Water Conservation and Sloan Commercial Restroom Products



Presenters



Stephen Callahan Regional Sales Manager – Northeastern USA Sloan Valve Company South Windsor, CT, USA



Andrew Warnes Technical Training Manager Sloan Valve Company Franklin Park, IL, USA



Agenda

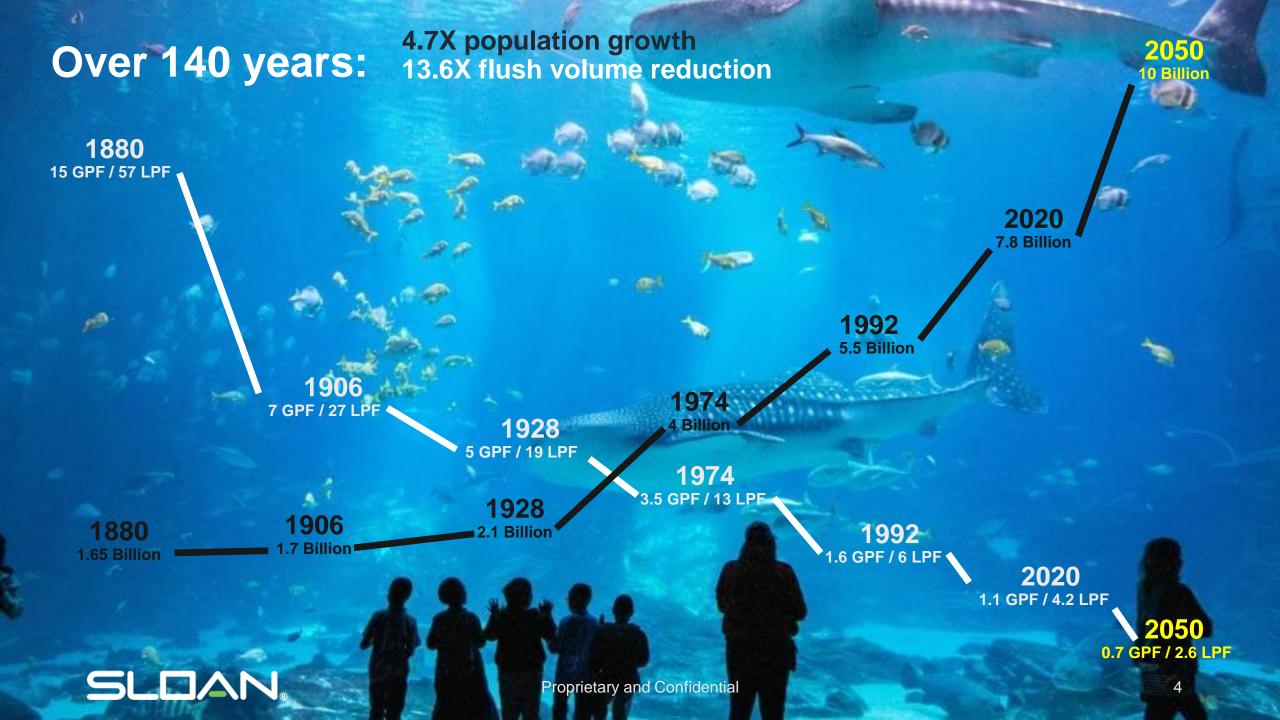
- The logic and key drivers for water conservation
- Regulations, codes, and certifications
- How do Sloan products support water conservation?
- Products and case studies
- Where to get more information
- Q&A session

WATER CONSERVATION is a mindset that helps ensure there are adequate and sustainable water supplies in the future

WATER EFFICIENCY means conserving water using water saving technologies

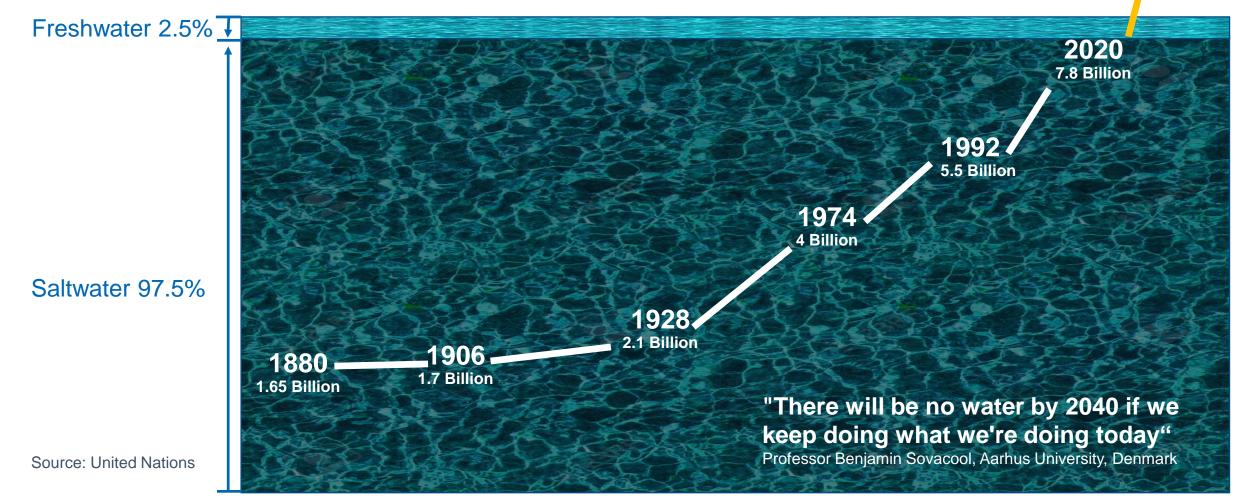
The result of both is a reduction in water use







70% of the Earth is covered with water, but....





