



Pilot bioreactor for sophisticated bioprocesses

This is Techfors

The Techfors pilot bioreactor offers a customized solution for bioprocesses on a production scale. The user interface is consistently workflow-oriented and therefore makes operating the Techfors absolute child's play. With the aid of the bioprocess software eve[®], complex bioprocesses can be controlled, monitored, analyzed and documented in a GMP-regulated environment.

Successful bioprocesses begin with professional planning

This is why we work together with you to define an individual profile of requirements for each Techfors. Of course, our experts incorporate their technical knowledge from over 250 previous installations and support you from planning to commissioning.

Compact design: Maximise your lab space

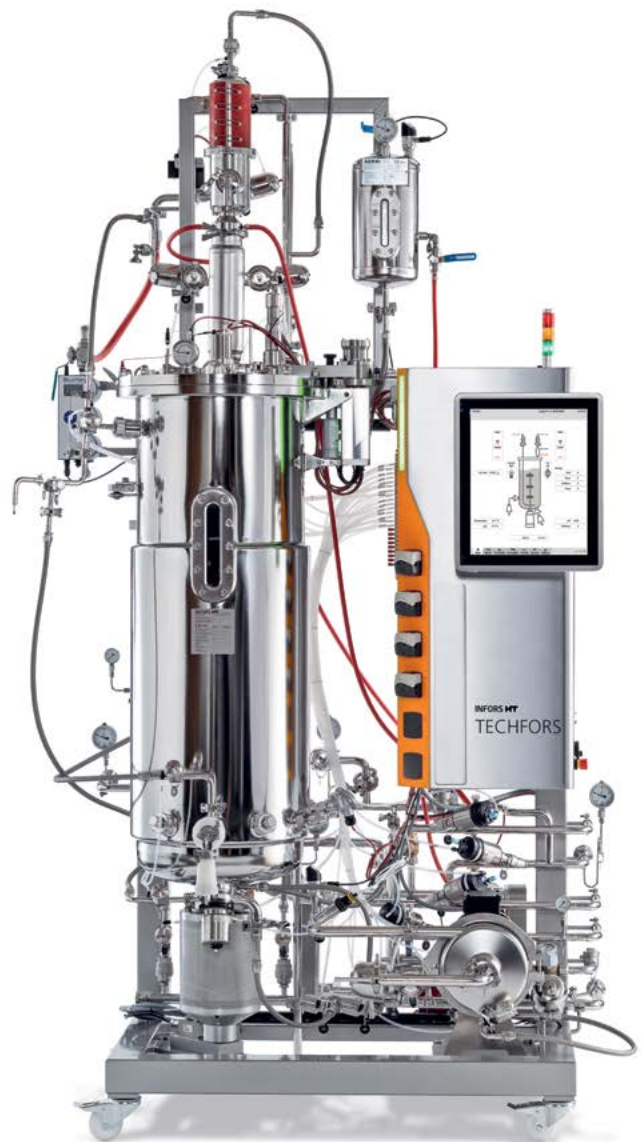
We understand the value of every square inch in your lab. Our pilot bioreactor features compact design, making efficient use of available space. This allows you to make efficient use of the space available, accommodate more equipment and optimize your workflow.

Precise process control

The bioprocess software eve[®] supports you in all aspects of the bioprocess. From the project, experiment and batch planning to the management of resources and results, eve[®] is web-based. Therefore, your bioprocess data are available to you directly via the browser – also on multiple devices.

Reliable process automation

The automation solution is a critical factor in fermentation processes. With standardized CIP/SIP processes and individual control strategies, you set the course for consistent, reproducible results in the fermentation process.



Features

We offer a wide range of high-quality components according to industry standards.

Stainless steel vessel

- Working volume up to 660 L
- Double jacket made of 316L stainless steel
- Individually configurable from a selection of stirrers, economizers and other accessories
- Device can be easily moved using stable wheels (up to 300 L)

High-performance pumps

- The basic set-up includes four Easy-Load precision pumps per culture vessel (optionally two additional pumps)
- Gravimetric feeding possible (with external balance)
- Profile-based control of the pump speed (via eve®)

Gassing

- Customer-specific gassing via rotameter or mass-flow regulator
- Cascades may be configured in serial or in parallel for controlling the pO₂ via the stirrer speed, gassing rate, gas composition and pressure

Sensoren

- Customer-specific gassing via rotameter or mass flow controller
- Large selection of sensors (pH, pO₂, optical density, redox density, CO₂, exhaust gas analysis, etc.)

Cleaning & sterilization

- Fully automatic sterilization system (SIP)
- Sterilization of all parts in contact with the product
- Integrated cleaning-in-place system (optional)

Validation & qualification

- Installation qualification (IQ)
- Operational qualification (OQ)
- Factory acceptance test (FAT)
- Site acceptance test (SAT)



Bioprocess Software

Able to do more than just plan, control and analyze your bioprocesses, eve[®] software integrates workflows, devices, bioprocess information and big data in a platform that lets you organize your bioprocesses in the cloud.

The big-data-compliant platform software for comprehensive management of bioprocesses

- Planning, control and analysis of bioprocesses
- Integrates workflows, devices and bioprocess information
- Web-based project organization
- Communication using the latest OPC UA standard
- Synchronization of process-related events such as sampling or inoculation



Technical specifications for Techfors

Vessel	up to 1000 L
Working volume	up to 660 L
Dimensions	(W x D x H): depending on specification
Drive unit	depending on specification
Temperature	up to 79 °C for temperature control; up to 125 °C for sterilisation
Gassing per culture vessel	depending on specification
Pump speed per culture vessel	depending on specification
Ports per culture vessel	3 fixed, 1 variable, optional 2 additional
Connectivity	OPC XML DA via Ethernet
Sterilization	sterilization-in-place



Contact us and we'll be happy to advise you.



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