



# Sustainable Steam Sterilizers

*For Energy Efficient Labs*



Consolidated's Contributions to LEED



*Model 3AV-ADV-PLUS Sliding Door Sterilizer with Consolidated WaterEco® Water Saving System*



**CONSOLIDATED  
STERILIZER SYSTEMS**

CONSOLIDATED MACHINE CORPORATION



## Steam Sterilizers and LEED

### About Us

For more than 65 years we have enjoyed a long standing reputation for excellence in the field of sterilization. As one of the most reliable sterilizer manufacturers in the world, global customers come to Consolidated Sterilizer Systems because we offer the best price, functionality and predictable quality in the industry. Our office and factory are located in Boston, Massachusetts, a city rich with universities, hospitals, research laboratories and biotechnology enterprises.

*All of our units are manufactured in the USA.*

### Contributions to Sustainability

Consolidated Sterilizer Systems is dedicated to helping architects, building designers, and lab planners construct the greenest buildings possible. Not only do we test our equipment to make sure that it exceeds industry standards, but we also aggressively pursue design ideas that help minimize our environmental footprint.

### Consolidated's "Green Sterilizer" Key Features and Benefits

Feature	Benefit
WaterEco®	Significantly reduces sterilizer water consumption and cuts utility costs.
Streamlined Plumbing	Maximizes lab space by minimizing sterilizer footprint.
EcoCalendar™	Minimizes HVAC load and utility consumption through software controlled, automatic steam shut-off feature.
High Performance Insulation	Reduces heat output to the lab. Minimizes HVAC load, associated air conditioning costs, and utility costs.

Overall sustainable sterilizer design and construction helps claim LEED points in up to four separate categories, including water efficiency, material and resources, energy and atmosphere, and innovation in design.

### What is LEED?

Leadership in Energy and Environmental Design (LEED) is an initiative started by the US Green Building Council (USGBC) in an effort to provide a baseline measurement and rating system for "green" buildings. LEED is applicable to new construction and renovation projects and promotes a holistic view to designing sustainable buildings that incorporate the latest technological capabilities. The LEED Green Building Rating System relies on metrics of sustainability, energy efficiency, material/resource use, water efficiency, indoor atmosphere and design innovation.

The rating process covers many areas of the design and construction process including energy and water conservation, land usage, recycling, minimizing raw materials, onsite energy generation, and the usage of windows just to name a few. When a building is being designed, the more standards the engineers and architects are able to meet, the higher the building's LEED rating can be. LEED has four rating tiers: Certified, Silver, Gold, and Platinum. Achieving even the lowest rating of 'Certified' is respected within the industry.

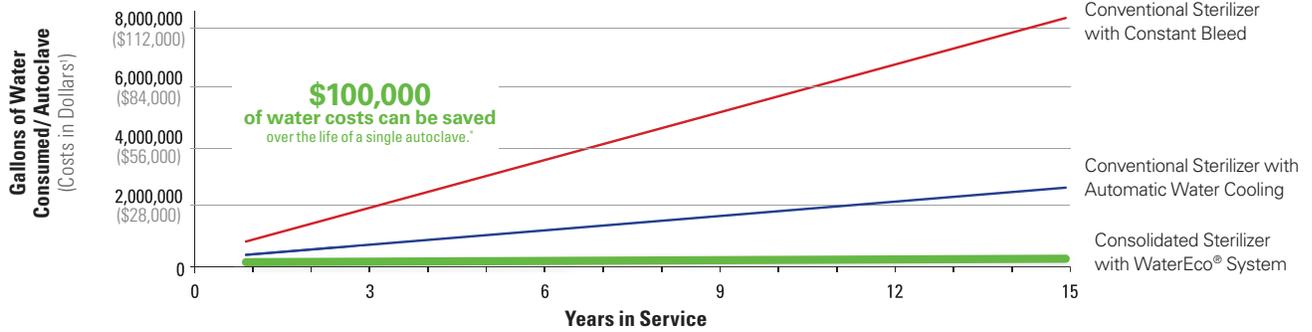
*For more information about LEED, visit [www.usgbc.org](http://www.usgbc.org).*

### LEED and Laboratory Equipment

The USGBC does not provide ratings for equipment or processes used in a building project, however laboratory equipment can contribute to a building's LEED rating through a number of areas (listed above). Laboratory equipment that is designed to be environmentally friendly can increase LEED points in these categories. Consolidated has identified nine (9) potential LEED credits (over 4 categories) that could benefit from using a Consolidated steam sterilizer (see page 4).

