

3M™ Steri-Vac™ Sterilizer/Aerator GS Series

Cool  
when it counts



For Health Care Facilities

Stay cool under pressure with state of the art temperature and humidity monitoring and a touch screen cycle display in the **3M™ Steri-Vac™ Sterilizer/Aerator GS Series**. Ethylene Oxide (EO) is known to be gentle on instruments and highly penetrating, making it ideal for complex devices such as long lumen flexible endoscopes. *And* it can save you money. Now that's cool.



# Cool, When It Counts

Every day, your team is charged with ensuring that sterilized equipment is available, on time, for a wide range of procedures. It's not often that you find a solution that will help you manage the complexity of your facility's reprocessing demands and give your budget a break at the same time.

**The 3M™ Steri-Vac™ Sterilizer/Aerator GS Series** allows you to sterilize heat- and moisture-sensitive equipment cost effectively, efficiently, and safely—when it counts.

**The 3M™ Steri-Vac™ Sterilizer/Aerator GS Series** is designed with new features that make it easy to train your staff—and easy for them to operate the equipment and monitor the cycle.

## State of the Art Control

The Steri-Vac sterilizer GS series features three-zone temperature control and a state-of-the-art, proprietary, dynamic humidification process that adapts and controls chamber relative humidity (RH) for uniformity of key sterilization parameters.

## Enhanced Features, Easy to Use



### Touch screen on the front panel

displays the key information for the operator: cycle stage, cycle temperature, status of door (open or closed), time elapsed for gas exposure and aeration phases, and more.

### Cartridge barcode scanner

allows the sterilizer to register the cartridge catalog number, EO volume, lot number and expiration date, streamlining your recordkeeping.

### Software controlled door

allows operator to release door using the touch screen panel—only when it is safe to do so.

### Two pre-programmed cycles:

warm cycle (55° C) and cool cycle (38° C).

### Aeration begins automatically

after the sterilization cycle is completed. The sterilization/aeration process can be accomplished in one chamber without moving the load.

### Sterilizer will retain

sterilization cycle details for the last 100 cycles, and reports can be downloaded to a USB drive.



# Sterilization Strategy— The Best Mix of EO and H<sub>2</sub>O<sub>2</sub>

Your department needs the right mix of sterilization equipment to deliver instruments safely, on time, and at the lowest total cost. Steam is the workhorse of your program, providing high efficacy at low cost. However, to complete your big picture strategy, you still need to select the right sterilization process for heat- or moisture-sensitive instruments. For these devices, you'll need to determine the best mix of Ethylene Oxide (EO) and Hydrogen Peroxide (H<sub>2</sub>O<sub>2</sub>) cycles.

## Check your IFUs

H<sub>2</sub>O<sub>2</sub> sterilization isn't always the right answer. Audit your current practices including required turnaround time and validated sterilization methods and cycles in the manufacturers' IFUs. You may be surprised.

## How Do You Decide?

### Three enduring truths in sterilization:



There is not a comprehensive sterilant or sterilization method; there will always be a need for multiple types of sterilization processes.



All low temperature sterilants are toxic. After all, their function is to kill or inactivate microorganisms.



All sterilants must come in direct contact with microorganisms to kill or inactivate them.

## Consider the Characteristics of Each Method

	ETHYLENE OXIDE (EO)	HYDROGEN PEROXIDE (H <sub>2</sub> O <sub>2</sub> )
<b>Cost</b> 	<ul style="list-style-type: none"> <li>Lower cost per cycle than H<sub>2</sub>O<sub>2</sub><sup>1</sup></li> </ul>	<ul style="list-style-type: none"> <li>Higher cost per cycle than EO<sup>1</sup></li> </ul>
<b>Benefits</b> 	<ul style="list-style-type: none"> <li>Highly efficacious—can penetrate complex medical devices including long, narrow lumens</li> <li>No restrictions on the length or inner diameter of endoscope channels</li> <li>Cleared for use with single- or dual-channel rigid and flexible scopes. Examples include colonoscopes, duodenoscopes, and ultrasound scopes.*</li> <li>Excellent materials compatibility</li> </ul>	<ul style="list-style-type: none"> <li>Primarily a surface sterilant, which means that little aeration is required, and cycle times are short</li> </ul>
<b>Limitations</b> 	<ul style="list-style-type: none"> <li>Excellent penetrability requires longer aeration and total cycle times</li> </ul>	<ul style="list-style-type: none"> <li>Very difficult to drive down long narrow lumens of medical devices</li> <li>One of the strongest oxidizers known, it can result in damage to packaging and devices (e.g., cracking, crazing, discoloring and malfunction)</li> <li>Instruments must be thoroughly dried before sterilization. Any water may cause the cycle to abort and/or result in residual liquid hydrogen peroxide on instruments, which creates a risk of chemical burn.</li> </ul>
<b>Ideal Use*</b> 	<ul style="list-style-type: none"> <li>Instruments that are sensitive to oxidizing agents</li> <li>Instruments that are used once per day</li> </ul>	<ul style="list-style-type: none"> <li>Instruments that are needed for multiple procedures per day</li> </ul>

