



Biostat STR®  
Generation 3 and  
Biobrain® Automation  
Platform

Process Development

Simplifying Progress

**SARTORIUS**

# Engineered for Seamless Scalability

The Biostat STR® Generation 3 single-use bioreactor system with a working volume of 12.5L to 2,000L is designed for rapid process development and seamless scaling to commercial manufacturing. It is powered by Biobrain®, the new automation platform, a data-driven software, and a comprehensive suite of analytical tools.

Meet critical project timelines by quickly building a scalable process around your molecule.

## Realize Rapid Development and Seamless Scalability

The Biostat STR® system has a fully configurable control tower with an advanced user interface and improved connectivity. One control tower can be used interchangeably with any bag holder size. The organizational racks for pumps and balances together with cable and tubing organizers plus a document tray 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 homogeneous mixtures quickly, even at high volumes and low mixing speeds. Biostat STR® supports connection to Repligen's XCell™ ATF cell retention devices to increase the cell density and productivity and enables process intensification.

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 execution

- ✓ Increased productivity and ease of use
- ✓ Enhanced safety and optimized space
- ✓ Flexible configurations and simplified maintenance
- ✓ Increased speed to clinic

The geometric similarity of Sartorius' stirred tank bioreactor portfolio allows seamless scalability and rapid acceleration of your development process. The Sartorius scaling tool accurately predicts conditions required to scale your process by considering scales, process parameters, and process constraints to identify the exact requirements to achieve your goals. Our technical support team can assist you with standard operating procedure (SOP) conversion from your existing scale or technology.

The result is:

- Fewer engineering runs to optimize your scale-up process
- Rapid advancement to clinical trials and commercialization
- Lower material costs

## 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.



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



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



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



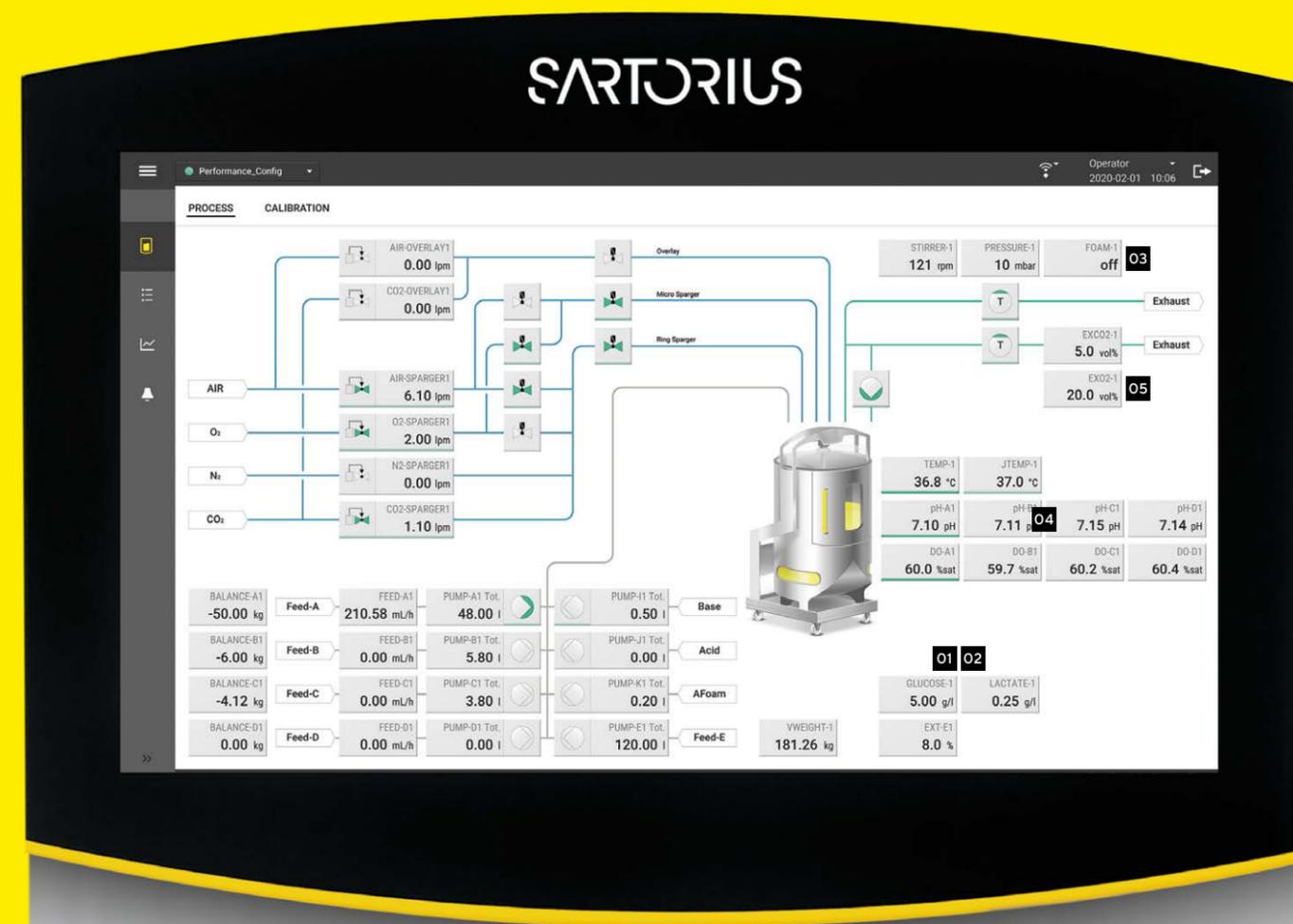
**Electrochemical single-use pH sensors**



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



**BioPAT® Spectro**  
Unlock the full potential of Raman spectroscopy



# Biostat STR® Generation 3 Configurations

Our process development solutions have been predesigned into three configurations with flexible options and easy upgrades. Select the configuration that best fits your current needs and you can conveniently adapt for any future requirements.

	Essential	Performance	Performance Plus
Perfusion ready		■	■
<b>Process Analytical Technologies (PAT) Toolbox</b>			
BioPAT® Foam	Optional	Optional	■
BioPAT® Trace		Optional	Optional
BioPAT® ViaMass		Optional	Optional
BioPAT® Xgas		Optional	Optional
BioPAT® Spectro		Optional	Optional
Electrochemical pH sensor	■	■	■
<b>Peripherals</b>			
No. of external pumps	2	4	4
Load cells	■	■	■
Mass flow controller	6	6	6
Flexsafe STR® bags	■	■	■
Sartocheck® bag tester	Optional	Optional	■

## Sales and Service Contacts

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