

Press Release

Schaeffler at EMO 2025 (Hall 6, Booth I46)

Hybrid bearings: The solution for short-stroke applications

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- Schaeffler's screw drive bearings with ceramic rolling elements ensure maximum operational reliability in short-stroke applications
- Solution to prevent screw drive bearing failures in short-stroke applications and oscillating operation
- Complete transition to ceramic rolling elements as a strategic solution

As the Motion Technology Company, Schaeffler is expanding its range of hybrid screw drive bearings, more specifically rolling bearings that use ceramic balls as rolling elements. The ZKLN and ZKLF series (with flange mounting) are now complemented by the three-row DKLFA design. The hybrid version (DKLFA-HC) delivers outstanding operational reliability, particularly in short-stroke applications and under conditions involving vibrations occurring at standstill.

In certain sectors, such as mold making and medical technology, short-stroke applications can lead to premature failures of the axial bearings in screw drives, typically indicated by increased noise from the screw spindles. The associated damage pattern, known as false brinelling, typically occurs when bearings are subjected to repeated small oscillating movements and angles.

100 percent hybrid bearings: a strategic approach

The damage pattern known as false brinelling remains difficult to predict and can occur after only a few hours of operation. For machine manufacturers, this can result in significant repair costs as well as reputational damage. For affected machine types, a full transition to hybrid screw drive bearings is advisable as a standard solution.

Hybrid bearings ensure a very high level of operational reliability in both short-stroke applications and situations involving vibrations at standstill. With these bearings, machine downtime and costly service operations caused by false brinelling can be reliably avoided. Importantly, the dynamic load-carrying capacity and calculated rating life of the bearings remain completely unchanged.

Schaeffler Group – We pioneer motion: The Schaeffler Group has been driving forward groundbreaking inventions and developments in the field of motion technology for 80 years. With innovative technologies, products, and services for electric mobility, CO₂-efficient drives, chassis solutions and renewable energies, the company is a reliable partner for making motion more efficient, intelligent, and sustainable – over the entire life cycle. Schaeffler describes its comprehensive range of products and services by means of eight product families: From bearing solutions and all types of linear guidance systems through to repair and monitoring services. Schaeffler is with around 110,000 employees and more than 250 locations in 55 countries, one of the world's largest family-owned companies and one of Germany's most innovative companies.

Schaeffler's portfolio now also includes three-row DKLFA screw drive bearings with ceramic rolling elements. It delivers outstanding operational reliability, particularly in short-stroke applications. Image: Schaeffler

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