Fermenter catalog(20Lit)

Biotechnology Group

كاتالوگ فرمانتور 20 ليترى



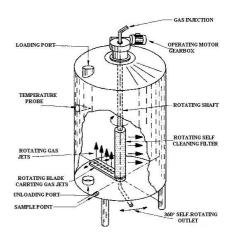
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• اجزای سیستم

فرایند فرمانتاسیون در دستگاههای فرمانتور انجام می گیرد که این دستگاهها با توجه به کاربردشان دارای انـواع مختلفـی بـوده و ظرفیت آنها، بسته به نوع کاربردهای تحقیقاتی، آزمایشگاهی و صنعتی متفاوت است. شکل زیر بخشهای سخت افزاری فرمانتورهای صنعتی 20 لیتری 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 فني

مشخصات فنى فرمانتور 20 ليترى شركت فناوران بايامد:

	Total	20lit
Vessel	Volume	
	Working	6 to 25 Lit
	Volume	
	Design	Heat-blanketed and water-jacketed
Control	Design	Compact control station with advanced integrated controller is capable of
Station		supporting up to two additional (optional) independent utility stations and vessels
&	Display	industrial color touchscreen display is standard on the control station.
Utility 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
	Gas Flow	0 - 4 Rotameters: 0 -150 mLpm • 250 - 2500 mLpm • 1 - 5 Lpm • 1 - 20 Lpm (and
	Options	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
Aeration	Sparger	Standard: Ring Sparger • Optional: Microsparger
	Inlet Filter	0.2 µm Absolute filter
	N2 Gas	For calibration of DO probe
	Range	2-14 pH
рН	Control	PID, link to pumps or gasses, adjustable deadband
	Sensor	pH probe
	Range	0 - 200%
DO	Control	PID, cascade to agitation, gasses, gas flow if equipped with TMFC
	Sensor	Polaragraphic 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