The Cost of Water

The decision to conserve water today (and moving forward) is a rational strategy driven by anticipated shortages and costs

Source: Beecher, Institute of Public Utilities, MSU (2016)

SLOAN

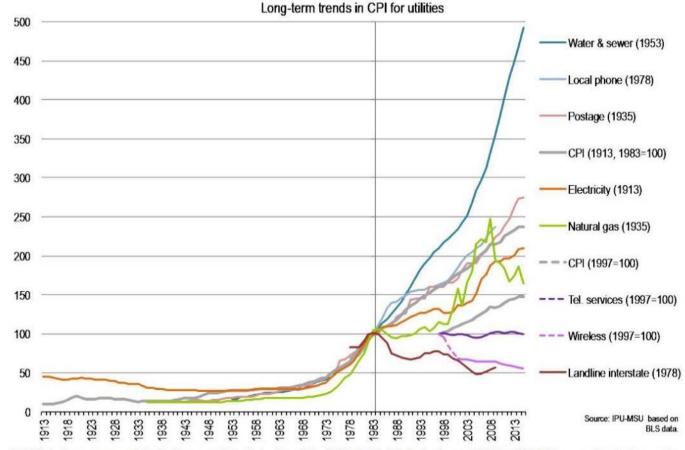
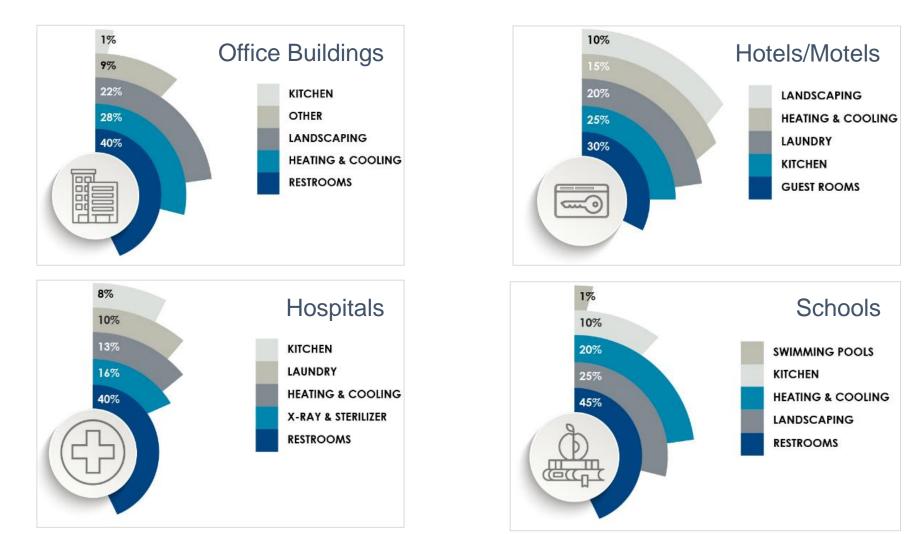


Exhibit 1. Long-term trends in the Consumer Price Index for utilities (1913-2015). The index is set to 100 for 1982-1984 except for telephone and wireless services, where the index is set to 100 for 1997. Year (*) indicates start of series.

Where to Conserve?



SLOAN_®

Codes, Compliance, and Certifications



How do Sloan Products Support Water Conservation and Sustainability?



Compliance

Water Efficiency

Transparency

Carbon Offset



Benchmarks for Compliance



Baseline

(mandatory for new construction)



Baseline (aligned with CalGreen except for metering faucets)

Closets	1.28 gpf	Closets	1.28 gpf
Urinals Hybrid Waterfree	0.125 gpf	Urinals Hybrid Waterfree	0.125 gpf
Faucets	0.5 gpm	Faucets	0.5 gpm
Metering Faucets	0.2 gpc	Metering Faucets	0.25 gpc
Shower Heads	1.8 gpm + WaterSense	Shower Heads	1.8 gpm + WaterSense



Updated State

Plumbing Codes

Georgia, New York, Nevada, Oregon, Texas, Washington

1.28 gpf

0.5 gpf



Baseline

Closets Tank Flushometer	 1.6 gpf max dual flush 1.28 gpf max single flush 1.28 gpf max 1.0 gpf min
Urinals	0.5 gpf max
Faucets Private Public	1.5 gpm NA
Shower Heads	2.0 gpm

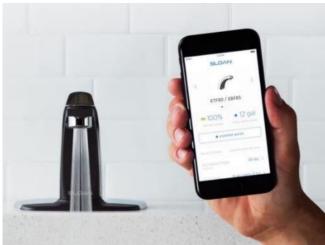


Closets

Urinals

LEED v4 Credits for Water Conservation

Baseline Must reduce by 20% or more to achieve LEED certification and 25% or more to achieve LEED points		
Water Closet	1.6 gpf	
Urinal	1.0 gpf	
Faucet	0.5 gpm	
Shower heads	2.5 gpm	



Sloan Optima Faucets are able to communicate water usage and battery power consumption to smart devices using the SloanConnect app



BD+C Building Design and Construction			
Percent	Points	Points	
Reduction	(BD+C)	(Schools, Retail, Hospitality, Healthcare)	
25%	1	1	
30%	2	2	
35%	3	3	
40%	4	4	
45%	5	5	
50%	6	-	

ID+C Interior Design Construction

Percent	Points	Points	Points
Reduction	(Commercial Interiors)	(Retail)	(Hospitality)
25%	2	2	2
30%	4	4	4
35%	6	6	6
40%	8	8	8
45%	10	10	10
50%	12	_	11

O+M Building Operation and Maintenance

Percent	Points	Points
Reduction	(Except Data Centers)	(Data Centers)
10%	1	1
15%	2	2
20%	3	3
25%	4	4
30%	5	_

LEED v4 Credits for Transparency





LCA

Assessment

Life Cycle

EPD

Environmental Product Declaration Health Product Declaration

HPD

All Sloan EPDs and HPDs meet the criteria of LEED 4.1 and are worth 1.5 product value

How can Sloan products help meet the goals of a project?

