

Maintaining Nature

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CONTROL SYSTEM:

- Fully automatic operation with sequential manual switch during emergency.
- PLC control with 7" HMI touch display (Honeywell brand).
- Different level user access for operator, service, visitor and supervisor with 8 digit password protection.
- Control system supports a minimum of 10 different pre-programmed cycle operations
- Graphical trends chart for temperature and pressure with P&I Diagram.
- Operating temperature: 121 °C and 134 °C
- Operating Pressure: 2 to 4 kg/cm² or Bar.
- Operating power: 3 Phase, 400-440 V 50 Hz AC
- Sterilize time: 7-10 min-134 °C, 20-30 min-121 °C

ALARMS :

- All alarms are with error code with description
- Door unlock
- Low water level
- Power error
- Temperature & Pressure Low/high
- Vacuum Pump Error
- Cycle abort
- Cycle Complete

OTHERS FEATURE:

- Chamber and jacket designed as per hydraulic test pressure
- Equipped with lower and higher water level protection system
- Independent pressure switches provided for automatic control at 121 °C and 134 °C cycles
- Electrical control system includes air break contactor with toggle switch
- Gauge glass assembly fitted with dual automatic shut-off valves using magnetic float sensor
- System integrated with mechanical ejector and self-sterilizing vacuum drier for efficient drying
- Protection provided through spring loaded safety valve and vacuum breaker
- Chamber discharge line arranged with plug screen, dial thermometer, swing check valve, steam trap, and additional wheel valve connection for fast exhaust
- Door system designed with automatic self-locking mechanism under pressure conditions
- Inbuilt thermal printer provided for continuous process recording and documentation

MATERIALS OF CONSTRUCTION:

- Chamber: Stainless steel 316L Thickness:6mm
- Jacket: Stainless steel 304L Thickness :6mm
- Single Door: Stainless steel 316L, Hinge Type, Radial Locking
- Steam Generator: Stainless steel 316L Thickness:6mm, ASME Pressure Vessel standard
- Stand : SS304
- Piping, base stand and front cover Stainless steel 304L having argon welding and tri-clamp join.
- Temperature and Pressure Gauge SS 316
- Door Gasket: Automatic Floating Hollow Gasket
- Programmable logic controller (PLC) and pressure sensor
- Automatic Vacuum pump 3 HP and water filling pump
- Chamber size: Dimension (1.48 X 1.48 X 3) ft approx. 182 liter
- Heater: 24 KWatt

KEY FEATURE OF AUTOCLAVE:

- Meets STAATT Level IV microbial inactivation efficacy criteria 6 log₁₀ reduction and higher.
- **Decontamination of air:**
 - HEPA filter with for air cooling after post vacuum (Class H13 or higher, EN 1822; or >99.97% efficiency on 0.3 micron particles).
- Steam condenser technology to save vacuum pump life.

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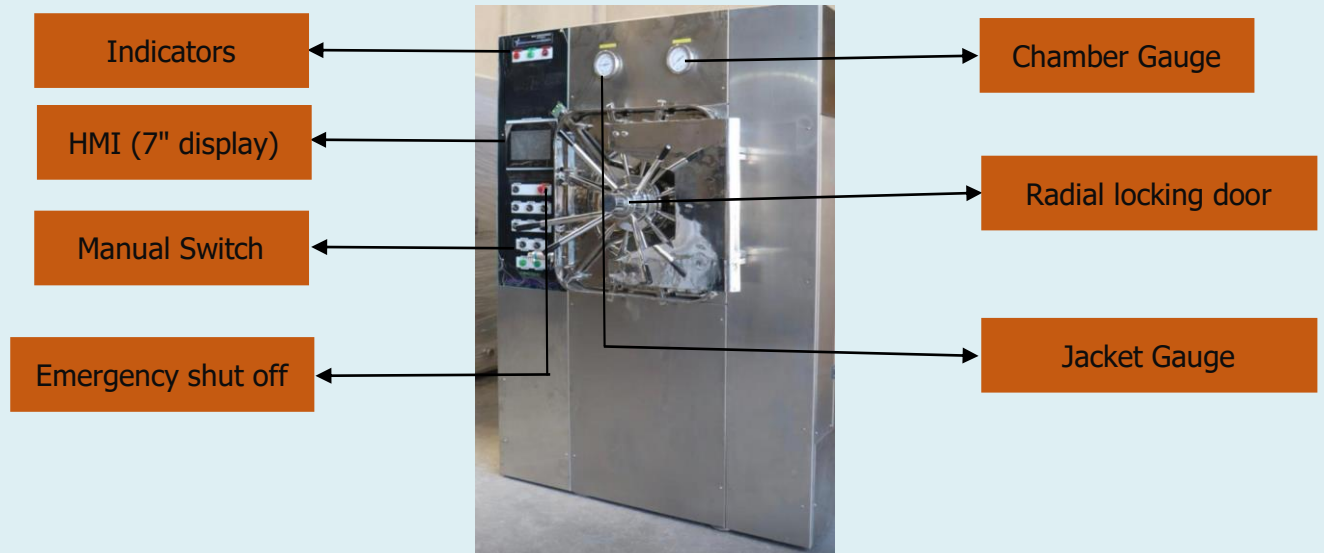
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HORIZONTAL RECTANGULAR STEAM STERILIZERS

Model: MAP/REC/003

Capacity: 180 Ltr



- **Machine pre-vacuum:** Before exposure to steam, the vacuum pump creates a vacuum through a pulsing process, thus removing the bio-burden from the chamber and increasing the sterilization potency of the process.
- **Post vacuum:** At the end of the sterilization cycle, the vacuum pump removes the residual moisture after steam exposure from the chamber to enhance the dryness of the resultant load.
- **Pre-Programmed cycles:** Sterilization of equipment, gauze, cotton, syringe, instruments, glassware, etc. using standard 121°C & 134°C which are preprogrammed in the PLC/ Microprocessor. The system includes the following pre-programmed cycles; additionally, unlimited number of user-defined cycles can also be programmed into the memory of the system:
 - 1) **H.P.H.V. Cycle (10 different cycle program)**
 - 2) **Bowie & Dick test cycle**
 - 3) **Terminal Cycle (10 different cycle program)**
 - 4) **Glassware and Liquid Cycle**
 - 5) **Vacuum Leak Test**
- **Control:** During sterilization, PLC controls the temperature, moisture, valve control, and all critical time and pressure-based parameters. Temperature is maintained uniformly & accurately ($\pm 0.5^{\circ}\text{C}$). Continuous display of temperature, pressure, and humidity on-line allows the user to be aware of cycle status at all times.
- **Print:** In build thermal printer to print data.
- **HMI:** The operator can run the machine through HMI (Human Machine Interface). User can also change the programs according to the Hospital's suitability.
- **Security:** Advanced multi-level password protection enhances security.

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