

xCUBIO multi

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

Lowest space requirement
for maximal output

One central 19" touch-
terminal

Gradually extendable
with subunits for 2 vessels

Up to 12 independently
controllable vessels

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)	xCUBIO controller	480 x 550 x 450 mm; 19"-touchscreen	
		Each tower has all control and sensor devices for two vessels	
	xCUBIO supply tower	1040 x 790 x 450 mm; 1 x supply tower with 0.5, 1 or 2 litre vessel and twin thermostat	
		1240 x 660 x 450 mm; 1 x supply tower with 5 or 10 litre vessel and without twin thermostat	
	Overall Min.	1520 x 660 x 450 mm; terminal + 1 supply tower + 2 x 2 litre vessels without thermostat	
Overall Max.	7920 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 configuration		
	All parts with media contact made of 1.4435/1.4571 stainless steel		
Automation & HMI	Intuitive menu design with well-arranged software interfaces		
	Easy switching between all installed vessels		
	Gradual extension: just connect further supply towers to terminal-LAN and operate		
	Superior graphical analysis tool with USB record screenshot export		
	License-free remote access with VNC-client via Ethernet		
	Bidirectional communication with superordinate SCADA-systems via OPC		
	Self-explaining sequence editor and easy-to-handle control loops		
Media Handling	Up to 5 peristaltic pumps per vessel	Free sizing and brands of all pumps	
	Allocation completely configurable	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	
	Turn-down ratio – 1:50, 1:100 or 1:250	Input pressure reducers	
	Complex gassing regimes	High cell density cultivation	



Options

Vessels	Autoclavable glass vessels 0.5, 1, 2, 5, 10, 15 or 20 liters		
	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 mammal 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 %)	Exhaust CO ₂ (0...10 %)	Glucose online
	Conductivity (0 µS...2 GS)	Redox/ORP (± 1000 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 supply towers at once or step-by-step.	

