

PRESS INFORMATION

Smart subsystems for servo presses

Manuela Kessler | 25.10.2022 | Lohr am Main / Germany | PI 059/22

Bosch Rexroth has expanded its portfolio of smart mechatronic subsystems for pressing and joining tasks involving forces up to 70 kN

- New Smart Function Kit Pressing can cope with forces up to 70 kN
- Plug and produce: Predefined subsystem with quick commissioning
- Preinstalled software for process creation, quality assessment and documentation



Efficient pressing, forming and testing: With two new sizes for pressing forces up to 70 kN, the Smart Function Kit Pressing is now suitable for even more applications. (Image source: Bosch Rexroth AG)

Bosch Rexroth has expanded its range of intelligent mechatronic subsystems by adding a heavy duty version of the Smart Function Kit for pressing and joining applications. The new products which come in two different sizes use the EMC-HP electromechanical heavy duty cylinder to generate a pressing force of up to 45 and 70 kN respectively. Thanks to the wide force spectrum, machine manufacturers, system integrators and production companies can now achieve fully electromechanical, standardized lines. Typical areas of application include the automotive industry and battery production.

To generate even greater forces, the new product versions use the High Power heavy duty cylinder (EMC-HP). The robust, long-lasting mechanics is based on the proven PLSA planetary screw assembly from Bosch Rexroth. With their long service life, the new subsystems are ideal for use in a variety of applications involving heavy loads, for example press fitting, riveting, punching or forming.

The Smart Function Kit for pressing and joining applications combines an electromechanical cylinder with force sensor, a servo motor, a servo drive and an industrial PC to create a subsystem which is ready for immediate use and comes supplied in a package. Using the preinstalled, browser-based operating software, the servo presses are ready for use in just a few minutes and can easily be programmed visually.

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The software also offers process monitoring as well as the option of transferring result and process data to a higher-level control system. For quick connection to such a line control system, prepared function blocks for various development environments are available.

The engineering work is much quicker than for servo presses constructed in the conventional way: Once the mechatronic system has been selected and sized using the LinSelect e-tool, the subsystem is completed in the online configurator and can then be ordered from the Rexroth online shop with just one material number. Technical documentation and CAD data are available for downloading free of charge.

Together with the two new sizes, the smart subsystems for pressing and joining functions now cover a force spectrum from 2 to 70 kN. They can be ordered quickly and are delivered as a complete package, making it easy to standardize production systems.

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 Applications, Machinery Applications and Engineering, and Factory Automation. With its intelligent components, customized system solutions 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, more than 31,000 associates generated sales revenue of around 6.2 billion euros in 2021.

Basic Information Bosch

The Bosch Group is a leading global supplier of technology and services. It employs roughly 402,600 associates worldwide (as of December 31, 2021). The company generated sales of 78.7 billion euros in 2021. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT provider, Bosch offers innovative solutions for smart homes, Industry 4.0, and connected mobility. Bosch is pursuing a vision of mobility that is sustainable, safe, and exciting. It uses its expertise in sensor technology, software, and services, as well as its own IoT cloud, to offer its customers connected, cross-domain solutions from a single source. The Bosch Group's strategic objective is to facilitate connected living with products and solutions that either contain artificial intelligence (AI) or have been developed or manufactured with its help. Bosch improves quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is "Invented for life." The Bosch Group comprises Robert Bosch GmbH and its roughly 440 subsidiary and regional companies in some 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. With its more than 400 locations worldwide, the Bosch Group has been carbon neutral since the first quarter of 2020. The basis for the company's future growth is its innovative strength. At 128 locations across the globe, Bosch employs some 76,100 associates in research and development, of which more than 38,000 are software engineers.

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