

PRESS INFORMATION

Compact Power Package

Manuela Kessler | 24.02.2025 | Lohr am Main / Germany | PI 005/25

The Rexroth radial piston motor MPR Performance opens up new degrees of freedom for a high-performance & compact machine design

- Compact design for high levels of flexibility
- Increased productivity through performance gains
- Seamless system integration with Bosch Rexroth's BODAS range
- Flexible configuration options for tailored solutions

High power density: The new Rexroth MPR Performance radial piston motor is around 30 % shorter than the Rexroth MCR3 and achieves a higher overall efficiency. (Image source: Bosch Rexroth AG)

With the compact, integrated MPR Performance radial piston motor, Bosch Rexroth brings more flexibility to the design of small mobile machines and increases productivity and energy efficiency. Compared to the MCR3, the patented motor design saves around 25 % in components and up to 30 % in length. This advancement reduces installation space and lowers the machine's center of gravity. Performance benefits such as up to 9 % higher start-up efficiency, an optional 470 bar rated pressure, and a 25 % higher maximum speed contribute to lower system costs and total cost of ownership.

Small mobile machine manufacturers constantly balance power against weight, innovation against cost, and thermal management against reliability. These trade-offs impact productivity, efficiency, and profitability.

The new MPR Performance series breaks down these barriers, delivering more power in a smaller, more efficient package. By minimizing the need for complex cooling solutions, the MPR enhances performance without compromise, increasing productivity, reducing operating costs, and boosting design flexibility for next-generation machinery.

The MPR offers unparalleled design flexibility with configurable options. As the first radial piston motor at this frame size with axial porting and a lamellar disc brake, it unlocks new vehicle design possibilities. Adaptable shaft configurations streamline variant management, while standardized interfaces ensure easy integration and backward compatibility.

In collaboration with BODAS-drive, Bosch Rexroth presents a ready-to-use, scalable solution for hydrostatic travel drive control powered by eDA software. This innovative approach boosts performance and efficiency through precise electronic management of the hydraulic system.

The new Rexroth MPR series will be officially launched at bauma 2025 and expanded in the following months. The MPR portfolio will further expand with upcoming 2-speed functionality and various installation configurations, enhancing its versatility and application range.

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

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The Bosch Group is a leading global supplier of technology and services. It employs roughly 417,900 associates worldwide (as of December 31, 2024). According to preliminary figures, the company generated sales of 90.5 billion euros in 2024. 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 86,900 associates in research and development, of which nearly 48,000 are software engineers.

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