

PRESS INFORMATION

eLION drives autonomous process unit

Manuela Kessler | 26.09.2023 | Lohr am Main / Germany | PI 046/23

For the e-drive of their process unit, KRONE and LEMKEN rely on the modular eLION platform from Bosch Rexroth



High-performance electrification: The process unit from KRONE and LEMKEN uses high-performance motors and other components from the modular eLION platform in order to perform a wide range of work processes in the optimum manner. (Image source: Maschinenfabrik Bernard KRONE GmbH & Co. KG)

Bosch Rexroth supplies the electrification components for the highly innovative process unit concept study which KRONE and LEMKEN will present at Agritechnica. In order to be able to perform the various tasks autonomously and economically, the two agricultural machinery manufacturers rely on robust, high-performance components from the eLION modular electrification platform for the diesel-electric drive train.

The innovative process unit has met with great interest and has been successfully tested over the last two years as a future addition to proven work processes. Because it can be used for various purposes including cultivating, seedbed preparation, hoeing, mowing, turning and raking, the autonomous machine can be used all year round. With the autonomous system, KRONE and LEMKEN offer a sustainable response to the imminent shortage of skilled workers in the industry: Instead of spending long days working in the field, farmers can focus on the unit's system support which ensures consistently precise process quality.

At this year's Agritechnica, KRONE (Hall 27/E15) and LEMKEN (Hall 04/C28) will present the "Combined Powers" project, which differs from other autonomous vehicles in particular due to its development based on the machine's work process.

The process unit is one of many pilot applications which use the scalable eLION electrification portfolio with high-voltage components for driving and work functions. The eLION electric motors can also be used in generator mode. The modular platform includes inverters, gearboxes, tailored hydraulics and software as well as onboard charging devices and DC-DC converters too. Fully integrated functional safety in accordance with ISO 13849 in all inverters helps to save time during engineering.

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Bosch Rexroth at Agritechnica: Hall 16, Booth A08.

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.

Press Contact

Please get in touch with our Press Contact



Manuela Kessler

Spokesperson
technology topics
+49 9352 184145

Manuela.Kessler@boschrexroth.de