



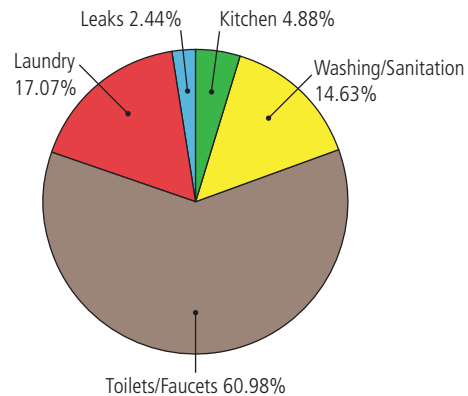
*Conserving water in today's culture has become more than a trend; it is a necessity. It is estimated that global water consumption is doubling every 20 years – more than twice the rate of human population growth. Innovative Sloan solutions help you achieve your water-use reduction goals.*

Water efficiency is an integral part of any building design. Over the next five years, water efficiency and conservation will become critical factors in green design, construction and product selection, according to McGraw-Hill Construction's latest *SmartMarket Report, Water Use in Buildings*. Hence, the need for sustainable water strategies continues to emerge in building designs.

According to the United Nations Environmental Program, buildings use 20% of the world's available water. The U.S. Department of Energy estimates that commercial buildings use 88% of the potable water in the United States – a resource that becomes scarcer each year. Because toilets and faucets account for most of the water used in commercial restrooms, Sloan's revolutionary water-efficient solutions pave the way to reaching sustainable goals.

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**Typical Indoor  
Commercial Water  
Use breakdown of  
the 88%**



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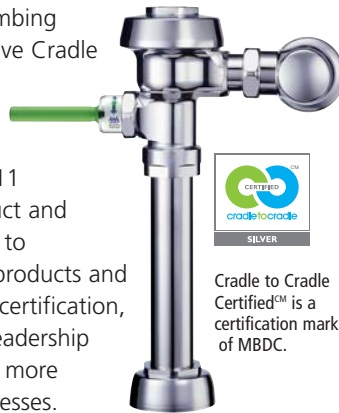
Denver Water Administration Building  
1600 W. 12th Avenue  
Denver CO 80204-3412

By using Sloan high-efficiency products, water conservation and efficiency programs are significantly decreasing the use of water within buildings. In fact, water-efficient fixtures can reduce consumption by 30% or more.

# The Sloan® Difference

## MBDC Cradle to Cradle Certified™

Sloan is the first and only plumbing company in the world to receive Cradle to Cradle certification for its products: the Sloan UPPERCUT® Dual-Flush flushometer and the Royal® 111 flushometer. MBDC is a product and process design firm dedicated to revolutionizing the design of products and services worldwide. With this certification, Sloan continues to assert its leadership role in creating higher quality, more sustainable products and processes.



## Performance

Sloan Valve Company is THE Water Efficiency Company. For over 100 years, Sloan has been leading the industry with revolutionary new products and technologies that have a tremendous impact on water use in this country and around the world. The commitment to product quality and performance is at the heart of Sloan's mission. By offering the design professional products that contribute toward high performance buildings, Sloan delivers on the promise of efficiency without sacrificing performance.



## Production

All Sloan flushometers are made in the United States with union labor – a workforce with an average employment of over 17 years. Our flushometers are made from highly recycled material, and have become the benchmark for quality and performance in the industry.



## Beyond Expectation

All of Sloan's flushometers are made from a high level of recycled material and are 100% recyclable. This means that after the effective life of the product, often the life of the building itself, Sloan flushometers can be 100% recycled and turned into new product.



# Sloan® Solutions

The Leadership in Energy and Environmental Design (LEED®) Green Building Rating System represents the U.S. Green Building Council's effort to provide a national standard for what constitutes a "green building." Through its use as a design guideline and third-party certification tool, it aims to improve occupant well-being, environmental performance and economic returns of buildings using innovative practices, standards and technologies.

Whether your goal is conserving water or achieving LEED certification, Sloan has the products and services to correspond with your needs. Throughout this brochure you will find specific options that support your water conservation designs. In particular, you will find water-efficient solutions that maintain the habits of a population without sacrificing performance – all while increasing efficiency, profitability and competitiveness.

The following document refers to the points for LEED NC v2.2, LEED 2009 and LEED-EB:O&M 2009. Additional LEED points may be available in various other LEED documents such as LEED for Schools, LEED for Retail, or LEED for Commercial Interiors.

Numerous products from Sloan Valve Company can help earn points toward LEED certification.

# LEED® WATER EFFICIENCY AT-A-GLANCE

|   | Prerequisite   | Water Efficient Landscaping  | Water Performance Measurement   |
|---|--|--|---|
| <b>LEED v2.2</b><br><br><b>5 Water points possible</b>              | NA   | <b>WE Credit 1.1:</b> Reduce potable water consumption for irrigation by 50% from calculated baseline.<br><br><b>WE Credit 1.2:</b> Eliminate the use of potable water for landscape irrigation.<br><br><b>1-2 points possible</b> | NA  |
| <b>LEED 2009</b><br><br><b>10 Water points possible</b>             | Use 20% less water from the baseline calculated.<br><br><b>0 points possible</b>   | <b>WE Credit 1:</b> Reduce potable water consumption for irrigation by 50% from calculated baseline AND/OR eliminate the use of potable water for landscape irrigation.<br><br><b>2-4 points possible</b>                          | NA  |
| <b>LEED: EB-O&amp;M 2009</b><br><br><b>14 Water points possible</b> | Use 120% if <1993 or 160% >1993 water from baseline calculated.<br><br><b>0 points possible</b>  | <b>WE Credit 3:</b> Reduce potable water consumption for irrigation by 50% to 100% compared with conventional means of irrigation.<br><br><b>1-5 points possible</b>   | <b>WE Credit 1:</b> Measure building and subsystem water performance with metering devices.<br><br><b>1-2 points possible</b> |
| <b>Sloan Solutions and Comments</b>                                 | LEED 2009 brings a prerequisite to Water Efficiency for the first time. Now buildings must meet a water usage threshold. In order to achieve this threshold, consider using Sloan high-efficiency faucets and HET fixtures and flushometers, which use 1.28 gpf or less. Another option is Sloan urinals, which use less than the 1.0 gpf baseline. For applicable products, see product pages.<br><br><b>Using Sloan products can contribute toward the 20% reduction required in the LEED 2009 prerequisite.</b> |  |   |

