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Select linear robots more quickly

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Thanks to intelligent reference processes, the Smart Function Kits from Bosch Rexroth can be defined fully automatically

- New: Reference process for dispensing tasks in the LinSelect sizing tool
- Specific product suggestions after entering just a few parameters
- Complete subsystems for handling and dispensing tasks



Thanks to intelligent reference processes in the LinSelect selection and sizing software, the Smart Function Kit Dispensing for carrying out typical dispensing tasks can now be designed more quickly. (Image source: Bosch Rexroth AG)

Bosch Rexroth makes it even easier to select and size linear robots. As they do in the area of handling, intelligent reference processes in the LinSelect selection and sizing software guide users to the optimum subsystem for typical dispensing tasks such as bonding or sealing in the shortest possible time. If you enter just a few parameters, the e-tool comes up with specific suggestions for suitable linear robots. Recommendations according to the criteria best technology, price and delivery time make it easier to select the right product.

The reference processes for handling and dispensing robots make digital engineering even easier and quicker. In order to achieve optimum results for users, Bosch Rexroth incorporated practical experience from customer projects into the development – in addition to its own mechatronics and software know-how.

The new reference process for dispensing tasks starts with the selection of a multi-axis system in the form of a space gantry or a horizontal area gantry. Once you have entered a few parameters, the algorithms calculate the optimum selection from over 50,000 combinations. Numerous measurements and comprehensive practical know-how have gone into the highly complex calculation logic.

Designing a dispensing robot in a fully automatic manner requires only a few key data. In addition to the speed, these are the length, width and radius of the planned contour as well as the cycle time, start position and load center of gravity of the dispensing attachment. Using the

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subsequently visualized dispensing sequence, the software calculates the complete mechatronic design of the subsystem.

After selecting the desired Rexroth automation and drive package, LinSelect gives a specific recommendation for the best technology, the lowest price and the shortest delivery time in each case. The results can be saved as a project, shared or transferred directly to the Bosch Rexroth online configurator, where the selected subsystem is visualized once again as a 3D live preview. The associated documentation and CAD data can be downloaded immediately and the linear robot can be ordered from the online shop.

Preinstalled operating software speeds up commissioning

Once you have sized your system in LinSelect and selected the operating software in the online configurator, the parts lists are transferred straight to the Rexroth production system. Immediate production with standard components from stock minimizes delivery times. On site, the preinstalled operating software assists you during the commissioning process and reduces the time required by up to 80 percent. In addition to a wizard which accompanies the process, automatic parameterization and axis referencing as well as visual sequencing based on predefined function blocks play a key role here. The latter include typical dispensing routines such as “dispensing”, “rinsing” or “wiping the needle”. Movement monitoring with data transmission to higher-level quality systems can also be activated with just a few clicks.

Bosch Rexroth offers not only the Smart Function Kit Dispensing but also other Smart Function Kits for handling tasks and for pressing and joining applications. Their mission: To perform typical factory automation tasks significantly faster, more easily and more sustainably than before. The company achieves this goal by combining best-in-class linear technology with automation hardware and intuitive software to create flexible and rapidly deployable subsystems.

All Smart Function Kits can easily be integrated into a production line using ready-made software modules. The open Industrial Ethernet standard PROFINET is now also supported.

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 more than 32,000 associates generated sales revenue of around 7.0 billion euros in 2022.

Basic Information Bosch

The Bosch Group is a leading global supplier of technology and services. It employs roughly 420,000 associates worldwide (as of December 31, 2022). According to preliminary figures, the company generated sales of 88.4 billion euros in 2022. Its operations are divided into four

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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 85,000 associates in research and development, of which nearly 44,000 are software engineers.

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