

PRESS INFORMATION

Quick, efficient, sustainable: Bosch Rexroth linear motion technology focuses on the future

Manuela Kessler | 17.04.2023 | Lohr am Main / Germany |



Dr. Ulf Lehmann, Head of the Linear Motion Technology Business Unit, Bosch Rexroth AG (Image source: Bosch Rexroth AG)

From long-lasting individual components to smart mechatronic components: With a full range of best-in-class products, Bosch Rexroth is driving changes in the broad market for linear applications. The focus of new developments is on products that are reliable as well as economical and sustainable. Because we monitor trends over the long term, we are able to show our customers new ways of implementing their applications quickly, efficiently and in a future-proof manner.

Generally speaking, we can see three big trends: Firstly, the building blocks for customer applications need to be identified and put in place more quickly. Secondly, linear motion technology should help to make machines and automation solutions even more efficient and durable while reducing maintenance requirements. And thirdly, it is important to provide practical answers to key factory automation questions, especially with regard to flexibility, productivity and sustainability. With the linear motion technology portfolio from Bosch Rexroth, users can manufacture much more flexibly, profitably and sustainably – over the entire life cycle.

Quicker: End-to-end digitalization saves time and money

Simple engineering processes reduce the time to market for our customers – for example, with intelligent e-tools for selecting, sizing and configuring our linear motion technology products. The new online selectors are particularly future-oriented. The selector for electromechanical cylinders, for example, takes care of the selection and sizing process on a single website and speeds up the ordering process via EDI or the online shop by up to 90 percent. We are continuously expanding this solution concept for further products.

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In the case of “smart components”, our mechatronic kits for pressing and joining, for handling or dispensing tasks, pre-installed operating software speeds up commissioning by up to 80 percent with the help of virtual assistants. Further time savings are achieved through visual sequence programming, the monitoring function and the connection to higher-level control and IT systems via function blocks. Each kit is supplied pre-assembled in a package so that it can be put into operation quickly.

More efficient: Higher productivity and economy

Rexroth best-in-class linear motion technology improves the efficiency, performance and profitability of machines and systems on a permanent basis. To reduce the operating costs for our customers in the long term, we develop products which are compact, durable, and versatile.

Because we are backed up by the Bosch Group as a global, stable partner, trendsetter and service provider, users also benefit from a high level of innovation.

More sustainable: Resource-saving products

We strive to balance economic, ecological and social aspects in the best possible way and thus create sustainable value.

Our products and solutions are designed to conserve resources and require fewer lubricants. This helps us to protect the environment and climate and meet global CO₂ targets. Thanks to longer lubrication intervals, our ball rail systems can cover up to 20,000 kilometers without relubrication, while our ball screw assemblies achieve up to 200 million revolutions with basic lubrication. As a result, users not only save operating materials but can also make an important contribution to save resources.

With our linear guides, the runner block and rail can be replaced independently of each other. This not only reduces the number of parts that need to be replaced and the materials required. It also makes maintenance quicker and easier. Our global on-site servicing allows long operating times and ensures optimum system availability.

Electrification in mechanical engineering is becoming increasingly important – when it comes to energy efficiency too. Our electromechanical cylinders are an economical alternative to pneumatic actuators in many cases.

A secure future with Bosch Rexroth

On the basis of our comprehensive application, sensor, software and IoT know-how, we have already achieved many visions: Via open interfaces, users can connect our mechatronic kits to

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higher-level systems quickly and easily. They are also compatible with various peripheral devices such as grippers or dispensing heads.

With the Smart Flex Effector, customers experience economical factory automation with entirely new possibilities. The sensor-assisted compensation module with independent kinematics in six degrees of freedom gives industrial robots the sensitivity of a human hand. Even processes which are difficult to manage can now be automated, optimized and monitored with the help of this innovative component.

With our growing range of best-in-class components, smart subsystems, intuitive e-tools and services, we provide users from a variety of sectors with the best possible support for the future.

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