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BIOSTREAM

Benchtop Bioreactor

BioUniv

BioUniv
Benchtop bioreactor

Unique and User-Friendly design

At BioUniv, our philosophy is to ensure a clean working environment for users by integrating all sensor modules and electronic connections into the basic unit.

11.6" Touchscreen

Intuitive and advanced control of up to 6 BioUniv simultaneously. The touchscreen is moveable for added flexibility. Alternatively, control the unit from a computer without a touchscreen for convenience.

Proprietary Software

Developed by Biostream's expert software engineers, integrating instructional movies and protocols. Easily adaptable to your specific needs.

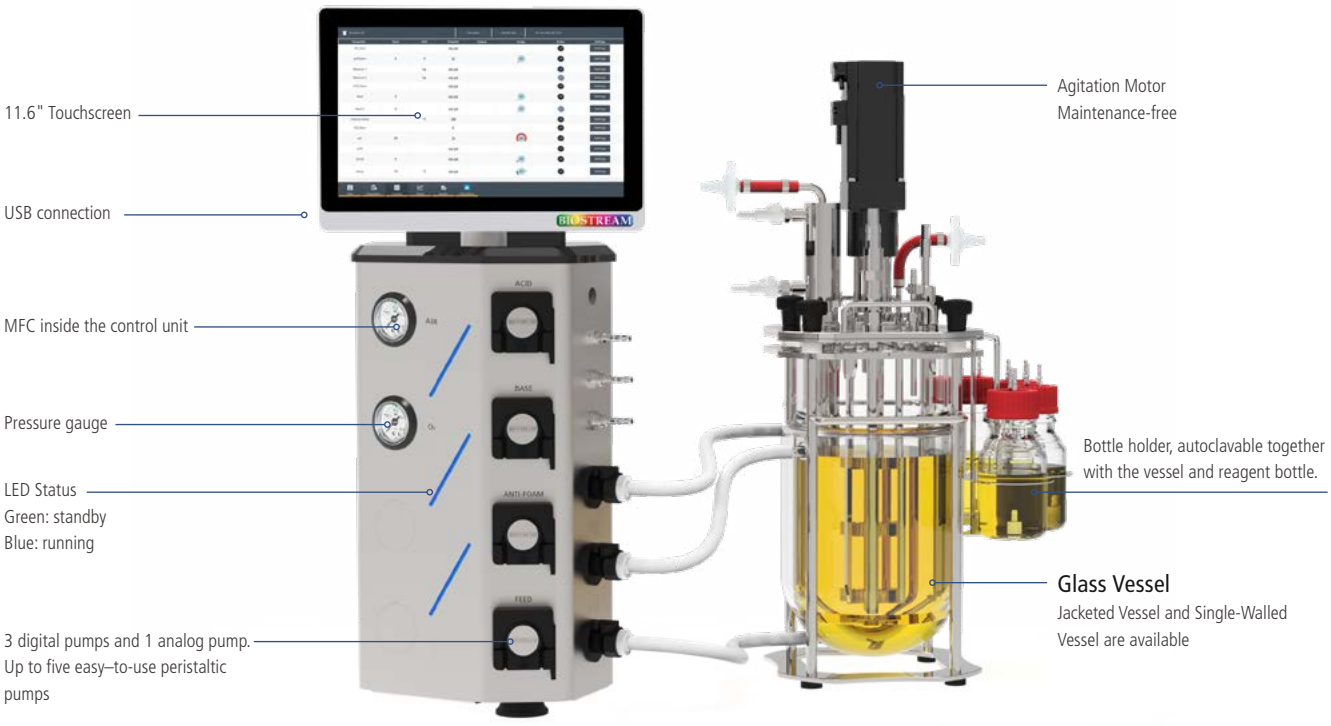
System Expansion

BioUniv offers extensive flexibility by allowing numerous additional parameters for both data inputs and control outputs. These additional parameters encompass a wide range of options, such as extra peristaltic pumps, exit gas analyzers, optical density/turbidity measurements, and balances for precise feed control. Embrace the versatility of BioUniv to tailor your experiments and achieve exceptional results.

