

Major Science MSF1 Bioreactor/ Fermentor

Manufacturer: Major Science

SKU#: 8389-30-1002

- User Friendly Interface and Design
- Complete System Including All Accessories
- Proven high reproducibility
- Programmable Micro Processor Controlled



Product Description

GMI is proud to carry brand new laboratory scale fermenter alternatives to New Brunswick Sartorius B. Braun and Applikon. The modular MS-F1 is a programmable fermentation system with a 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 MS-F1 is an excellent bench top laboratory scale fermenter with full warranty and support from GMI with superior economics and price point.

Bioengineering MS-F1 Laboratory Fermenter Components

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 010 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 with bottom heating plate combine with cooling valve and a temp range / accuracy : 0-90 C / +/- 0.1 C

B. 15 steps programmable agitation controller PID controller with 15 programmable steps with a range of 0~1200 rpm

C. pH controller 1 combined autoclavable pH probe (in-gold type) with gelled electrolyte and accuracy range pH 2~12 / 0.01

D. DO display Autoclavable ingold type DO probe and range of 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 and 15 programmable steps for each feeding application.

Major Science MSF1 Bioreactor/ Fermentor Specification

WHY BUY FROM GMI?

Your trusted source for Used & New lab equipments, Parts, Factory Clearance instrument service since 1985.



**TRADE IT.
UPGRADE IT.**

We routinely save discerning laboratories 50-80% off retail on our recertified instrument offerings.

Quality? ISO 9001:2008 certified means we remove 100% of the risk in buying 'used' laboratory equipment.

Warranties from 90 days to a year as well as multi-year service agreements are available.

GMI is an industry-leading distributor of brand new laboratory equipment and instruments. We supply a wide range of cutting-edge analytical instruments including centrifuges, gas chromatographs, freezers, thermal cyclers, and more. Choose from more than a thousand of new and innovative lab instruments that meet specifications and come with warranties up to 1 year.

