

Power transmission / design engineering / machine elements / supplier / connection technology / machine construction

Complete packages for industrial drivetrains

RINGSPANN supplies ready-to-install smart solutions consisting of brakes and couplings

With numerous product innovations, RINGSPANN is fuelling the expansion of its international presence as a one-stop supplier for system components in industrial drive technology. The realisation of ready-to-install and multifunctional smart solutions is becoming increasingly important. A current example of this are complete solutions consisting of shaft couplings and brake discs, which the company can design specifically for customers and projects on the basis of its large product range. They are available for drive torques ranging from 180 Nm to 112,000 Nm and are deliverable at short notice.

Bad Homburg, December 2021. – How can the work of designers in industrial drive technology be simplified and the assembly costs of machine and plant manufacturers significantly reduced? By providing them with package solutions consisting of several system components that they can integrate directly into their drivetrains completely and with reduced assembly costs. RINGSPANN is increasing its commitment to pooling the expertise of its product divisions and developing more and more smart solutions that combine various drive technology functions. After the company recently made a name for itself with the combination of shaft couplings and overload clutches (see info box) as well as slip hubs and belt pulleys, it is now presenting complete packages consisting of shaft couplings and brake discs. "In terms of design, this new smart solution is a really clever solution because it no longer requires an additional shaft extension for the brake disc," explains RINGSPANN product manager Martin Schneweis. This new combined solution is available at short notice for drive torques ranging from 180 Nm to 112,000 Nm, while there is a great deal of scope for customer and project-specific designs and configurations thanks to the broad selection of shaft couplings and brake systems in the RINGSPANN portfolio.

A variety of combination solutions can be realised

On the coupling side, the company's development engineers primarily use elastic pin and bush couplings from the REB...DCS series and jaw couplings from the REK...DCS series to realise the new smart solutions. Typical areas of application for this include materials handling technology, ventilator construction, general machine and engine construction and also the heavy-duty technology sector. In the case of brake discs, on the other hand, there is the option - depending on the specific application and the expected load - of choosing between variants made of steel or spheroidal cast iron.

While the coupling then compensates for the misalignment between the shafts of the drivetrain and dampens shocks and vibrations caused by operation, the brake disc forms the rotating element of the disc brake used for the specific case or unit. Depending on the customer's wishes and requirements, RINGSPANN's engineers can choose from a wide range of hydraulic and electromagnetic disc brakes. The primary question to be clarified is always the task the brake is primarily designed to fulfil: An (emergency) stop function, which brings a rotating shaft to a standstill within a matter of seconds; a control function, which enables the controlled adherence to or deceleration of defined forces; or a holding function, which prevents the unintentional start-up of rotating components. "By selecting the optimum brake type, the best material for the brake pads and the suitable brake disc, we can configure the ideal solution for our customer with the components of our standard range alone - also with a view to putting together the smart solution of a shaft coupling and a brake," stresses RINGSPANN's product manager Martin Schneweis.

Lots of potential for reducing costs

Due to the international expansion of the last few years and the resulting expansion of almost all product groups, RINGSPANN's technicians now have a wide-ranging portfolio of drive technology components at their disposal to develop innovative smart solutions. Beyond the aforementioned combinations of shaft coupling/overload protection, torque limiter/pulley and shaft coupling/disc brake, this offers the company and its customers great potential to realise further package solutions, which promise to significantly reduce the time and costs involved in both engineering and assembly. *ms*

671 words with 4,442 characters (with spaces)

Mirco von Stein, freelance specialist journalist, Darmstadt

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

Captions (7 pictures)

Figure 1: Ready-to-install: Smart solution REB-DCS made by RINGSPANN consisting of a shaft coupling and a brake disc. During operation, the coupling compensates for misalignment between the shafts of the drivetrain and dampens vibrations caused by operation.

Figure 2_en: The Smart Solution REB...DCS from RINGSPANN is supplied as a complete unit consisting of a pin and bush coupling and a brake disc.

Figure 3: Simplifies design and installation: Smart solution REB-DCS consisting of a jaw coupling and a brake disc from RINGSPANN. The brake disc forms the rotating element of the disc brake employed for the specific application case.

Figure 4_en: The Smart Solution REK...DCS from RINGSPANN is available as a ready-to-install unit consisting of a pin coupling and brake disc.

Figure 5: RINGSPANN product manager Martin Schneweis: "In terms of design, our smart solution consisting of a shaft coupling and brake disc is quite a clever solution because it no longer requires an additional shaft extension for the brake disc."

Figure 6: The elastic jaw couplings of the series REK... which can also be ordered through the RINGSPANN online shop, do not require lubrication and are supplied with a declaration of conformity in accordance with ATEX 2014/34/EU if necessary.

Figure 7: RINGSPANN's electromagnetic disc brakes are integral parts of many drive systems in mechanical and plant engineering. They are also available with UL and CSA test seals.

(All images: RINGSPANN)

((Infobox))

Shaft connection including overload protection

Another example of a successful smart solution from RINGSPANN is the package solution of an elastic shaft coupling and a high temperature-resistant overload clutch. Typical for this is the combination of the REB 0198 DCO pin and bush coupling with the RIMOSTAT® slip hub RSHD 250E special. This smart solution is deployed in the drivetrains of screen drums for bulk material processing. RINGSPANN's pin and bush couplings operate without lubrication, are suitable for vertical and horizontal installation and are also available as ATEX versions. The company's RIMOSTAT® torque limiters are considered a classic among overload clutches and are in use all over the world. They are designed for slip torques of up to 60,000 Nm and feature highly wear-resistant sinter friction linings. These torque limiters achieve the longest service lives, are fully corrosion-resistant and can be equipped with electronic speed monitoring.

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Provider:

RINGSPANN GmbH
Pia Katzenmeier
Schaberweg 30 - 34
D-61348 Bad Homburg
Tel.: 0049 (0) 61 72/ 275 118
Fax: 0049 (0) 61 72/ 275 61 18
Email: info@ringspann.de / pia.katzenmeier@ringspann.de
Internet: www.ringspann.de/ www.ringspann.com

Press agency:

Graf & Creative PR
Robert-Bosch-Str. 7
D-64293 Darmstadt
Tel.: 0049 (0) 61 51 / 42 87 91-0
Fax: 0049 (0) 61 51 / 42 87 91-9
Email: info@guc.biz
Website: www.pr-box.de