■ GREEN = Credits that pertain to indoor water use. ■ BLUE = Sloan solution.

| Innovative Wastewater Technologies  | Water Use Reduction/Additional Indoor Plumbing Fixture & Fitting Efficiency  | Cooling Tower Management   | Innovation & Design Process   |
|---|--|--|---|
| <p><b>WE Credit 2: Option 1</b><br/>Reduce potable water use for building sewage conveyance by 50% through the use of water conserving fixtures.</p> <p><b>Option 2</b> Treat 50% of wastewater on-site to tertiary standards.</p> <p><b>1 point possible</b></p>   | <p><b>WE Credit 3.1:</b> Use 20% less water than baseline calculated.</p> <p><b>WE Credit 3.2:</b> Use 30% less water than baseline calculated.</p> <p><b>1-2 points possible</b></p>  | <p>NA</p>  | <p><b>ID Credit 1.1:</b> Show exceptional performance above requirements set by LEED and/or innovative performance in Green Building strategies not addressed in LEED.</p> <p><b>1 point possible</b></p>   |
| <p>Same as LEED v2.2</p> <p><b>2 points possible</b></p>  | <p><b>WE Credit 3:</b> Use 30% to 40% less water than baseline calculated.</p> <p><b>2-4 points possible</b></p>   | <p>NA</p>  | <p>Same as LEED v2.2</p> <p><b>1 point possible</b></p>   |
| <p>NA</p>   | <p><b>WE Credit 2:</b> Use 10% to 30% less water than baseline calculated.</p> <p><b>1-5 points possible</b></p>   | <p><b>WE Credit 4:</b> Have a water management plan for cooling tower AND/OR Use makeup water that consists of at least 50% non-potable water.</p> <p><b>1-2 points possible</b></p> |   |
| <p>This often is the most challenging credit in the Water Efficiency section of LEED. Sloan's high-efficiency fixtures such as waterfree urinals drastically reduce wastewater volumes, improving the likelihood of achieving this credit. For applicable products, see product pages.</p> <p><b>Using Sloan products can contribute up to 1 point toward LEED v2.2 or up to 2 points toward LEED 2009 Certification.</b></p> | <p>Using Sloan's water-efficient products that surpass the baseline fixture performance requirements as stated in EPA Act 92 (for LEED v2.2) and/or the 2006 model plumbing codes (for LEED 2009) would contribute to this credit. For example, the baseline requires 1.6 gpf toilets. In order to achieve this credit, consider using Sloan HET fixtures and flushometers, which use 1.28 gpf or less. Another option is Sloan urinals, which use less than the 1.0 gpf baseline. For applicable products, see product pages.</p> <p><b>Using Sloan products can contribute up to 2 points toward LEED v2.2 or 2-4 points toward LEED 2009 Certification.</b></p> |  | <p>Exceptional performance above the requirements or innovative strategies set by LEED allow for design opportunities in energy performance and water efficiency. For example, a 2003 CIR ruling established a method by which Innovation Credits are awarded – points can be earned per incremental benchmarks or the next threshold of achievement. For LEED v2.2 WE Credit 3, the exemplary performance threshold is a 40% water reduction. The exemplary performance Innovation point is awarded because the project has reached the next LEED threshold, not for use of a specific technology.</p> <p><b>Sloan water-efficient products can contribute 1 point toward this credit. For applicable products, see product pages.</b></p> |

