Cement And Building Materials Industry / Power Transmission / Design Engineering / Mechanical and Plant Engineering

From raw material extraction to ready-to-use bulk material

RINGSPANN offers drive components for all work areas in cement production

Until limestone, clay, sand and iron ore become ready-to-use cement, the raw material mined in quarries undergoes a multi-stage processing and refining process. The drive systems of the machines used here must be tough and extremely resistant to mechanical abrasion. For decades, leading plant manufacturers in the industry have therefore relied on drive technology components from RINGSPANN. The German manufacturer currently supplies high-quality and heavy-duty machine elements for almost all technical work areas in the cement industry.

Bad Homburg, May 2026. – As a basic material, cement has become an indispensable part of the construction industry. Since ancient times, the material has been one of the structural binders and forms the basis for the production of mortar and concrete. With over 4.0 billion tons processed worldwide, cement is currently the most widely used building material. Extraction and production take place in all parts of the world in special cement plants, which are usually located in the immediate vicinity of ports, piers, quarries and open-cast mines. Here, quarried and mined raw materials are transformed into ready-to-use, primarily powdery bulk material via several process stages. All machines and systems involved are extremely robust and must have maximum resistance to mechanical abrasion. This is particularly true for their drive units, as their failure usually results in high repair costs and supply bottlenecks. All over the world, machine and plant manufacturers in the cement industry therefore rely on the drive components from the one-stop shop of the German company RINGSPANN. "Designers and engineers in the industry find in us not only a dependable supplier of high-quality machine elements, but also a competent engineering partner for the implementation of application-specific modified solutions," emphasises Daniel Riedel, international sales manager at RINGSPANN.

Drive elements for all process stages

Depending on the process stage of cement production and processing, different components from the RINGSPANN portfolio are at the heart of the drive technology process. They are used in crushers and shredders as well as in mixing beds, raw mills, cyclone preheaters, ventilation systems, rotary kilns, mills and bucket elevators. Sometimes it is fast or slow backstops that prevent the unintentional backward rotation of conveyor belts or bucket elevators, in other places pin couplings ensure the torsionally elastic connection of machine shafts, and friction torque limiters protect from overloading

when torque is applied. Drum and disc brakes from the RINGSPANN range brake and hold conveyor belts and at the same time serve as emergency protection, shrink discs connect hollow transmission shafts to the shafts of belt drums, and toothed couplings and drive shafts are used where torsionally rigid connections between machine shafts are required. In thermally demanding environments, overtaking freewheels, housing freewheels and cone clamping elements from RINGSPANN ensure multi-motor operation and when axial offsets between different drive units have to be compensated, the company's multi-plate clutches perform reliably. And as Daniel Riedel explains, "It is sometimes also component combinations that help to reduce the effort involved in assembling or repairing the systems as ready-to-install smart solutions – for example, pin couplings with integrated brake drums or complete solutions consisting of brake disc and clutch."

All product groups at a glance

In order to give designers and buyers in the cement industry a concrete impression of the technical range of the current range of products offered by its one-stop shop, RINGSPANN has published a new, 15-page brochure. It can now be obtained as a free pdf download. On clearly designed display boards, all the products and solutions offered are very clearly related to specific applications in the production, processing and refinement of cement. *ms*

518 words with 4.432 characters (with spaces) *Author: Michael Stöcker, freelance specialist journalist, Darmstadt*

Note for editorial staff: **Text and images available at www.pr-box.de/en!**

Captions (6 pictures)

Figure 1: Plant manufacturers in the cement industry have been relying on drive technology components from RINGSPANN for decades. The German manufacturer currently supplies high-quality and heavy-duty machine elements for almost all work areas relevant here. *(Bild: RINGSPANN/ leungchopan@Adobe Stock)*

Figure 2: Daniel Riedel: "Designers and engineers of the cement industry find in us not only a dependable supplier of quality components, but also a competent engineering partner for the implementation of application-specific modified solutions." *(Image: RINGSPANN)*

Figure 3: Backstops from RINGSPANN prevent unintentional reverse rotation of conveyor belts or bucket elevators in bulk solids plants in the cement industry. *(Image: RINGSPANN)*

Figure 4: RINGSPANN friction torque limiters protect the drive trains of cement industry plants from overloading – with applied torque. *(Image: RINGSPANN)*

Figure 5: Drum and disc brakes from the RINGSPANN range brake and hold conveyor belts and also serve as emergency protection. *(Image: RINGSPANN)*

Figure 6: RINGSPANN drives for rotary kilns are designed for safety, reliability, and precise control. The components ensure both main and auxiliary drive to handle high eccentric loads and enable controlled operation. *(Image: RINGSPANN)*

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