Durable cylinders for high forces: High power electromechanical cylinders cover heavy-duty applications with forces up to 250 kN

New high-power versions of the EMC-HP electromechanical cylinder cover a wide range of heavy-duty applications with forces up to 250 kN

* High power density and precision for demanding applications
* Simple engineering and quick commissioning
* Optional oil bath lubrication for continuous load applications
* Sensor package displays lubrication recommendation, oil temperature, and more data via IO-Link

Whether it’s pressing, forming, riveting, tensioning, positioning or testing, there are numerous processes in which linear movements with high forces must be performed precisely and energy-efficiently. As such, Bosch Rexroth is expanding the electromechanical cylinders in the EMC-HP high-power series to include sizes 190 and 220. These sizes can be implemented in heavy-duty applications with high axial forces of up to 250 kN in a precise and dynamic manner using a direct drive or a parallel spur gear configuration. An integrated sensor and display package provides a lubrication recommendation or oil temperature (depending on the version) to ensure maximum productivity. As part of the digital quick selection, an oil bath can also be selected as a lubrication option for continuous load applications.

The new sizes meet the highest requirements of power density, precision, and dynamics, which are required in the calendaring process in battery production, in wood panel pressing, and in sheet metal forming. The EMC-HP portfolio has protection class IP 65 and can provide strokes of up to 1,500 mm in length.

The proven PLSA planetary screw assembly installed in the EMC-HP covers dynamic load capacities (Cdyn) of up to 473 kN and features a top speed of 0.83 m/s. The new sizes have a robust spur gear side drive that offers efficient, reliable power transmission to the screw drive. The new EMC-HP offers additional benefits of durability, maintenance, and efficiency through an integrated sensor package. An optional LED-colored strip indicates a re-lubrication recommendation and the oil bath temperature.

Simple engineering, quick commissioning

Actuators of various lengths and mounting options can be selected easily and quickly using the LinSelect tool online. Complete automation packages including motor, controller, and cables are also available to allow quick, seamless commissioning. A software package (Smart Function Kit) for easy parameterization of the motion task is available on request. After the final online configuration, the individual cylinder or subsystem can be ordered directly from the Rexroth shop.

The preconfigured complete package, with parameters stored in the motor memory for the drive controller, simplifies and shortens commissioning considerably. The compact design with lightweight aluminum housing and the single-cable solution, which is available for most drives, ensures easy integration and quick mounting.

You can find more information at: [www.boschrexroth.com/emc-hp](http://www.boschrexroth.com/emc-hp)

Download link for the selection and design tool LinSelect: [www.boschrexroth.de/linselect](https://www.boschrexroth.com/de/de/produkte/produktgruppen/lineartechnik/themen/linselect/)

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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 490 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 87,000 associates in research and development.*

*Additional information is available online at* [*www.bosch.us*](https://www.bosch.com)*,* [*www.bosch-press.com.*](http://www.bosch-press.com.)