

*Power transmission / supplier / design engineering / assembly technology / robotics / mechanical and plant engineering*

## **Safe clamping and easy assembly**

### **Two-part shrink discs from RINGSPANN convince thanks to distance-controlled assembly**

**RINGSPANN's steel shrink discs are regarded as the premium solution for frictional and backlash-free fastening of hollow shafts and hubs on shafts. In particular, the two-part versions of the RLK 608, RLK 608E and RLK 606 series are very popular in many areas of industrial drive technology. A key reason for this is the safe and simple assembly of these external clamping elements, which does not even require the use of a torque wrench. This benefits mechanical and plant manufacturers and maintenance technicians alike.**

*Bad Homburg, November 2021.* – If you want to identify one trend in the field of shaft-hub-connections, this is it: The use of frictional shrink discs is gaining traction in mechanical and plant engineering. The main reason for this is probably that - in contrast to positive shaft-hub-connections with a keyway - considerably higher torques can be transmitted and many designs can therefore be made smaller. This correlates with the desire of many users for increasingly compact drives. A more detailed analysis also reveals that at present it is primarily shrink discs in a two-part design that have caught the eye of designers of industrial drive systems. Marvin Raquet, Product Manager for shaft-hub-connections at the premium supplier RINGSPANN, knows the reason: "If the two-part shrink discs are high-quality solutions like those of our RLK 608, RLK 608E and RLK 606 series, users benefit from a very high degree of connection reliability, usability and ease of assembly. That is because, in addition to their excellent workmanship, these shrink discs at RINGSPANN always offer the advantage of distance-controlled assembly." What Marvin Raquet is hinting at is proving to be a tangible efficiency factor in practice - both for plant manufacturers in their role as OEM, and for fitters and maintenance technicians.

### **Distance instead of power to save time**

With the principle of distance-controlled assembly, RINGSPANN's RLK 608, RLK 608E and RLK 606 series two-part shrink discs enable the user to considerably simplify and speed up handling when mounting or installing. Since they do not have to keep an eye on the torque, there is no need to use a heavy torque tool. All they need is a simple ring spanner to tighten the clamping screws evenly arranged in rows until the face of the (outer) stepped conical ring of the shrink disc is flush with the face of its (inner) stepped conical bush. Once this state is reached, the worker can be sure that the frictional connection between the hollow shaft and the shaft is established and that the values for the torques and axial forces listed for this purpose in the RINGSPANN technical product tables are

guaranteed to be transmitted. Product Manager Marvin Raquet stresses in this context: "The prerequisite for distance-controlled assembly is the exceptionally high precision that we employ to manufacture the individual steel components of our two-part shrink discs. Low-cost products cannot keep up and still have to be assembled with pre-set torque tools."

### **No clamping without lubrication**

Another positive effect of the path control arises from its quasi internal quality assurance. On the one hand, the transmissible torques have always already been reliably set and on the other hand, the user can only complete the assembly of the shrink disc in accordance with the regulations if its taper surfaces or screws are sufficiently lubricated - for example during maintenance. Without lubrication, for example, the clamping element cannot be reassembled without problems, which is immediately noticeable. For the initial commissioning, the user always receives the shrink discs lubricated ready for use. Also worth mentioning: In contrast to three-part shrink discs, the two-part versions from RINGSPANN offer the advantage of a closed design. In practice, they therefore prove to be very resistant to contamination.

### **Wide range of application**

The RINGSPANN RLK 608 and RLK 608E series are available for shaft diameters ranging from 30 to 620 mm and transmit torques of up to 4,225,000 Nm. The RLK 606 series shrink discs, on the other hand, are suitable for shaft diameters ranging from 24 to 155 mm and transmit torques of up to 36,200 Nm. These three series alone thus cover an extremely wide range of applications. These range from heavy-duty mechanical engineering in mining and wind power technology to classic gearbox construction, printing machine technology and robotics - to name just a few typical areas of application. In total, the current RINGSPANN range of frictional shaft-hub-connections currently encompasses more than 30 series. In addition to externally clamping shrink discs, they include internally clamping cone clamping elements, internally clamping star discs and star spring washers for play compensation on ball bearings as well as clamping systems for frictionally locking torque motors on machine shafts. "Our large selection of shaft-hub-connections is a prime illustration of RINGSPANN's emergence as an international one-stop supplier for industrial drive elements," says Product Manager Marvin Raquet. *ar*

*819 words with 5,222 characters (with spaces)*

*Author: Alexander Regenhardt, freelance specialist journalist, Darmstadt*

**Note for editorial staff: Text and images available at [www.pr-box.de](http://www.pr-box.de)!**

### Captions (4 pictures)

*Bild 1:* The two-part RINGSPANN shrink discs of the RLK 608, RLK 608E and RLK 606 series are considered a premium solution for the frictional, backlash-free fastening of hollow shafts and hubs on shafts. A decisive reason for this is the simple assembly of these external clamping elements.

*Bild 2:* RINGSPANN-Produktmanager Marvin Raquet: "The prerequisite for distance-controlled assembly is the exceptionally high precision that we employ to manufacture the individual steel components of our two-part shrink discs. Low-cost Inexpensive low-cost products cannot compete here."

*Bild 3:* Thanks to the distance-controlled assembly, the two-part shrink discs of the RLK 608, RLK 608E and RLK 606 series from RINGSPANN enable the user to attach or install them quickly and easily. All he needs is a simple ring spanner.

*Bild 4:* Three two-part shrink discs from the RINGSPANN series RLK 608 as cutaway models.

*All images: RINGSPANN*

*((Infobox))*

#### **Watch and calculate**

RINGSPANN presents the simple, distance-controlled installation of the two-part shrink discs of its RLK 608 and RLK 606 series in a four-minute [YouTube video](#). On the company's website, designers and developers can find not only data sheets, installation instructions and CAD models, but also an innovative online [calculation tool](#) that enables the correct design of shrink discs and cone clamping elements.

*53 words with 454 characters (with spaces)*

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