- To achieve a LEED v4 Materials and Resources credit (EPD for BD+C), a project team must specify 20 different products that have an EPD, each of which are sourced from at least five different manufacturers.
- To achieve LEED v4 Materials and Resources credit— HPD for BD+C, a project team must permanently install at least 20 different products from five different manufacturers who have an HPD in compliance with the Health Product Declaration Open Standard.
- For EPD for ID+C, a project team must specify 10 different products sourced from at least three different manufacturers.
- For HPD for ID+C, your project team must install at least 10 different products from at least three different manufacturers.

Sloan Transparency Reports



The Difference between LEED & WELL

LEED – How the building impacts the environment



Link to Training Webinar: Sustainability and Sloan Commercial Restroom Products

WELL – How the building impacts the occupants



Link to Training Webinar: WELL and Sloan Commercial Restroom Products



WELL



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Courtesy of WELL



Link to Training Webinar:

WELL and Sloan Commercial

Restroom Products

WELL Material Transparency

Promote Ingredient Disclosure

• Newly installed interior finishes and finish materials...disclosed to 1,000 ppm and earning points based on the table below:

Minimum Percent by Cost	Points
25% (by cost)	1
50% (by cost)	2

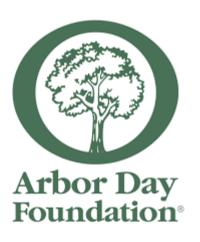
Most Sloan sensor faucets have 3rd party validated HPD's disclosed at 1,000 ppm.



Sloan Transparency Reports



Carbon Offset



"Cradle to Gate"

'T Code' Products – no charge forestation credits



Cradle to Grave

On-demand



2.5 trees for every 1 flushometer

For every Sloan flushometer produced, Sloan plants 2.5 trees to offset production

Carbon Neutral Sell Sheet



EPA WaterSense Program

- Voluntary labeling program similar to the Energy Star Program
- WaterSense helps select cost-effective products by labeling those certified at least 20% more efficient without sacrificing performance
- No WaterSense specification has been created for commercial sensor faucets

Sloan has more WaterSense approved commercial plumbing products available than any other manufacturer



Baseline		
Closets Tank Flushometer	1.6 gpf max dual flush 1.28 gpf max single flush 1.28 gpf max 1.0 gpf min	
Urinals	0.5 gpf max	
Faucets Private Public	1.5 gpm NA	
Shower Heads	2.0 gpm	



Sloan Commercial Restroom Products for Water Efficiency

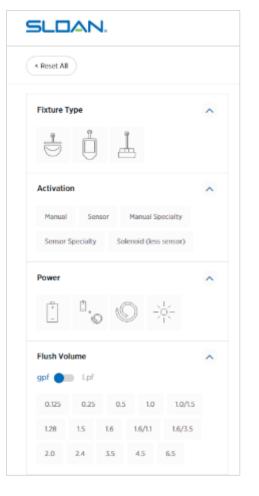
333 West Wacker Drive, Chicago, IL LEED 2009 , Existing Buildings Operations and Maintenance Certification Date and Level : September 20, 2016 - GOLD

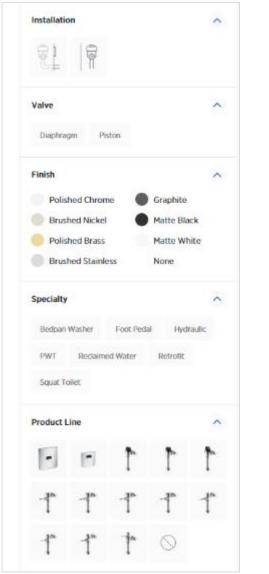


Flushometers for Water Closets and Urinals

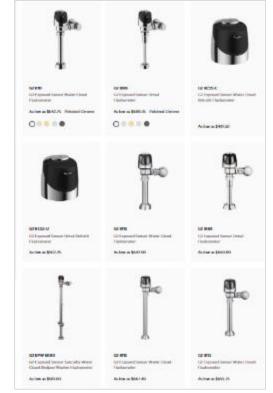


Sloan Flushometer Configurator Tool





Cor	npliances	^
	ADA Compliant	
	BAA Compliant	
	BREEAM Materials Credit	www
	BREEAM Water Credit	42 Expend Flaturity
	CEC Compliant	A 1 1 2 3
	CSA Certified	d
	CalGreen Compliant	
	Carbon Neutral	
	Declare	
	EPD	
	Green Globes Materials & Resources Cred	018123-0
	Green Globes Water Credit	till Experient Fisielander Auften er B
	GreenSpec	
	HPD	
	LBC Credit	
	LEED Materials & Resources EPD Credit	
	LEED Materials & Resources HPD Credit	
	LEED V4 Water Efficiency Credit	GJ DIVE ID
	Red List Free	Constitution of Constitution
	Satisfies LEED Credits	(constraint)
	UL Certified	
	UPC Certified	
	WaterSense Listed	
	cUPC Certified	
	cUPC Certified (Requires use of listed vac breaker that complies with ASSE 1001)	uum
	cUPC Green Certified	
	cUPC Green Certified (Requires use of list vacuum breaker that complies with ASSE 1001)	