Experience the next level of laboratory efficiency and precision with BioUniv – Your all-in-one solution for exceptional results.

The powerful benchtop system offered by BioUniv is versatile and capable of supporting the growth of virtually any bacteria, yeast, or fungi.

Moreover, it can be easily adapted for mammalian, insect, or plant cultures through the utilization of optional accessories. This flexibility empowers researchers to conduct a wide range of experiments with ease and efficiency.

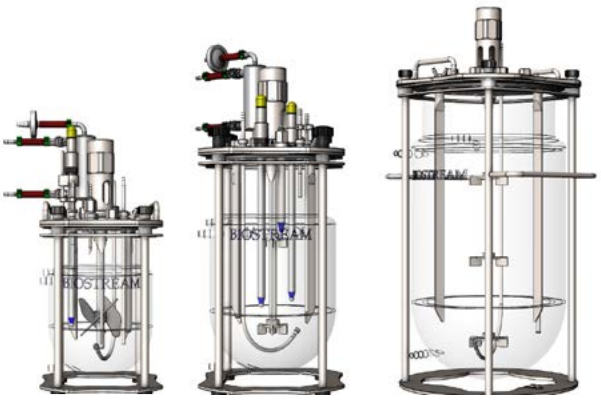


Culture Vessel

A single-wall vessel with electric heating pad and cold finger allows gentle heating with a maximum temperature of 95℃ . A double jacket glass vessel with water circulation provides maximum heat transfer for rapid temperature changes up to 70℃ .

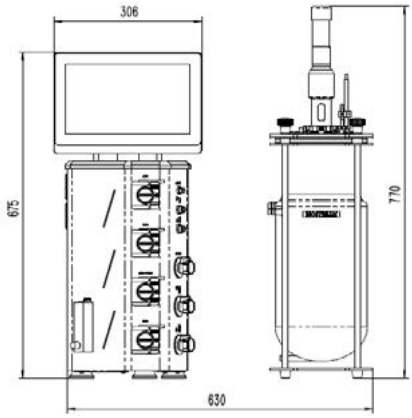
Standard culture vessels are available as stirred tank vessels in 2, 3.6, 5, 7.5 and 13 L total volumes. All vessels are made of borosilicate glass with a stainless steel headplate. They have a round bottom design for optimal mixing results at low and high agitation speeds.

The polished stainless steel headplate has been specially designed for easy cleaning and maximized number of ports for probes and culturing accessories. Each vessels can be supplied with a range of accessories and devices, including flexible couplings to allow the vessels to fit into small autoclaves.



2 Liter 7.5 Liter 13 Liter

Size



Glass vessel specifications

Glass vessel					
Total Volume	2 L	3.6 L	5 L	7.5 L	13 L
10 mm	5	4	4	5	5
12 mm (PG13,5),	5	6	6	8	8
19 mm	1	1	1	1	1
Head plate is free configurable with more ports					

Cell type

Mammalian cells
insect cell
plant cell
Other microorganisms, such as bacteria and fungi

Process mode

Batch culture
fed-batch operation
Continuous cultivation
Perfusion culture

Application

Process development
Expression and optimization
Zoom in and out research
Seed amplification and smallscale
cell bank production
Protein supply

Application area

Biological Pharmacy
Vaccinum
Cell therapy
Industrial Biotechnology
Fundamental research
Education

BIOSTREAM

Agitation

The high-performance magnetic motor assembly in our system offers low shear, gentle agitation for cell cultures. And Biostream priovide mechanical drive with high-speed mixing for microbial high cell density cultivation, ensuring excellent oxygen transfer rates. The gear-free design ensures quiet operation, even at high speeds, and the compact size allows for easy and convenient handling.

Gassing system

We offer a diverse selection of gassing systems tailored for microbial and cell culture applications.

Our systems support multipurpose use, allowing for easy accessory upgrades. Each system ensures individual flow rates and gas blending for every culture vessel.

Flow rates are easily adjustable using precision rotameters, and you have the option to include a Thermal Mass Flow Controller for each flow path.

