

# Glass Fermenter

GF-J1   GF-J2   GF-J3   GF-J5   GF-J7   GF-J10



High precision peristaltic pump  
Equipped with American Sartorius high-efficiency sterilization filter  
Imported Swiss Mettler/Hamilton pH electrode

## Features

Imported Swiss Mettler/Hamilton pH electrode, which can be sterilized by high temperature steam.  
Equipped with American Sartorius high-efficiency sterilization filter, the filtration accuracy is 0.2μm.  
Equipped with German PT-100 temperature probe and Siemens PLC controller.  
The installation is simple and convenient, and it can be used when plugged in and connected to water.

## Description

It is generally applicable to microbiological laboratories of scientific research institutes and enterprises, and is an ideal tool for precision fermentation experiments.It can also be used for the screening of medium formulation for microbial fermentation culture, the optimization of fermentation process parameters, and the verification of production processes and strain.

- LCD display**  
64-bit true color touch screen operation interface.
- High precision peristaltic pump**  
Automatic/manual feeding, alkali addition, defoaming.
- High borosilicate glass**  
Special temperature-resistant and pressure-resistant high borosilicate materials.

## Temperature Control

On-line detection, digital setting, automatic/manual control; German Pt-100 temperature probe, built-in electric heating device and external cooling water for automatic temperature control.

## pH Control

On-line detection, 1-way or 2-way peristaltic pumps automatically feed alkali or acid for adjustment; imported Swiss Mettler/Hamilton pH electrode, which can be sterilized by high temperature steam.

## Dissolved Oxygen (DO)

Online detection, the range is 0-100% or 0-200%.  
Imported Swiss Mettler/Hamilton DO electrode, which can be sterilized by high temperature steam.  
Can be linked with speed control, can be linked with feeding control.

## Feeding Control

Standard 1-way peristaltic pump time proportional feeding,cumulative display and recording of feeding volume;10-segment feeding program, can be linked with DO.



- Machinery seal.
- Parameters increase or decrease according to demand.
- Intelligent PID control.
- Real-time monitoring data.
- Over-liquid alarm, automatic liquid refill.
- Safe, stable and reliable operation.

Stirring System

Top-entry mechanical stirring system; aseptic mechanical seal system; top magnetic drive stirring;

The imported servo stirring motor is easy to disassemble and assemble, and it is convenient for off-site sterilization;

The standard three-layer blades are flat blades, inclined blades, and toothed defoaming paddles. The height of the blades is adjustable and detachable.

Ventilation System

Deep ventilation, equipped with stainless steel annular distributor.

Glass rotameter display, pressure gauge display, manual valve to adjust the flow.

Equipped with American Sartorius high-efficiency sterilizing filter, the filtration accuracy is 0.2μm, and external compressed air is required.

Equipped with high-quality decompression device, continuous and stable gas supply.

The optional mass flow controller can automatically control the air flow.

Optional

- Multi-way feeding
- Feeding weighing
- Oxygen-enriched bypass
- Online detection of redox potential
- Air flow automatic detection and control
- Online detection of tail gas CH4, O2, CO2 content
- Online detection of methanol (ethanol) content
- Online detection of glucose and specific amino acids



Specifications

| Model                                | GF-J1   | GF-J2   | GF-J3   | GF-J5   | GF-J7   | GF-J10  |
|--------------------------------------|---|---------|---------|---------|---------|---------|
| Liquid Loading Coefficient           | 65-80%, 70% is optimal  |         |         |         |         |         |
| Tank Configuration                   | Special temperature-resistant and pressure-resistant single-layer high-silicon borosilicate glass tank, the upper cover is made of 316L stainless steel or double-layer stainless steel + high-silicon borosilicate glass tank. |         |         |         |         |         |
| Structure                            | Desktop fermenter, compact structure,easy to operate  |         |         |         |         |         |
| Control System                       | Industrial-grade control system, using Siemens PLC controller, 64-bit true color touch screen operation interface, complete functions and stable operation.   |         |         |         |         |         |
| Sterilization Method                 | Off-site or on-site sterilization   |         |         |         |         |         |
| Dimension of Control Cabinet (L*W*H) | 400*300*600mm   |         |         |         |         |         |
| Weight of Control Cabinet            | 25kg  |         |         |         |         |         |
| Stirring Speed                       | 0-1000rpm (set arbitrarily)   |         |         |         |         |         |
| Internal Dimension of Tank(Φ*H)      | 100*175   | 160*200 | 160*250 | 160*300 | 160*350 | 190*375 |
| Nominal Volume                       | 1L  | 2L      | 3L      | 5L      | 7L      | 10L     |
| Weight of Tank                       | 5kg   | 7kg     | 13kg    | 17kg    | 22kg    | 24kg    |
| Shipping Dimension                   | 800*450*750mm   |         |         |         |         |         |
| Gross Weight                         | 48kg  | 50kg    | 58kg    | 60kg    | 65kg    | 70kg    |