Watersmart Urinals

VitrA



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Blue Life is VitrA's dedicated approach to sustainable production, management and design.



Our manufacturing plants make smart use of resources and invest in recycling systems that minimize raw material consumption and energy waste.

Through adjustments in kiln temperatures, we use 15 percent less energy in firing processes.

Our wastewater treatment system enables us to reuse all the effluent from our production processes and reduce freshwater consumption.

100 percent of the sludge from our ceramic sanitary ware plant is recycled as raw material for our tile production.

Management

Sustainability is a central component of our management practices involving employees, stakeholders and social projects. VitrA employees receive training on efficient water and energy use, and we expect our business partners to share our concern and take action as well.

VitrA is a longstanding sponsor of the Eczacibasi Hygiene Project, which strives to improve the quality of life at primary boarding schools through improvements in infrastructure, social programs and awareness of good personal hygiene practices.

Design

Sustainability principles guide our design process. Smartly designed VitrA products for residential and public spaces minimize end-user water consumption.

Our urinals, WC pans and faucets enable households to save as much as 190 tons of water per year.

Production Certificates ISO 9001 Quality Management ISO 14001 Environmental Management ISO 50001 Energy Management OHSAS 18001 Occupational Health and Safety Management



Institut Bauen



World's first Environmental Product Declaration for ceramic sanitary ware



Institut Bauen und Umwelt e.V.

Turkey's first Environmental Product Declaration for faucets



Turkey's first European Water Label for faucets



Turkey's first brand to produce FSC certified . furniture





Green Bathroom Solutions

Environmentally-friendly VitrA products help construction projects to gain points toward LEED, BREEAM and DGNB Green Building Certification.

24-50% reduction in energy consumption

40% reduction in water use

33-39% decrease in CO₂ emissions

70% decrease in waste



This icon indicates VitrA products recommended for Green Building Certification.



Download as PDF.





Cost saving, hygienic, environment-friendly. If not smart, what is it?

VitrA is proud to introduce the first waterless, cartridge free and splash free urinal. Watersmart urinals are developed with environmental and water conservation concerns. Compared to standard urinals, Watersmart urinals provide significant amount of water saving.





Watersmart waterless urinal

Besides its water saving feature, VitrA's Watersmart waterless urinal does not require the use of a cartridge. Thanks to the new mechanical system Watersmart urinals do not need any battery or electricity to operate, which makes the urinal total environmental friendly.



Watersmart ultra-low water consumption urinal

There is also two other versions of Watersmart urinal which can be used with water and flush with minimum amount of water.

- Automatic flushing urinals: Flushing frequencies are preprogrammed according to number of usage and time interval.
- Flushing function with timer: Via remote the user can programme himself the time interval and frequency they prefer. A standard urinal can be replaced easily with ultra-low water consumption urinal without any additional installation requirements.

Working principle of Complate watersmart urinals



When not in use, the valve is in closed position.

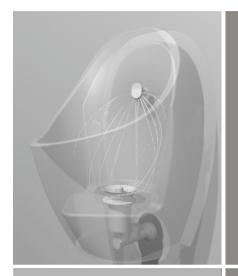


In use, the special designed valve system enables liquid to flow to the waste system.



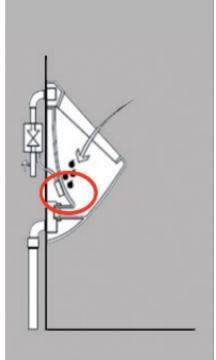
The valve turns back to closed position and prevents any bad odor form waste system.

Working principle of Automatic flushing function version



Other version of Watersmart is with automatic flushing wich can be used with water and flushes with minimum amount water. Flushing frequencies are pre-programmed according to number of usage and time intervals.

Electronical system/sensor that perceives liquid flow transfers information to the electronical module.



The sensor is placed at the back part of the ceramic (marked with red). The new mechanism perceives the movement of the liquid and flushes in given intervals.

The urinal counts the usage times with electronical sensor and automatically flushes as indicated below.

- If used 20 times less than 1 hour the urinal flushes.
- If used less than 20 times in one hour, at the completion of 1st hour the urinal flushes
- If not used within 6 hour, at the completion of 6th hour the urinal flushes

With the help of the sensor blockage of the drain is prevented:

The sensor can perceive a blockage in the drain and even though the urinal is used it prevents additional automatic flushing.

