

PRESS INFORMATION

More speed with planetary screw assembly

Manuela Kessler | 24.06.2024 | Lohr am Main / Germany | PI 022/24

New intermediate size of the proven planetary screw assembly from Bosch Rexroth achieves double the linear travel speed and cycle time at the same rotary speed

- New intermediate size 48x20 for high-power applications
- Higher transmission ratio shortens cycle times and increases productivity
- Quick product selection and online configuration using e-tools



Increased productivity: The new intermediate size 48x20 of the PLSA planetary screw assembly allows higher travel speeds and shorter cycle times at the same rotary speed. (Image source: Bosch Rexroth AG).

The ongoing trend towards electrification is driving demand for mechanical screw drives and electromechanical cylinders in virtually all industries. To meet this increased demand, Bosch Rexroth is expanding its range of PLSA planetary screw assemblies with the new intermediate size 48x20. Compared to the next smaller size, high-power applications achieve up to twice the travel speed, performance and productivity at the same rotary speed and with less heat generation.

The new intermediate size complements the already large PLSA portfolio and offers users even more options for a wide range of applications. Presses and dispensing units for example benefit from the increase in performance and productivity. Owing to the higher lead, the same speed level can be achieved at lower rotary speeds. Less heat is generated as a result, which in turn increases accuracy and process stability. Because the load capacities increase with the size, users also benefit from a longer service life compared to smaller lead sizes.

Wider range of applications for PLSA

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The durable PLSA planetary screw assemblies are designed for high loads and speeds of up to 50 m/min and allow significantly higher forces compared to ball screw assemblies. Thanks to an innovative system of preloaded individual nuts, cylindrical and flanged, Rexroth planetary screw assemblies achieve dynamic load capacities of up to 544 kN.

Digital engineering and availability

Bosch Rexroth keeps a stock of both the PLSA threaded screws and the nuts so that the customer-specific machined and pre-assembled screws are available with short delivery times.

The simple design of the screw drives with the help of online configurators which guide users intuitively and visually through all the options saves time in engineering. The modules can then be transferred at the click of a mouse to the Bosch Rexroth e-shop, where the prices and delivery times are displayed straight away.

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 33,800 associates generated sales revenue of 7.6 billion euros in 2023.

Basic Information Bosch

The Bosch Group is a leading global supplier of technology and services. It employs roughly 429,000 associates worldwide (as of December 31, 2023). The company generated sales of 91.6 billion euros in 2023. 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, electrification, digitalization, connectivity, and an orientation to sustainability. In this context, Bosch's broad diversification across regions and industries strengthens its innovativeness and robustness. Bosch uses its proven expertise in sensor technology, 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 user-friendly, 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 470 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. At 136 locations across the globe, Bosch employs some 90,000 associates in research and development, of which nearly 48,000 are software engineers.

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