

PRESS INFORMATION

Maximum performance for ball screw assemblies

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Bosch Rexroth increases process quality and service life of highly dynamic linear applications with ball screw assemblies

- Increase in performance thanks to new nut types in eight sizes
- Optimized for vertical and highly dynamic applications
- Higher process quality and longer service life of the entire system



Performance Line ball screw assemblies from Bosch Rexroth with new single nut with flange for vertical and highly dynamic linear applications (Image source: Bosch Rexroth AG)

Bosch Rexroth has expanded the Performance Line of its ball screw drives assemblies to include a solution for vertical and dynamic linear applications. A newly developed nut type with optimized travel behavior makes it possible to implement spindle drives for machine tools or servo presses that are even more powerful, reliable, and precise. The new FEH-E-B single nut with flange is available in eight sizes. Compared to the previous model, the dynamic load capacities increased by up to 14% and the service life by up to 50%.

The machine tool industry and other sectors with high demands in terms of dynamics, precision, energy efficiency, and repeatability require high-performance linear motion technology at competitive prices.

By expanding its Performance Line, Bosch Rexroth can meet both these requirements at the same time. The newly developed type FEH-E-B single nut with flange improves travel behavior using a split ball chain with reduced number of revolutions. The more uniform travel performance and the higher dynamic load capacity optimize the process quality and service life of the ball screw assembly.

As a result, quality, productivity, and reliability can be increased in a wide range of applications. Typical application scenarios can be found in machine tools and processing machines, in automation, as well as anywhere that large masses have to be moved highly dynamically in continuous operation.

The new Performance nut with flange shape B is available in eight sizes with a nominal diameter of 32 to 63 mm and a lead of 5 to 20 mm. The connecting dimensions are based on DIN 69 051, part 5.

Like all Rexroth ball screw assemblies, the new Performance Line is available in various preload classes and tolerance grades up to T3 and offers a comprehensive sealing concept including pre-lubrication.

The Performance Line currently also includes two other types of nuts: the FAR series for driven nuts and the FED series of double-speed nuts for multi-start screws. Together with 50 screw sizes and a comprehensive sealing concept, the Performance Line opens up a wide range of

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applications in the high-performance sector. Bosch Rexroth can also realize custom ball screw assemblies on request.

Selecting, designing, and ordering the right ball screw assembly from the wide standard BASA (Ball Screw Assembly) portfolio is quick and simple thanks to the intuitive Linear Motion Technology Selector and the Configurator – including downloading CAD data, calculations, and technical documentation with notes on lubrication.

Basic Information Bosch Rexroth

As one of the world's leading suppliers of drive and control technologies, Bosch Rexroth ensures efficient, powerful and safe movement in machines and systems of any size. The company bundles global application experience in the market segments of Mobile and Industrial Applications as well as Factory Automation. With its intelligent components, customized system solutions, engineering and services, Bosch Rexroth is creating the necessary environment for fully connected applications. Bosch Rexroth offers its customers hydraulics, electric drive and control technology, gear technology and linear motion and assembly technology, including software and interfaces to the Internet of Things. With locations in over 80 countries, around 31,900 associates generated sales revenue of 6.5 billion euros in 2025.

Basic Information Bosch

The Bosch Group is a leading global supplier of technology and services. It employs roughly 413,000 associates worldwide (as of December 31, 2025). The company generated sales of 91 billion euros in 2025. Its operations are divided into four business sectors: Mobility, Industrial Technology, Consumer Goods, and Energy and Building Technology. With its business activities, the company aims to use technology to help shape universal trends such as automation, digitalization, electrification, and artificial intelligence. In this context, Bosch's broad diversification across regions and industries strengthens its innovativeness and robustness. Bosch uses its proven expertise in hardware, software, and services to offer customers cross-domain solutions from a single source. It also applies its expertise in connectivity and artificial intelligence in order to develop and manufacture intelligent, user-friendly, and sustainable products. With technology that is "Invented for life," Bosch wants to help improve quality of life and conserve natural resources. The Bosch Group comprises Robert Bosch GmbH and its roughly 500 subsidiary and regional companies in over 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. Bosch's innovative strength is key to the company's further development. Bosch employs some 82,000 associates in research and development.

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