller sizes, when using standard rigid backstops, and thus contributes to savings in both cost and power. It also allows the backstop(s) selection to be based on the actual load and not on the E-motor stall torque, in order for the backstop to cover belt jams or conveyor overloads. The **release function** can be used on any conveyor when stresses in the belt need to be released after a belt jam or overload. This function has a very important safety aspect, as it allows personnel to safely work on the belt after such an incident.

Backstops are often selected for the worst-case scenario that may occur once a year, if ever. However, when that situation does occur the backstop must be ready to perform to the design spec. For this reason, the friction linings of Stieber load-sharing backstops are oil impregnated throughout. The contacts between linings and pressure plates are not affected by contact corrosion or oil contamination. The slipping torque remains constant throughout the years regardless of extended stand times.

Stieber backstops allow the tension of a jammed belt to be released rapidly, in a simple, step-by-step process. The release function of the backstop is performed through an internal hydraulic system. It can be locally actuated, with a simple hand pump through a quick connection or, a remote or centralized operation can be accommodated. The operation can be perfectly controlled and stopped at any time, providing enhanced safety and productivity.

Stieber RS Series backstops are designed for high reliability and durability. A variety of standard models are available. Units can also be customized to meet specific application performance requirements.



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