



CONSOLIDATED STERILIZER SYSTEMS

WaterEco® Series

Steam Sterilizer Water Saving Systems

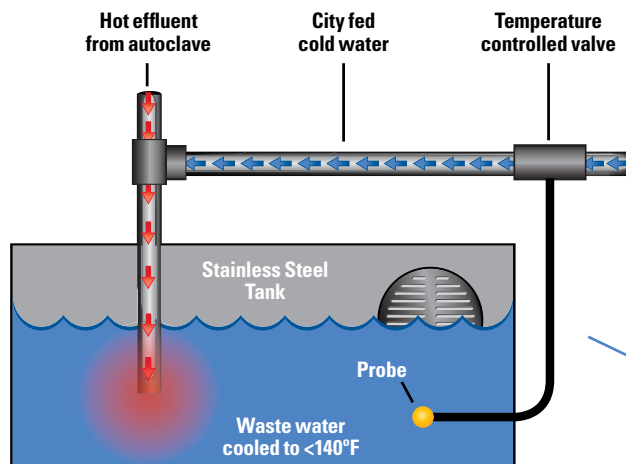


Green Technology for Reducing Sterilizer Water Consumption

Consolidated is dedicated to supporting architects and new facility owners with products engineered and tested to be the greenest possible building solutions. Even though familiar consumer product certifications, such as EnergyStar® do not yet extend to specialized laboratory equipment, Consolidated's forward-looking designs include many proprietary systems and processes to provide environmentally-friendly and cost-efficient products around the world.

With water and power costs rising and resources becoming scarcer, Consolidated is proud to offer WaterEco® Series green features for steam sterilizers.

- The WaterEco® Series is specifically designed to reduce utility consumption thereby saving resources (and the environment) as well as cost.
- Assists architects in achieving LEED (Leadership in Energy and Environment Design) credits as set forth by the U.S. Green Building Council. The LEED initiative promotes energy efficiency, water savings and other construction and utility attributes to lower the aggregate environmental impact of renovations or new buildings.



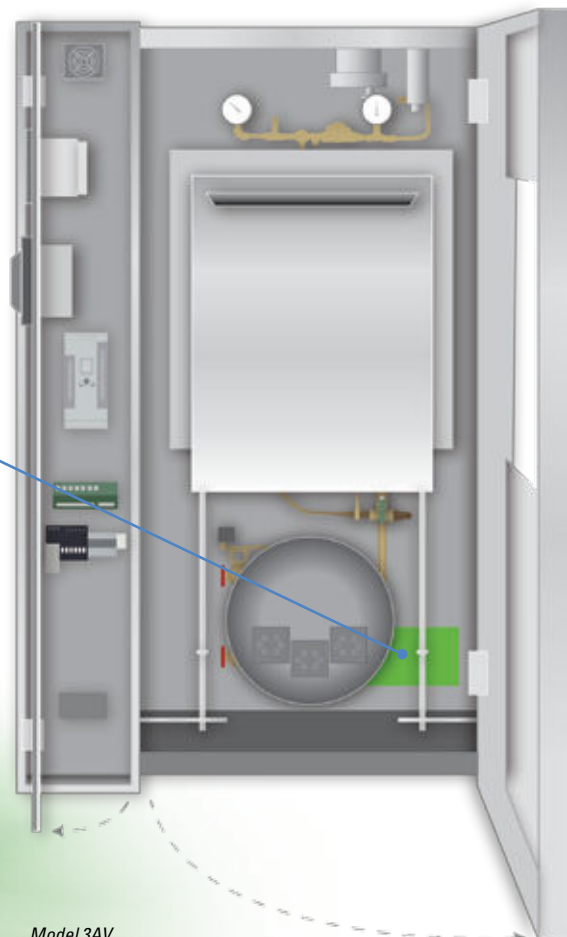
WaterEco® Gravity Basic¹

Hot effluent from the sterilizer mixes with cooler water stored in the cooling reservoir forcing the steam to collapse and causing the water mixture to heat. A cold water valve opens at a pre-set temperature to inject additional water only when needed to keep the effluent below the 140°F threshold. As the reservoir level rises any overflow is routed to the building drain.

WaterEco® Reduces Daily Water Consumption

Sterilizer	Water Consumption (Gallons/Day)
Conventional Sterilizer with Constant Bleed	1500
Conventional Sterilizer with Automatic Waste Water Cooling	230
Sterilizer with WaterEco® Gravity Basic ¹	20
Sterilizer with WaterEco® Gravity Plus	< 1

Calculations are based on a 20"x20"x38" steam sterilizer with house-fed steam, gravity (no vacuum) exhaust and three 60 minute cycles per day at 250°F.



Model 3AV
Sliding Door Sterilizer with Gravity Basic System

Save Over
\$100,000
on your water bill.



Featuring Green Technology

Consolidated Sterilizer Systems | WaterEco® Series

WaterEco® Gravity Series For Gravity and Pre-Vacuum Autoclaves

Most modern autoclaves utilize a large amount of water in order to reduce the discharge temperature to drain and comply with local building codes. The Consolidated WaterEco® Gravity Series has been developed to drastically reduce the water consumed by the autoclave. Both the WaterEco® Gravity Basic and WaterEco® Gravity Plus systems operate without the use of electricity, and can be installed on new sterilizers or retrofitted onto existing sterilizers.

