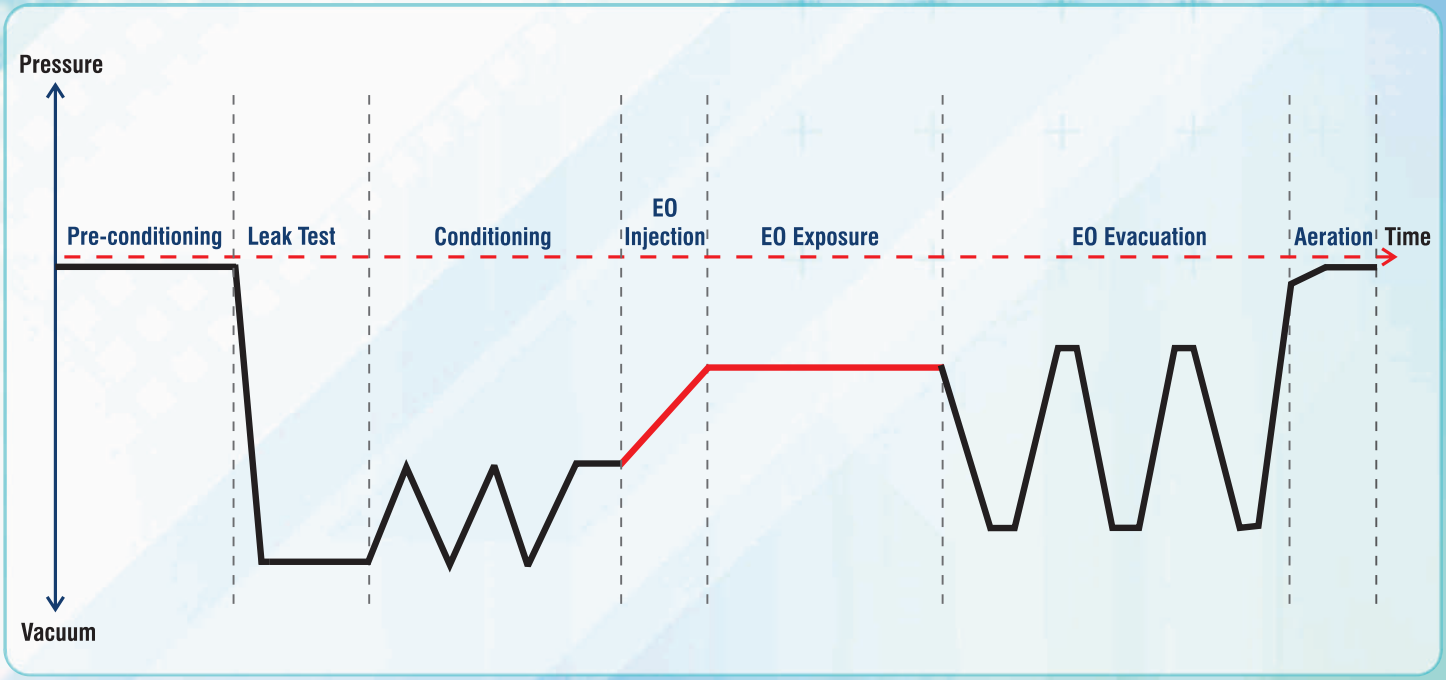
MACHIN FABRIK®

Machinfabrik Industries Pvt. Ltd.

*Innovative Solutions for Healthcare*

# STERIMAX
# EO Gas Sterilizer

Technology you can trust




## “STERIMAX” EO Gas Sterilizer
## Effective low temperature sterilization system for heat sensitive Instruments, Lumens & Medical Devices

Machinfabrik's “STERIMAX” low temperature EO Gas Sterilizers are designed and built to provide the most effective and safe sterilization of a vast range of temperature sensitive instruments, catheters, flexible endoscopes and devices used in Healthcare Facilities. The system provides the user the highest sterilization assurance accompanied by safe and economical processing.

Ethylene Oxide Gas is a powerful chemical sterilant with very high penetration power. This means that minimal restrictions are imposed by commonly used medical packaging materials, intricate designs of modern medical devices and lumen restrictions. In fact Ethylene Oxide is the most common sterilant used for single use medical devices as well.

