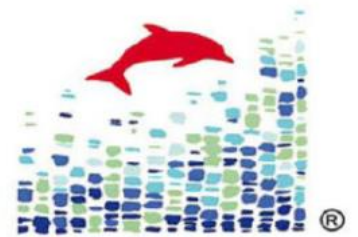


100 ml Bench-Top Fermenter

**Order #
F0310**



Mo Bi Tec
MOLECULAR BIOTECHNOLOGY

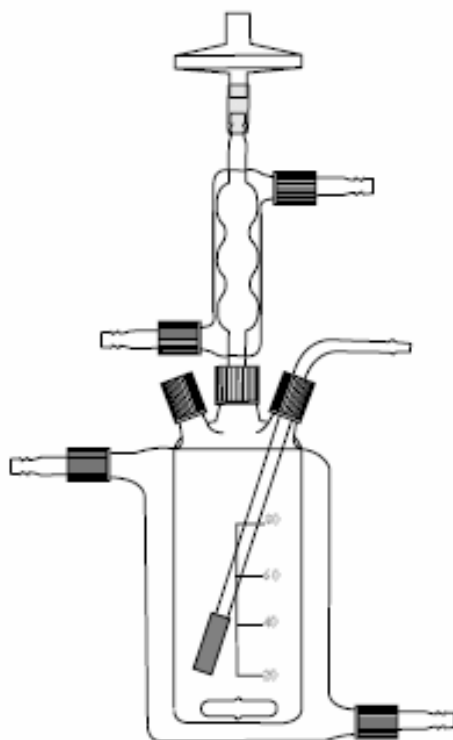


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Schematic drawing of 100 ml bench-top fermenter.





1. General Description

Our fermenter unit is designed for easy bench-top handling. It is simple to use and combines practical aspects with low costs. The fermenter unit has a capacity of 100 ml.

Heating is provided by thermostated water flowing through the glass envelope. The water temperature is regulated by an external thermostat. This allows precise temperature regulation. Each unit has a series of ports. Every port is sealed by a heavy duty screw top and a septum or silicone washer. The units contain 2 air filters (one for inflow complete with silicone tubing, one for outflow). A magnetic stirrer bar is included and long needles for taking samples through septa. The unit fits into every autoclaves.

A bubbler and a variable control pump can be connected for delivering air. Therefore, a condenser is needed for the air outlet. The air pump and the condenser are accessories and can be ordered separately. For special gas mixtures, connections to cylinders are also possible. The fermenter is delivered complete (see chapter 4.). Replacement parts are available separately.

2. Use

Fill the fermenter with medium and one drop antifoam (e.g. Sigma, #A-5551, antifoam 289) through a port. Put the magnetic stirring bar into the fermenter. Mount the simple air outlet or the condenser in the middle port and the bubbler in a site port (see figure title page). The outlet filter is fitted on top of the simple air outlet or the condenser. The inlet filter is connected with the bubbler.

The other ports are closed with a septum. This ports can also be used for your pH-meter electrode, if desired. The unit is then ready to be autoclaved.

Important: The silicone washers must lie flat under the screw taps, otherwise leaks and damage to the glass screw may occur.

When sterile, connect the tubing from the thermostat to the tubing connector. Switch the thermostat on and set the dial to the working temperature. Pre-incubate until the desired temperature is reached.

If air is needed connect the tubing from the bubbler (inlet filter) to the air pump and plug this in. The pump can be regulated by turning the white knob close to the air outlet. Connect the condenser with cool water. Place the fermenter on a magnetic stirrer, switch it on and adjust it to the desired stirring rate.

The starter culture (and non-autoclavable media components, e.g. vitamins, antibiotics etc.) are introduced through a port as follows: Wet the septum with 70% ethanol and introduce the culture with hypodermic syringe and needle. This process can be repeated throughout the incubation to take samples, using the extra-long needles provided. When the desired state of growth has been reached, switch the magnetic stirrer of, unplug the pump and remove all tubing (thermostat, condenser, air pump) from the fermenter. Unscrew a port and pour out the cells.



3. Cleaning

Use a mild detergent in warm water. For deposits in the fermenter body (for example from filamentous cyanobacteria, etc.) we suggest soaking in 3 M HCl. Rinse well with distilled water.

4. Product Description

Content "100 ml Fermenter Complete System:

- 100 ml fermenter body
- 2 connections for thermostating
(inlet & outlet consisting of 2 caps, 2 washers, 2 connections to tubing)
- 4 screw caps 14/10 mm incl. 4 washers and 4 septa
- 1 screw cap 18/10 mm incl. 1 washer and 1 septum
- 1 m tubing
- 5 long needles
- 1 bubbler (Ø 7 mm)
- 2 sterile membrane filter
- 1 magnetic bar
- 1 simple air outlet

suggested improvements:

- 1 condenser (cooled air outlet) with tubing
- 1 air pump with tubing

Accessories:

- 1 m tubing
- 1 bubbler (Ø 7 mm)
- 2 sterile membrane filters
- 1 simple air outlet

Replacement parts:

- 100 ml body:
 - 100 ml fermenter body
 - 2 connections for thermostating
(inlet & outlet consisting of 2 caps, 2 washers, 2 connections to tubing)
 - 4 screw caps 14/10 mm incl. 4 washers and 4 septa
 - 1 screw cap 18/10 mm incl. 1 washer and 1 septum



5. Order Information Shipping and Storage

Order#	Product	Quantity
F0310	100 ml fermenter complete	1
shipped at RT; store at RT		

suggested improvement:

F0311 cooled air outlet (condenser)

Air pump:

F0204 Air pump

Replacement parts:

F0401 100 ml body
washer, septa, caps

F0402 Accessories
2 filters, 1 simple air outlet,
tubing, 1 bubbler, 1 magnetic stirring bar
5 long needles

F0403 1 bubbler for 100 ml fermenter

6. Contact and Support

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