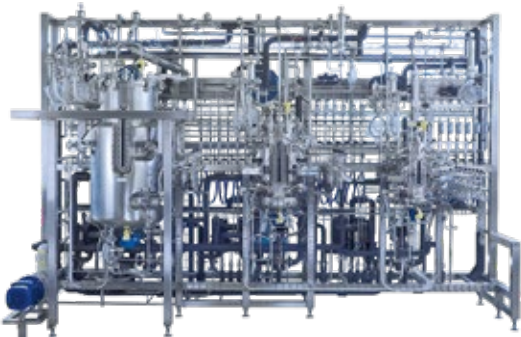




LAB@UBE



PILOT@UBE



PRO@UBE

Technologies

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BILFINGER LIFE SCIENCE



WE MAKE
FERMENTATION WORK.

EXCELLENCE IN FERMENTATION EQUIPMENT

LABQUBE

- › Working volume: 15 to 100 L
- › Mobile and compact design
- › Dual mobile control unit
- › In place sterilizable push valves for additions
- › User conform process visualization
- › PAT-compliant hardware design
- › Application: laboratory, R&D, education

PILOTQUBE

- › Working volume: 100 to 1,000 L
- › Flexible scalability
- › Modular and space-optimized design
- › Central control unit
- › Integrated CIP unit optional
- › Fully automated hardware configuration
- › Application: pilot plant

PROQUBE

- › Working volume: ≥ 1,000 L
- › Complete production plant
- › Up- and downstream processing
- › Super skid manufacturing
- › Steel platform construction
- › High qualification standards
- › Application: production

HIGHLIGHTS

Features:

- › Stainless steel bioreactors
- › Internal material finish: Ra ≤ 0.6 µm, electropolished
- › Modular and compact system design
- › Flexible scalability
- › cGMP-compliant design
- › Automation Siemens PCS 7
- › Communication interface: OPC
- › Virtual interface for different client types
- › Consistent operation of all systems

Add-ons | Process control:

- › SCADA (Supervisory Control And Data Acquisition)
- › MES (Manufacturing Execution System)
- › PAT (Process Analytical Technology): implementation of state-of-the-art sensor technologies; soft-sensors
- › APC (Advanced Process Control) strategies
- › Customized process control visualization

Process engineering | Equipment:

- › Push valves
- › Integrated CIP/SIP unit
- › Up- and downstream processing
- › Super skid manufacturing

Fermentation equipment:

Product	Working volume	Application
LABQUBE	15–100 L	Laboratory, R&D, education
PILOTQUBE	100–1,000 L	Pilot plant
PROQUBE	500–2,500 L	Production

(PRE)FABRICATON

Skids and Super skids are prefabricated and fully tested at the BILFINGER production plant in Salzburg. The factory has been designed specifically for GMP-compliant construction of high-quality systems including all necessary QA activities, qualification tasks and software test runs.

- › Sterility
- › Maintenance during process
- › Optimum ergonomics and serviceability
- › High process safety

SERVICES

Our services cover the entire life cycle of a system, making the Bilfinger equipment a secure investment.

- › Engineering services
- › Project consulting for bioprocesses
- › Experimental plants
- › Product testing and development in collaboration with universities in Europe or Asia
- › Qualification and validation
- › After-sales service