The “STERIMAX” EO Gas Sterilizer has superior construction features which offer the user maximum safety and reliability:-

- Fully automatic operation.
- Comprehensive process documentation.
- Multiple safety features to safeguard the operator.
- Green technology to protect the environment.

# The Power of “STERIMAX” Low Temperature Sterilization

The technological advances in medical instruments has resulted in development of devices which have intricate constructions making them ideal sites for the harboring and growth of microorganisms. The complex configuration makes cleaning, disinfection and sterilization a challenge.

Disinfection alone is not enough. This process results in the destruction of most pathogens but not heat resistant bacterial spores.  Sterilization alone can result in the complete destruction of all viable and non-viable microorganisms.

**Instruments and devices, which cannot withstand heat or moisture, must therefore be sterilized with low temperature process. EO Gas is the most economical and widely used chemical sterilant for such applications.**

## STERIMAX Series

Machinfabrik has three standard models thoughtfully designed to cater to your most diverse needs. The EMAX-5 Model with an effective volume of 5 cubic feet, the EMAX-8 Model with an effective volume of 8 cubic feet and the EMAX-16 Model with an effective volume of 16 cubic feet. Years of experience and innovative approach coupled with constant collaboration with users has resulted in a product which offers the users safety, reliability and the highest level of sterility assurance.

- Microprocessor controlled operation guaranteeing the highest degree of process repeatability and accuracy.
- Large, intuitive, color display with touch screen function for user friendly operation and exhaustive process visualization.
- On-line printing options for comprehensive process documentation.
- In-situ cartridge puncturing of 100% EO cartridge for safe and effective dispensing of sterilant.
- Unmatched safety features for safeguarding the operator, the machine and your product.
- Compact and space saving foot print.

## Maximum Operator Safety

The “STERIMAX” EO Gas Sterilizer uses single dose cartridges for delivering sterilant to the chamber ensuring that gas is handled in a safe manner. Moreover the process is carried out completely under vacuum eliminating any risk of gas leakage.

## Safe for your Instruments

EO Gas Sterilization is gentle on most medical devices compared to hydrogen peroxide, which is an oxidative sterilant. This helps to increase the life of the instruments and hence minimize the need for repair.

## Economical on the Budget

The EO Gas Sterilizers involve less capital investment and have lower operating cost as compared to complementing technologies. Moreover, the wider configuration of systems and feature available also offer more flexibility to the users.

## Uncompromised patient safety

The highest sterility assurance along with total process efficiency and effectiveness offers the patient maximum infection control. The system is also compatible with all medical grade packaging materials thereby ensuring that every patient receives a terminally sterilized, wrapped instrument.

# Designed For Excellence

Machinfabrik has over 30 years of experience in the field of Sterilization and Dis-infection technology. The team of trained and dedicated engineers is engaged in a proactive approach to constantly evolve the design of sterilization systems to meet the rapidly evolving needs of healthcare professionals and regulatory authorities. “STERIMAX” range of EO Gas Sterilizers is engineered to leave nothing to chance.

## The Chamber and Doors

The chamber is fabricated from stainless steel for maximum hygiene and long life. The quick locking door is a hinged door and is provided with a vacuum tight sealing design. The door is fitted with a inert silicone gasket for leak proof operation. Both chambers and doors are insulated to ensure minimum energy loss and excellent temperature uniformity.


## Heating System

The sterilization space is fitted with electric band heaters which provide quick and precise control of the temperature in the EO Gas Sterilizer. The design of the heating system ensures minimum power consumption for low operating cost.

## Vacuum System

The Vacuum System comprises of an air regulator and dynamic vacuum ejector to create effective vacuum in the Sterilizer. The Vacuum System plays a critical role in the evacuation, exhaust, air-wash and aeration phases.

## Humidification System

The humidity level in the chamber has a critical impact on the effectives of the sterilization cycle. The system consists of a water tank and injection system to maintain the desired level of humidity in the pre-conditioning phase of the sterilization program.