Peristaltic pump configuration

Up to five easy–to-use peristaltic pumps for each culture vessel are infinitely controlled for addition of corrective agents, feeding, as well as culturing volume control.
3 digital pumps (base, acid, antifoam) and 1 analog pump (feed) are standard.
All the pumps can be effortlessly configured as either digital or analog pumps using the software
Additionally, external pumps for feeding can be easily connected.

Intuitive Touchscreen

The 11.6" Touchscreen provides clear visibility of all setpoints, current values, cascade loops, and more, with straightforward and easy-to-navigate display screens.

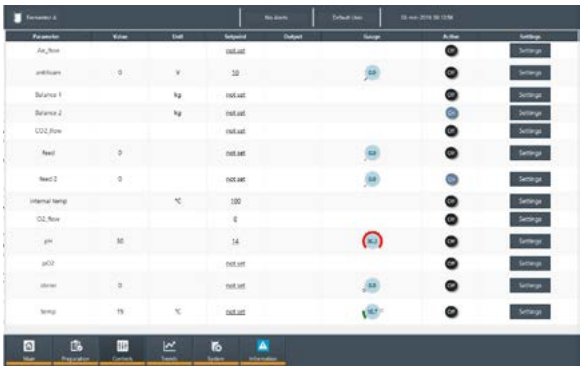
User-customizable trend graphs enable effortless tracking and data export, supporting up to 8 loops simultaneously.
The system offers built-in flexibility to customize all PI values according to your preferences or choose factory defaults.

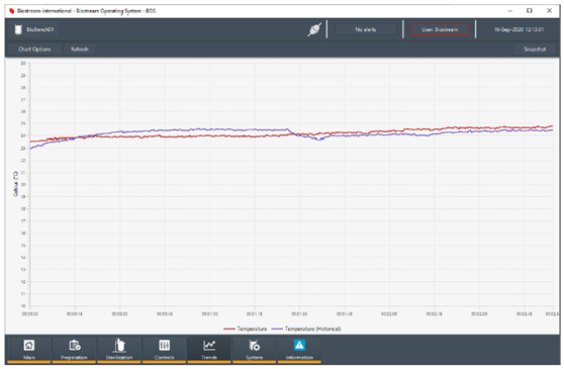
Technical Specification

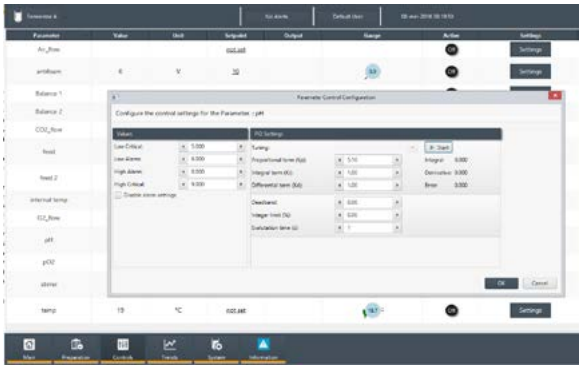
Version for	Microbial culture	Cell culture
Control station Dimensions (W x D x H)	310*500*675mm	310*500*675mm
Touchscreen	11.6"	
Total Volume	2L / 3.6L / 5L / 7.5L / 13L	2L / 3.6L / 5L / 7.5L / 13L
Max Working Volume	1.2L / 2.3L / 3.6L / 5L / 10L	1.2L / 2.3L / 3.6L / 5L / 10L
Drive system	Mechanical drive: 50-1200 RPM	Magnetic drive: 10-230 RPM
Impeller	Rushton impellers	Marine impeller
	Different impellers or other parts are possible at request	Different impellers or other parts are possible at request
Temperature	Coolant + 5 ℃ to 70 ℃	Coolant + 5 ℃ to 70 ℃
Gas Mixing	AIR +O_2 or Air + N_2; Max total flow: 2vvm	4 Gas (Air, O2, N2, CO2) mix; 0.1-1vvm
pH	2-14	2-14
DO	0-150%	0-150%
Pumps	3 digital pumps and 1 analog pump Up to 33ml /min	3 digital pumps and 1 analog pump Up to 33ml /min