# PRODUCTS AT-A-GLANCE

|                           | Model/Description                                    | Manual | Electronic | Water Savings Estimate |           |                   |
|---------------------------|--|--------|------------|------------------------|-----------|-------------------|
|                           |  |        |            | LEED v2.2              | LEED 2009 | LEED-EB: O&M 2009 |
| HEU Systems               | WEUS 1002.1001-0.25/WEUS 1000.1001-0.13              | X      |            | 75-87%                 | 75-87%    | 95-107%           |
|                           | WEUS 1002.1401-0.25 G2/WEUS 1000.1401-0.13 G2        |        | X          | 75-87%                 | 75-87%    | 95-107%           |
|                           | WEUS1002.1201-0.25 SOLIS/WEUS 1000.1201-0.13 SOLIS   |        | X          | 75-87%                 | 75-87%    | 95-107%           |
|                           | WEUS 1002.1302-0.25 HWS/WEUS 1000.1302.013 HWS       |        | X          | 75-87%                 | 75-87%    | 95-107%           |
|                           | WEUS1000.1301-0.25 ESS/WEUS 1000.1301-0.13 ES-S      |        | X          | 75-87%                 | 75-87%    | 95-107%           |
|                           | WEUS1002.1403-0.25 SMOOTH/WEUS 1000.1403-0.13 SMOOTH |        | X          | 75-87%                 | 75-87%    | 95-107%           |
|                           | WEUS 1002.1402-0.25 SMO/WEUS 1000.1402-0.13 SMO      |        | X          | 75-87%                 | 75-87%    | 95-107%           |
|                           | WEUS 1012.1311-0.25/WEUS 1010.1311-0.13              | X      |            | 75-87%                 | 75-87%    | 95-107%           |
|                           | WEUS 1012.1011-0.25/WEUS 1010.1011-0.13              | X      |            | 75-87%                 | 75-87%    | 95-107%           |
| HEU Flushometers*         | G2 Optima Plus 8186-0.5                              |        | X          | 50%                    | 50%       | 70%               |
|                           | Sloan SOLIS 8186-0.5                                 |        | X          | 50%                    | 50%       | 70%               |
|                           | Royal 186-0.5 ES-S                                   |        | X          | 50%                    | 50%       | 70%               |
|                           | Royal 186-0.5 SMOOTH                                 |        | X          | 50%                    | 50%       | 70%               |
|                           | Royal 186-0.5 SMO                                    |        | X          | 50%                    | 50%       | 70%               |
|                           | Royal 186-0.5  | X      |            | 50%                    | 50%       | 70%               |
|                           | Crown 186-0.5 ES-S                                   |        | X          | 50%                    | 50%       | 70%               |
|                           | Crown 186-0.5 SMOOTH                                 |        | X          | 50%                    | 50%       | 70%               |
|                           | Crown 186-0.5 SMO                                    |        | X          | 50%                    | 50%       | 70%               |
|                           | Crown 186-0.5  | X      |            | 50%                    | 50%       | 70%               |
| Waterfree Urinals         | WES-1000   |        |            | 100%                   | 100%      | 120%              |
|                           | WES-2000   |        |            | 100%                   | 100%      | 120%              |
|                           | WES-4000   |        |            | 100%                   | 100%      | 120%              |
|                           | WES-5000   |        |            | 100%                   | 100%      | 120%              |
| HET Systems               | WETS 2002.1101-1.6/1.1 ECOS                          |        | X          | 21%                    | 21%       | 41%               |
|                           | WETS 2002.1202-1.6/1.1 SOLIS                         |        |            | 21%                    | 21%       | 41%               |
|                           | WETS 2002.1002-1.6/1.1                               | X      |            | 21%                    | 21%       | 41%               |
|                           | WETS 2000.1401-1.28 G2                               |        | X          | 20%                    | 20%       | 40%               |
|                           | WETS 2000.1201-1.28 SOLIS                            |        | X          | 20%                    | 20%       | 40%               |
|                           | WETS 2000.1301-1.28 ES-S                             |        | X          | 20%                    | 20%       | 40%               |
|                           | WETS 2000.1302-1.28 HWS                              |        | X          | 20%                    | 20%       | 40%               |
|                           | WETS 2000.1402-1.28 SMO                              |        | X          | 20%                    | 20%       | 40%               |
|                           | WETS 2000.1403-1.28 SMOOTH                           |        | X          | 20%                    | 20%       | 40%               |
|                           | WETS 2000.1001-1.28                                  | X      |            | 20%                    | 20%       | 40%               |
|                           | WETS 2052.1101-1.6/1.1 ECOS                          |        | X          | 21%                    | 21%       | 41%               |
|                           | WETS 2052.1201-1.6/1.1 SOLIS                         |        | X          | 21%                    | 21%       | 41%               |
|                           | WETS 2052.1002-1.6/1.1                               | X      |            | 21%                    | 21%       | 41%               |
|                           | WETS 2050.1401-1.28 G2                               |        | X          | 20%                    | 20%       | 40%               |
|                           | WETS 2050.1201-1.28 SOLIS                            |        | X          | 20%                    | 20%       | 40%               |
|                           | WETS 2050.1301-1.28 ES-S                             |        | X          | 20%                    | 20%       | 40%               |
|                           | WETS 2050.1302-1.28 HWS                              |        | X          | 20%                    | 20%       | 40%               |
|                           | WETS 2050.1402-1.28 SMO                              |        | X          | 20%                    | 20%       | 40%               |
|                           | WETS 2050.1403-1.28 SMOOTH                           |        | X          | 20%                    | 20%       | 40%               |
|                           | WETS 2050.1001-1.28                                  | X      |            | 20%                    | 20%       | 40%               |
| WETS 2050.1006-1.28 CROWN | X  |        | 20%        | 20%                    | 40%       |                   |

\*Note: Lower flushing volumes such as 0.25 gpf and 0.13 gpf may be available.

Note: Because LEED-EB: O&M establishes its water usage baseline as 120% for buildings <1993 or 160% for buildings >1993, some water saving estimates may be higher than 100%.