UPPERCUT Manual Dual Flush Handle

Features

- Green handle signifies UPPERCUT's water-saving features
- Available as a complete valve or as a retrofit kit for existing valves
- Push handle down for a regular 1.6 gpf flush to remove solid waste and paper
- Lift handle to initiate reduced, 1.1 gpf flush to eliminate liquid and paper waste, saving one-half gallon of water (30% less)
- Optional antimicrobial coating on handle lasts for the life of the product



Dual-flush options help reduce water consumption by up to 30%



Side Mount Retrofit Kits



	SMO	SMOOTH	SFSM/DFSM
Model	EBV-89-A	EBV-200-A	EBV-500-A/550-A
Override	Electronic	ТМО	ТМО
Dual Flush	-	-	DFSM
Installation	Replaces handle	Over the handle	Replaces handle

Link to Training Webinar: Upgrading Manual Flushometers to Touch-free Sensor Operation



Top Mount Retrofit Kits



	SLOAN	MC	G2	ECOS	SOLIS
Flush volume – Closet (gpf) Flush volume – Urinal (gpf)	1.28 to 4.5 0.125 to 1.5	1.28 to 1.6 0.125 to 1.0	1.6 to 4.5 0.25 to 1.5	1.28 & 1.6/1.1 0.125 to 0.5	1.28 to 3.5 & 1.6/1.1 0.125 to 1.5
"Stadium Flush" (urinals)				Х	Х
Override Button	Electronic	Electronic	Elec	tronic	Electronic

Link to Training Webinar: Upgrading Manual Flushometers to Touch-free Sensor Operation



Reclaimed Water Flushometer



- Reclaimed water systems are more aggressive than potable water systems due to the chemical content and nature of the water.
- Results in dezincification, which can diminish mechanical strength.
- UPC and IPC code correct purple

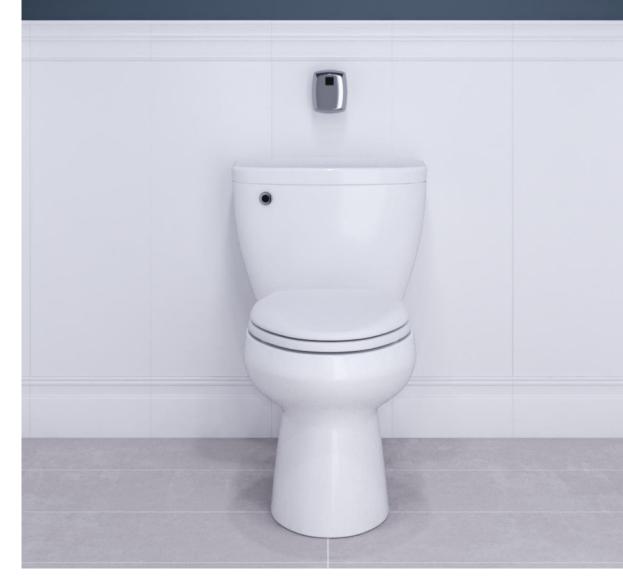
San Francisco requires new buildings over 250,000 ft2 to utilize reclaimed water to flush water closets and urinals.



Pressure-Assisted Toilets

Available pressure-assisted toilet options

- Standard and ADA-compliant toilets
- Three flush volumes (1.0, 1.28, and 1.6 gpf)
- Left or right flush handles
- White with an elongated bowl
- Standard 12" rough-in
- Compliances: ADA, BAA, CalGreen*, CEC*, cUPC, cUPC GREEN*, NOM, WaterSense* (*1.0 and 1.28 gpf only)
- Bowls and tanks sold separately
- Bowls with SloanTec[®] hydrophobic glaze



Shown with the INTELLI-Flush touch-free flushing option

SLOAN_®

Fixtures



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High Efficiency Toilets and Urinals



An HET is a fixture with an average flush volume of 1.28 gpf or less, and must meet the performance requirements of ASME 19.2/CSA B45.1 and pass the 350 grams MaP. Dual-flush devices (1.6/1.1 gpf) are considered HET.

That's 20% less than most toilets on the market today. The current toilet WaterSense baseline is 1.6 gpf.



An HEU is a urinal with a maximum flush volume of 0.5 gpf or less, and must meet the performance requirements of ASME 19.2/CSA B45.1. HEU gpf options – 0.5 gpf - 0.25 gpf - 0.125 gpf – Waterfree - Hybrid

That's up to 75% less than today's WaterSense baseline of 0.5 gpf.

