

Major Science F1 Lab Scale Fermenter

Manufacturer: Winpact Scientific, Inc.

SKU#: 8389-30-1001

- Complete system including all necessary accessories
- Single or Double Jacketed culture vessel
- High reproducibility
- One Controller - Two Vessel option to save benchtop space



Product Description

GMI is proud to carry brand new laboratory scale fermenter alternatives to New Brunswick Sartorius B. Braun and Applikon. The modular Major Science F1 Lab Scale Fermenter is a programmable fermentation system with an user friendly interface design. It is offered as a complete system including all the necessary accessories. It can equip with single culture vessel or double jacketed culture vessel for different microbiological material. Its high reproducibility was proven in many experiments. There are two modes manual mode and programmable mode. In addition Cascade and Acid-start condition are also built in the controller. It also has a one Controller- Two Vessel option available to save bench top space. The Major Science F1 Lab Scale Fermenter is an excellent benchtop laboratory scale fermenter with full warranty and support from GMI with superior economics and price point.

Major Science F1 Lab Scale Fermenter Specifications

Vessel working volume 3L/5L/7L/10L
 Height/diameter (mm) 260/130/320/160/360/180/400/200
 Aeration Single orifice sparger
 Adjustable inlet gas flow meter 5L / min/10L / min
 Outlet gas Stainless steel condenser
 Mechanical seal Single mechanical seal
 Driver Removable top driver motor
 Agitation speed 100/1200rpm; 15 steps programmable controller
 Temperature controller 15 steps programmable PID controller
 Cooling Cooling coil on inner of vessel with control valve
 Heating Bottom heating plate
 Temp probe Pt 100; 0~90C; +/- 0.1C
 pH probe Autoclavable; pH 2~12; +/- 0.01
 DO Autoclavable; 300mm 0~100%
 Antifoam probe 316 stainless steel with insulated tube; on/off controller
 Easy load pump 4 ea of easy load pump head; Fifth pump head for option
 Pumps can be assigned and adjusted to more than five different functions via the keypad
 15 steps programmable feeding application
 Communication port *** Software control is available

Bench Top Fermenter Componentry:

A. Vessel The electro-polished 316 stainless steel head and bottom plate fitted onto the single glass vessel. 10 ports with fitting for multiple application such as pH; DO Temp; Anti-foam; Sampling; Breeding etc.
B. Agitation Top drive removable motor with real speed measurement. Single mechanical seal does not require spare parts or lubrication and performs excellently under pressure and under vacuum conditions. 3 ea of the electro-polished 316 stainless steel impeller.
C. Aeration The unit is supplied with a flow meter (rotameter type 0~10 L/min) for the control of the flow rate of air into the bioreactor. L-type sparger : the geometry of the vessel combined with the right design of impellers provide the culture with optimal transfer rates and mixing.
Programmable Microprocessor Controller
A. 15 steps programmable temperature controller PID controller with 15 programmable steps
 Bottom heating plate combine with cooling valve
 Temp range / accuracy : 0-90 C / 0.1 C
B. 15 steps programmable agitation controller PID controller with 15 programmable steps
 Range : 0~1200 rpm
C. pH controller 1 combined autoclavable pH probe (in-gold type) with gelled electrolyte.
 Range / accuracy : pH 2~12 / 0.01
D. DO display Autoclavable in gold type DO probe
 Range : 0~100%
E. Antifoam controller Stainless steel probe with electric insulation attached to a port on the head plate of bioreactor allowing height adjustment. Delay cyclical operation automatically controlled by two programmable timers.
F. Pumping versatility Four built-in programmable pumps can be assigned to more than five different functions via the keypad. These include addition of acid base chemical deformer and nutrients as well as the harvesting of culture. Control capability is also provided for an optional fifth pump. Adjustable flow rate for each easy load pump head. 15 programmable steps for each feeding application.~

Major Science F1 Lab Scale Fermenter Specification

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