|                                | Model/Description                          | Manual | Electronic | Water Savings Estimate |           |                   |
|--------------------------------|--|--------|------------|------------------------|-----------|-------------------|
|                                |  |        |            | LEED v2.2              | LEED 2009 | LEED-EB: O&M 2009 |
| <b>HET Flushometers</b>        | Sloan ECOS 8111-1.6/1.1                    |        | X          | 21%                    | 21%       | 41%               |
|                                | Sloan SOLIS 8111-1.6/1.1                   |        | X          | 21%                    | 21%       | 41%               |
|                                | WES-111-1.6/1.1                            | X      |            | 21%                    | 21%       | 41%               |
|                                | G2 Optima Plus 8111-1.28                   |        | X          | 20%                    | 20%       | 40%               |
|                                | Sloan SOLIS 8111-1.28                      |        | X          | 20%                    | 20%       | 40%               |
|                                | Royal 111-1.28 ES-S                        |        | X          | 20%                    | 20%       | 40%               |
|                                | Royal 111-1.28 HWS                         |        | X          | 20%                    | 20%       | 40%               |
|                                | Royal 111-1.28 SMO                         |        | X          | 20%                    | 20%       | 40%               |
|                                | Royal 111-1.28 SMOOTH                      |        | X          | 20%                    | 20%       | 40%               |
|                                | Royal 111-1.28                             | X      |            | 20%                    | 20%       | 40%               |
|                                | Crown 111-1.28                             | X      |            | 20%                    | 20%       | 40%               |
|                                | Crown 111-1.28 ES-S                        |        | X          | 20%                    | 20%       | 40%               |
|                                | Crown 111-1.28 SMO                         |        | X          | 20%                    | 20%       | 40%               |
|                                | Crown 111-1.28 SMOOTH                      |        | X          | 20%                    | 20%       | 40%               |
| <b>OTHER PRODUCTS</b>          |  |        |            |                        |           |                   |
| <b>Parts</b>                   | A-1045-A 1.28 diaphragm closet (Royal®)    | X      | X          | 20%                    | 20%       | 40%               |
|                                | A-1043-A 0.5 diaphragm kit urinal (Royal®) | X      | X          | 50%                    | 50%       | 70%               |
| <b>Faucets</b>                 | Sloan SOLIS®                               |        | X          | 80%                    | 80%       | 100%              |
|                                | LINO™                                      |        | X          | 80%                    | 80%       | 100%              |
|                                | Optima Plus®                               |        | X          | 80%                    | 80%       | 100%              |
|                                | Optima®                                    |        | X          | 80%                    | 80%       | 100%              |
| <b>Showerhead</b>              | AC-11 2.0 gpm Act-O-Matic®                 | X      |            | 20%                    | 20%       | 40%               |
|                                | AC-450 2.0 gpm Act-O-Matic®                | X      |            | 20%                    | 20%       | 40%               |
| <b>Hand Dryer</b>              | XLerator®                                  |        | X          |                        |           |                   |
| <b>Water Reuse System</b>      | AQUS® Water Reuse System                   | X      |            |                        |           |                   |
| <b>Sloan Monitored Systems</b> |  |        | X          |                        |           |                   |
| <b>RETROFITS</b>               |  |        |            |                        |           |                   |
|                                | UPPERCUT®                                  | X      |            | 21%                    | 21%       | 41%               |
|                                | SMOOTH®                                    |        | X          | 20-50%                 | 20-50%    | 40-70%            |
|                                | SMO  |        | X          | 20-50%                 | 20-50%    | 40-70%            |
|                                | ES-S                                       |        | X          | 20-50%                 | 20-50%    | 40-70%            |
|                                | G2 Optima Plus®                            |        | X          | 20-50%                 | 20-50%    | 40-70%            |

# PRODUCTS

## HIGH-EFFICIENCY URINAL (HEU) SYSTEMS



Part of The Efficiency Series by Sloan®, these products utilize as little as a pint of water to flush.

The Sloan HEU Systems combine the vitreous china fixture with either a manual or sensor-activated flushometer. The HEUs combine the performance of both the fixture and the flush valve to ensure a true, water-efficient system.

### **WEUS 1000.1001-0.13, WEUS 1002.1001-0.25**

These HEU Systems feature a manual Royal® flushometer and a vitreous china urinal fixture. Model WEUS 1000.1001-0.13 flushes with a pint of water. Model WEUS 1002.1001-0.25 uses a full quart to flush.



### **WEUS 1000.1302-0.13 HWS, WEUS 1002.1302-0.25 HWS**

These HEU Systems feature a hardwired, sensor-activated *SMOOTH*® flushometer and a vitreous china urinal fixture. Model WEUS 1000.1302-0.13 HWS flushes with a pint of water. Model WEUS 1002.1302-0.25 HWS uses a full quart to flush.



### **WEUS 1000.1301-0.13 ES-S, WEUS 1000.1301-0.25 ES-S**

These HEU Systems feature a hardwired, sensor-activated Optima® flushometer and a vitreous china urinal fixture. Model WEUS 1000.1301-0.13 flushes with a pint of water. Model WEUS 1000.1301-0.25 uses a full quart to flush.



### **WEUS 1000.1403-0.13 SMOOTH, WEUS 1002.1403-0.25 SMOOTH**

These HEU Systems feature a battery-powered, sensor-activated *SMOOTH*® flushometer and a vitreous china urinal fixture. Model WEUS 1000.1403-0.13 flushes with a pint of water. Model WEUS 1002.1403-0.25 uses a full quart to flush.



### **WEUS 1000.1402-0.13 SMO, WEUS 1002.1402-0.25 SMO**

These HEU Systems feature a battery-powered, sensor-activated Optima® SMO (Side Mount Operator) flushometer and a vitreous china urinal fixture. Model WEUS 1000.1402-0.13 flushes with a pint of water. Model WEUS 1002.1402-0.25 uses a full quart to flush.



### **WEUS 1000.1201-0.13 SOLIS, WEUS 1002.1201-0.25 SOLIS**

These HEU Systems feature a solar-powered, sensor-activated Sloan *SOLIS*® flushometer and a vitreous china urinal fixture. Model WEUS 1000.1201-0.13 flushes with a pint of water. Model WEUS 1002.1201-0.25 uses a full quart to flush.



### **WEUS 1000.1401-0.13 G2, WEUS 1002.1401-0.25 G2**

These HEU Systems feature a battery-powered, sensor-activated G2 Optima Plus® flushometer and a vitreous china urinal fixture. Model WEUS 1000.1401-0.13 flushes with a pint of water. Model WEUS 1002.1401-0.25 uses a full quart to flush.



**Note:** HEU Systems are also available in rear spud configurations.



High-Efficiency Urinals are defined by the EPA through the WaterSense<sup>SM</sup> Program, as fixtures or flushing devices that have an average flush volume of 0.5 gpf or less while functioning to the performance requirements of ASME/CSA fixture standards. This is lower than the LEED<sup>®</sup> baseline of 1.0 gpf.

### 0.5 GPF SENSOR FLUSHOMETERS

#### G2 Optima Plus<sup>®</sup> 8186-0.5

G2 Optima Plus<sup>®</sup> 0.5 gpf, the industry's most advanced battery-operated urinal flushometer with a high-tech look, features Sloan's latching Solenoid Operator and a new sensor that is NEMA 6 compliant against moisture to eliminate most detection errors and field adjustments.



