

# Press Release

## Prepare, simulate, print and optimize with one system – Bosch Rexroth's MTX CNC system

MTX CNC system from Bosch Rexroth covers the entire additive manufacturing process

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For Immediate Use



Minimal cycle times and high computing performance: the MTX CNC system from Bosch Rexroth  
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**With the MTX CNC system from Rexroth, machine manufacturers have got the entire additive manufacturing process covered. From reading in the CAD data and simulations to the actual printing process, it offers minimal cycle times as well as enough computing power for highly dynamic, coordinated movements – including complete process monitoring. With the Open Core Interface software solution, users can easily implement other IT applications. The integrated OPC UA server guarantees seamless communication with higher-level systems.**

The MTX CNC system features a control system that is scalable in terms of power and function. With a Dual Core processor and decentralized intelligence, the high-performance version performs its tasks with an internal cycle time of just 0.25 ms. The shorter these cycle times are, the faster the control system calculates the 3D data, thus speeding up the actual printing process. At the same time, it has sufficient reserves to record process data in real time and to use these data for process optimization. NC functions already integrated into the control software deposit the additive material layer precisely and optimize the process, e.g. with intelligent temperature control. The standardized G code for movement control is supported by any slicer software. Integrated NC encoding systems protect manufacturer-specific know-how.

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The MTX CNC system also features a 3D online simulation with collision recognition. It automatically visualizes the construction time, positioning and printing head travel, allowing users to intervene proactively before the production process. The CNC system fits seamlessly into simulation environments as “hardware in the loop” and generates realistic images of the subsequent processes.

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## **Digitalized from start to finish**

The current version of the CNC system (Version 14) offers all the advantages of a workflow with end-to-end digitalization. The system solution supports print configuration, job management, machine monitoring including online process modification and even controls intralogistics. It also offers universally open interfaces, e.g. to all popular CAD/CAM systems or simulation solutions. Thanks to the Open Core Interface software solution, users can easily implement other IT applications in the MTX. To do this, they carry out digital material simulations or certify quality-related parameters.

The solution has already proven itself in numerous additive manufacturing projects – from aerospace to automotive suppliers. In addition to the actual control system with the software for additive manufacturing, Bosch Rexroth offers a wide range of servo drives with decentralized intelligence, highly dynamic rotative servo and linear motors as well as linear guide systems with an integrated absolute value measurement system.

## **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 drives and controls, 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 30,500 associates generated sales revenue of approximately 5.5 billion euros (\$6.2 billion) in 2017.*

*To learn more, please visit [www.boschrexroth-us.com](http://www.boschrexroth-us.com)*

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## **About Bosch**

*Having established a regional presence in 1906 in North America, the Bosch Group employs nearly 34,500 associates in more than 100 locations, as of December 31, 2017. In 2017 Bosch generated consolidated sales of \$13.7 billion in the U.S., Canada and Mexico. For more information, visit [twitter.com/boschusa](https://twitter.com/boschusa), [twitter.com/boschmexico](https://twitter.com/boschmexico) and [www.bosch.ca](http://www.bosch.ca).*

*The Bosch Group is a leading global supplier of technology and services. It employs roughly 402,000 associates worldwide (as of December 31, 2017). The company generated sales of 78.1 billion euros (\$88.2 billion) in 2017. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT company, Bosch offers innovative solutions for smart homes, smart cities, connected mobility, and connected manufacturing. 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 deliver innovations for a connected life. 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 125 locations across the globe, Bosch employs some 64,500 associates in research and development.*

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

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