

xCUBIO multi

**Most Compact Bioreactor and Fermenter
Installation with up to 12 Cultivation
Vessels for Every Application**

Smart design meets
biotechnology

0.5, 1, 2, 5 and 10 litre
vessels

Gradually extendable
with twin subunits

One central 19" touch-
terminal

Up to 5 internal independent pumps per
vessel, digital or analogue

Up to 6 MFCs per vessel with complex gassing
regimes – from bacteria and fungi to cell cultivation

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



General Parameters

Measures (W x H x D)	Terminal	480 x 550 x 450 mm; 19"-touchscreen	
		Each tower has all control and sensor devices for one or two vessels	
	Twin Supply Towers	1,040 x 790 x 450 mm; 1 x supply tower with 0.5, 1 or 2 litre vessel and twin thermostat	
		1,240 x 660 x 450 mm; 1 x supply tower with 5 or 10 litre vessel and without twin thermostat	
	Overall Min.	1,520 x 660 x 450 mm; terminal + 1 supply tower + 2 x 2 litre vessels without thermostat	
	Overall Max.	7,920 x 790 x 450 mm; terminal + 6 supply towers + 12 x 10 litre vessels + 6 x twin thermostat	
Materials	Borosilicate glass vessels with double jacket and round bottom		
	Stainless steel head plate with optimized port distribution		
	All parts in media contact are 1.4435/1.4571 stainless steel		
Automation Terminal	Intuitive menu design with well-arranged software interfaces		
	Easy switching between all installed vessels		
	Gradual extension: just connect further supply towers to terminal via LAN		
	Superior trend display with data analysis and visualization capabilities		
	License-free remote access with VNC-client via Ethernet		
	Bidirectional communication with superordinate SCADA-systems via OPC		
	Self-explanatory sequence editor and easy-to-handle control loops		
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	
	Medium or vessel balances with integrated gravimetric flow control		
	Gas Handling	Up to 6 mass flow controllers per vessel	Rotameters for total flow control
Up to 4 gasses		Input pressure reducers	
Complex gassing regimes		High cell density cultivation	



Options

Vessels	Autoclavable glass vessels 0.5, 1, 2, 5 or 10 litres		
	Single-wall glass vessels, airlift systems, steel vessels, disposable vessels		
	Identical vessel design all over or different configurations if desired		
Media and Gas Handling	Flow-chart-specified customization for every biotech demand – from aerobic bacteria to perfusion-based mammalian cell production		
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.-%)	Turbidity bypass (0...4 CU)
	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 scale!	
	System Setup	Free selection of setup schedule: all-in-one or sequential	