#### Royal<sup>®</sup> 186-0.5 ES-S

ES-S 0.5 gpf Optima<sup>®</sup> urinal flushometer operates automatically and ensures access and ease of use. By eliminating the need for manual operation, the spread of disease is greatly reduced and the flushometers are less susceptible to the abuses of user operation.



#### Royal<sup>®</sup> 186-0.5 SMOOTH<sup>®</sup>

Optima<sup>®</sup> SMOOTH<sup>®</sup> 0.5 gpf urinal flushometers provide the ultimate in sanitary protection and automatic operation. There is no need for AC hookups or wall alterations. The flushometer operates by means of a battery-powered infrared sensor. State-of-the-art technology enables activation of a manual override without "double flushing" occurring as the user departs.



#### Royal<sup>®</sup> 186-0.5 SMO

The 0.5 gpf Side Mount Operator urinal flushometer maximizes fixture performance and minimizes water usage. Flushometers operate automatically and ensure access and ease of use. By eliminating the need for manual operation, the spread of disease is greatly reduced and the flushometers are less susceptible to the abuses of user operation.



#### Sloan<sup>®</sup> SOLIS<sup>®</sup> 8186-0.5

The Sloan SOLIS<sup>®</sup> urinal flushometer provides ground-breaking water efficiency and utilizes state-of-the-art photovoltaic technology. Its solar-powered, electronic, infrared sensor allows automatic operation. It harvests light from natural or artificial indoor light – providing power even in rooms with occupancy-controlled lighting.



### 0.5 GPF MANUAL FLUSHOMETERS

#### Royal<sup>®</sup> 186-0.5

The 0.5 gpf/1.9 Lpf ultra low-flow Royal<sup>®</sup> urinal flushometer, with its patented Dual Filtered Fixed By-Pass Diaphragm, accurately meters water for today's water-conscious consumer. The 0.5 gpf urinal flushometer maximizes fixture performance and minimizes water usage.



#### Crown<sup>®</sup> 186-0.5

The 0.5 gpf/1.9 Lpf ultra low-flow Crown<sup>®</sup> urinal flushometer provides outstanding water saving capabilities by precisely metering every flush. Crown flushometers, engineered for today's low-consumption environments, feature a unique cover design that isolates the threads from the water source, protecting them from harsh water conditions and ensuring uninterrupted performance.



**Note:** Flushometers are also available in lower flushing volumes.

# PRODUCTS

## HIGH-EFFICIENCY TOILET (HET) SYSTEMS



Part of The Efficiency Series by Sloan®, vitreous china toilet fixtures with your choice of water-efficient electronic and manual flushometers use no more than 1.28 gpf on average. Electronic flushometers are available in hardwired, battery-powered and solar-powered models.

### WETS 2000.1101-1.6/1.1 ECOS

HET System features an electronic dual-flush Sloan ECOS® flushometer and a vitreous china toilet fixture. Its battery-powered, electronic sensor operates by pushing the small green button for a 1.1 gpf flush to eliminate liquid waste or by pushing the large chrome button to initiate a full, 1.6 gpf flush for solid waste. If the user does not depress a button, the flushometer's Dual-Flush Smart Sense Technology™ takes over and automatically initiates a flush cycle, based on how long the user remains in the sensor range. Users who stay within the sensor range less than a minute activate the reduced flush; users who stay longer activate the full flush.



### WETS 2000.1401-1.28 G2

HET System features an electronic G2 Optima Plus® flushometer and a vitreous china toilet fixture. Its battery-powered, electronic infrared sensor allows for automatic operation.



### WETS 2000.1301-1.28 ES-S

HET System features a hardwired, electronic Optima® flushometer and a vitreous china toilet fixture. Its hardwired, electronic, self-adaptive infrared sensor allows for automatic operation. It features a non-hold-open integral solenoid operator, fixed metering bypass and no external volume adjustment to ensure water efficiency.

### WETS 2000.1302-1.28 HWS

HET System features a hardwired, sensor-activated Sloan Optima® SMOOTH® flushometer and a vitreous china toilet fixture. Its AC-powered, electronic, infrared sensor allows for automatic operation. The sensor features automatic range adjustment.



### WETS 2000.1402-1.28 SMO

HET System features a battery-powered, sensor-activated Sloan Royal® Optima® SMO flushometer and a vitreous china toilet fixture. Features include a battery-powered, electronic Side Mount Operator; infrared sensor range adjustment screw and reset button; and manual override flush button.



### WETS 2000.1403-1.28 SMOOTH

HET System features a battery-powered, sensor-activated SMOOTH® (Side-Mount-Operator-Over-The-Handle) flushometer and a vitreous china toilet fixture. Its battery-powered, electronic infrared sensor allows automatic operation. The sensor features automatic range adjustment.



### WETS 2000.1201-1.28 SOLIS

HET System features a solar-powered, sensor-activated Sloan SOLIS® flushometer and a vitreous china toilet fixture. Its solar-powered, electronic, infrared sensor allows automatic operation. It uses light to charge a highly efficient capacitor, providing power even in rooms with occupancy-controlled lighting.



## HIGH-EFFICIENCY TOILET SYSTEMS continued

### **WETS 2002.1201-1.6/1.1 SOLIS DF**

HET System features a solar-powered, sensor-activated dual-flush Sloan *SOLIS*® flushometer and a vitreous china toilet fixture. Its solar-powered, electronic sensor allows automatic operation. Dual-flush operation: Push the small button for a 1.1 gpf flush to eliminate liquid waste, or push the large button to initiate a 1.6 gpf flush for solid waste. If the user does not depress a button, the flushometer's Dual-Flush Smart Sense Technology™ automatically initiates a flush cycle: Users who stay within the sensor range less than a minute activate the reduced flush; users who stay longer activate the full flush. It uses light to charge a highly efficient capacitor, providing power even in rooms with occupancy-controlled lighting.



### **WETS 2000.1001-1.28**

HET System features a manual Royal® flushometer and a vitreous china toilet fixture. Features include a non-hold-open handle, fixed metering bypass and no external volume adjustment to ensure water efficiency.



