

Biostat STR®  
Generation 3 and  
Biobrain® Automation  
Platform

Process Development

Simplifying Progress

**SARTORIUS**

# Engineered for Seamless Scalability

The Biostat STR® Generation 3 single-use bioreactors are powered by Biobrain®, an automation platform with a comprehensive suite of analytical tools and data-driven software, to accelerate process development and allow seamless scalability. This can be further enhanced by BioPAT® Process Insights software to enable predictive bioreactor scaling.

The Biostat STR® Generation 3 system can be used stand-alone or easily integrates into existing automation infrastructures and consistently delivers on speed, process control, and productivity.

- ✓ Improve productivity and ease of use
- ✓ Simplify set-up for process intensification
- ✓ Stay flexible and optimize space
- ✓ Increase speed to clinic and market
- ✓ Enhance safety

## Realize Rapid Development and Seamless Scalability

The Biostat STR® runs on Biobrain®, a fully configurable automation platform with a bioprocess optimized user interface and advanced process monitoring and control. One control tower can be used interchangeably with any bag holder size. The Media Control Hub organizes feeds, pumps and balances to automate complex processes while maintaining a clean and efficient workspace. Together with cable and tubing organizers and a document tray, the Media Control Hub makes bioreactor operation more streamlined.

The Flexsafe STR® bags are designed with multiple sparger and impeller options on a magnetically coupled center-line shaft that delivers rapid, homogeneous mixing, even at high volumes and low agitation rates. Biostat STR® is available with integrated XCell ATF® technology enabling process intensification to increase cell density and productivity.

Biostat STR® system and Biobrain® automation platform provides you the flexibility and power to quickly and easily make configuration upgrades, allowing you to adapt on-demand.

- Choose your ideal configuration of pumps, balances, sensors, and other equipment
- Add functionalities as needed with a simple software update
- Enrich your process understanding and control by installing BioPAT® MFCS, a specialized SCADA software that captures, stores, and visualizes process data and offers recipe creation and execution

The geometric similarity of Sartorius' stirred tank bioreactor portfolio allows seamless scalability and rapid acceleration of your development process. Biomanufacturers typically rely on spreadsheets to scale upstream processes. With the BioPAT® Process Insights software (recommended option), scientists at any scaling experience level have access to simplified predictive scaling capabilities that mitigate risk and shorten timelines.

As a result:

- Save time and money with characterized bioreactor data
- Predict scalability risk across the upstream (or bioreactor) development workflow
- Mitigate risk by unique multi-parameter and multi-scale evaluation early in the process (OPTIONAL based on layout capabilities)

### Find out more

For more information, please visit [www.sartorius.com/biostat-str](http://www.sartorius.com/biostat-str)

# Maximize Quality, Consistency, and Productivity

Gain an in-depth understanding and precise control of your process. The sensors, software, and advanced analytics in the BioPAT® toolbox help ensure the purity, quality, safety, and batch-to-batch consistency of your product.



**01**  
**BioPAT® ViaMass**  
 In-line monitoring of viable biomass and automated cell bleed control



**02**  
**BioPAT® Trace**  
 On-line monitoring of glucose and lactate and automated feed control



**03**  
**BioPAT® Foam**  
 Monitoring of foam level with alarming and interlock functionalities



**04**  
**Electrochemical single-use pH sensors**

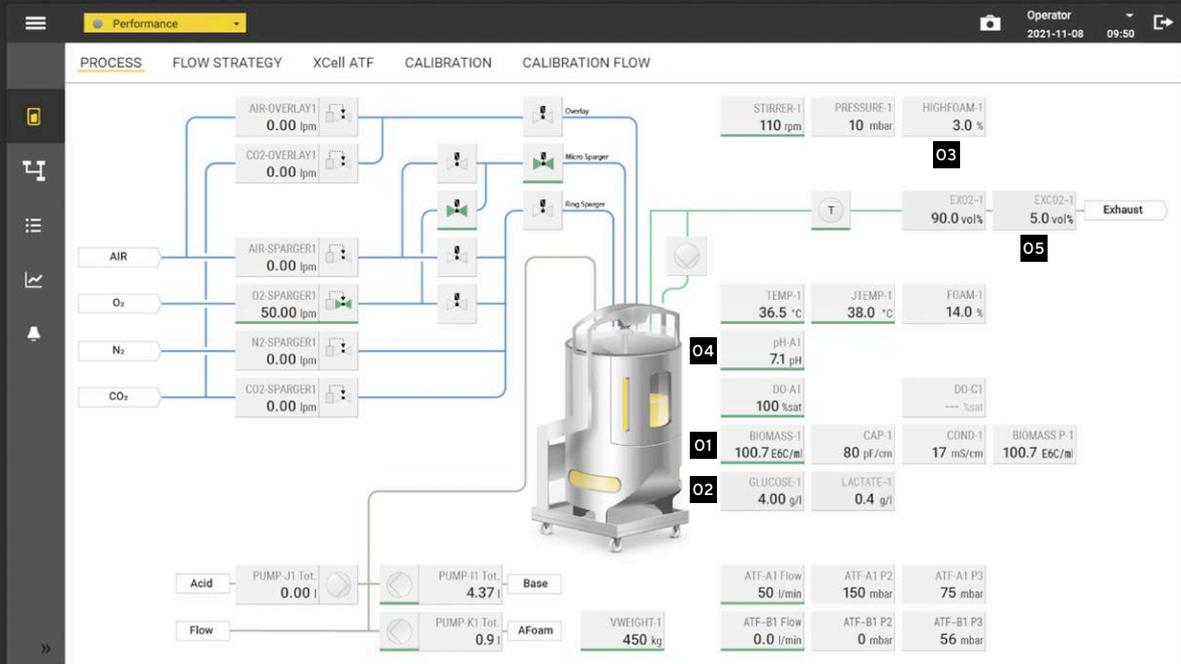


**05**  
**BioPAT® Xgas**  
 Oxygen-carbon dioxide sensor featuring automatic compensation of humidity and pressure



**BioPAT® Process Insights Software**  
 Simplified, predictive bioreactor scale-up and down

## SARTORIUS



# Biostat STR® Generation 3 Configurations

Our process development solutions have been predesigned into two configuration packages with flexible options and easy upgrades. Select the configuration that best fits your current needs and conveniently adapt to any future requirements.

Features	Essential	Performance
<b>New Key Features</b>		
Integrated Repligen Xcell ATF® Technology		<input type="checkbox"/>
Media Control Hub for organizing pumps, balances, and feeds		<input type="checkbox"/>
<b>Process Analytical Technologies (PAT) Toolbox</b>		
BioPAT® Trace glucose   lactate sensor		<input type="checkbox"/>
BioPAT® Viamass sensor for real-time viable cell density		<input type="checkbox"/>
BioPAT® Xgas sensor for real-time off-gas measurement		<input type="checkbox"/>
<b>Advanced Process Control</b>		
Vessel Level Control	■	■
Gravimetric Feeds	2	up to 5
BioPAT® Viamass Cell Bleed   Feed Control		<input type="checkbox"/>
BioPAT® Trace Glucose Control		<input type="checkbox"/>
Setpoint Profile for media flow controllers	■	■
<b>Automation</b>		
Local Recipe Execution	■	■
Local Data Archive, Historical Trending and Batch Reporting	■	■
Secure Remote Service Access	■	■
<b>Safety</b>		
BioPAT® Foam single-use sensor with High Foam Alarm		<input type="checkbox"/>
Sartocheck® bag tester	<input type="checkbox"/>	<input type="checkbox"/>

■ Included □ Optional

## Sales and Service Contacts

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