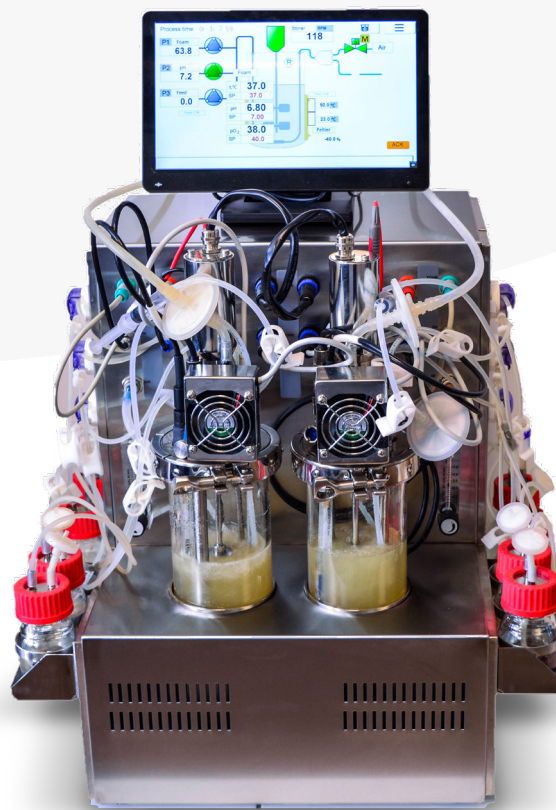


# BIOREACTORS

## 1 L Twin Bioreactor



### Tailored for microbial fermentation

Our innovative twin stirred tank bioreactor is designed for R&D and process development. It has a robust design, yet it is compact and ergonomic.

#### PERFORMANCE

Rotation Speed Range (RPM)	40-1000
Peltier Heating/Cooling Range	10-50°C

#### WARRANTY

Parts	2 years
-------	---------



Working  
Volume of  
0.4 – 0.7 L



Novel  
magnetically  
coupled drive



Intuitive  
12" Touch  
Screen

# Technical Specifications

## 1 L TWIN BIOREACTOR

### VESSEL

Total Volume (L)	0.9
Working Volume (L)	0.4 – 0.7
Inside Diameter/Inside Height (mm)	85 / 165
Ports	Mixer drive; pH, DO, T, foam sensors; 2 medium inlet/outlet; exhaust gas, sparger

### AERATION

Control	Rotameter, TMFC (optional)
Gas Supply	Air, O <sub>2</sub> (optional)
Flow Range, L/min	0.1-2.0
Sparger	Micro sparger
Filters	D37 mm 0.2 µm PTFE
Exhaust gas condenser	Peltier cooling

### MIXING

Drive	Top, magnetic coupling
Rotation Speed Range (rpm)	40-1000
Mixer (Impellers)	2 Rushton turbines

### CONTROL

Controller	Siemens Simatic S7-1200
Operator panel	Touch screen 12"
pH	Hamilton or Mettler Toledo sensor. Acid/Alkali 2-12 +/- 0.01 pH units
pO <sub>2</sub>	Hamilton or Mettler Toledo sensor. Stir control + O <sub>2</sub> (optional). 0-150% +/- 1%
Foam	Conductivity sensor
Feeding	0.01-20 mL/min according to the set profile
Peristaltic Pumps	3 built-in variable speed pumps. Additional pumps (optional)
Dimensions	Overall dimensions of the bioreactor (mm) 540(W) x 350(H) x 410(D)