### **WETS 2000.1002-1.6/1.1**

HET System features a manual dual-flush UPPERCUT® flushometer and a vitreous china toilet fixture. Manual dual-flush operation: Lift handle up for a reduced flush of 1.1 gpf, or push down for a standard 1.6 gpf flush. The antimicrobial-coated green handle reduces germ transmission.



### **WETS 2052.1101-1.6/1.1 ECOS**

This HET System features an electronic dual-flush Sloan ECOS® flushometer and a vitreous china water closet. Its battery-powered, electronic sensor allows for hands-free operation while delivering water-saving dual-flush performance. Its Smart Sense Technology™ delivers the appropriate flush volume – automatically. Users who stay within the sensor range less than a minute activate the reduced flush (1.1 gpf); users who stay longer activate the full flush (1.6 gpf). Its split button design also accommodates manual flushing.



### **WETS 2050.1201-1.28 SOLIS**

This HET System features a solar-powered, sensor-activated Sloan *SOLIS*® flushometer and a wall-hung, vitreous china water closet. Its solar-powered, electronic, infrared sensor allows automatic operation. It harvests light from natural or artificial indoor light – providing power even in rooms with occupancy-controlled lighting.



### **WETS 2050.1301-1.28 ES-S**

This HET System features a hardwired, sensor-activated Sloan® Royal® Optima® flushometer and a vitreous china water closet. Its AC-powered, electronic, infrared sensor allows for automatic operation. The sensor features automatic range adjustment.



### **WETS 2050.1001-1.28**

This HET System features a manual Royal® flushometer and a wall-hung, vitreous china water closet. Features include a non-hold-open handle, fixed metering bypass and no external volume adjustment to ensure water efficiency. As an option, other Sloan flushometers can be used with the vitreous china water closet.



# PRODUCTS



An HET is defined as a fixture that flushes with an average flush volume of 1.28 gpf (4.8 Lpf) or less while meeting the ASME/CSA fixture performance requirements. This is 20% below the 1.6 gpf LEED® requirement.

## SENSOR FLUSHOMETERS

### Sloan ECOS® 8111-1.6/1.1

Sloan ECOS® Dual-Flush Electronic flushometer is a battery-powered flushometer with buttons that can be pressed for either a full flush (1.6 gpf) or reduced flush (1.1 gpf). If a user does not push the button, the unit will choose a flush cycle based on how long the user is in range.

**ELECTRONIC DUAL FLUSH**



### G2 Optima Plus® 8111-1.28

G2 Optima Plus® 1.28 gpf, the industry's most advanced battery-operated flushometer with a high-tech look, features Sloan's latching Solenoid Operator and a new sensor that is NEMA 6 compliant against moisture to eliminate most detection errors and field adjustments.



### Royal® 111-1.28 SMOOTH®

Optima® SMOOTH® Royal® 1.28 gpf flushometers provide the ultimate in sanitary protection and automatic operation. State-of-the-art technology enables activation of a manual override without "double flushing" occurring as the user departs (locks out sensor for approximately 10 seconds).



### Royal® 111-1.28 SMO

Optima® SMO Royal® 1.28 gpf low-consumption, battery-powered water closet flushometer maximizes fixture performance and minimizes water usage. Flushometers operate automatically and provide easy access. By eliminating the need for manual operation, the spread of disease is greatly reduced and the valves are less susceptible to the abuses of user operation.



### Royal® 111-1.28 ES-S

Optima® ES-S Royal® 1.28 gpf ESS low-consumption, sensor-activated water closet flushometer maximizes fixture performance and minimizes water usage. The flushometer operates by means of an infrared sensor that adapts to its surrounding. User makes no physical contact with the valve.



### Sloan® SOLIS® 8111-1.28

The Sloan SOLIS® water closet flushometer provides ground-breaking water efficiency and utilizes state-of-the-art photovoltaic technology. Its solar-powered, electronic, infrared sensor allows automatic operation. It harvests light from natural or artificial indoor light – providing power even in rooms with occupancy-controlled lighting.



### Sloan® SOLIS® 8111-1.6/1.1

The Sloan SOLIS® dual-flush, water closet flushometer features a solar-powered, electronic, infrared sensor that allows automatic dual-flush operation. Its Smart Sense Technology™ delivers the appropriate flush volume, which automatically initiates a 1.1 gpf or 1.6 gpf flush, depending on the length of time the user remains in range, if the user does not depress a button manually.



## MANUAL FLUSHOMETERS

### WES 111-1.6/1.1 UPPERCUT® Dual-Flush flushometer

is the first commercial flushometer to reduce water volume by approximately 30% (on the Up flush). The Dual-Flush handle is also available as a retrofit to convert most existing manual valves.

**DUAL FLUSH**



### Royal® 111-1.28

The 1.28 gpf low-consumption Royal® flushometer, with its patented Dual Filtered Fixed By-Pass Diaphragm, accurately meters water for today's water-conscious consumer. The 1.28 gpf valve maximizes fixture performance and minimizes water usage.



### Crown® 111-1.28

The 1.28 gpf low-consumption Crown® piston flushometer provides outstanding water saving capabilities by precisely metering every flush. Crown flushometers, engineered for today's low-consumption environments, feature a unique cover design that isolates the threads from the water source, protecting them from harsh water conditions and ensuring uninterrupted performance.



## WATERFREE URINALS

Sloan® Waterfree Urinals provide 100% water savings, are easy to install and create a more hygienic, odor-free restroom.



### WES-5000

Waterfree Urinal has a compact design that makes it ideal for new construction or in areas where space is at a premium. This new urinal utilizes the same time-tested Waterfree Technology that has saved millions of gallons of water across the country and around the world. No expensive sealants or unrealistic bi-monthly maintenance.