Use the Sloan Product Configurator Tools here to select HET and HEU products and to see all of the many options, configurations, and benefits available. Sloan Water Closet Configurator Tool Sloan Urinal Configurator Tool

Sloan Flushometer Configurator Tool



Sloan Water Closet Configurator Tool

Filters × Reset All	Compliances & Certifications
Fixture Mount — Floor Wall	ADA Compliant BAA Compliant BREEAM Materials Cre CEC Compliant CalGreen Compliant
Floor Mount Type — ADA Junior Rear Outlet	Carbon Neutral Carbon Offset EPD Green Globes Material Credit HPD LEED Materials & Reso
Flush Volume – 1.0 1.1-1.6 1.28 1.6 gpf Lpf	Credit LEED Materials & Reso Credit NOM Certified Satisfies LEED Credits TAS WaterSense Listed
SloanTec* Hydrophobic — Glaze Yes	cUPC Certified cUPC Green Certified

ompliances & ertifications DA Compliant AA Compliant REEAM Materials Credit EC Compliant alGreen Compliant arbon Neutral arbon Offset D reen Globes Materials & Resources redit PD ED Materials & Resources EPD redit ED Materials & Resources HPD redit OM Certified atisfies LEED Credits ١S aterSense Listed JPC Certified



ST-2229 Vitreous China Floor-Mounted Rear **Outlet Water Closet**

ST-2469

Vitreous China Wall-Mounted Water

Closet

ST-2309 Vitroous China Floor-Mounted Junior Water Closet

ST-2449 Vitreous China Floor-Mounted ADA Water Closet

ST-2459 Vitreous China Wall-Mounted Water Closet



WETS-8009.8010 Vitreous China Floor-Mounted Pressure

Assisted Water Closet

WETS-8009.8013

Vitreous China Floor-Mounted Pressure

Assisted Water Closet



Vitreous China Floor-Mounted Pressure Assisted Water Closet

Sloan Water Closet Configurator Tool



Sloan Urinal Configurator Tool

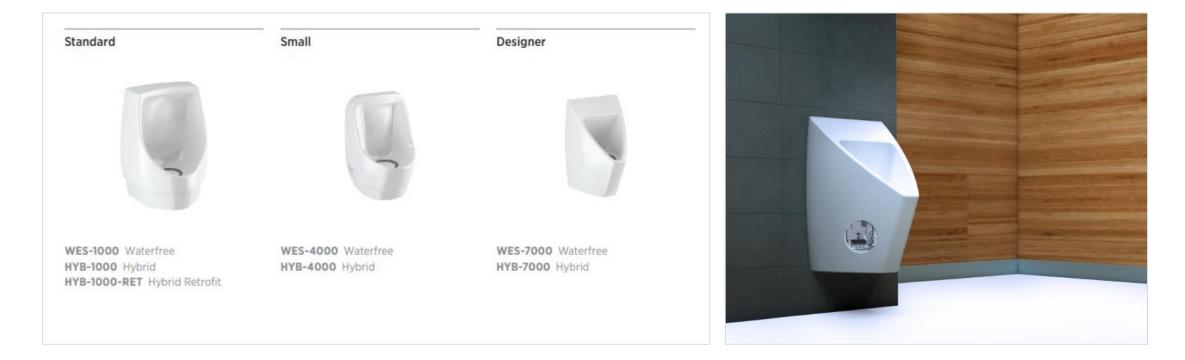
Filters	× Reset All
Flush Method	
Hybrid	
Washdown	
Waterfree	
Urinal Type	
Designer	
Small	
Standard	
Fixture Connectio	n —
Rear	
Тор	
SloanTec® Hydrop	hobic —
Glaze	
Yes	

Compliances & — Certifications ADA Compliant BREEAM Materials Credit BREEAM Water Credit CEC Compliant CalGreen Compliant Carbon Neutral Carbon Offset				
Declare EPD	HYB-1000	HYB-1000-RET	HYB-4000	HYB-7000
Green Globes Materials & Resources	Vitreous China Hybrid Urinal	Vitreous China Retrofit Hybrid Urinal	Vitreous China Hybrid Urinal	Vitreous China Hybrid Urinal
Credit				
Green Globes Water Credit				
HPD				
LBC Credit LEED Materials & Resources EPD				
Credit				
LEED Materials & Resources HPD				
Credit				
LEED V4 Water Efficiency Credit				
Red List Free				
Satisfies LEED Credits				
UPC Certified WaterSense Listed				
cUPC Certified	SU-1006	SU-1009	SU-1016	SU-1019
cUPC Green Certified	Vitreous China Washdown Urinal	Vitreous China Washdown Urinal	Vitreous China Washdown Urinal	Vitreous China Washdown Urinal

Sloan Urinal Configurator Tool

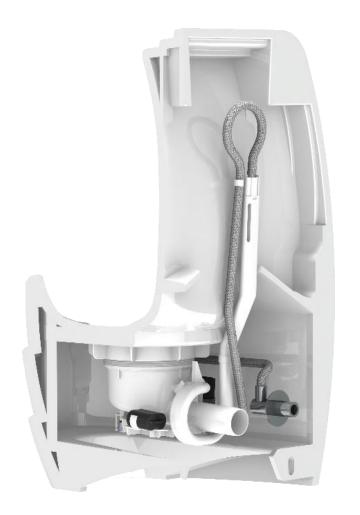


Waterfree and Hybrid Urinals





How do Sloan Hybrid Urinals Work?



- Vigorously injects ~1 gallon of water through housing and down the drain of the urinal automatically every 72 hours
- Prevents struvite build up in drain nipple that causes most clogs & odors
- Eliminates need for bucket dumps & bottle brush cleaning
- Features Falcon Waterfree Technology



Faucets

Go le Gel



Sloan Faucet Finder

• Browse automatic sensor faucets by style, features, options, or certifications with the <u>Sloan Faucet Finder</u>. Find your faucet, and easily drill down to individual spec sheets.

