

PRESS INFORMATION

From battery cells to battery recycling

Manuela Kessler | 09.03.2026 | Lohr am Main / Germany | PI 006/26

Bosch Rexroth, together with other exhibitors, presents a connected value chain for battery production at the Hannover Messe



To ensure economical and safe battery recycling, Bosch Rexroth applies established principles from production to the specific requirements of disassembly and material recovery and implements automated processes that minimize human intervention in critical phases. (Image source: Bosch Rexroth AG)

At the Application Park at Hannover Messe 2026, Bosch Rexroth and six other exhibitors will be presenting a fully connected value chain, from battery cells and battery pack production to recycling. The company will focus on automation solutions for recycling electric vehicle batteries that reduce safety risks, increase process efficiency, and improve cost-effectiveness.

The recycling volume of electric vehicle batteries will increase tenfold over the next five years. However, it is not only the number of units, but also the wide variety of different battery types that will pose a challenge for the existing recycling infrastructure in the future. Based on its broad portfolio of drive and control technology as well as assembly, linear, and tightening technology, Bosch Rexroth offers a comprehensive range of solutions for every level of automation – from manual processing to semi-automated and fully automated production. With its scalable overall concept, the company reduces safety risks, increases process efficiency, and improves cost-effectiveness in diagnostics, discharging, and disassembly.

Smart pre-treatment increases recycling rate

For economical and safe battery recycling, Bosch Rexroth applies established principles from production to the specific requirements of disassembly and material recovery and implements automated processes that minimize human intervention in critical phases. Intelligent solutions for pre-treatment prior to recycling ensure better quality of recyclates and increase the recycling rate.

The diagnosis begins by determining the type and status of the battery – a challenge, especially with older batteries that don't yet have a digital battery passport. A diagnostic system determines whether and how a battery pack can be safely discharged. Bosch Rexroth offers both a mobile and a stationary system for discharging batteries. Components from linear, tightening, and assembly technology as well as cobots complement the solution portfolio for transport, handling, and disassembly, enabling manual as well as semi- and fully automated concepts. Rexroth solutions build on each other, so that existing solutions can usually continue to be used in case of an expansion or conversion.

Battery production

In addition to its recycling portfolio, Bosch Rexroth supports machine and plant manufacturers with a comprehensive range of solutions for the entire battery production value stream: from electrode and cell production to module and pack manufacturing to end-of-line testing. The

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key to the necessary scalability, short cycle times, low production costs, and high flexibility is a broad, flexibly applicable automation portfolio with open interfaces for digital connectivity. Bosch Rexroth offers individual components, system solutions, and subsystems from linear, tightening, and transfer technology, as well as the consistently open automation system ctrlX AUTOMATION.

Bosch Rexroth at the Hannover Messe

Bosch Rexroth, together with DBR77, EDAG, FANUC, Fraunhofer FFB, SCHUNK, and Vision Lasertechnik, is presenting a connected value chain for battery production at the Application Park at Hannover Messe (hall 26 in the Battery Use Case) – from battery cells to battery recycling.

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 32,600 associates generated sales revenue of 6.5 billion euros in 2024.

Basic Information Bosch

The Bosch Group is a leading global supplier of technology and services. It employs roughly 417,900 associates worldwide (as of December 31, 2024). According to preliminary figures, the company generated sales of 90.5 billion euros in 2024. 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 86,900 associates in research and development, of which nearly 48,000 are software engineers.

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