### WES-4000

A new compact, wall-hung Waterfree Urinal, utilizes the same time-tested Waterfree Technology that has saved millions of gallons of water across the country and around the world.



### WES-2000

Waterfree Urinal eliminates water and sewer costs from urinals; reduces maintenance and repair bills; and creates hygienic, odor-free restrooms.



### WES-1000

Waterfree Urinal eliminates water and sewer costs from urinals; reduces maintenance and repair bills; and creates hygienic, odor-free restrooms.



# PRODUCTS

## SLOAN® SENSOR FAUCETS

Sensor faucets save water! In addition, they increase hygiene and enhance the restroom image.

### Sloan *SOLIS*® EAF-275

solar-powered faucet transforms light into power. Optimal performance is achieved in any type of light. Sloan *SOLIS* conserves water with its standard 0.5-gpm spray head while utilizing renewable energy.



**LINO™ EAF-200/250** electronic hand washing faucets operate by means of a dual infrared sensor and microprocessor-based logic. The modular design incorporates all of the operating components of the faucet, including the sensor, solenoid and circuitry, above the sink within a die-cast metal spout with an 0.5-gpm/1.9 Lpm aerator spray head.



**Optima® ETF-80** electronic faucet operates by means of an infrared sensor. Once the user enters the sensor's effective range, the solenoid activates the water flow. Tempered water flows from the faucet until hands are moved away. The faucet then automatically shuts off. The ETF-80 conserves water with its standard 0.5-gpm spray head.



### Optima Plus® EBF-85

battery-powered, electronic faucet operates by means of an adaptive infrared sensor that is linked to the faucet by a fiber optic cable. Once the user's hands enter the sensor's effective range, the solenoid activates the water flow. Tempered water flows from the faucet until hands are moved away. The faucet then automatically shuts off. The EBF-85 conserves water with its standard 0.5-gpm spray head.



### ETF-610

The Optima® ETF-610 AC-powered electronic faucet provides hygienic, touch-free electronic operation and are engineered for reliable, long-lasting performance in high-traffic restrooms. These chrome-plated brass faucets provide the ultimate in user convenience for tempered or hot/cold water operation with a 0.5-gpm spray head.



**EBF-615** The Optima® Plus EBF-615 battery-powered electronic faucet operates by means of an infrared sensor. Automatic operation provides water usage savings over other faucet devices and conserves even more with its standard 0.5-gpm spray head.

**Optima® ETF-600** electronic faucet operates by means of an infrared sensor. Once the user's hands enter the sensor's effective range, the solenoid activates the water flow. Tempered water flows from the faucet until hands are moved away. The faucet then automatically shuts off. The ETF-600 conserves water with its standard 0.5-gpm spray head.



*Optima® ETF-600*  
*Optima Plus® EBF-650*

**Optima Plus® EBF-650** battery-powered faucet operates by means of an infrared sensor. Once the user's hands enter the sensor's effective range, the solenoid activates the water flow. Tempered water flows from the faucet until hands are moved away. The faucet then automatically shuts off. The EBF-650 conserves water with its standard 0.5-gpm spray head.

**Optima® i.q.™ EAF-100** electronic faucet operates by means of a dual infrared sensor and microprocessor-based logic that utilizes self-adapting technology to ensure superior performance. The modular design incorporates all of the operating components of the faucet, including the sensor, solenoid and circuitry, above the sink within a die-cast metal spout. A water-saving 0.5 gpm/1.9 Lpm spray head is available as an option.



*Optima® i.q.™ EAF-100*  
*Optima® i.q.™ EAF-150*

**Optima® i.q.™ EAF-150** battery-powered faucet operates by means of a dual infrared sensor and microprocessor-based logic that utilizes self-adapting technology to ensure superior performance. The modular design incorporates all of the operating components of the faucet, including the sensor, solenoid, circuitry and battery, above the sink within a die-cast metal spout. A water-saving 0.5 gpm/1.9 Lpm spray head is available as an option.

## 2.0 GPM SHOWERHEAD

**AC-11 and AC-450** 2.0 gpm **Act-O-Matic®** showerheads feature unique Self-Cleaning action that eliminates clogging particles after each use. Fingertip Control on the AC-11 allows users to adjust Act-O-Matic to a water flow that meets their individual comfort needs. The Sloan Act-O-Matic showerhead delivers an invigorating "cone-within-a-cone" spray that has become synonymous with luxury. The Act-O-Matic is crafted for performance, quality and durability.



*AC-11*  
*Act-O-Matic®*



*AC-450*  
*Act-O-Matic®*

# PRODUCTS

## FLUSHMATE® PRESSURE-ASSIST OPERATING SYSTEM

**FLUSHMATE® III** uses less than 1.6 gallons (6 liters) per flush without sacrificing performance (saves up to 20% more water than conventional 1.6 gpf technologies).



**FLUSHMATE® IV** uses less than 1.0 gallon (4 liters) per flush without sacrificing performance (saves up to 45% more water than conventional 1.6 gpf technologies).

For a complete list of **FLUSHMATE®** fixture manufacturers go to <http://flushmate.com/Models>.



## WATER REUSE SYSTEM

### AQUS® Water Reuse System

The system reclaims water that flows down bathroom lavatory drains by filtering and reusing it in toilets – saving thousands of gallons of water annually. The reclaimed water goes to a storage reservoir under the sink. When a toilet that is connected to the system flushes, it pumps water from the reservoir to the flush tank.



## XLERATOR® DRYER

Ultra-fast drying **XLerator®** Hand Dryers completely dry hands in 10-15 seconds and use 80% less energy than standard dryers. Water droplets are first blown from hands with a strong controlled air blast. Residual moisture is then evaporated with a warm stream of air up to 135°F/57°C. GreenSpec® approved.



