

# FERMENTER - STERILIZER



*Non contractual photo*

**SERVICE : POWER SUPPLY: 11 KW / 380 V**  
**THREE-PHASE / 50 HZ DIMENSIONS:**  
**ENSEM**  
**DIMENSIONS : 1600 X 500 X 1800**

## REFERENCE : MP320

- "Biological" construction, clamp fittings, 316L stainless steel
- Stainless steel tank with viewing porthole
- Sterilizable in situ
- Operates with a 140 °C (MP320A) boosted water heater or with a steam generator (MP320B)
- Magnetic stirrer (without wall penetration)

### Technical specifications :

- Stainless steel cylindrical tank with a diameter of 250 mm inside (200 mm), 340 mm high (300 mm), with double and triple jacket on the shell
- Minimum working capacity: 3 liters (or 1.5 L)
- Maximum working capacity: 10 liters (resp. 5 L)
- A Pt100 temperature sensor, mounted on a clamp
- A sample taking.

**Bottom bottom :** It is made of stainless steel and supports the stirring system. It is equipped with a drain valve. The bottom plate allows magnetic coupling between the motor and the shaker shaft.

**Condenser :** Condenser with stainless steel inner coil, removable.

**Air injection circuit:** It consists of a pressure reducer - regulator, a pressure gauge, a float gas flowmeter, an autoclave filter.

**Lid:** This is bolted to the ferrule and can be removed occasionally.

### He understands :

- An air inlet with a dip tube and an annular diffuser delivering air bubbles directed towards the stirring turbine for good dispersion.
- A nozzle for the air outlet. This outlet is equipped with a sterilizable filter in place and a condenser
- A valve calibrated at 2.8 bar and an electronic pressure gauge
- An inoculation tube for injecting the culture medium
- A quilting allowing the introduction of acid and base
- A quilting for injecting the antifoam

**Tank :** it is equipped with 3 connections are provided for implantation of pH, oxygen or Red-Ox probes. and CO2 depending on the options chosen.

### Additional equipment :

- From 1 to 4 peristaltic pumps (depending on options), silicone fittings and tubing
- 1 filter for compressed air
- 1 condenser outlet filter
- 1 removable condenser (water circuit with turns)
- 1 gas flow meter with needle valve.

**Electrical cabinet : Made of stainless steel, it includes the**

**following elements :**

- Regulator with timer for sterilization time management
- Two temperature controllers for temperature management during fermentation (cascade control)
- An oxygen transmitter / regulator (option)
- PH transmitter / regulator (option)
- Red-Ox transmitter / controller (option)
- Co2 transmitter / controller (option)
- The control, protection and timer of the antifoam pump
- The electronic speed controller of the agitator
- Compressor control and protection
- The control and protection of the acid pump, base, pump inoculum, anti-foam pump with programmer (optional)
- Emergency stop
- Power LED
- The lockable disconnecter

Agitator and compressor are controlled by Oxygen or RedOx measurement (depending on options)