

New spider material making couplings more powerful

Rheine, 02 August 2023 – KTR's product portfolio includes a new spider increasing the performance level of the coupling by about 40 percent with temperatures from 60 °C. The spider is primarily used in the servo coupling type ROTEX GS but can also be applied in standard ROTEX couplings. Main fields of application are drives with permanent temperatures from 60 °C to 120 °C, among them servo hydraulics and backlash-free gearboxes. KTR will present the new high-performance spider at this year's EMO in Hannover, Hall 9, booth D33.



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„The new spider is particularly characterised by extreme compressive strength with temperatures of up to 120 °C while maintaining all positive technical properties such as damping and wear resistance“, Johannes Deister, product manager for backlash-free servo couplings at KTR, explains. "In addition there is the low temperature factor. With the new spider the performance level of the coupling already rises by 40 percent with 60 °C allowing the user to consider smaller sizes with the coupling selection.“

The material is a newly developed thermoplastic polyurethane, in brief: TPU, with 52 and 65 Shore D degrees of hardness adding nanotechnological components. The material was tested up to 120 °C and with rated torque without torque reduction by the temperature factor with regard to function, component strength, wear and service life in KTR's R & D centre in Rheine. The result was that the permanent deformation after the endurance test with 60 °C was significantly smaller than with standard polyurethanes. As Johannes Deister says: „The higher service life allows to extend maintenance intervals and consequently reduce costs.“

The new spider can be combined with all hub types of the range of backlash-free ROTEX GS servo couplings and is available for the sizes 19, 24, 28, 38 and 42; in addition the spider can be used in the standard ROTEX couplings.

Press release

The new spider material is specifically suitable for drives that are permanently operated in the temperature range between 60 °C and 120 °C which includes, among other things, servo hydraulics and backlash-free gearboxes.

KTR Systems GmbH develops and produces mechanical couplings, brakes, coolers and hydraulic components for mechanical and plant engineering. KTR was founded in 1959 in the Westphalian town of Rheine and employs more than 1,100 people worldwide, almost 500 of them in Germany. The global network comprises 24 subsidiaries and 90 sales partners as well as production sites in Brazil, China, Germany, India, Taiwan and the United States.