## SLOAN® MONITORED SYSTEMS

**Sloan® Monitored Systems** are plumbing control systems that provide complete oversight and management of network-connected plumbing fixtures. From either a desktop PC or a hand-held Palm Pilot device, administrators can automatically and immediately control operation of a single toilet, lavatory or shower – or to all plumbing fixtures throughout a facility. The product line includes the basic controller, which can be network-connected to a series of flush valves, lavatories and/or showers; manifolds, which contain electronically activated solenoids for supplying hot, cold and pre-tempered water; and various transformers, push buttons and other operational components.



## EASY RETROFIT KITS

Quickest, easiest way to conserve.

The **A-1043-A 0.5** and **A-1045-A 1.28 GPF INSIDE PARTS KITS** convert Sloan manual flushometers to ultra-low water-efficient products.



The **UPPERCUT® WES-212** water-efficient handle kit includes a dual-flush handle. The dual-flush retrofit handle is for exposed, low consumption water closet flushometers.



The **UPPERCUT® WES-213** water-efficient tune-up kit includes a dual-flush handle and a diaphragm kit. The dual-flush retrofit handle and dual filtered 1.6 gpf/6.0 Lpf diaphragm kit is for exposed low consumption water closet flushometers.



# SAMPLE LEED® 2009 WORKSHEET

See your water savings at a glance. **Step 1:** Determine the annual days of operation and full-time building occupants. Then calculate the Baseline water usage with the given LEED flowrate requirements and determine the annual water use. **Step 2:** Calculate the projected water use based on the products you will be using and specify how many fixtures and their respective flowrates. Then determine the annual water use. **Step 3:** Write in your total calculated Baseline and Project daily and yearly water use from above. Then determine the Water Savings by calculating the difference from the Baseline to the Project totals. Finally, find out if you reached your percentage reduction goal by dividing the Water Savings by the Baseline totals.

**Project Name** \_\_\_\_\_ **Annual days of operation** \_\_\_\_\_ **Full-time occupants** \_\_\_\_\_ **Visitors per day** \_\_\_\_\_

Assumption: Males uses urinals twice per day; closets once per day; females use closets three times per day. Both males and females use faucets three times per day.

| <b>STEP 1 – BASELINE WATER USE</b> |                 | <b>Daily uses</b> | <b>Type</b>           | <b>Water use</b> | <b>Calculate Daily Water Use (gallons) = Daily uses x Water use</b> | <b>Calculate Annual Water Use (gallons) = Annual days of operation x Daily water use</b> |
|------------------------------------|-----------------|-------------------|-----------------------|------------------|---|--|
| <b>Men's Restroom:</b>             | Urinals         | _____             | Standard urinal       | 1.0 gpf          | _____   | _____  |
|                                    | Water closets   | _____             | Standard water closet | 1.6 gpf          | _____   | _____  |
|                                    | Lavatory faucet | _____             | Standard faucet       | 2.2 gpm          | _____   | _____  |
| <b>Women's Restroom:</b>           | Water closets   | _____             | Standard water closet | 1.6 gpf          | _____   | _____  |
|                                    | Lavatory faucet | _____             | Standard faucet       | 2.2 gpm          | _____   | _____  |
| <b>Other:</b>                      | Shower          | _____             | Standard shower       | 2.5 gpm          | _____   | _____  |
|                                    |                 |                   |                       | <b>TOTAL</b>     | _____   | _____  |

## STEP 2 – PROJECTED WATER USE

|                          |                 |       |       |              |       |       |
|--------------------------|-----------------|-------|-------|--------------|-------|-------|
| <b>Men's Restroom:</b>   | Urinals         | _____ | _____ | _____        | _____ | _____ |
|                          | Water closets   | _____ | _____ | _____        | _____ | _____ |
|                          | Lavatory faucet | _____ | _____ | _____        | _____ | _____ |
| <b>Women's Restroom:</b> | Water closets   | _____ | _____ | _____        | _____ | _____ |
|                          | Lavatory faucet | _____ | _____ | _____        | _____ | _____ |
| <b>Other:</b>            | Shower          | _____ | _____ | _____        | _____ | _____ |
|                          |                 |       |       | <b>TOTAL</b> | _____ | _____ |

## STEP 3 – PROJECT RESULTS

|                    | <b>Daily</b> | <b>Yearly</b> | <b>%</b> |
|--------------------|--------------|---------------|----------|
| Project Water Use  | _____        | _____         | _____    |
| Baseline Water Use | _____        | _____         | _____    |
| Water Savings      | _____        | _____         | _____    |

|   | <b>LEED-NC v2.2 WE Credits</b> | <b>Points</b> | <b>LEED 2009 WE Credits</b>  | <b>Points</b> |
|---|--------------------------------|---------------|------------------------------|---------------|
| 20% Water Reduction                       | LEED WE Credit 3.1             | _____         | LEED 2009 WE Prerequisite    | _____         |
| 30% Water Reduction                       | LEED WE Credit 3.2             | _____         | LEED WE Credit 3             | _____         |
| 35% Water Reduction                       | N/A                            | N/A           | LEED WE Credit 3             | _____         |
| 40% Water Reduction                       | LEED ID Credit for Water       | _____         | LEED WE Credit 3             | _____         |
| 50% Water Reduction for Sewage Conveyance | LEED WE Credit 2               | _____         | LEED WE Credit 2             | _____         |
|   | <b>Total points possible</b>   | _____         | <b>Total points possible</b> | _____         |

# NOTES

Sloan is committed to use the next 100 years of our industry leadership to transform water use in this country and around the world. We begin this effort focused on those same fundamentals that led Sloan to our first 100 years of success: revolutionary designs, an uncompromising commitment to quality, and devotion to serving our customers.

Sloan's commitment to reducing our impact and helping to preserve natural resources drives every element of our business. Sloan can help you keep your commitments and assist you in reaching your goals.

Updates to the information found in this literature can be referenced at **[www.waterefficiency.com](http://www.waterefficiency.com)**.

For more information on any Sloan product, contact:

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