

Fermenter Specifications

Biotechnology Group

مشخصات فنی سیستم های فرمانتور

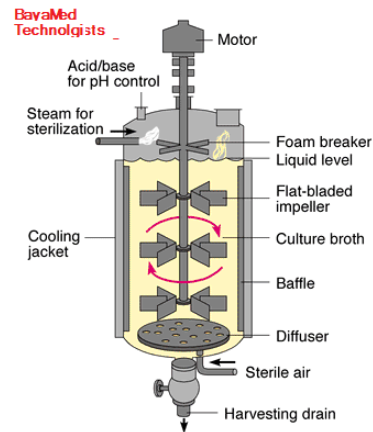


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• اجزای سیستم

فرایند فرمانتاسیون در دستگاههای فرماتور انجام می گیرد که این دستگاهها با توجه به کاربردها دارای انواع مختلفی بوده و ظرفیت آنها، بسته به نوع کاربردهای تحقیقاتی، آزمایشگاهی و صنعتی متفاوت است. شکل زیر بخشهای سخت افزاری فرماتورهای صنعتی ساخت شرکت فناوران بایامد را نشان می دهد. این بخشها عبارتند از:

- 1- motor
- 2- Control PH
- 3- Strilization Steam
- 4- jacket cooling
- 5- darin Harvesting
- 6- air sterile
- 7- Diffuser
- 8- Baffle
- 9- Broth Culture
- 10- impeller bladed flat
- 11- level liquid breaker foam



• مشخصات فنی

مشخصات فنی محصولات شرکت فناوران بایامد بر اساس سفارش مشتری قابل تغییر می باشد و بطور کلی شامل:

Vessel	Total Volume	5lit	100Lit	300lit
	Working Volume	30-75% total V	30-75% total V	30-75% total V
Design	Heat-blanketed and water-jacketed			
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	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		
	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		
N2 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		
3 Pumps	Control	60 Hz / 14.4 RPM • 50 Hz / 12 RPM		
Electric Req.	100 - 230V	50/60 Hz • Single Phase • 100 - 120V: 10 Amps; 200 - 240V: 6 Amps		