Mini Bioreactors, real small... real bioreactors

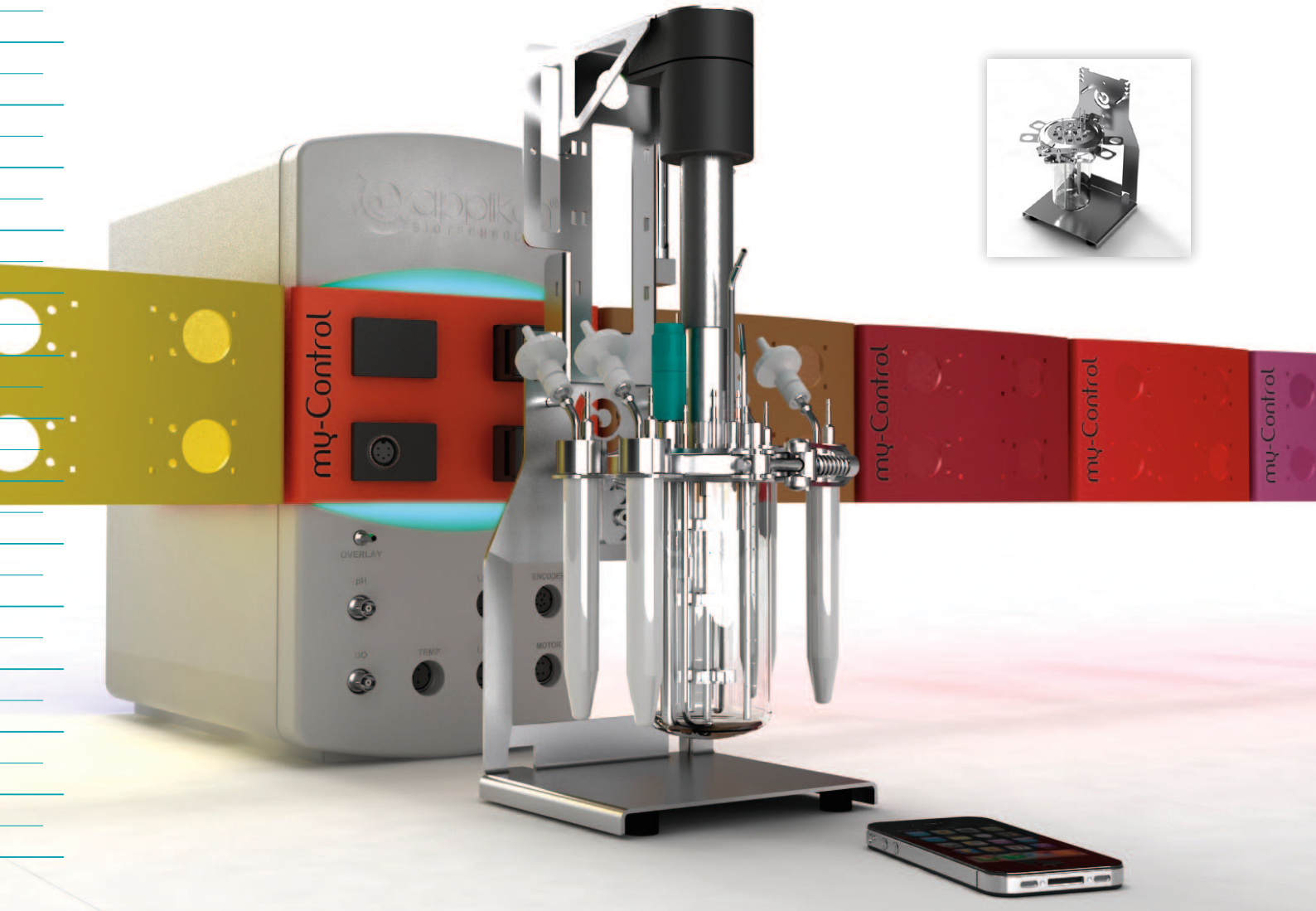
The MiniBio range of bioreactors (250 ml, 500 ml and 1000 ml total volume) is a true scale down of the laboratory scale bioreactor. The MiniBio systems have the same flexibility as the laboratory scale bioreactors. This means that the MiniBio systems can be customized to fit the demands of any process. The small volume reduces media costs and maximises bench space, which is normally at a premium.

