



Case Study Biotechnology

Control for Bioreactors from a Single Source: Manufacturing, Parameterizing, Testing, and Commissioning

Bioreactors — Customized for Clients: Eckelmann solutions stand for scaling and flexibilization of production capacities. Customers receive the all-inclusive package: hardware and software development including manufacturing, installation of electronic and pneumatic hardware, and system testing from a single source.

“With a high level of industry understanding, we are a partner of biotechnology. Whether individual systems or lines: As a system partner and general provider, we deliver excellent solutions from a single source to automate bioreactors, filtration, mixing, storage, and filling systems — and take over development, manufacturing, and life cycle management for our customers.”

Sabine Winkler | Deputy Head of Business Unit Automation Project
Pharma | Biotechnology | Medical



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Objective

In bioreactors, microorganisms or cells are cultured in a nutrient medium. Eckelmann solutions control bioreactor functions, regulate and control pH value, gas flows, speeds, and temperatures, for example. Eckelmann is a partner for control — to increase the quality, safety, and efficiency of bioreactors in collaboration with customers.

The Industry

The market for bioreactors is growing tremendously: this forward-looking technology enables pharmaceutical companies to manufacture antibiotics or vaccines in a regulated environment. Typical applications for bioreactors are suspension cell cultures for the production of viral vectors for gene therapy, vaccines, or in the food industry for the production of meat substitute products.

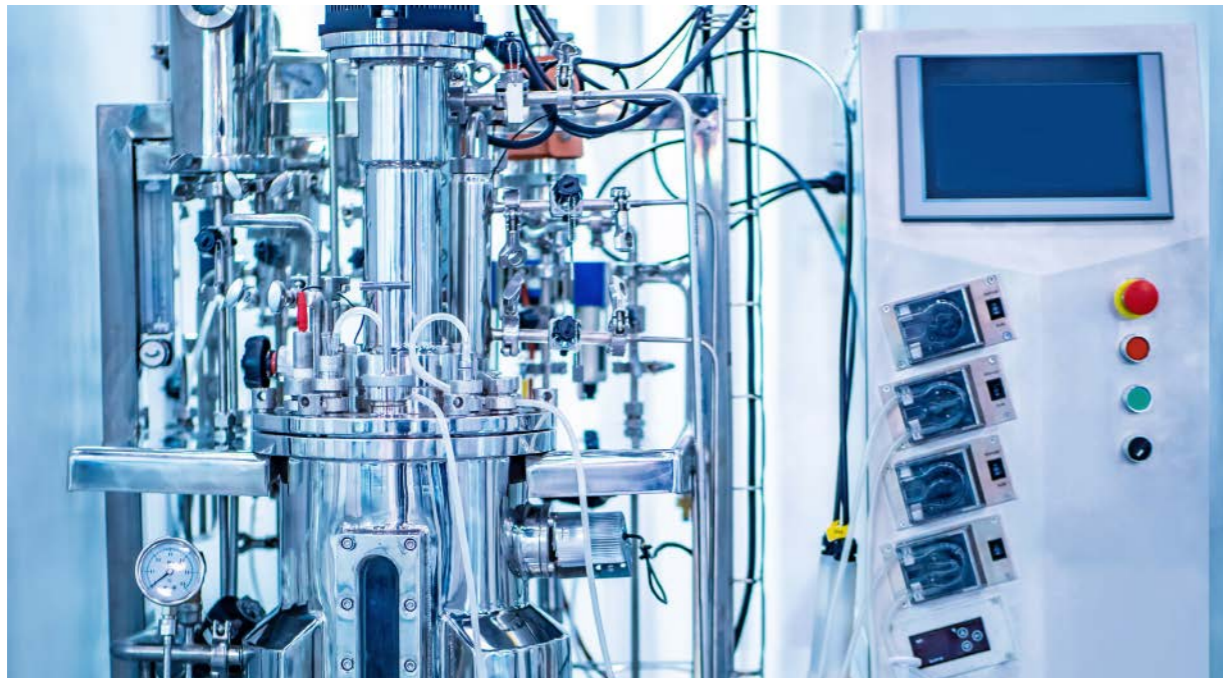
The controls for bioreactors of various performance ranges are developed and manufactured according to customer requirements.



› When Eckelmann engineers take over the complete individual hardware and software development for bioreactors, we also deliver the entire control system plus user-friendly operating unit (HMI).

Performance by Eckelmann

- › Eckelmann engineers take over the complete individual hardware and software development for bioreactors, often in close and cooperative collaboration with the customer.
- › Eckelmann supplies the entire control system plus operating unit (HMI): the user-friendly design of the operating interface incorporates user experience expertise, ensuring maximum process safety and enabling high performance.
- › The entire development and production process complies with both legal and customer quality guidelines.
- › Solution for optimal scaling.



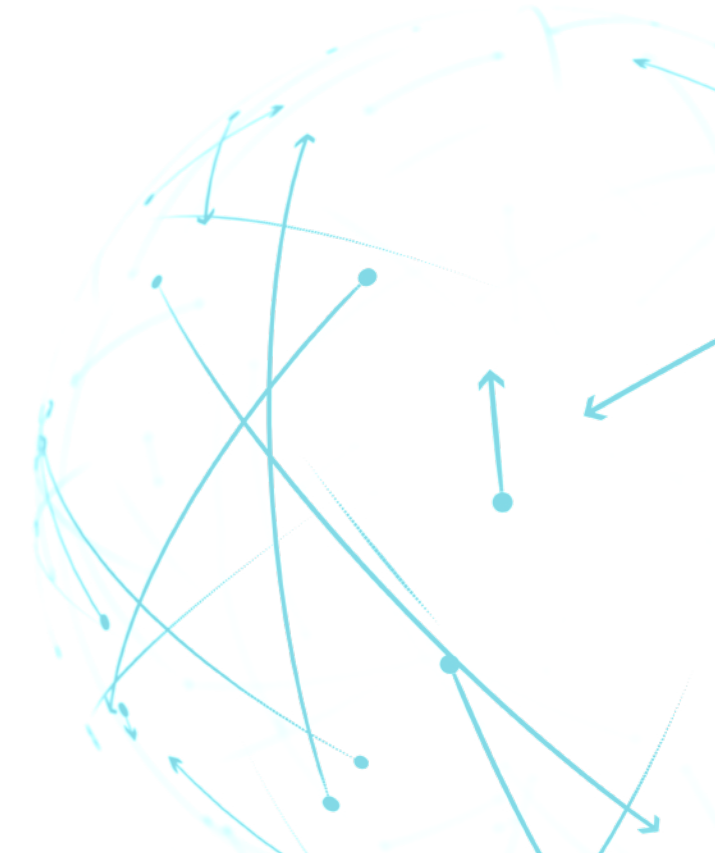
› As a system supplier, Eckelmann offers hardware and software based on individual system and development platforms.

Special Features

- › Eckelmann is a partner, industry-experienced advisor, and complete supplier.
- › Eckelmann meets the high regulatory requirements, for example with ISO 13485 as a supplier for medical technology, ISO 62304 (Medical Device Software)
- › Compliance with GMP/GAMP 5 standards and guidelines and the manufacture of electrical systems in accordance with CE, UL, and UKCA.

Do you have any questions?

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