

PRESS INFORMATION

Maximum flexibility in production

Manuela Kessler | 07.08.2024 | Lohr am Main /Germany | PI 025/24

Bosch Rexroth presents a mobile cobot station with a lightweight robot from Kassow Robots at FACHPACK 2024



The mobile cobot station is transported to its workstation using the AMR ACTIVE Shuttle from Bosch Rexroth and receives information from the production control system. The KR810 7-axis lightweight robot then begins its work autonomously. (Image source: HELDELE Automation GmbH)

The tasks in manufacturing are extremely diverse, and the shortage of skilled workers, especially in shift work or during seasonal peaks, is a further challenge. At FACHPACK, Bosch Rexroth will be demonstrating how companies can automate and flexibly handle production tasks in the future with a mobile cobot station. The solution was developed by HELDELE Automation, Certified Excellence partner of Bosch Rexroth and sales partner of Kassow Robots. HELDELE uses a 7-axis cobot KR810 from Kassow Robots, Bosch Rexroth had acquired a majority stake in the company in 2022, and the control platform ctrlX CORE from Bosch Rexroth. It offers small and medium-sized enterprises (SMEs) a high degree of flexibility, as it can perform a wide variety of tasks at different locations in production. A key advantage of the solution: While the cobot installed on the mobile station carries out its work independently, the AMR (autonomous mobile robot) can take over other tasks in production and intralogistics.

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The mobile cobot station is suitable for a wide range of applications in the production of consumer goods. For example, it can be used to load packaging machines with packaging materials from small load carriers or other load carriers. Another example is the sorting of products into transport cartons, a task that is often carried out manually by co-packers. Quality control can also be automated. To do this, the cobot can take components from the production flow and place them in a small load carrier. From there, the components are automatically transported to the measuring system and tested. Solutions are also possible in which the cobot arm connected to a testing device takes over the component testing directly.

“Our solution impresses with its compactness and flexibility. While the cobot from Kassow Robots installed on the mobile station performs its tasks on site, the AMR can be used elsewhere in production or intralogistics. Conventional AGV/cobot solutions lack this advantage. There, the AGV or AMR remains temporarily idle on site until the cobot has completed its work, as the AGV and cobot form a single unit,” emphasizes David Pietsch, Managing Director of HELDELE Automation GmbH. Dieter Pletscher, Global Sales Manager at Kassow Robots, adds: “HELDELE Automation has developed a solution with our 7-axis cobots that offers impressive flexibility. Small load carriers or machines can be loaded and unloaded right up to the last corner, as the 7th axis of our robots also allows them to reach around corners and is therefore particularly maneuverable.”

Any of the ten models from Kassow Robots can be installed in the mobile cobot station. Reaches of up to 1800 mm and payloads of up to 18 kg are therefore possible. The use of the five KR Edge Edition models is particularly recommended for mobile cobot solutions, as Kassow Robots has miniaturised the controller in the Edge Edition and built it into the robot base to make integration even easier. The mobile cobot station is controlled by the ctrlX CORE from Bosch Rexroth. The overall solution was designed to be very compact at 600 x 400 mm so that it can also be used in confined production environments. The structure is designed to be tilt-stable even during dynamic movements.

The Ccobot station is transported to its workstation using an AGV or AMR such as the ACTIVE Shuttle. There it receives information from the production control system wirelessly and begins its work autonomously. Once a task has been completed, it reports this back to the control system and is automatically moved to another location. The entire process takes place autonomously, without the intervention of employees. The transport system can take over other activities in the meantime.

The solution uses an inductive battery and charging system and can therefore be operated independently of a power source for up to four hours. Charging points can be set up at other workstations or centrally for several AMRs.

Bosch Rexroth at the FACHPACK 2024: Hall 2, booth 424

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Any of the ten Kassow Robots models can be installed in the HELDELE mobile cobot station. (Image source: HELDELE Automation GmbH)

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, around 33,800 associates generated sales revenue of 7.6 billion euros in 2023.

Basic Information Bosch

The Bosch Group is a leading global supplier of technology and services. It employs roughly 429,000 associates worldwide (as of December 31, 2023). The company generated sales of 91.6 billion euros in 2023. Its operations are divided into four business sectors: Mobility, Industrial Technology, Consumer Goods, and Energy and Building Technology. With its business activities, the company aims to use technology to help shape universal trends such as automation, electrification, digitalization, connectivity, and an orientation to sustainability. In this context, Bosch's broad diversification across regions and industries strengthens its innovativeness and robustness. Bosch uses its proven expertise in sensor technology, software, and services to offer customers cross-domain solutions from a single source. It also applies its expertise in connectivity and artificial intelligence in order to develop and manufacture user-friendly, sustainable products. With technology that is "Invented for life," Bosch wants to help improve quality of life and conserve natural resources. 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. Bosch's innovative strength is key to the company's further development. At 136 locations across the globe, Bosch employs some 90,000 associates in research and development, of which nearly 48,000 are software engineers.

Press Contact

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Please get in touch with our Press Contact



Manuela Kessler

Spokesperson
technology topics
+49 9352 184145

Manuela.Kessler@boschrexroth.de