



Biostat® C-DCU

In-situ sterilizable lab-fermenter

DCU 3 control system

Automatic in-situ sterilization

Interchangeable culture vessels

Full range of accessories

“Open frame” design

The Biostat® C-DCU is a compact laboratory scale fermenter with in-situ sterilizable culture vessels up to 30l working volume, the Biostat® C-DCU supports both microbial and cell culture applications.

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

This bioprocess system combines the proven process hardware of the Biostat® C

with the advanced DCU 3 local control system.

The extensive digital, analog and serial expansion options of the DCU 3 are essential elements for supporting both standard and advanced process control strategies.

The modular design consists of the culture vessel, the supply unit, a control cabinet and a DCU 3.

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**
- **Multiple cascade controller for pO₂**
- **Choice of electrical or steam heating system**
- **Integrated RS 422 host computer interface**



The stainless steel control cabinet includes four, built-in peristaltic pumps and is designed to provide enough space for further installations of additional equipment.

The DCU (Digital Control Unit) is a local control system, specially tailored to bioprocess (fermentation/cell culture) automation. In its third generation, there are nearly 1500 worldwide.

Standard Biostat® C-DCU automation 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.

Additional standard software features include: a multiple cascade controller for dissolved oxygen, setpoint control profiles, dosing counters for built-in pumps or gasmix valves (optional) and the "high foam" emergency shut-down.

Furthermore, standard options include pressure measurement and control, weight measurement and control, and redox and turbidity measurement, among others.

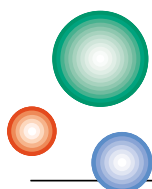
Advanced software modules like gravimetric flow control, various gasmixing strategies and nutrient feed strategies may be implemented. Process specific configurations may also be developed.

The software is developed under a quality control system following the GAMP (Good Automated Manufacturing Practice) guidelines.

The DCU 3 is operated using a graphical interface on a flat panel touch-screen. This intuitive interface eases screen navigation and the changing of parameters, keeping the learning curve to a minimum.

Optionally, for cGMP production environments, the Biostat® C-DCU offers validation support features. These include a three level password system for user access control, logging of all events and user actions, and comprehensive software documentation. Drawings and data for major components and materials of construction would also be included in this documentation.

The Biostat® C-DCU is designed to meet your needs.



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