



Maintaining Nature

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Fully Automatic Ethylene Oxide Sterilizer 200 Liters – (16’’W x 16’’H x 48’’D) Model No.: MAP/ETO/Compact Model

Sr.	Item	Description
1	Inner Seal (Chamber)	SS 316L Thickness: 5mm
2	Chamber Operating Pressure	Negative pressure cycle
3	Chamber Testing pressure	1.5 Kg/cm ²
4	Single Door	SS 316L Thickness: 10mm with door interlock system
5	Gasket	Silicon Gasket (10/12 mm solid section)
6	Steam Generator	SS 316L Thickness: 3mm
7	Outer cover	Factory Finished (Poly-coated) MS
8	Heating	SS 316L Heaters on all sides of the Chamber for uniform heating throughout the load.
9	Temp Sensor	For accurate measuring and controlling of Temp. in the chamber
10	Operating Temp and cycle	Maximum: 45°C to 65°C (chamber) (1) Medium Cycle: 35°C to 45°C (2) Cool Cycle: 35°C to 40°C (3) Hot Cycle: 48°C to 55°C (4) Leak Test cycle
11	RH% Sensor	For measuring and controlling the humidity of the chamber
12	Pressure Transmitter	For measuring and controlling the pressure-vacuum that the load is subjected to during removal and charging of Gas.
13	All fittings on the machine	SS 304
14	All Valves for Automation	Teflon construction Pneumatic valves, operated by Comp. Air supply through Solenoid valves.
15	Humidification	Special Humidifier for the purpose of humidification of the load and heating of the gas.
16	Vacuum	Vacuum created by Ventury system.
17	Automation Hardware	PLC HMI : 7 Inch – Multicolor Touch display
18	Process Reports with thermal printer	Reports are generated by the software for each and every cycle in three formats, viz. (i) Single page Summary report and (ii) Detailed Report
19	Testing	Pressure / Vacuum testing as per specified standards. (1.5 times the working pressure)
20	Operation	All functions are electro-pneumatically operated. Door closing is manual
21	Loading Trolley	Fabricated with SS 304
22	Air Filter	0.2-micron air filter also provided with machine for fresh air.

Description of the Automation:

The machine is provided with Microprocessor / PLC based automation along with an LCD / touch-screen display, which allows the operator to

- Change and set the parameters
- Run the cycle according to pre - selected cycles.
- Monitor various phases / individual parameters during the Process.
- View on/off status of the various components of the machine while the cycle is in progress.

Software for controlling, monitoring, and recording of various parameters is provided. This makes it possible to operate and monitor the machine by connecting it with any computer where the software is loaded, apart from running it from the machine itself. The above devices control and regulate all the functions of the machine. It makes the system user friendly and allows the operator to change the process parameters as and when necessary.

Alarms:

- High and Low temperature
- High and low pressure
- Leakage alarm
- Fault alarm

HMI 7 inch for automatic operation which indicates all process

Thermal Printer for reporting system



Chamber Gauge

Manual switches

Hinged type door with interlock system

Brand: MAP
Manufacturer: MAP INDUSTRIES
Country of origin: India
Model: MAP/ETO/Compact Model

Software Feature:

- Able to edit batch number
- Duty cycle on display
- Cycle Time: 2 to 24 hrs (user set able)
- User configure able sterilization hold time.
- Automatic cartidge purging as per cycle selection.

Others Feature:

- Smooth finishing to minimizing gas deposit.
- Insulation of Shell 50 mm thick
- Sound proof exhaust system

The advantage of the above is that the system can carry out multiple programs. It includes features like:

1. Password protection for unauthorized access.
2. Analog input of process pressure/vacuum.
3. Digital/Analog input for temperature. Temperature is indicated in the sterilization area, by the use of a temperature sensor.
4. One relative humidity and One pressure/vacuum sensor for display of the humidification efficacy and current pressure/vacuum, that the load is subjected to, at all times during the process, is displayed in graph format when the process is going on and is also available in report form for printing at the end of the cycle.
5. Humidity sensor is movable inside the chamber and hence a comprehensive mapping of all areas of the chamber is possible.

MAP Industries