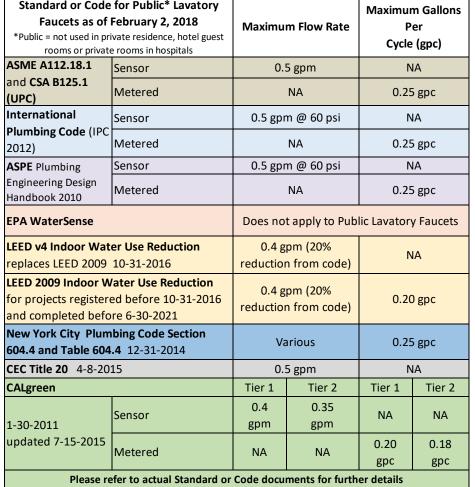
Spout Des	ign			Finish	Mixer				^	Compliances
A	A	A	A	 Polished Chrome Brushed Nickel Polished Brass 	ľ	: - 2:	¢∰¤	¢		 ADA Compliant ASME A112.18.1 Compliant BAA Compliant BREEAM Materials Credit
1 e	4	ſ	r	Power Type ^	Product Li BASYS*	ine Sloan*	Optin	na*	^	 BREEAM Water Credit CEC Compliant CalGreen Compliant Carbon Neutral EPD
ii A	e e	4	ſ	Flow Rate	Trim Plate				^	 GPC 0.25 or less Green Globes Materials & Resources Credit Green Globes Water Credit HPD
ſ	1	ſ		Spray Type	Mounting Deck	Type Wall			^	 LEED Materials & Resources EPD Credit LEED Materials & Resources HPD Credit LEED V4 Water Efficiency Credit



Standards and Codes for Public Lavatory Faucets

Link to Training Webinar: Overview of Sloan Touch-free Faucets

Link to Training Webinar: Upgrading Manual Faucets to Touch-free Sensor Operation





Changing Faucet Sprayheads to Lower Water Use

OPTIMA Key not required or included							
		Spray Type					
	Flow Rate	Multi-Laminar	Laminar	Aerated	Raindrop		
	0.35 GPM / 1.3 LPM	0335029 EAF51					
EAF 200 EAF 225 EAF 250	0.5 GPM / 1.9 LPM	0335010 EAF12		0335036 EAF63			
EAF 275	1.0 GPM / 3.8 LPM	0335054 EAF54					
	1.5 GPM / 5.7 LPM		0335053 EAF53	0335021 EAF22			
	2.2 GPM / 8.3 LPM		0335011 EAF13	0335008 EAF10			



0.35 GPM LEED v4.0 Compliant Faucets

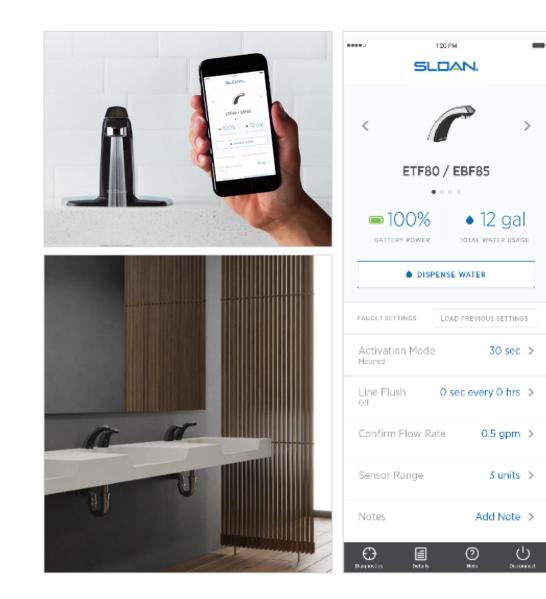
LEED version	Date a new project could be registered	Last date a project can be completed	Maximum commercial faucet flow rate permitted	Permits "Duration-based savings from autocontrol faucets with automatic fixture sensors or metering controls" ?	Number of Sloan faucet models that qualify
LEED 2009	Ended October 2016	June 30, 2021	0.4 GPM / 1.5 LPM	Yes, up to 0.20 gallons per cycle (GPC)	219 (159 with 0.20 GPC or less and 60 with 0.35 GPM)
LEED v4	Began November 2013	Not yet announced	0.4 GPM / 1.5 LPM	No	60 (0.35 GPM)





SloanConnect App

- Adjust settings wirelessly (no deck disassembly or below-deck work)
- Select On-demand or Metered activation
- Set faucet timeouts
- Activate Line Flush to clear supply lines or drains
- Measure and report water usage
- Check battery strength
- Identify your faucet and access technical data
- Generate and share diagnostic reports with Sloan
- · Save notes about site or faucet





PWT Systems



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PWT is a Water Management System

- Manages water usage via number of flushes, length of water activation
- Designed to minimize vandalism risk
- Consists of several products configurable in many ways for different applications

