

BIOREACTORS

15 L Bioreactor



Automated, Robust and User Friendly

Our 15 L stirred tank bioreactor is designed for microbial fermentations though may be adapted for cell cultivation. The autoclavable bioreactor is ideal for use within R&D and process development. The borosilicate glass vessel is mounted between a jacketed base and a non-welded lid.

PERFORMANCE

Rotation Speed Range (RPM)	40 – 700
Temperature Range	5-60°C

WARRANTY

Parts	2 years
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Autoclavable
Sampling
Port



Novel
Magnetically
Coupled Drive



Intuitive
15" Touch
Screen

Technical Specifications

15 L BIOREACTOR		
MODEL	BIOREACTOR 15.1 (FOR MICROBIOLOGY)	BIOREACTOR 15.2 (FOR CELL CULTURES)
VESSEL		
Total Volume (L)	16	
Working Volume (L)	5-11	
Inside Diameter/Inside Height (mm)	200 / 500	
Ports	For mixer/agitator shaft; for pH, dissolved oxygen, temperature, foam, and liquid level sensors; tree needle port for acid base and anti-foam agent addition; chemo-stat tubes for level control and addition of bioreactor feed solutions; aseptic pierceable membrane port; in-let gas port (0.2 µm filter added); exhaust gas port (0.2 µm filter added); 2 spare ports/ The ports are 4x10 mm, 4 x 7.5 mm – 7x12 mm (PG 13.5 mm).	
Sampling	Double walled base ensuring bioreactor thermostating. Autoclavable aseptic sampler	
AERATION		
Control	Rotameters (2), TMFC (option)	
Gas Supply	Air and oxygen	Air/Carbon dioxide + Oxygen, N ₂ (option) Air/Carbon dioxide in headspace
Flow Range, L/min	0.5 - 20 (Air) or 0 - 10 (O ₂)	
Sparger	Ring	Microsparger
Filters	D50 mm 0.2 µm PTFE	
Exhaust gas condenser	Cooling from water – line or chiller	
MIXING		
Drive	Top magnetic coupling	
Rotation Speed Range (rpm)	40 – 700	
Mixer (Impellers)	3 rushton turbines	3 pitched blade impellers
CONTROL		
Controller	Siemens Simatic S7 - 1500	
Operator panel	Touch screen Beetrionics, 15TS7, 15"	
Temperature	Control limits: from 5°C above cooling water up to 60 °C. Measurement accuracy +/- 0.1 °C and control accuracy +/- 0.2 °C. Built-in thermostat	
pH	Hamilton sensors (different options, including ARC). Acid/ Base 2 - 12 +/- 0,01pH units	
pO ₂	Hamilton sensor. (different options, including Arc). Control: mixing + O ₂ +feeding 0 - 150 % +/- 1%	
Foam	Conductivity sensor	Option
Feeding	0.02 - 40 ml/min according to adjusted profile	
Peristaltic Pumps	4 built-in peristaltic pumps. External pump (option)	
Dimensions (mm)	Overall dimensions of the bioreactor 1000 (W) x 970 (H) x 600 (D)	
Minimum size of the autoclave chamber for vessel autoclaving (mm)	760 (Height) x 320 (Diameter)	