

## Biostat® C

## In-situ sterilizable lab-fermentor

### “Ready to use”

### Automatic in-situ sterilization

### Digital measurement and control

### Interchangeable culture vessels

### “Open frame” design

The Biostat® C is a compact laboratory scale fermentor with in-situ sterilizable culture vessels up to 30l working volume.

The Biostat® C is delivered complete and ready to use, with probes, four pumps, vessel with drive, digital measurement and control as well as connections to external systems.

Bioprocess capabilities of the Biostat® C include batch, fed-

batch and continuous processes alike.

And, for cell culture, a full line of accessories like spinfilters, impellers, and gasmix units are also available.

The modular design consists of the supply unit, the culture vessel and a digital control unit.

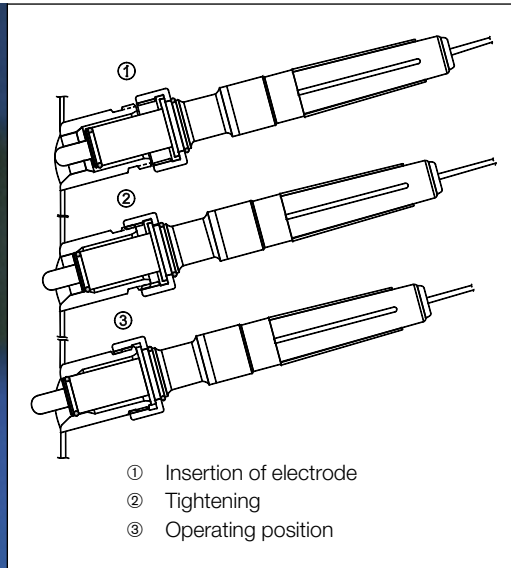
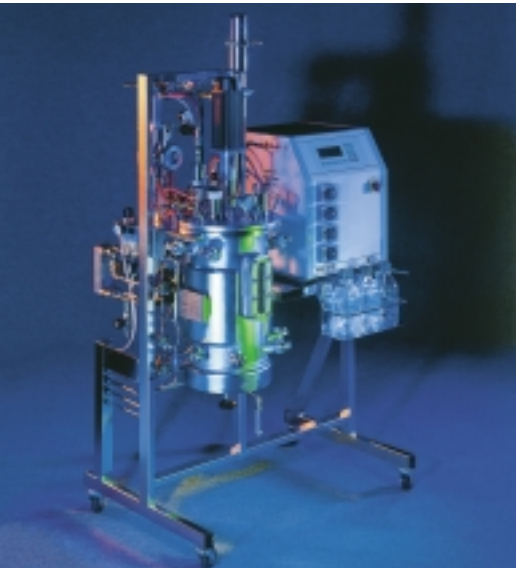
The open frame design of the supply unit provides ready

access and ease of maintenance for all process piping and actuators.

The interchangeable jacketed, stainless steel culture vessels are available with 10l, 15l, 20l and 30l working volume in a height : diameter ratio of 3 : 1 or 2 : 1.

The servomotor of the top-drive agitator is used to maximize performance and to keep removal simple.

- **New: "BBI Safety-Port"**
- **Includes massflow controller**
- **External variable speed pump connections**
- **Choice of electrical or steam heating system**
- **Integrated RS 422 host interface**



The control unit of the Biostat® C includes four configurable peristaltic pumps and a powerful digital measurement and control system.

The control hardware is based on our proven DFC (Digital Fermenter Control) circuit board. This microprocessor system is specially designed for bioprocess (fermentation/cell culture) automation. The DFC contains the measurement amplifiers and actuator signal outputs. This approach yields high reliability.

Software functionality includes process measurements,

calibration routines and a standard set of control loops. An automatic sterilization sequence for the culture vessel, inclusive of the air inlet and exhaust filters, is also standard.

The multiphase cascade controller for dissolved oxygen, the two substrate controllers with setpoint profile capabilities and „high foam“ emergency shutdown are additional features of the software.

The software has been developed under a quality control system which follows the GAMP (Good Automated

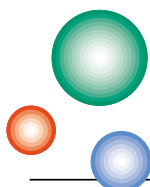
Manufacturing Practice) guidelines. This helps guarantee consistency throughout the software's lifecycle. New features will be continuously added.

The ergonomically designed user interface, combined with a proven, function-oriented menu structure, ensures user-friendly operation with minimal training. Easy to learn operation is important in both academic and industrial operating environments.

The new 25 mm "BBI Safety-Ports", the built-in mass flow aeration controller and the

software functionality are key features of the unit. Additional features, like an RS 422 serial interface port for host computer connection, spare analog inputs for external process signals and connections for two variable speed external pumps contribute to the performance of the Biostat® C.

For cGMP production environments B. Braun Biotech can optionally provide validation support. Similar to custom systems, we can provide support for the required qualifications (IQ/OQ Tests) and documentation tasks related to the Biostat® C.



- FERMENTORS
- BIOREACTORS
- SHAKERS
- HOMOGENIZERS
- CENTRIFUGES
- FOAM BREAKERS
- PROCESS AUTOMATION
- CUSTOM PROCESS SKIDS
- THERMOREGULATORS
- COOLING UNITS

QUALITY • TECHNOLOGY • SUPPORT



**B. Braun Biotech International**  
 ●●● sartorius group

Schwarzenberger Weg 73-79 · D-34212 Melsungen  
 Tel. +49 (56 61) 71-34 00  
 Fax +49 (56 61) 71-37 02  
 e-mail bbi.info@bbraun.com  
 http://www.bbraunbiotech.com