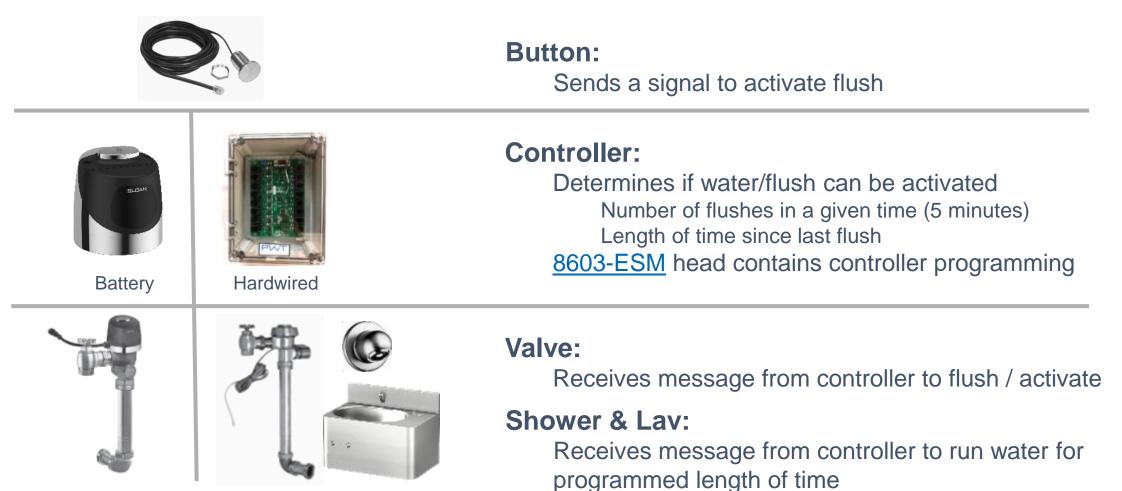
PWT sets new rules for user behavior







How does it Work? Products Connect to Create a System





Tremendous Water Savings, Excellent ROI

Before PWT

After PWT

MCSP WATER CONSERVATION PWT

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attented output spreated of

Product Rebate

Finder Tool

201

MONTHS



Mule Creek State Prison, Ione, California

Institution	Year	Month	Water Consumption in Gallons	Wastewater Flow
MCSP	2007	January	30,067,489.00	29,016,000.00
MCSP	2011	January	12,486,364.00	16,047,000.00
MCSP	2012	January	12,330,000.00	11,157,086.00

40.00

35.00

30.00

25.00

20.00

15.00

10.00

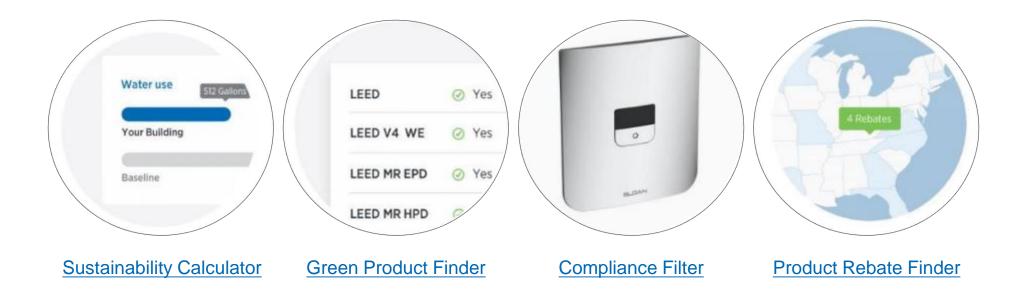
MATER CONSUMPTION (GALLONS)



Sloan Water Conservation and Efficiency Tools



What Tools does Sloan Provide?





Sustainability Calculator

Type your material number (min 3 chars)	
Only sustainable products are being used for the calculate products with lower gallons per flush/minute	or, please check out our
Or	
Product Type	
Select Type	
Product	
Select Product	•
Water unit	
Gallons	
Water usage	
Select Water Usage	•
	Add another product

Sloan Sustainability Calculator



criter your ;	project details
Flushometer	SOLIS 8186, 0.125 gpf

Number of products

50

Water and sewer costs in dollars (\$) per 1000 gallons/3785.41 Liters

National everage is \$7

Days of occupancy per year

260

Average number of business days is 260

Number of occupants

50

Daily uses per person

5

LEED Baseline is 3, excluding showerheads

ZIP code of project (for potential water cost savings and incentives)

R	e	S	u	ł	t	S	

SOLIS 8186, 0.125 gpf

Your building's water usage compared to the LEED baseline

	12 2 2 2 2	
	Your Building	LEED Baseline
Gallons per use	0.125	1.6
Uses per day	3	1
Water use (gallons/day)	938	12,000
Water use (gallons/year)	243,750	3,120,000



Start a new calculation

Product specifications

Flushometer SOLIS 8186, 0.125 gpf

Number of products	50
Product type	Flushomete
Product	50LIS 8186
Days of occupancy per year	260
Number of occupants	50

Calculate

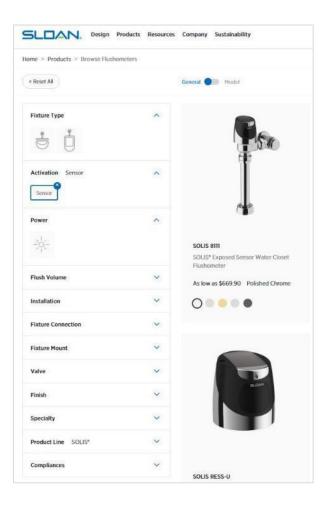
Green Product Finder

Search products	Choose Product Type V		ROYAL III Royal [®] Exposed Manu	ual Flushometer	
	Closet Combo		General Spec	here to buy	
	Faucet				
	Flushometer	~m			
	Hand Dryer				
	Lavatory				
	Showerhead	Certifications and (Credits		
	Urinal	LEED	Yes	Green Globes	Yes
	Urinal Combo	LEED V4 WE	Yes	BREEAM	Ø No
	Water Closet	LEED MR EPD	Yes	WELL Building Standard	Yes
		LEED MR HPD	Yes	CALGreen	Yes
		Living Building Challenge	Yes	Carbon Neutral	Yes

Sloan Green Product Finder



Compliance Filter



Cor	mpliances	^
	ADA Compliant	
	BAA Compliant	
	BREEAM Materials Credit	
	BREEAM Water Credit	
	Carbon Neutral	
	EPD	
	Green Globes Materials & Resources Cre	edit
	Green Globes Water Credit	
	HPD	
	LEED Materials & Resources EPD Credit	
	LEED Materials & Resources HPD Credit	ŝ.
	LEED V4 Water Efficiency Credit	
	Satisfies LEED Credits	
	UL Certified	
	UPC Certified	
	WaterSense Listed	
	cUPC Certified	
	cUPC Green Certified	