Every manufacturer should publish energy and water usage statistics for their equipment. In the absence of a regulatory body to standardize and rate energy/water usage and general "eco-friendliness" of lab equipment, leading manufacturers such as Consolidated proactively pursue these goals on behalf of architects, lab planners and end users.

Save up to 8,000,000 Gallons by Using a Consolidated WaterEco® System



<sup>1</sup> Cost estimates based on water and sewer cost of \$14.00 per 1000 gallons. Calculate your water savings with Consolidated's online water calculator at [www.consteril.com](http://www.consteril.com).

**WaterEco® : A Sustainable Choice**

Incorporating one of Consolidated's WaterEco® water savings devices into an autoclave will greatly reduce water consumed in a laboratory or vivarium facility. By applying Credit 3 (Water Use Reduction) from the Water Efficiency Category, Consolidated's sterilizers can help a project obtain up to four (4) points. Keep in mind that toilets, fountains, sprinklers, and other equipment all contribute to the total water consumption.



The WaterEco® system is a patented, innovative device that easily incorporates into new sterilizers or can be retrofitted to existing systems.



Model SR-24C-ADV-PRO equipped with WaterEco® System

## Consolidated's Contribution toward LEED Credits

Consolidated sterilizers generate LEED points through four major areas: Water Efficiency, Materials and Resources, Energy and Atmosphere, and Innovation in Design. Here is how Consolidated can help achieve these points.

Credit Description	Points	Explanation
<b>Water Efficiency Category</b>		
<b>Credit 2:</b> Innovative Wastewater Technologies	2	Consolidated sterilizers can be equipped with WaterEco® water conservation systems that will reduce potable water consumption by over 50%.
<b>Credit 3:</b> Water Use Reduction 30%, 40%, 50%	2-4	Consolidated sterilizers can be equipped with premium WaterEco® water conservation systems that can reduce potable water consumption by up to 99%.
<b>Material and Resources Category</b>		
<b>Credit 1.2:</b> Building Reuse – Maintain Interior Nonstructural Elements	1	Consolidated sterilizers can be customized to fit existing wall cutouts, utility connections, and room layouts. In addition, existing sterilizers can be retrofitted with WaterEco® water conservation systems to reduce water consumption.
<b>Credit 2:</b> Construction Waste Management	1-2	Consolidated sterilizers can be shipped with minimal crating material and any crating material that is used can be recycled.
<b>Credit 3:</b> Materials Reuse 5%, 10%	1-2	Refurbished sterilizers can be supplied for the project.
<b>Credit 4:</b> Recycled Content 10%, 20%	1-2	Consolidated sterilizers contribute 80-90% post-consumer recycled content and 10-20% pre-consumer recycled content. Scrap metal is both utilized on the sterilizer and sent back to the refinery.
<b>Credit 5:</b> Regional Materials 10%, 20%	1-2	Consolidated sterilizers are manufactured in New England. Points could be applied to building projects in the New England area. Additionally, sterilizers can be manufactured from stainless steel and carbon steel sources within North America.
<b>Energy and Atmosphere Category</b>		
<b>Credit 1:</b> Optimize Energy Performance	1-19	Consolidated sterilizers can be supplied with an EcoCalendar feature that shuts off steam supply when the sterilizer is idle. In addition, this on/off indicator can signal a lower flow-rate requirement to the HVAC system or canopy hood. Sterilizers can be supplied with a superior insulation (higher R Value) to reduce heat loss to the room, thereby requiring a lower HVAC flow-rate in the room.
<b>Innovation in Design Category</b>		
<b>Credit 1:</b> Innovation in Design	5	Consolidated sterilizers can be supplied with innovative options such as the WaterEco® system and EcoCalendar feature for water and energy savings.



Consolidated is committed to helping you achieve LEED points to improve everyone's quality of life. WaterEco® systems help conserve an average of 90,000 gallons of fresh water per sterilizer, per year, allowing you to save money and the environment at the same time.

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WaterEco® is a registered trademark of Consolidated Sterilizer Systems, Inc.



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