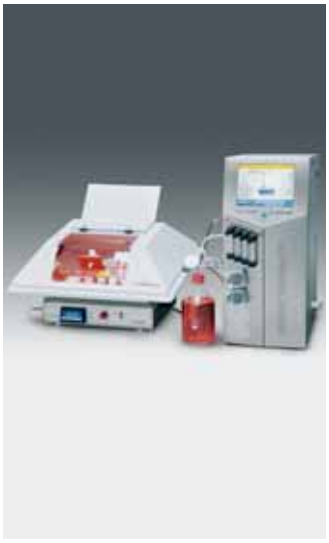
sartorius stedim biotech

BIOSTAT® CultiBag RM 20/50



Packages

BIOSTAT® CultiBag RM 20/50 basic
The BIOSTAT® CultiBag RM 20/50 is a mid scale Disposable Bioreactor, for up to 25 L of culture volume. It utilizes rocking motion mixing technology. The basic system can be operated with two different Bag Holders which allow working volumes between 0,2 and 25 L. It is designed for standalone use with a heater mat and integrated aeration pump.

BIOSTAT® CultiBag RM 20/50 optical
The basic version can be combined with the BIOSTAT® RM Control Tower for process optimization. These advanced optical packages utilize an intuitive touch screen for easy operation.

BIOSTAT® CultiBag RM 20/50 perfusion
In perfusion mode continuous cultivation is possible. Five different perfusion options allow the use of exchange rates of 2L up to 1100 liters per day depending on the chosen configuration.

Applications
Rocking technology is ideal for cell cultivation with low shear. Single use CultiBags RM allow a reduction in validation costs, remove the need for cleaning and sterilizing, and reduce set-up time. Easy to use, this disposable bioreactor is hassle free and applicable to all cell types including mammalian cells, plant cells, insect cells and various microbial cells.

Operating Principle
All packages have an integrated aeration pump. Optical and perfusion packages include the BIOSTAT® RM Control Tower which is connected to the rocking unit for monitoring and controlling the culture, including DO, pH, agitation, and temperature in batch, fed batch or perfusion mode of operation. The superior gassing system consists of four rotameters (air, O_2, N_2, CO_2), one mass flow controller for total flow and one mass flow controller for CO_2. This allows two independent gassing strategies – either a constant CO_2/air ratio or a pre-mixed gas composition of air, O_2, N_2 and CO_2 for automatic feedback control to the pH and DO sensors.

Flexibility
The BIOSTAT® CultiBag RM 20/50 is available in scalable formats with interchangeable Bag Holders and different bag sizes:

Bag Holder 20 for 2L, 10L and 20L CultiBags RM
Bag Holder 50 for 50L CultiBags RM

Bags are usually operated at up to 50% of their total volume. Rocking angles and rocking rates can be adjusted to optimize culture conditions. Disposable CultiBags RM are available in basic, optical (with pH/DO sensors) and perfusion pro (with pH/DO sensors and internal perfusion membrane). Tube connections allow sterile addition of media to the cultivation chamber. For more information about disposable bioreactor chambers please refer to our datasheet CultiBag RM.

Intuitive Touchscreen
The BIOSTAT® RM Control Tower is available in optical and perfusion packages. Both systems incorporate industrial PC hardware-based technology with Sartorius Stedim Systems touchscreen interface. The easy to use principle reduces staff training time. The BIOSTAT® RM Control Tower includes a 6 parameter trend display and superior culturing control.

Sensors
Disposable sensor technology is used in optical chemical format for pH and DO measurement. pH recalibration and feedback control of the sensor are available for maximum process control.

BioPAT® MFCS/DA
All packages are equipped with BioPAT® MFCS/DA software for external data logging. It allows all batch related data to be stored under a unique batch name allowing batch-oriented bioprocessing. Furthermore, it has the ability to incorporate other laboratory data, such as off-line process analysers. Its Plotting module allows together with the integrated Export function a large flexibility in analysing your obtained data.

