

# BioFlo®/CelliGen® 115 System Specifications\*

Vessel	Total Volume	1.3 Liters	3.0 Liters	7.5 Liters	14.0 Liters
	Working Volume	0.4 – 1.0 Liters	0.8 – 2.2 Liters	2.0 – 5.6 Liters	4.0 – 10.5 Liters
	Design	Heat-blanketed and water-jacketed All vessels are borosilicate glass, autoclavable, with dished-bottom			
	Weight	15 lb. (6.8 kg.)	20.5 lb. (9.3 kg.)	39.5 lb. (18 kg.)	43 lb. (19.5 kg.)
Control Station & Utility Station	Design	Compact control station with advanced integrated controller is capable of supporting up to two additional (optional) independent utility stations and vessels			
	Display	8.4" (21.3 cm) industrial color touchscreen display is standard on the control station. Not included on optional utility station(s).			
	Function	Fermentation and cell culture monitoring and control			
Temperature	Range	70°C maximum temperature (65°C maximum temperature for 14.0L)			
	Control	PID for heating and cooling Heat-blanketed Vessels: External heating blanket and immersed stainless steel cooling coil. Water-jacketed Vessels: Water jacket heater and circulation loop			
	Sensor	Platinum RTD probe (Pt 100)			
Agitation	Drive	Magnetic Drive or Direct Drive			
	Range	Direct Drive: Ferm 50 - 1200 RPM; Cell Cult 25 - 400 RPM • Mag Drive: 25 - 200 RPM			
	Control	PID control; manual, automatic, or cascade settings			
	Impellers	Rushton-style standard with fermentation system. Pitched blade standard with cell culture. Optional: Marine blade and/or Spin filter			
	Baffles	Removable 316L stainless steel; fermentation only			
Aeration	Gas Flow Options	0 - 4 Rotameters: 0-150 mLpm • 250 - 2500 mLpm • 1 - 5 Lpm • 1 - 20 Lpm (and more) 1 Thermal Mass flow Controller (TMFC): 0.04 - 20 SLPM			
	Gas Mixing	Options: Automatic 4-Gas Mixing & Manual Gas Mixing. Both via 4 gas manifold.			
	Sparger	Standard: Ring Sparger • Optional: Microsparger			
	Inlet Filter	0.2 µm Absolute filter			
	N <sub>2</sub> Gas	For calibration of DO probe			
pH	Range	2-14 pH			
	Control	PID, link to pumps or gasses, adjustable deadband			
	Sensor	pH probe			
DO	Range	0 - 200%			
	Control	PID, cascade to agitation, gasses, gas flow if equipped with TMFC			
	Sensor	Polarographic DO probe			
Exhaust	Filter	0.2µm Absolute filter			
	Condenser	Stainless steel counterflow, water-cooled in headplate			
3 Pumps	Control	60 Hz / 14.4 RPM • 50 Hz / 12 RPM			
Utilities	Water	10 PSIG maximum, 50 µm filtration			
	Gasses	10 PSIG maximum			
Electric Req.	100 - 230V	50/60 Hz • Single Phase • 100 - 120V: 10 Amps; 200 - 240V: 6 Amps			
Control Station/Utility Station Dimensions		Height 26.6" (67.6 cm) x Width 15.6" (39.6 cm) x Depth 16.0" (40.6 cm)			

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(\* ) Specifications subject to change without notice. Not all options are included with all kits. Refer to pages 6 – 7 for details.



## Vessel Dimensions, As Prepared for Autoclave

Vessel Total Volume	Heat-Blanketed Vessels					
	With Exhaust Condenser			Without Exhaust Condenser		
	Width Inches cm	Depth Inches cm	Height Inches cm	Diameter Inches cm	Height Inches cm	
1.3 & 3.0L	9.5 24 14.5 37	8.5 22 11.5 29	22 56 25.5 65	8.5 22 11.5 29	16.5 42 19.5 49.5	
14.0L	11.5 29	11.5 29	29 75	11.5 29	24 61	
On Optional Slant Rack						
7.5L	28 71	11.5 29	18 46			
14.0L	31.5 80	11.5 29	20 51			
Vessel Total Volume	Water-Jacketed Vessels					
	With Exhaust Condenser			Without Exhaust Condenser		
	Width Inches cm	Depth Inches cm	Height Inches cm	Diameter Inches cm	Height Inches cm	
1.3L	11.5 29	11.5 29	20.5 52	9.25 24	16 41	
3.0L	11.5 29	11.5 29	22.5 56	9.25 24	18 45	
7.5L	11.5 29	11.5 29	26.8 68	11.5 29	20.5 52	
14.0L	11.5 29	11.5 29	31.5 80	11.5 29	26.5 67	
On Optional Slant Rack						
7.5L	26 66	11.5 29	18.5 47			
14.0L	28.5 72	11.5 29	20.5 52			