What is the LEED® Green Building Program?

In the last 20 years, the term LEED, which stands for Leadership in Energy and Environmental Design™, has become synonymous with the transformation of buildings and communities into sustainable, socially responsible environments that improve the quality of life. LEED provides a framework for rating building performance against a set of well defined criteria established by the US Green Building Council (USGBC). Up to 100 credits plus 10 bonus credits may be earned in pursuit of a LEED Certified, Silver, Gold or Platinum rating. Some of the benefits of LEED certification include lower operating costs due to reduction of energy and water use, a smaller carbon footprint and in some cases, tax and utility incentives. LEED is a voluntary, consensus driven approach to “going green”, but for some sectors, such as local, state and federal governments as well as defense, some level of LEED compliance may be required when constructing new facilities or for major remodeling projects.

Water Use in Hospitals

According to the US Environmental Protection Agency, the Commercial and Institutional building sector is the largest consumer of water, accounting for 17% of the water drawn from public supplies. Hospitals consume 7% of that amount. The top three uses of water in a hospital are plumbing fixtures, cooling and heating, and medical equipment. Medical equipment, including washer disinfectors and steam sterilizers, consumes about 15% of the total amount of water used in a typical hospital. Adopting the use of water-saving technology can significantly reduce this amount and make a meaningful contribution to a facility’s overall effort to reduce water consumption and meet its LEED sustainability goals.

TOP 3 USES OF WATER IN HOSPITALS*

- Plumbing Fixtures: 35%
- Cooling and Heating: 20%
- Medical Equipment: 15%
- Laundry: 9%
- Landscaping: 7%
- Kitchen/Dishwashing: 7%
- Other: 7%

*[https://www3.epa.gov/watersense/commercial/types.html](https://www3.epa.gov/watersense/commercial/types.html)
How STERIS Can Help

STERIS recognizes the significant contribution it can make to your sustainability goals and has implemented a number of measures to significantly reduce the potable water consumption of sterile processing equipment.

The use of electric vacuum pumps for conditioning and drying in steam sterilizers has reduced cooling water consumption by up to 40%, with additional savings coming from advancements in cycle performance, temperature sensors and automatic utilities shutdown. The availability of water recycling options can further reduce consumption by an additional 35-99%.

Washer disinfectors with innovative spray arm and sump designs have also dramatically improved efficiency while reducing water usage. By switching to current technology, water use can be reduced by up to 68% compared to previous generation washer disinfectors. The latest advances in cart washers allow up to 70% of water to be recycled.

### Water Consumption Improvement Compared to Previous Generation Equipment

<table>
<thead>
<tr>
<th>Water Consumption</th>
<th>Washer Disinfectors*</th>
<th>Steam Sterilizers*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reliance 444 WD</td>
<td>AMSCO Eagle 3000</td>
</tr>
<tr>
<td>Gal/cycle</td>
<td>88.2</td>
<td>238</td>
</tr>
<tr>
<td>Gal/year</td>
<td>229,320</td>
<td>618,800</td>
</tr>
<tr>
<td></td>
<td>$3,715</td>
<td>$8,477</td>
</tr>
</tbody>
</table>

|                   | Vision Single Chamber | AMSCO Evolution with STERI-GREEN |
| Gal/cycle         | 28                   | 146                          |
| Gal/year          | 72,800               | 379,600                      |
|                   | $1,245               | $5,200                       |

| Annual water & Sewer Cost | $3,715 | $1,245 | $8,477 | $5,200 | $4,452 | $36 |

* 10 cycles, 260 days per year
Creating a Healthy Planet and a Healthy Bottom Line

Save up to 15 million gallons and 75% of water and sewer costs over 10 years!*

* Previous technology vs Premium Water-Saving Technology. Cumulative washer and sterilizer consumption based on processing instrument sets for a typical 10 OR facility 260 days/year.

LEED Credits

LEED credits may be earned in seven main categories including:

- Integrative Process
- Location and Transportation
- Sustainable Sites
- Water Efficiency
- Energy and Atmosphere
- Materials and Resources
- Indoor Environmental Quality

Bonus credit categories include Innovation and Regional Priority. In some categories, a facility must meet certain prerequisite requirements before credits can be earned. For example, in the Water Efficiency category, a 20% reduction in water usage must be demonstrated and potable water consumption used for medical equipment cooling must be minimized before other credits can be applied.
### Credit Category | Credit Potential | AMSCO Washer Disinfectors | AMSCO Steam Sterilizers
--- | --- | --- | ---
**Water Efficiency**  
Credit 3, Water Use Reduction | 1-3 | • High impingement washing reduces water usage by 68% compared to previous models | • Electric vacuum pump reduces water usage by 40% compared to Venturi vacuum systems  
• Water saving systems STERI-GREEN and STERI-GREEN Plus save 35-99% of the water used during sterilization cycles  
• Sensors reduce cooling water to the minimum required

Credit 4,1, Water Use Reduction, Building Equipment | 1 | • Electric vacuum pump reduces water usage by 40% compared to Venturi vacuum systems  
• Water saving systems STERI-GREEN and STERI-GREEN Plus save 35-99% of the water used during sterilization cycles  
• Sensors reduce cooling water to the minimum required

**Energy and Atmosphere**  
Credit 1, Optimize energy performance | 1-2 | • Efficient drying system conserves electricity by using recycled air in the chamber, reaching and maintaining temperature faster | • Automatic utilities shutdown conserves steam, water and electricity when the sterilizer is not in use

**Materials and Resources**  
Credit 2, Construction Waste | 1 | • Recyclable materials used in packaging | • Special shipping methods mean that a minimal amount of recyclable packaging materials are used.  
• Stainless steel components are recyclable at the sterilizer’s end of life.  
• Remanufactured sterilizers can be furnished for the project

Credit 3, Sustainability Sourced Materials | 1 | • Recyclable materials used in packaging | • Special shipping methods mean that a minimal amount of recyclable packaging materials are used.  
• Stainless steel components are recyclable at the sterilizer’s end of life.  
• Remanufactured sterilizers can be furnished for the project

**Indoor Environmental Quality**  
Credit 7, Thermal Comfort | 1 | • Piping and chamber insulation reduces heat loss to the surrounding environment | • Piping and chamber insulation reduces heat loss to the surrounding environment

**Innovation in Design**  
Credit 3, Integrated Project Planning and Design | 1 | • Optimize sterile processing department layout, workflow and equipment performance and reduce utility usage with STERIS’s complete planning and implementation services | • Optimize sterile processing department layout, workflow and equipment performance and reduce utility usage with STERIS’s complete planning and implementation services

**Regional Priority** | 1 | • Use of innovative STERIS technologies minimizes overall environmental impact | • Use of innovative STERIS technologies minimizes overall environmental impact

**Total possible credits** | 8-11 | STERIS technologies can help contribute to 10% of attainable credits in a LEED Healthcare Building! | STERIS technologies can help contribute to 10% of attainable credits in a LEED Healthcare Building!

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**STERIS University Key Learning Objective** ➔ Whether your goal is earning LEED certification or your facility is simply “going green”, careful equipment planning and implementation can significantly reduce the carbon footprint and overall environmental impact of your building.

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Contact your STERIS representative and discover the advantage of being part of A Line of One.

ONE Partner, ONE unbroken Line of protection.

That is the power of...