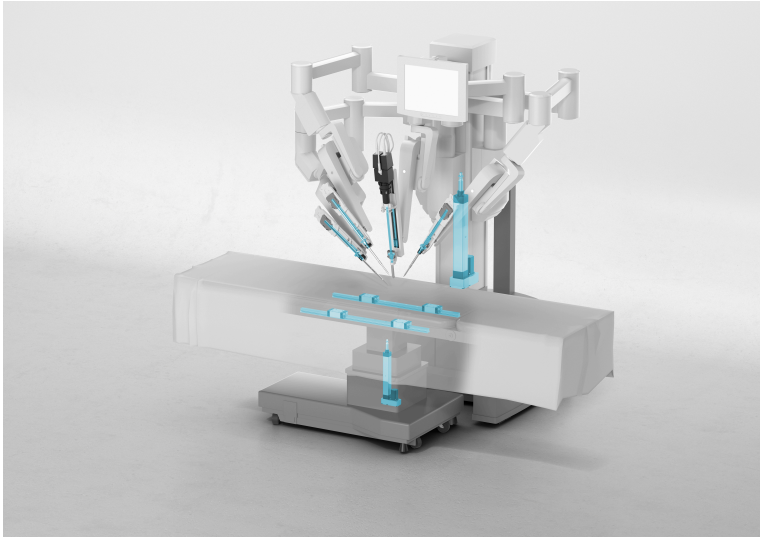
PRESS INFORMATION

Efficient mechatronics and automation for the medical technology of the future

Manuela Kessler | 05.10.2026 | Lohr a. Main / Germany | PI 039/26



In robot-assisted surgery, electromechanical cylinders ensure powerful height adjustment of surgical robots and sensitive adjustment of patient tables. Ball screw assemblies and ball rail systems enable highly accurate positioning. (Image source: Bosch Rexroth AG)

The challenges in medical technology are diverse: Regulatory requirements, increasing competitive pressure, and demand for custom solutions require precise, durable, and reliable linear motion technology components and mechatronic solutions. At COMPAMED 2026, Bosch Rexroth will be demonstrating how medical technology manufacturers can speed up development and optimize the product life cycle.

In precision manufacturing, miniature ball rail systems and miniature ball screw assemblies enable the precise alignment of ophthalmic lenses within a very confined space, while in dental milling machines, high-precision ball rail systems ensure high dimensional and surface accuracy.
In medical imaging systems and surgical robots, reliable linear guides and electromechanical cylinders facilitate vibration-free positioning and highly precise, patient friendly movements.
In the field of medical imaging procedures such as CT, MRI, panoramic X-rays, or angiography, Bosch Rexroth has been supplying components for precise scan positioning, patient-friendly positioning, and exact repeatability for follow-up images for many years. Such components include ball screw assemblies with arrestor nuts, which prevent the axis and attachments in vertical installations from dropping.
Laboratory automation requires maximum system accuracy and a high throughput. Here, linear guides and screw drives enable precise movements in a confined space. Ready-to-install multi-axis systems shorten and simplify the development process for complex handling tasks.
In addition, the portfolio includes CNC, driveand control solutions as well as the automation platform ctrlX AUTOMATION for demanding movement and positioning tasks.
In addition to high-precision, reliable, and durable components, Bosch Rexroth supports medical technology manufacturers by providing digital engineering tools, engineering support, and worldwide service. This reduces development time, maintenance work, and life cycle costs.
Bosch Rexroth at COMPAMED 2026, November 16 to 19, Düsseldorf: Hall 8a, booth N16

Basic Information Bosch Rexroth

PRESS INFORMATION

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 products. With technology that is "Invented for life," Bosch wants to help improve quality of life. 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.

Press Contact

Please get in touch with our Press Contact



Manuela Kessler
Spokesperson
technology topics
+49 9352 184145
Manuela.Kessler@boschrexroth.de