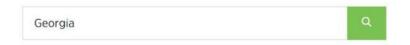
Flushometer Compliance Filter

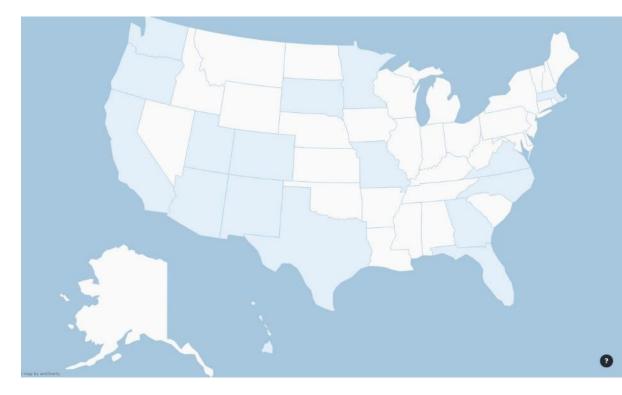
Faucet Compliance Filter

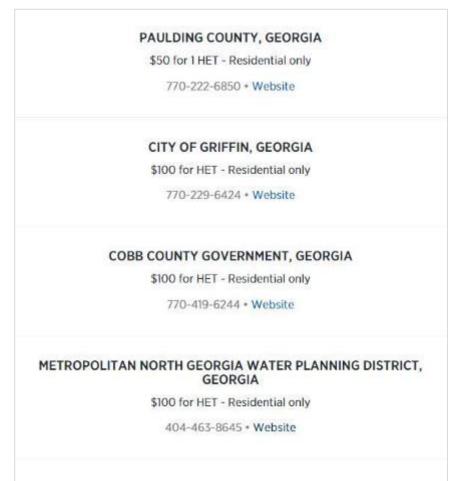
Sink Compliance Filter

Product Rebate Finder

Sloan Product Rebate Finder



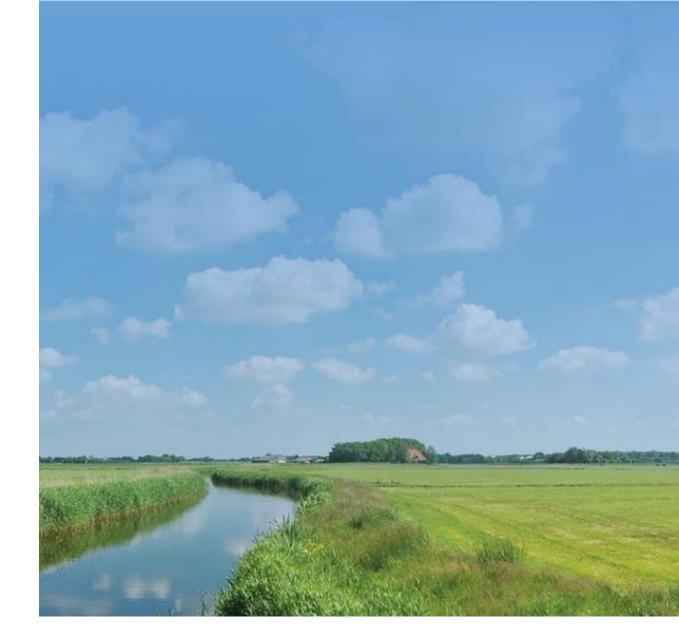






Summary

- Sloan is a private company owned and managed by the descendants of William Elvis Sloan (4th generation)
- Innovation, Water Conservation and Sustainability are part of our DNA
- Sloan has more EPDs, HPDs, and WaterSense certified commercial restroom products than any other manufacturer in our industry
- Contact our Customer Service and Tech Service teams if you need help navigating our extensive product lines
- Your local Sloan Rep is your best resource for water conservation knowledge and local expertise





Find your local Sloan representative for more information

Sloan Rep Locator tool

- Local code knowledge
- Familiarity with existing sites
- Product knowledge
- Available for onsite consultation

Sloan Customer Care Center

Phone: 800.982.5839 Hours: 7:00 AM - 5:00 PM (CST) Monday – Friday <u>customer.service@sloan.com</u>

Sloan Technical Support

P: 888.756.2614 F: 800.737.3061 techsupport@sloan.com



Sloan Mobile Showroom





San Francisco Bay Area, San Jose (Silicon Valley), Sacramento and Reno, NV



Questions?



Upcoming Sloan Training Webinars



September 10th Sloan Special Finishes Overview



September 24th

Introduction to the Tooshlights Restroom Traffic Management System



October 8th

Introduction to Sloan ASSE-1070 Compliant Anti-Scald Faucet Technologies



October 22nd

Sloan Wireless Product Technologies Overview and Updates



Upcoming Sloan Training Webinars







November 5th

Flushometer Care and Service 101 – Part 2 Manual Piston Flushometers November 19th

Introduction to Sloan Hand Dryers December 3rd

Flushometer Care and Service 101 – Part 3

Top Mount Sensor Flushometers



Training Comments, Questions, or Suggestions?

Andrew Warnes Manager – Technical Training Sloan Valve Company 10500 Seymour Avenue Franklin Park, IL USA 60131-1259

Office: +1-800-982-5839 E-mail: <u>training@sloan.com</u> Web: <u>sloan.com</u>