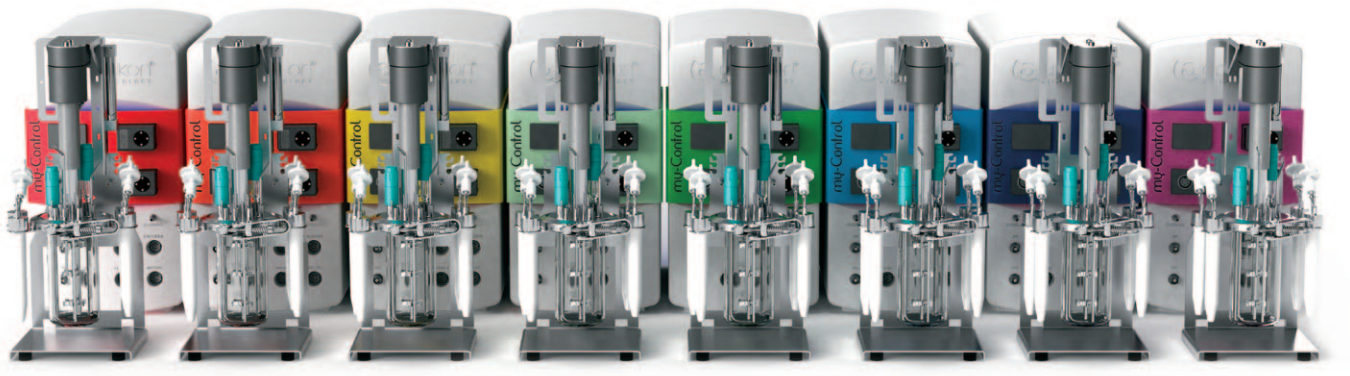
Features

- Generate more data in less time
- Easy setup and operation
- Cultivate using less medium
- Cultivate using less bench space
- Generate scalable results

Applications

- Screening studies
- Media optimization
- Process optimization
- Microbial and Cell culture
  Batch, Fed-Batch, Perfusion and Continuous cultivation





Specifications

	MiniBio 250	MiniBio 500	MiniBio 1000
Total volume (ml)	290	550	1000
Working volume (ml)	200	400	800
Minimum working volume (ml)	50	100	200
Aspect ratio total volume	2.3	2.1	2.3
Aspect ratio working volume	1.6	1.5	1.9
Dimensions (dxh)	180 x 400 mm	195 x 400 mm	200 x 550 mm
Dimensions for autoclaving (dxh)	180 x 250 mm	195 x 250 mm	200 x 400 mm
Drive system	Direct drive, lipsealed	Direct drive, lipsealed	Direct drive, lipsealed
Maximum stirrer speed (rpm)	50 - 2000	50 - 1750	50 - 1500
Maximum impeller tip speed (m/s)	2.3	2.0	3.5
Impellers	Choice of Rushton and marine		
Gas sparger	Porous sparger or L-type sparger		
Gas overlay	Yes		
Exhaust gas	Electrically cooled exhaust gas condenser (evaporation <3% per day at 37°C @ 2vvm)		
Sampling	Fixed sample pipe with optional sampling system		
Draining	Height adjustable drain pipe		
Additions	4 fixed inlet ports and optional micro liquid injectors		
pH	Measurement: 6 mm classic pH sensor Control: via acid pump (variable speed pump)or CO_2 gas in combination with alkali pump (variable speed pump)		
DO_2	Measurement: 6 mm classic polarographic DO_2 sensor Control: via a combination of N_2, Air, O_2 (optional MFC) and agitation or nutrient addition (variable speed pump)		
Temperature	Measurement: Pt-100 sensor in thermowell in topplate Control: electrical cooling and heating jacket via bioreactor wall		
Foam	Measurement: Height adjustable conductivity based foam sensor Control: Anti foam addition (variable speed pump)		
Level	Measurement: Height adjustable conductivity based level sensor Control: variable speed pump for liquid addition or removal		
Optional inlets	Septum, chemostat tube, liquid entry system		
Optional sensors	Biomass, Optical Density, O_2 and CO_2 off gases.		