Technical Specifications

Power requirements:	120 VAC, 230 VAC
Rocker with Bagholder 20	
Dimensions (W × H × D):	710 × 400 × 560 mm
Weight:	27 kg
Rocker with Bagholder 50	
Dimensions (W × H × D):	1030 × 450 × 580 mm
Weight:	32 kg
BIOSTAT® RM Control Tower	
Dimensions (W × H × D):	320 × 735 × 565 mm
Weight:	60 kg
Housing:	stainless steel
Interface:	RS232, RS422, Ethernet
Temperature range:	20°C – 40°C
Rocking angle:	5 – 10 degrees
Rocking rate:	8 – 42 rocks/min
Disposable Sensor: Optical Chemical	
pH:	5.5 – 9
pO_2:	0 – 100%

Ordering Information

DH 020 L B RM – 1

- DH — Disposable Hardware
- 020 — Volume
  020 = 20
  050 = 50
- L — Units (Example: L = liter)
- B — Package Type
  B = Basic
  O = Optical
  P = Perfusion
- RM = Rocking Motion Mixing Technology
- – — Special Additions
  - = Tinted Lid
  C = Clear Lid
  1…7 = Perfusion option 1–7
- 1 — Voltage
  1 = 120 VAC (50/60 Hz)
  2 = 230 VAC (50/60 Hz)

	Order Code	Description
Basic	DH-020LBRM-1/-2	Package BIOSTAT® CultiBag RM 20 basic – 120VAC / 230VAC – Rocker 20/50 with Bag Holder 20 for CultiBags RM 2L, 10L and 20L basic
Basic	DH-050LBRM-1/-2	Package BIOSTAT® CultiBag RM 50 basic – 120VAC / 230VAC – Rocker 20/50 with Bag Holder 50 for CultiBags RM 50L basic
Optical	DH-020LORM-1/-2	Package BIOSTAT® CultiBag RM 20 optical – 120VAC / 230 VAC – BIOSTAT® RM Control Tower 20 optical – Rocker 20/50 with Bag Holder 20 for CultiBags RM 2L, 10L and 20L basic and optical
Optical	DH-050LORM-1/-2	Package BIOSTAT® CultiBag RM 50 optical – 120VAC / 230 VAC – BIOSTAT® RM Control Tower 50 optical – Rocker 20/50 with Bag Holder 50 for CultiBags RM 50L basic and optical
Perfusion	Package BIOSTAT® CultiBag RM 20 perfusion – 120VAC / 230 VAC consists of:	
	DH-020LPRM-1/-2 + DH-----PRM**	BIOSTAT® RM Control Tower 20 perfusion Rocker 20/50 with Bag Holder 20 for CultiBags RM 2L, 10L and 20L basic, optical and perfusion pro Perfusion Option according to process specifications as shown below
Perfusion	Package BIOSTAT® CultiBag RM 50 perfusion – 120VAC / 230 VAC consists of:	
	DH-050LPRM-1/-2 + DH-----PRM**	BIOSTAT® RM Control Tower 50 perfusion Rocker 20/50 with Bag Holder 50 for CultiBags RM 50L basic, optical and perfusion pro Perfusion Option according to process specifications as shown below

Process Specifications for Perfusion Options 1– 7:

Order Code	Description	Perfusion Rate [L/Day]	Weighing Capacity Balances [kg]	Readability Balances [g]
DH-----PRM11	Perfusion Option 1 – 120 VAC	2 – 55	60	1
DH-----PRM12	Perfusion Option 1 – 230 VAC	2 – 55	60	1
DH-----PRM21	Perfusion Option 2 – 120 VAC	2 – 55	300	10
DH-----PRM22	Perfusion Option 2 – 230 VAC	2 – 55	300	10
DH-----PRM31	Perfusion Option 3 – 120 VAC	23 – 1100	300	10
DH-----PRM32	Perfusion Option 3 – 230 VAC	23 – 1100	300	10
DH-----PRM41	Perfusion Option 4 – 120 VAC	23 – 1100	600	20
DH-----PRM42	Perfusion Option 4 – 230 VAC	23 – 1100	600	20
DH-----PRM51	Perfusion Option 5 – 120 VAC	23 – 1100	1500	500
DH-----PRM52	Perfusion Option 5 – 230 VAC	23 – 1100	1500	500
DH-----PRM61	Perfusion Option 6 – 120 VAC Twin set up	23 – 1100	600	200
DH-----PRM62	Perfusion Option 6 – 230 VAC Twin set up	23 – 1100	600	200
DH-----PRM71	Perfusion Option 7 – 120 VAC Twin set up	23 – 1100	1500	500
DH-----PRM72	Perfusion Option 7 – 230 VAC Twin set up	23 – 1100	1500	500

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