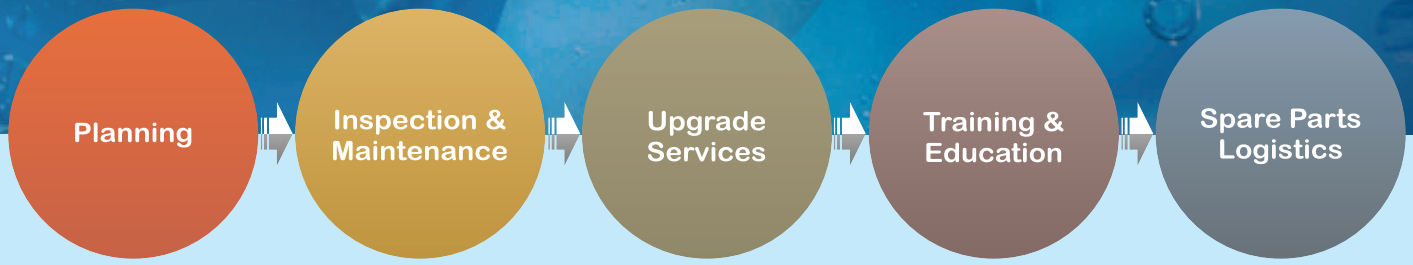
## Gas Dispensing System

The “STERIMAX” range of Sterilizers uses 100% EO Gas in cartridges to ensure safe and accurate injection of the sterilant gas. The cartridge has to be manually placed in the receptacle at the start of the sterilization process and an automatic puncturing mechanism pierces the cartridge to release the sterilant in the chamber.

## Air Filtration System

A bacteria retentive filter admits air from the room into the chamber during the air wash and aeration phases. This helps to secure the sterile integrity of the load being sterilizer.

| STERIMAX : EO GAS STERILIZER | | | |
|---|---|---|---|
| MODEL | EMAX - 5 | EMAX - 8 | EMAX - 16 |
| CHAMBER SIZE (W x H x D)/ CHAMBER VOLUME LITERS/ CUBIC FT. | 430 x 380 x 830 mm / 135 Ltr / 5 Cu.Ft. | 510 x 460 x 970 mm / 227 Ltr / 8 Cu.Ft. | 600 x 600 x 1200 mm / 430 Ltr / 16 Cu.Ft. |
| OVERALL DIMENSIONS (mm) - (W) x (H) x (D) | 900 X 1800 X 1000 | 1000 X 1900 X 1150 | 1150 X 2050 X 1380 |
| CHAMBER / SINGLE HINGED DOOR / PIPING / SS 304 | √ | √ | √ |
| SINGLE UNIT DOZING EO CARTRIDGE | 100 Gms | 170 Gms | 300 Gms |
| COOL CYCLE : GAS EXPOSURE TIME/ TEMPERATURE /HUMIDITY /AERATION TIME | 270 Mins / 38°C 40 - 80 % / 36 Hrs | 270 Mins / 38°C 40 - 80 % / 36 Hrs | 270 Mins / 38°C 40 - 80 % / 36 Hrs. |
| WARM CYCLE : GAS EXPOSURE TIME/ TEMPERATURE/ HUMIDITY /AERATION TIME | 60 Mins / 55°C 40 - 80 % / 12 Hrs | 60 Mins / 55°C 40 - 80 % 12 Hrs | 60 Mins / 55°C 40 - 80 % / 12 Hrs |
| NO LUMEN BORE RESTRICTION | √ | √ | √ |
| ENTIRE CYCLE IS CONDUCTED UNDER VACUUM | √ | √ | √ |
| **UTILITY REQUIREMENTS** | | | |
| DISTILLED WATER | 2 Liters | 2 Liters | 2 Liters |
| COMPRESSED AIR ( 7.0 Bar ) | 2.2 Liters / Sec. | 2.2 Liters / Sec. | 2.2 Liters / Sec. |
| ELECTRICITY : 415 V / 50 Hz / 3 Phase / AC Supply | 9 KW | 12 KW | 18 KW |
| **SAFETIES** | | | |
| PROCESS WILL NOT START UNLESS THE DOOR IS PROPERLY CLOSED | √ | √ | √ |
| IF CHAMBER ABSOLUTE PRESSURE INCREASES BEYOND SET LEVEL, CYCLE WILL NOT START | √ | √ | √ |
| EMERGENCY ABORT SWITCH | √ | √ | √ |
| **AUTOMATIC OPERATION** | | | |
| AUTOMATIC OPERATION WITH PLC + HMI + PRINTER | √ | √ | √ |

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Dimensions and Technical Specifications are subject to change without notice for development / improvement of the products.