\*Always refer to the instrument manufacturer's Instructions for Use (IFU) for validated sterilization modalities and cycles.

## The Solution for Low-Cost Low-Temperature Sterilization? Ethylene Oxide (EO)

Count on the **3M™ Steri-Vac™ Sterilizer/Aerator GS Series** as a critical component of your overall sterilization program.

1. Based on cost comparison of 3M™ Steri-Vac™ Sterilizer/Aerator GS series with ASP® STERRAD® 100NX® System and Steris V-PRO™ 1 Low Temperature Sterilization System. Conducted 6/2014, verified 2/2015. 3M data on file.

# The Low Cost of Cool

## It's a balancing act



Every day, you strive to control the total cost of sterilization while efficiently and reliably providing sterile instruments that are safe for patient use. While you may not be counting pennies (yet), your department is likely being scrutinized for the impact it has on your organization's bottom line.

### Gentle on Instruments

Check out your repair history. Each time you send an instrument (like an endoscope) out for repair, it can cost you thousands of dollars. The Steri-Vac sterilizers are gentle on your instruments, which can have a real impact on your annual budget.

A cost-effective operation is easy with the 3M™ Steri-Vac™ Sterilizer/Aerator GS Series, which:

- **Provides an overall lower cost** than leading vaporized hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) systems.<sup>1</sup>
  - Lower initial cost of capital
  - Lower cost per cycle
  - Lower annual cost to maintain
- Is **gentle on device materials**, helping to extend device life and reduce the need for costly repairs or replacement.

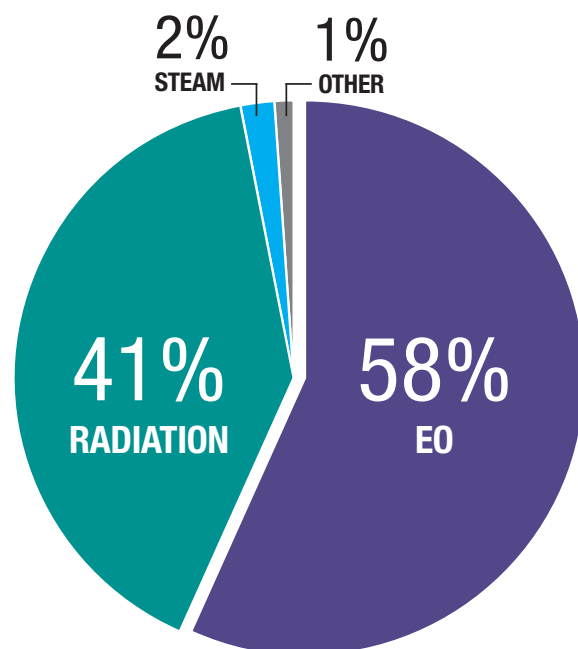
## Proven Effective

The Steri-Vac brand of sterilizers have provided safe, effective, and economical sterilization for over 50 years.

There's a ***peace of mind*** that comes from using time-tested, well understood sterilization methods that have been relied upon by healthcare, medical device, government and other industries for decades. The Steri-Vac GS Series sterilizers use 100% ethylene oxide, recognized as the ***gold standard for low temperature sterilization*** because of its ability to penetrate even the most challenging devices, to provide a reliable, compatible, cost-effective solution.

You may be surprised to learn that over half of all sterilized single-use medical products are sterilized with ethylene oxide. With so many manufacturers counting on EO to sterilize their products, it's clear that ethylene oxide will be around long into the future, and healthcare facilities can continue to rely on this traditional sterilant to reliably sterilize heat- and moisture-sensitive items.

### Sterilization Methods Used to Sterilize Single-Use Medical Products



Source: Global Industry Analysts. Sterilization Equipment and Supplies. A Global Strategic Business Report. MCP-3362. October 2011.