In that way it prevents overflow. When the blockage is removed the sensor automatically goes back to the original function.

Working principle of Flushing function with timer version



The system works on the principle that the flushing is made according the time intervals set by the user.

The system is controlled via remote control and enables two different flushing options during 24 hour period. The two flushing options are: Frequent usage and Lower usage.

The information regarding the flushing frequency should be entered via remote control.

The control operates within max. one meter distance, so one remote is sufficient to control multiple urinals.

In order for the system to work the flushing periods needs to be entered in 7 steps:

- Current time
- First flushing period start
- First flushing period end
- •First flushing period frequency
- Second flushing period frequency
- Remote control perception distance (near/far)
- Program start

To switch screen press «Menu»

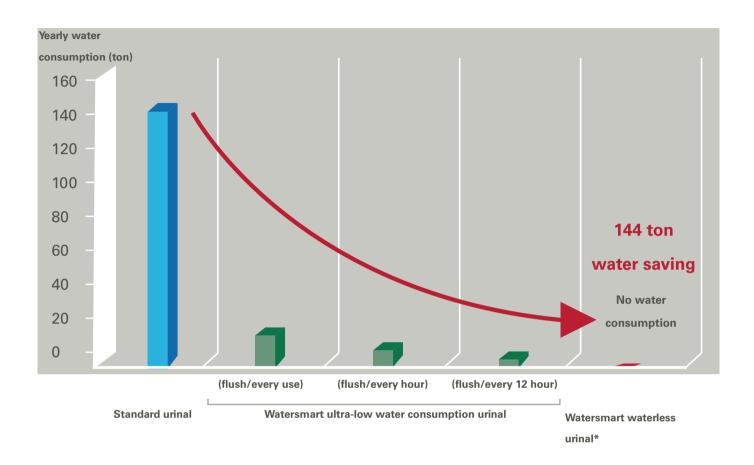
- → Chooses Hour or Minutes.
- † Button arranges hour and minutes (Decrease / Increase)

After the right frequency is chosen → button starts the program.

Comparison with other urinals

| | VitrA watersmart waterless urinal | Urinals w/ membrane cartridge | Urinals w/ gel cartridges | Standard Urinal |
|---------------|---|---|---|---|
| Advantages | Water saving No choke up problem Vandal-resistant compared to standard urinals Easy installation Water can be used for cleaning unlike urinals with gel cartridge Lowest operational cost, only battery replacement after 15.000 usage. Cartridge free Splash free bowl design No loss of function even urinal not used for long time periods No need for special cleaning spray | Water saving No choke up problem Vandal-resistant compared to standard urinals Easy installation Water can be used for cleaning unlike urinals with gel cartridge | Water saving No choke up problem Vandal-resistant compared to standard urinals Easy installation | |
| Disadvantages | | Loss of function when urinal not used for long periods Requires regular cartridge replacement Not hygienic (splash problem) | Water can not be used for cleaning Requires periodical cleaning with special spray Requires regular cartridge replacement Clogged plumbing due to no water use and calcification of urine in waste system Not hygienic (splash problem) | High water consumption Not hygienic (splash problem, bad odor problem due to urine in contact with water and air) Plumbing and flushing system required Higher investment cost due to flushing system High maintenance cost (flushing system defects) |

Water consuption chart



| | Water consumption/use | Water consumption/year |
|--------------------------------------|-----------------------|------------------------|
| Standard urinal | 4 L | 144,000 L* |
| Watersmart urinal (flush/every use) | 0.3 L | 10,800 L |
| Watersmart urinal (flush/every hour) | 0.3 L | 1,296 L |
| Watersmart urinal (flush/12 hour) | 0.3 L | 216 L |
| Watersmart waterless urinal | 0 L | 0 L |

^{*} The calculation is based on 100 flushes/day for standard urinal.

Benefits of Watersmart urinals

Cost saving

Low initial cost

• no flushing system required

Low operational cost

- no regular cartridge replacement
- no/minimum water consumption

Low maintenance cost

- no choke up problem
- no flushing system required

Hygienic

Touch free operation Splash free bowl design No choke up problem

Environmental

Water saving

Lower carbon emissions due to water treatment and water pumping

No cartridge disposal

No gel disposal from cartridge

Functional

No regular cartridge replacement

Easy installation

No loss of function even urinal not used for long time periods

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