

PRESS INFORMATION

A strong partner for the packaging industry

Manuela Kessler | 04.05.2023 | Lohr am Main /Germany | PI 025/23

At interpack 2023, Bosch Rexroth will present flexible, fully open automation solutions

The consumer goods industry is under great cost pressure. At the same time, the trend towards smaller batch sizes requires a high level of flexibility. As a globally established partner, Bosch Rexroth offers support with modular solutions across the value stream – from production and packaging to intralogistics. The portfolio of automation solutions, linear motion technologies and transport as well as conveyor systems is based on open interfaces and programming environments. When it comes to planning and carrying out projects, application engineers from Bosch Rexroth have decades of experience gained in the consumer goods industry.

Flexible automation for the packaging industry

The automation toolkit ctrlX AUTOMATION provides all hardware and software components for complete and highly flexible automation solutions in the packaging sector. ctrlX AUTOMATION cuts component and engineering costs in the packaging industry by 30 to 50 percent with the help of the Linux real-time operating system, fully open standards, app programming technologies, web-based engineering and a comprehensive IoT connection.

Maximum security on the IoT

With ctrlX IOT, Bosch Rexroth offers modern IoT solutions with integrated security which open up numerous possibilities for users. As part of its IT security consultancy work, Bosch Rexroth also offers individual weakness, risk and threat analyses as well as security concepts for machines or components.

Contactless high-performance transport and positioning systems

The planar system ctrlX FLOW6D opens up new possibilities and innovative concepts for production systems in a wide range of industrial sectors – including the packaging industry. It offers greater freedom of movement and maximum precision. The free-floating transport platforms, so-called movers, are moved on a horizontal, vertical or overhead working surface. Each mover acts in six degrees of freedom at high speed and with great precision, without any friction or pollution. Integration into the automation toolkit ctrlX AUTOMATION results in an overall solution with a compact control system and apps to increase the range of functions.

Orchestrating production flexibly and graphically

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Bosch Rexroth relies on open, cross-manufacturer standards and interfaces for all automation technologies. One example here is the asset administration shell. It functions as a standardized digital twin for all automation components and solutions – from Bosch Rexroth and other manufacturers. With the new individually adaptable software platform for flexible and versatile production, users can orchestrate their brownfield and greenfield systems, regardless of lot size, graphically in ISO/IEC-standardized process models without downtimes. Data and process transparency as standard increases the agility and reactivity of production on a permanent basis.

The quicker way to tailored linear motion technology solutions

In the field of linear motion technology, Bosch Rexroth is speeding up the engineering processes for individual components and smart mechatronic subsystems with integrated e-tools. As Plug and Produce solutions, the Smart Function Kits for specific applications such as handling, pressing and joining or dispensing simplify and speed up the entire engineering process. Pre-installed operating software with a virtual assistant reduces the commissioning time for these subsystems by up to 80 percent. Visual sequence programming using Drag and Drop function blocks helps to save even more time.

Greater precision for industrial robots

The Smart Flex Effector won the HERMES AWARD 2023, the most prestigious international industry prize. It sets new standards when it comes to handling delicate products. The compensation module gives robots such as articulated robots or cartesian linear systems a sense of touch similar to that of a human hand. The combination of a sensor system with kinematics working independently in six degrees of freedom allows the automation of processes that were previously difficult to manage or could only be performed manually. It can also be retrofitted in existing robotic applications.

Thoroughly tried and tested: The VarioFlow plus chain conveyor system

Modular solutions for material flow such as the VarioFlow plus chain conveyor system can be adapted to a wide variety of specifications. Users can also make adjustments on site in production. A wide variety of packaging types within all packaging stages are transported, distributed and brought together by the VarioFlow plus in a space-saving manner. The solution offers a comprehensive modular system with a wide range of combination options and allows a high degree of individualization. The system includes versions made of aluminum and stainless steel as well as FDA-compliant materials.

The spiral conveyor from Rexroth partner smartPac is based on the components of the VarioFlow chain conveyor system. This creates a continuous transport system that users can commission and maintain with minimal effort and at low cost. The spiral conveyors enable vertical product transport (single and multi-track), bridge height differences, and serve as buffer storage in the smallest of spaces.

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Bosch Rexroth at interpack: Hall 6, Booth A42



With ctrlX IOT as a central part of the automation toolkit ctrlX AUTOMATION, Bosch Rexroth offers a progressive IoT toolbox with integrated security which meets all Industry 4.0 requirements. (Image source: Bosch Rexroth AG)



With ctrlX IOT as a central part of the automation toolkit ctrlX AUTOMATION, Bosch Rexroth offers a progressive IoT toolbox with integrated security which meets all Industry 4.0 requirements. (Image source: Bosch Rexroth AG)



The planar system ctrlX FLOW6D allows contactless high-performance transport and positioning in six dimensions. (Image source: Bosch Rexroth AG)

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The asset administration shell functions as a standardized digital twin for all automation components and solutions – both from Bosch Rexroth and other manufacturers. (Image source: Bosch Rexroth AG)



Sensor-assisted compensation unit for articulated robots and cartesian linear systems: The Smart Flex Effector increases precision and productivity, avoids errors and allows greater automation. (Image source: Bosch Rexroth AG)



In packaging, logistics and warehousing, the modular linear motion construction kit from Bosch Rexroth allows individual solutions – from single components to smart mechatronic subsystems. (Image source: Bosch Rexroth AG)

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The flexible VarioFlow plus chain conveyor system allows cost-effective and low-noise transport of parts. (Image source: Bosch Rexroth AG)

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 421,000 associates worldwide (as of December 31, 2022). The company generated sales of 88.2 billion euros in 2022. Its operations are divided into four business sectors: Mobility, 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 470 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. The basis for the company's future growth is its innovative strength. At 136 locations across the globe, Bosch employs some 85,500 associates in research and development, of which nearly 44,000 are software engineers.

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