1. Based on cost comparison of 3M™ Steri-Vac™ Sterilizer/Aerator GS series with ASP® STERRAD® 100NX® System and Steris V-PRO™ 1 Low Temperature Sterilization System. Conducted 6/2014, verified 2/2015. 3M data on file.



# Safety Times Three

## You're Counted on to Ensure the Safety of Instruments, Your Team, and the Environment

All are possible when you sterilize with Ethylene Oxide (EO), which is very well understood and proven to be safe when used properly. The **3M™ Steri-Vac™ Sterilizer/Aerator GS Series**, when properly installed and operated according to instructions, is designed to meet occupational safety requirements around the world, including OSHA exposure limits.

### Safe on Instruments

The 100% EO sterilant used in the 3M™ Steri-Vac™ Sterilizer/Aerator GS Series penetrates to effectively to sterilize equipment and is gentle on materials, which may extend the life of your instruments. This means that you can provide **every** patient with a terminally sterilized device.

- Because Ethylene Oxide (EO) is an alkylating agent, not an oxidizing agent (like hydrogen peroxide), it is compatible with the materials used to make complex medical devices and may help extend device life and reduce the need for repairs.
- EO is highly efficacious, offers strong penetrability, and is a relatively stable gas that has the ability to penetrate the complex geometries of medical devices (such as flexible endoscopes).



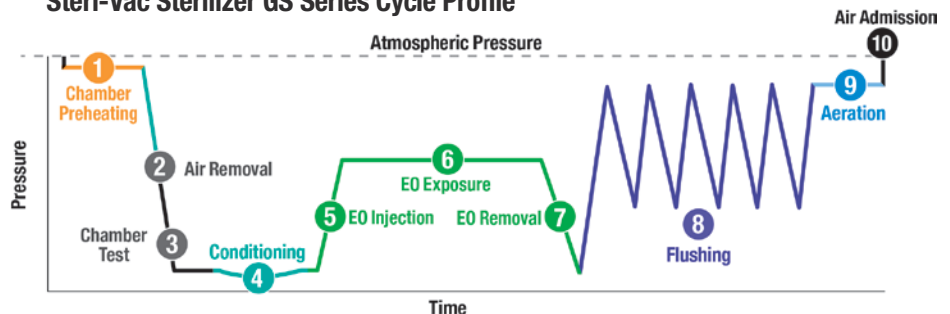
### Safe for Your Staff

- The single-use, 3M™ Steri-Gas™ Cartridge (100% EO) is punctured only when the chamber door is sealed and the proper vacuum has been drawn, ensuring that gas remains safely inside the chamber.
- Internal sterilizer diagnostics monitor key parameters, with automatic fault notification and safe state recovery processes that provide additional protection for the operator. If a fault is detected, the sterilizer automatically completes an error recovery process to bring the sterilizer to a safe state prior to allowing further action.
- Minimum aeration time is pre-programmed in each cycle, and aeration occurs in the same chamber as sterilization—there's no need to move the load.
- The EO exhaust is connected to a dedicated external vent line.

#### Single-Use EO Cartridge

The EO gas cartridge punctures inside the sterilizer only after the door has been locked and a vacuum is drawn.

Steri-Vac Sterilizer GS Series Cycle Profile



### Safe for the Environment



The 3M™ Abator is a highly effective device that uses an exothermic (heat producing) reaction to convert EO exhaust into CO<sub>2</sub> and water vapor. It is designed exclusively for use with Steri-Vac Sterilizers.

At normal operating temperatures and concentrations, conversion efficiency is **99.9+%**\* – virtually eliminating emissions of EO to the environment.

\* When EO concentrations are greater than 100 ppm. When EO concentrations are less than 100 ppm, conversion efficacy is 99.0%.

# With 3M, When You Call One of Us— You Get ALL of Us

## 3M Service: Protecting Your Investment and Enhancing Your Productivity

Keeping your equipment functioning at an optimum level is critical to providing the highest quality care for patients. 3M service agreements can help you stay on budget and maximize system uptime year after year, ensuring your investment will provide maximum productivity and the longest possible useful life.

Look to us for service support with site planning and consulting, basic hook-up, preventative maintenance agreements, and more. We care about your success! Our service experts are available to assess your needs and recommend the best course of action possible, whether working with you to remotely diagnose problems or scheduling on-site technicians if a repair is required. Contact our 3M Health Care Service team for more details.

