

xCUBIO twin

The Flexible Bioreactor with 2 Independent Vessels for Scale-up and Parallel Experiments

Intuitive 19" touchscreen
in elegant design

Unlimited sensor
options

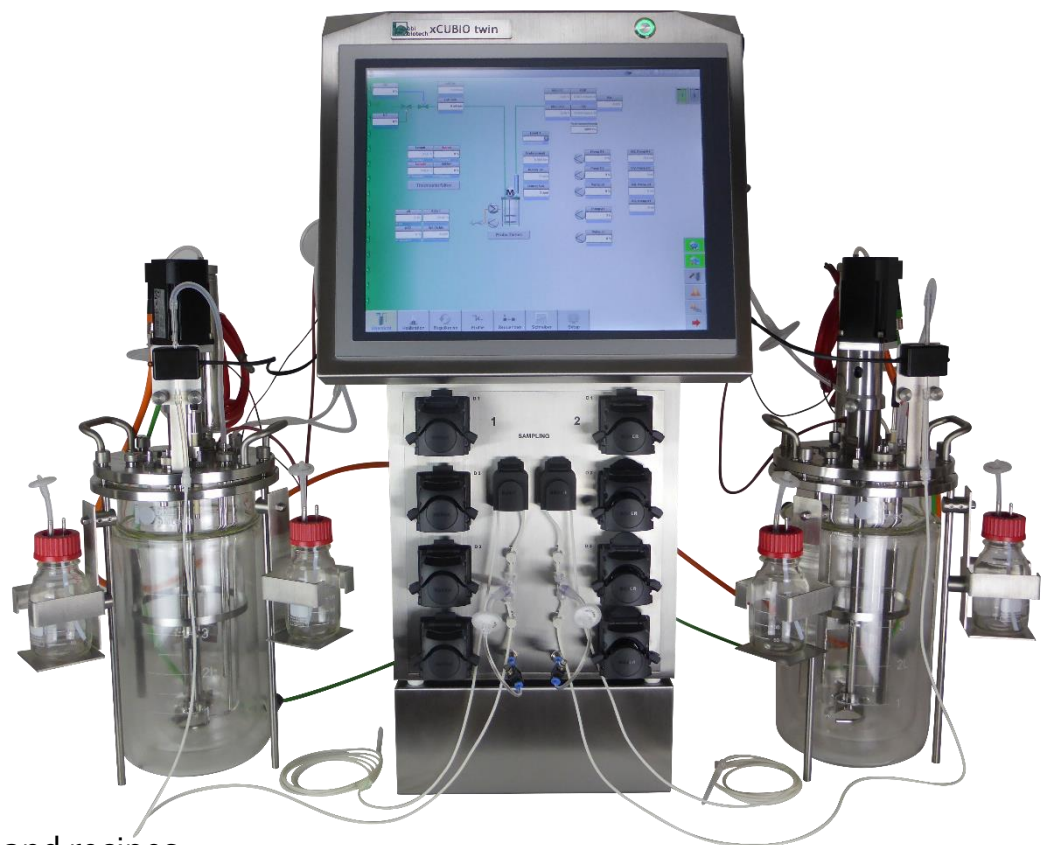
Scale-up system 1:10
with the same controller

Vessel options: double-
wall, single-wall, airlift,
steel, in-situ, disposable

Programmable flow control and recipes
with built-in sequence editor

Complex and customizable gassing regimes for bacteria,
fungi, cell cultivation and every other bioprocess application

xCUBIO provides the most equipment options among all
bioreactors and fermenters worldwide.



General Parameters

Measures (W x H x D)	1,040 x 790 x 450 mm; xCUBIO twin with identical 0.5, 1 or 2 litre vessels	
	1,240 x 790 x 450 mm; xCUBIO single with identical 5 or 10 litre vessels	
	640 x 660 x 450 mm; xCUBIO twin without thermostat	
Vessel	Vessel: Borosilicate glass, parts with media contact: 1.4435/1.4571 stainless steel	
	Stainless steel head plate with optimized port configuration	
Automation	19" -touchscreen with intuitive menu design	
	Superior trend display with data analysis and visualization capabilities	
	Programmable logic, flow control and recipes with built-in sequence editor	
	Multiple communication interfaces (CSV, OPC, VNC, USB)	
Media Handling	Up to 5 peristaltic pumps per vessel	Free sizing of all pumps
	Free pump purpose allocation	Independent drive for each pump
	Digital or analogue drive selection	External pumps from lab to scale
	Up to 6 mass flow controllers per vessel	Rotameters for manual flow control
Gas Handling	Up to 4 gasses	Input pressure reducers
	Complex gassing regimes	High cell density cultivation



Example Configuration: Minimal Setup for Microbial Applications with two Parallel 5 Litre Vessels

Measures (W x H x D)	1,240 x 790 x 450 mm including thermostat	
Media Handling	2 x 4 peristaltic pumps	2 x 3 digital, 2 x 1 analogue
	For corrective media & harvest/feed	2 x 1 AO for external pump
Gas Handling	2 x 1 MFC for Air/oxygen	2 x 1 magnetic valve for air/nitrogen
	2 x 1 microsparger	Add-ons prepared
Sensors	2 x 1 temperature in medium	2 x 1 pH in medium
	2 x 1 pO ₂ in medium	2 x 1 level or foam
Stirrer	2 x 1 top drive	Powerful servo drive
	2 x 3 Rushton impellers	Continuous speed control 0...1,200 rpm



Options

Packages	Cell	Extended and sensitive gassing system, ultra-sensitive mixing	
	In-situ	Two steam-sterilizable steel vessels incl. piping, valves, equipment	
Vessels	Identical vessel design OR different vessels. Choose your scale-in-one system!		
	Autoclavable glass vessels 0.5, 1, 2, 5 or 10 litres		
	Single-wall glass vessels, airlift systems, steel vessels, in-situ sterilizable vessels		
Media Handling	Free peristaltic pump selection	Multiple external device integration	
Gas Handling	Free gas mix selection	Flowchart for order specification	
Sensors	pH (2...12)	Temperature (0...130 °C)	Level/foam (on/off)
	pO ₂ (0...100 %)	pCO ₂ (0...100 %)	Turbidity inline (0...4 CU)
	Exhaust O ₂ (0...25 Vol.-%)	Exhaust CO ₂ (0...10 Vol.-%)	Glucose online
	Conductivity (0 µS...2 GS)	Redox/ORP (± 1,000 mV)	Pressure (-1...+3 barg)
	Balances (± 0.001...± 10 g)	Many more! Customize ranges, media, types and scales!	

