

Press Release

Schaeffler at AMB 2024, Hall C2 | Booth 2B31

Rotary axis bearings for all applications within and outside the machining area

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- Roller bearings and components specifically developed for automation in the machine tool surrounding
- Integration of spur gear teeth into rotary axis bearing saves installation space and costs
- YRTS-series axial-radial bearings with new sizes

Schaeffler's high precision and extremely rigid roller bearing supports that are perfectly matched to the application are widely used in machine tools, especially in the main and secondary axes and the periphery, e.g. in tool and pallet changers. The high level of automation in machine tools has created a new market segment, which has driven the development of roller bearings specially matched to the requirements of these applications.

A new roller bearing series for automation in the machine tool environment

A first product from this new rolling bearing series is the YRTA-series axial roller-radial needle roller bearing for combined loads. "A" stands for automation and thus also defines the main application of this new series. The new rolling bearings are identical in their outside dimensions to the established YRTC bearings and are available in the sizes 150 to 460. Significant optimizations have been implemented internally through a change in the machining processes on the bearing rings and running surfaces as well as new needle roller cages for the radial bearing support.

Rotary axis bearings with integrated gear teeth

As a new feature, YRTAG rotary axis bearings combine the rolling bearing with the spur gear of the customer's gearbox. A bearing ring on the axial bearing must be provided with the customer-specific gear teeth for this purpose. This functional integration saves customers the outlay of aligning a separate gear and significantly reduces the installation space and costs. A low moment of inertia allows higher accelerations and the use of a drive motor with smaller dimensions if required.

New sizes and variants with gear teeth and angular measurement system

The option of an integrated spur gear is also offered for the YRTC series in the sizes 150 to 580 and is designated YRTCG. An inductive AMOSIN® angular measurement

system is also available in an incremental or an absolute variant for these series (YRTCMA/MI and YRTCGMA). For large rotary tables with table tops up to 2000 mm diameter, Schaeffler is expanding its portfolio of YRTS-series bearings upwards by adding the two sizes 580 and 650. These sizes can also be supplied with the AMOSIN® absolute angular measurement system.

Schaeffler Group – We pioneer motion The Schaeffler Group has been driving forward groundbreaking inventions and developments in the field of motion technology for over 75 years. With innovative technologies, products, and services for electric mobility, CO₂-efficient drives, chassis solutions, Industry 4.0, digitalization, and renewable energies, the company is a reliable partner for making motion more efficient, intelligent, and sustainable – over the entire life cycle. The Motion Technology Company manufactures high-precision components and systems for drive train and chassis applications as well as rolling and plain bearing solutions for a large number of industrial applications. The Schaeffler Group generated sales of EUR 16.3 billion in 2023. With around 84,000 employees, Schaeffler is one of the world's largest family-owned companies and one of Germany's most innovative companies.

Performance-optimized YRTA bearing for automation solutions such as pallet changers and tool magazines. Image: Schaeffler

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With the integrated gear teeth and the angular measurement system, the YRTCGMA axial-radial roller bearing forms a particularly compact and easy-to-fit unit. Image: Schaeffler

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