- **WaterEco® Gravity Basic¹**

The WaterEco® Gravity Basic system works by collecting autoclave drainage into a cooling reservoir. This effluent is cooled using a combination of air, previously cooled effluent and a minimal amount of cold water. In addition to cooling the effluent to below 140°F, the WaterEco® Gravity Basic system enhances the overall exhaust cycle by more efficiently collapsing steam.

- **WaterEco® Gravity Plus**

The WaterEco® Gravity Plus system is ideal for use in installations where a facility **chilled water** supply is readily available. This method uses a stainless steel heat exchanger to isolate and cool effluent without consuming additional water. All cooling water is recycled to the chiller, in a closed-loop system, and cooled effluent is piped to the drain. This system completely eliminates once-through cooling water.

¹ WaterEco® is a registered trademark of Consolidated Sterilizer Systems, Inc. The WaterEco® Gravity Basic System is a WaterMizer® product based on U.S. Patent 7,578,967. WaterMizer® is a registered trademark of Continental Equipment Company, Inc.

WaterEco® Vacuum Series For Pre-Vacuum Autoclaves

Steam sterilizer vacuum systems require a relatively high flow of cold water to function properly. Typically, the cold water absorbs the steam and this heated discharge is then released to the drain line. If this water is cooled and returned to the vacuum system, however, water consumption can be cut by 50-85% with the Vacuum Basic system or reduced up to 99% with the Vacuum Plus system. Both WaterEco® Vacuum systems use minimal energy and can be installed on new sterilizers or retrofitted onto existing sterilizers.

- **WaterEco® Vacuum Basic**

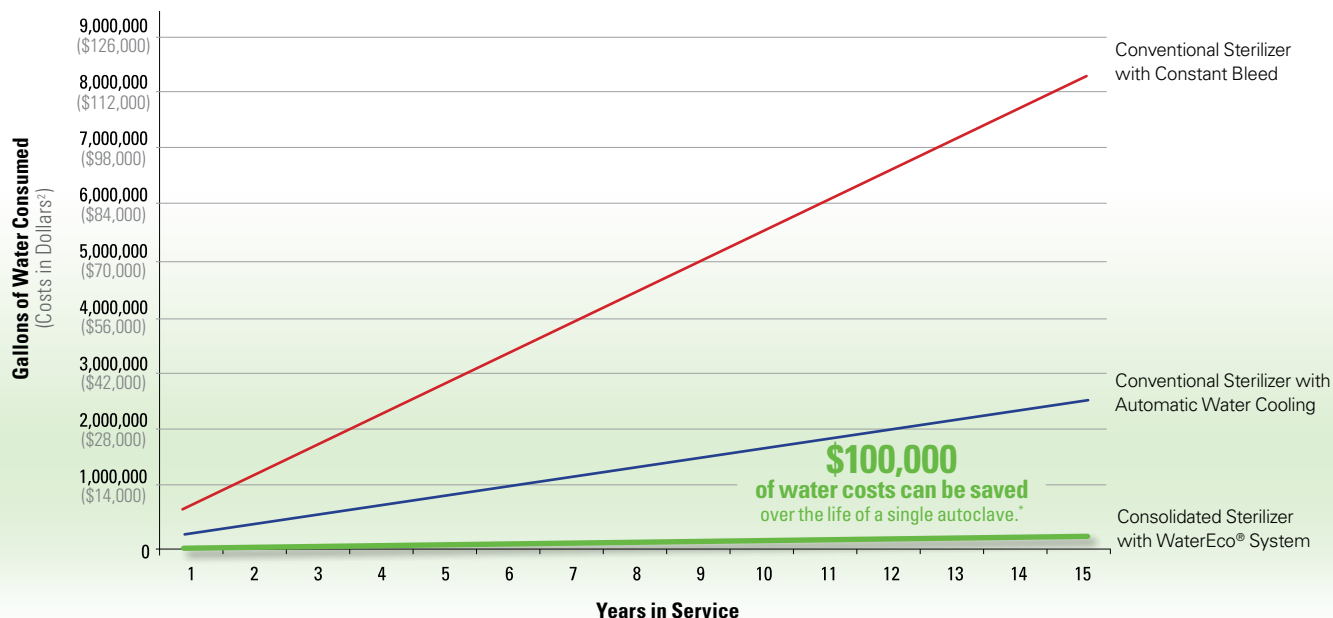
The WaterEco® Vacuum Basic is recommended when chilled water is not readily available. This partial recovery system cools the vacuum water by using cold city water. Most of this water is returned to the vacuum system. Overflow is sent to the drain. The WaterEco® Vacuum Basic allows the autoclave to reduce vacuum water consumption by up to 85%.

- **WaterEco® Vacuum Plus**

If a **chilled water** circulation system is available, a full-recovery closed-loop system presents the best solution to minimize city water consumption. The full recovery process uses this **chilled water** to cool the vacuum water. The cooling water is returned to the chiller and the sealant water is returned to the vacuum system. The full recovery system reduces waste water from the vacuum system by up to 99%.

Conserve Valuable Water | Retrofit Your Autoclave Today | Any Make or Model

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



² 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.



**CONSOLIDATED
STERILIZER SYSTEMS**

P.O. BOX 297 | 76 ASHFORD STREET | BOSTON, MA 02134-0003

P: 617.782.6072 | F: 617.787.5865 | CONSTERIL.COM | SALES@CONSTERIL.COM