## Compliance

- Cleared by the U.S. FDA as medical devices for healthcare settings - allowing the user to meet the requirements of ANSI/AAMI ST41: 2008: *Ethylene Oxide sterilization in healthcare facilities: Safety and effectiveness*.
- Meet applicable device safety, electrical and EMC standards, including (but not limited) to UL.
- Meet requirements for the European Union Medical Device Directive CE marking.
- Have independent Monitor and Control Sensors to meet EN1422.
- Comply with RoHS Directive 2011/65/EU and WEEE environmental and disposal Directive 2012/19/EU.
- 3M™ Steri-Gas™ EO Gas Cartridges are EPA registered (7182-1).

## Software Enhancements

- User interface is now available in 15 languages.
- Software is designed with automated handling of errors; indications allow error handling to be quickly addressed.
- Ethernet port and USB ports are available for connectivity and data transfer.
  - Cycle data are stored on network accessible directory. The last 100 cycles are available for export via the USB drive or via Ethernet connection to instrument tracking software.
  - In addition, diagnostic data can be exported and used by service technician or by a remote diagnostic module, if installed.
- When connected to the network, the sterilizer will monitor for software updates. Updates can be made when the sterilizer is idle.



# The 3M Advantage

For **over 50 years**, 3M has brought you reliable, cost-effective 100% Ethylene Oxide sterilization with 3M™ Steri-Vac™ Sterilizer/Aerators. You've come to rely on us for our innovative products, responsive professional support, depth of technical expertise, and creative approaches to solving your problems. It's a unique collaboration—because you know that when you call one of us, you get all of us.

At 3M, we've earned your trust with our long history of innovation and a laser-like focus on quality and the customer. With over 50,000 products, operations in 65 countries, 75,000 employees, and 7,000 researchers in 34 laboratories worldwide, we continue to invest heavily in product improvement and development. That's one reason why 3M is the leading supplier of small chamber ethylene oxide sterilization systems.



3M Innovation  
Improving Every Life










3M Technology  
Advancing Every Company

3M Products  
Enhancing Every Home

For more information, contact your local 3M sales representative or call the 3M Health Care Helpline: 1-800-228-3957.

# Cool, When it Counts

Ordering Information - 3M™ Steri-Vac™ Sterilizer/Aerators GS Series and Related Products

Product	Name	Cat. No.	Description	Packaging	Shipping
	3M™ Steri-Vac™ Sterilizer/ Aerators GS Series	GS5-1D, GS5-2D,  GS8-1D, GS8-2D	4.8 cubic foot chamber EO sterilizer  7.9 cubic foot chamber EO sterilizer	1/Unit	1 unit/carton
	3M™ Ethylene Oxide (EO) Abator	50	Converts EO exhaust into CO <sub>2</sub> and water vapor	1/unit	1 unit/carton
	3M™ Steri-Gas™ EO Gas Cartridges	4-100	100 gram (3.5 oz.) Cartridge for Models GS5-1D, GS5-2D , 5XL	12 each/box	4 boxes/case
		8-170	170 gram (6 oz.) Cartridge for Models GS8-1D, GS8-2D , 8XL	12 each/box	4 boxes/case
	3M™ Printer Paper	1217	Printer Paper, 79 mm (3-1/8 in.) wide	—	2 rolls/case
	3M™ Attest™ Rapid Readout Test Packs and Biological Indicators	1298* 1298F* 1294*	EO Test Pack (25 controls/box) EO Test Pack (5 controls/box) EO Biological Indicator (Green cap)  *Must be used in conjunction with 3M™ Attest™ Auto-reader 390G or Auto-reader 290G.	25 pack/box 25 pack/box 50 each/box	2 boxes/case 2 boxes/case 4 boxes/case
	3M™ Attest™ Auto-reader 390G	390G	Auto-reader for use with 3M™ Attest™ Rapid Readout Biological Indicator 1294 for EO	1 unit/box	1 box/case
	3M™ Comply™ Ethylene Oxide (EO) Chemical Indicator Strip	1251	EO Chemical Indicator Strip, 1,5 cm x 20 cm (5/8N x 8N)	240 each/box	1 box/case
	3M™ Comply™ Indicator Tapes for Ethylene Oxide (EO) Sterilization	1224-0	1,25 cm x 55 m (1/2 in. x 60 yds.), green	1 unit/box	1 box/case
		1224-1	2,5 cm x 55 m (1 in. x 60 yds.), green	1 unit/box	1 box/case
		1224-6	1,9 cm x 55 m (3/4 in. x 60 yds.), green	1 unit/box	1 box/case
	3M™ Ethylene Oxide (EO) Monitoring Badge (with prepaid analysis)	3550	EO Monitoring Badge	—	5 each/case



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