

Power transmission / design engineering / machine elements / connection technology / machine and plant construction

Responding to the demands of the market

RINGSPANN is expanding its offer of three-part shrink discs for high torques

In the area of shaft-hub-connections connected via friction lining, shrink discs rank among the most important drive elements for mechanical engineers and plant manufacturers. As one of the leading manufacturers of these components worldwide, RINGSPANN is therefore responding to the current demands of design engineers and developers with regular expansions of its range. Just a few days ago, additional three-part shrink discs were introduced to the successful standard series RLK 603 S. Those who stand to profit are, for example, manufacturers of drive systems for conveyor systems, stirrers, mixing plants, construction machinery and wind turbines.

Bad Homburg, December 2019. – Almost two years ago now, RINGSPANN integrated a number of new shaft-hub-connections into its overall range and upgraded many series in performance on the basis of a new, improved method for frictional locking calculation. Since then, the range of shrink discs, cone clamping elements and star discs has been subject to constant further optimisation, supplementation and refinement. A few days ago, the next gap in RINGSPANN's range of shaft-hub-connections connected via frictional lining was closed with the expansion of the globally successful shrink disc series RLK 603 S. "To be able to more comprehensively meet the increasing demands of our customers for compact and cost-efficient three-part shrink discs with high power densities, we have expanded our RLK 603 S series with additional versions in new sizes and intermediate sizes. The complete series now spans shaft diameters ranging from 14 to 190 mm, which means the current demands of the market are almost fully covered", explains Marvin Raquet, product manager for RINGSPANN's shaft-hub-connections. Like all shrink discs in the RLK 603 S series, the new designs are also already available with descriptions, data sheets and CAD models in the company's online shop for selection and are quickly available from stock.

Extremely high torque capacity

The RLK 603 S series shrink discs are powerful externally clamping connections for the play-free connection of hollow shafts or hubs on shafts. Among the significant advantages of these frictional connections are their very high torque capacity across a range from 18 Nm to 156,700 Nm, as well as their compatibility with key industry and supplier standards in drive technology. Installation and setup are carried out very easily via the clamping screws of the shrink discs. Design engineers and developers of drive units for use in bulk goods conveyor systems, stirrers, mixing plants and

crushers, plants for energy generation, and construction, forestry and agricultural machinery particularly stand to profit from the expansion of the RLK 603 S series. RINGSPANN's engineering department also implements customer-specific and project-specific versions beyond the standard RLK 603 S series shrink discs at short notice for many OEMs in these sectors.

Ideally positioned worldwide

Across all 30 series, RINGSPANN currently offers shaft-hub-connections connected via friction lining for torques ranging from 0.16 Nm to 4,225,000 Nm. At the same time, the current catalogue range spans all technically relevant designs of shaft-hub-connections. In addition to the externally clamping shrink discs, you can also find internally clamping cone clamping elements, internally clamping star discs and individual star spring washers for ball bearing compensation, as well as clamping systems for fixing torque motors onto machine shafts connected via friction lining. The highlights include – besides the cost-efficient three-part shrink discs in the RLK 603 S series – the double-slotted premium elements RLK TC (true centring), which convince with very high centring accuracies. Measured by its technical bandwidth, the current RINGSPANN range of shaft-hub-connections ranks amongst the best offers worldwide. "It exemplifies the development of the company into an international one-stop supplier for industrial drive elements", emphasises product manager Marvin Raquet.

By the way: On RINGSPANN's website, design engineers and developers can also find the new online calculation tool for the shaft-hub-connections, which is based on the improved frictional locking calculation method. It not only takes into account all the important parameters (hub dimensions, surface pressure, torque, tightening torque etc.), but can also calculate the transmissible torque, even factoring in axial forces and additional bending moments.

577 words with 4,788 characters (with spaces)

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

Captions (4 pictures)

Figure 1: New at RINGSPANN: The three-part type RLK 603 S shrink discs will now be offered in additional sizes and intermediate sizes.

Figure 2: RINGSPANN' product manager Marvin Raquet: "The RLK 603 S series now spans shaft diameters ranging from 14 to 190 mm, which means the current demands of the market are almost fully covered."

Figure 3: RINGSPANN's expansion of the RLK 603 S shrink-disk series by further sizes and intermediate sizes particularly benefits manufacturers of drive systems for conveying systems, agitators and mixing plants as well as construction machinery and wind power plants.

Figure 4: A highlight in RINGSPANN's catalogue range of shaft-hub-connections are also the double-slotted premium elements RLK TC (true centring) with very high centring accuracies.

All images: RINGSPANN

((Infobox 1))

All in the new catalogue

In order for a motor or drive shaft to pass on its rotating force without any loss, it needs a secure and fixed connection to the hub or shaft of the mobile machine element. For this purpose, RINGSPANN offers an extensive range of shaft-hub-connections connected via friction lining, which – depending on the design and version – transfers both torques and axial forces, as well as lateral forces and bending moments. A complete overview of the current portfolio of two and three-part shrink discs, cone clamping elements and star discs, star spring washers and torque motor clamping systems can be found in the freshly launched and expanded product catalogue 2019/20.

82 words with 680 characters (with spaces)

((Infobox 2))

Shrink discs on the rise

Shrink discs for external clamping and cone clamping elements for internal clamping consist of conical surfaces, which are pulled onto one another with clamping screws. The resulting radial forces ensure a secure frictional locking between the machine parts involved in the transmission of torques or forces. Unlike traditional form-fit shaft-hub-connections with a keyway, shrink discs and cone clamping elements from RINGSPANN can transmit significantly higher torques. The shafts can thus also be dimensioned smaller and shorter, which supports the realisation of compact drive units. As shaft-hub-connections connected via friction lining, shrink discs and cone clamping elements are increasingly gaining in importance.

87 words with 806 characters (with spaces)

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