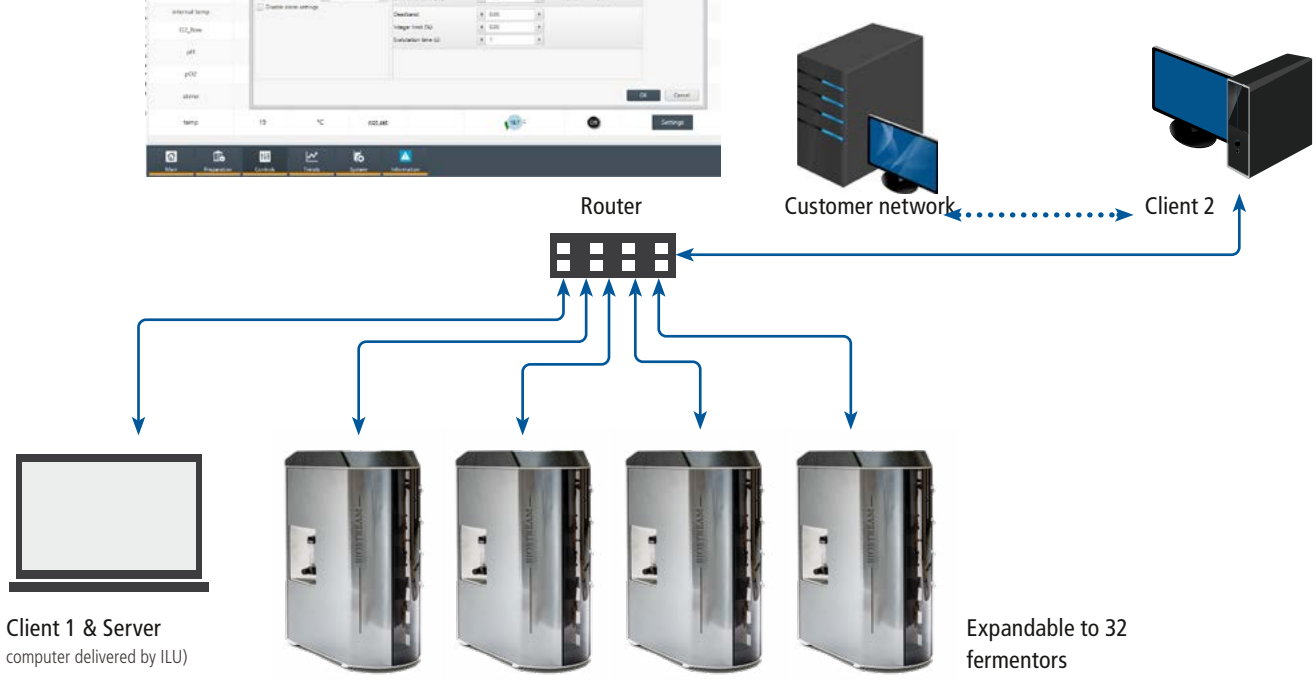
BOS Controlling & Logging Software

Our BOS software is designed to provide flexible operation on a single PC, network, remote control, and network/modem connectivity. Moreover, it seamlessly integrates with a wide range of peripherals such as balances, external pumps, exit gas analyzers, biosensors, mass spectrometers, and more, allowing online connections to the system. With the integration of this data and offline analysis information, BOS is an ideal solution for comprehensive "Bioprocessing" needs.









- Possible via Touch screen or via computer.
- BOS software can be installed on each computer
- Easy and free installation on PC and tablets
- Simple and intuitive use
- Overview of all bioreactors
- All kind of programming via recipes
- Cascade possibilities
- Sample tracking
- Alarming with confirmation
- PID tuning of parameters
- Easy one, two point calibration with graphical view and accuracy
- Maintenance information sensors
- Adding external devices your self.
- Exporting functions to Excel or other programs
- Volume corrected feeding.
- Own defined on-line graphs
- Comparison with old data
- Integration of protocols (SOPs)
- Specific programming for customer demands

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