Bosch Rexroth to present Industry 4.0 automation, linear motion and transport technology at SEMICON West 2021

Multiple working demos and booth presentations highlight the company’s latest high-precision automation technology at SEMICON West 2021, Dec. 7-9, in San Francisco

Wafer handling and wafer solutions by Bosch Rexroth.

Bosch Rexroth will showcase the company’s latest high-precision automation technology, engineered to satisfy the extremely demanding requirements for semiconductor fabrication systems, in booth 327, South Hall, at SEMICON West 2021, December 7-9, in San Francisco, CA.

Booth presentations and technology demos will cover a full range of advanced automation and i4.0 transport technologies at SEMICON West 2021. Rexroth’s innovative semiconductor technology can help both tool builders and fab operators stay competitive in today's rapidly changing semiconductor manufacturing market, with high-precision automation technology for every segment of the microelectronics supply chain — from wafer processing to final device packaging.

[Semiconductor and electronics](https://www.boschrexroth.com/en/us/industries/semiconductors-and-electronics/) manufacturers have very special automation needs, such as mechatronic modules designed for smooth motion during wafer handling, noncontact material transport through the process chambers and nano-meter scale positioning accuracies.

In response to these requirements, as well as the urgent need to expand semiconductor production to meet unprecedented global demand, Bosch Rexroth will present i4.0 automation and linear technology solutions to help get from lab to fab faster than ever. Booth 327 will feature key Rexroth systems for semiconductor applications, including:

**ctrlX AUTOMATION demo:** Booth visitors will have the opportunity to see a three-axis working system that demonstrates the ctrlX CORE and ctrlX DRIVE hardware platform, as well as the ctrlX WORKS engineering and software toolbox. The demo showcases how ctrlX WORKS lets users easily assign ctrlX AUTOMATION apps or their own apps to program everything from single-axis functions to highly complex multiple-axis movements.

For semiconductor and microelectronics manufacturers, this exhibit offers a practical demonstration of how the complete ctrlX AUTOMATION platform supports an open, platform-neutral system architecture that can be easily integrated in any automation infrastructure.

**Flexible Transport System demo:** Rexroth’s Flexible Transport System (FTS) is a magnetically propelled pallet transport system engineered to provide more precise pallet positioning and higher transport speeds. The FTS integrates an external noncontact motion system. Coils mounted outside the chamber provide drive power for magnetic carriers that don’t require feed-throughs to vacumm. Suited for virtually all load factors, precision levels and motion profiles, it can support both independent and synchronized pallet movements, for more flexible transport sequences, reduced cycle times and faster throughput.

**eTools presentation:** This exhibit will highlight Rexoth’s intuitive, easy-to-use LinSelect engineering tools to size and select linear axes and multi-axis systems such as the Smart Function Kit for Handling system. Through videos as well as actual working demos of the LinSelect system, booth visitors will have the opportunity to witness the sizing of a multi-axis system in LinSelect and take the output to Rexroth’s online configurator for a 3D model. The exhibit will highlight how much time and effort are saved selecting perfectly aligned linear components for many different kinds of linear motion applications in semiconductor manufacturing systems.

**Smart Function Kit for Handling demo:** The Smart Function Kit for Handling is a preassembled multi-axis mechatronic system with plug-and-produce technology, combining perfectly matched linear modules, connecting elements, servo drives and controls from the Rexroth portfolio**.**

The hardware demonstration in this exhibit is a multi-axis system that matches the configuration output from the eTools kiosk that resides beside this demo. It provides a full picture of the advantages of the Smart Function Kit’s plug-and-produce capabilities: Pre-defined multi-axis combinations can be easily sized, configured and ordered as one part number. In addition, the Smart Function Kit for Handling software app allows fast commissioning through autoparameterization of the servo drive.

**Precision Modules, Gen 2: The new generation of** Rexroth Precision Modules are precise, ready-to-install precision linear motion systems that combine high performance with compact dimensions. This latest generation of these highly successful modules features a sealed ball screw assembly on both sides and an upgraded lubrication concept, to more fully meet the demanding operational requirements of semiconductor production and electronics manufacturing.

Along with the booth demos and exhibits, experienced Rexroth semiconductor and electronics manufacturing experts will be on hand to discuss specific challenges tool builders and end users face and provide innovative, practical ways that Bosch Rexroth’s i4.0 solutions can help address their needs.

For more information on Bosch Rexroth at SEMICON West 2021, visit <https://www.boschrexroth.com/en/us/company/trade-shows-and-events/semicon-west>.

***About 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 29,600 associates generated sales revenue of around 5.2 billion euros ($6.3 billion) in 2020.
To learn more, please visit* [*www.boschrexroth-us.com*](http://www.boschrexroth-us.com)*.*

***About Bosch:****Having established a regional presence in 1906 in North America, the Bosch Group employs 34,700 associates in more than 100 locations, as of December 31, 2020. According to preliminary figures, Bosch generated consolidated sales of $13.1 billion in the U.S., Canada and Mexico. For more information, visit* [*www.bosch.us*](http://www.bosch.us)*,* [*www.bosch.ca*](http://www.bosch.ca) *and* [*www.bosch.mx*](http://www.bosch.mx)*.

The Bosch Group is a leading global supplier of technology and services. It employs roughly 394,500 associates worldwide (as of December 31, 2020). According to preliminary figures, the company generated sales of $87.1 billion in 2020. 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 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 126 locations across the globe, Bosch employs some 73,000 associates in research and development, as well as roughly 30,000 software engineers.

Additional information is available online at* [*www.bosch.us*](http://www.bosch.us)*,* [*www.iot.bosch.com*](https://www.bosch.com/internet-of-things/)*,* [*https://us.bosch-press.com/*](https://us.bosch-press.com/)*,* [*https://twitter.com/BoschPress*](https://twitter.com/BoschPress/)

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