20%

Commercial buildings use 20% of the world's Water.

1/3

Approximately, a third (2.5 billion) of the worlds total population (7.4 billion) lack access to adequate sanitation services.

80M

The world's population is growing by roughly 80 million people each year creating an overwhelming demand for access to fresh water and plumbing.

12L

People in the developing world exist on less than 12 Liters of water per day. Many toilets use that amount in a single flush.

Worldwide Commercial Restroom Innovations for Water Savings

Around the world the commercial restroom industry is always searching for dynamic solutions to improve the quality of life of the customers and communities that it serves. Globally, 2.5 billion people lack access to adequate sanitation services, making high traffic restrooms an even greater need.

According to statistics reported by the United Nations, the world's population is growing by roughly 80 million people each year. As a result, global water consumption has doubled in the last 20 years and commercial buildings use 20% of the world's water, creating an overwhelming demand for access to fresh water and plumbing. As a result, construction is growing at a rapid pace in order to increase the quality of living around the world. At any given time, close to half of all people in developing countries suffer from a health problem caused by water and sanitation deficits. According to the Global Construction 2020 Report prepared by Global Construction Perspectives, $97.7 trillion will be spent on construction globally in the next ten years. The rapid increase in population, water usage, and construction around the world, combined with the varying percentages of trained plumbers in each country, means that a simple to install, water efficient plumbing solution is a must for commercial restrooms.

Despite the increasing demands in high traffic, commercial restrooms, the current plumbing solutions, such as hold-open flush valves and concealed tank toilets, waste water and can lead to unsafe environments. So what is the perfect solution to help increase access to clean, affordable sanitation in global communities while meeting the needs of water efficiency? WHO's Health Aspects of Plumbing Report states, "Good design of plumbing systems is necessary to ensure that the installations are efficient and safe. Good design will also ensure that the installations are appropriate for the different circumstances they serve. The designs of good plumbing services must be based on an understanding of the technical requirements and relevant regulatory restrictions." Compared to the current status quo in global plumbing solutions, a true flushometer is designed to accurately and reliably control the flush volume and provide a water efficient solution that meets the demands of commercial restrooms in global applications.

For more information about the TruFlush Flushometer, please visit **sloan.com/truflush** or call **800.982.5839**.

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Pressure

Flushometers use pressurized water to deliver an instantaneous and accurate water flush with no refill time.

VS

Gravity

Tank toilets use gravity to deliver water flush and require time to accumulate water between each flush.

A true flushometer vs. other methods

In a true flushometer installation, water flows under pressure from the supply piping directly to the fixture. The vitreous china fixtures with which flushometers are most commonly associated are the water closet, urinal or service sinks. The required flow rate, measured in liters per minute (Lpm), is established by the hydraulics of the fixture. If the supply pipes are properly sized, an adequate volume of water will pass through the flushometer and permit the fixture to operate efficiently.

It is the use of the pressurized water supply that gives a flushometer a performance advantage over a tank toilet in commercial applications. In a tank toilet, the water used for the flush is first accumulated in the tank. The water flows by gravity into the fixture when the tank toilet is flushed. The energy behind the flush is created by the weight of the water in the tank. Because flushometers rely on the pressure and flow from the supply piping, there is more energy behind the flush, which is important in a commercial application and vital to using water efficiently and effectively. Flushometers also reset faster than gravity toilets (there is no refill time), another important requirement in a commercial installation.

Concealed tank toilets are commonly used around the world in the commercial restroom environment, but they are better suited for residential applications. Since tanks take time to fill up, they are not efficient enough for high traffic restrooms typically required in commercial applications. Concealed tanks are also more difficult to install than most flushometers. Flushometers are also easier to service than their tanked counterparts, making their maintenance easier and more cost effective. Finally, tanks have a reputation of leaking over time and thus wasting water.

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75 Lpm

20 gpm

Hold-open valves use 75 Lpm / 20 gpm of water for water closets

0.5 Lpf

0.125 gpf

The TruFlush Flushometer dispenses the same amount of water each time, as low as 0.5 Lpf / 0.125 gpf for urinals

Many global restrooms also use simple hold-open flush valves for their plumbing solutions. However, a hold-open valve is ultimately inefficient, inaccurate, and unsafe. Typical problems arise particularly in the case of intermittent supply, which is common in many countries. Sudden changes in pressure can damage valves to levels of non-functionality. Floods are also a serious problem with hold-open technology. Because a hold-open valve will dispense water as long as the button is engaged, a flood in the restroom can occur if the button is stuck in the open position.

Many of the issues of hold-open technology can be solved with true flushometer technology. A flushometer will dispense the same amount of water every time, increasing water efficiency in your commercial restroom environment and delivering reliable and accurate performance with each flush. And compared to a hold-open valve that will dispense water as long the button is engaged, up to 75 Lpm/20 gpm, a flushometer will provide a limited flow of water, no matter how long the button is pushed.

As an industry leader in commercial bathroom products, and the developer of the original flushometer in 1906, Sloan has manufactured a true flushometer specifically built to address these needs in global commercial restrooms. The design and engineering of Sloan's TruFlush flushometer goes above and beyond the typical true flushometer and optimizes Sloan's latest innovations to provide the highest water efficiency and savings in global applications.

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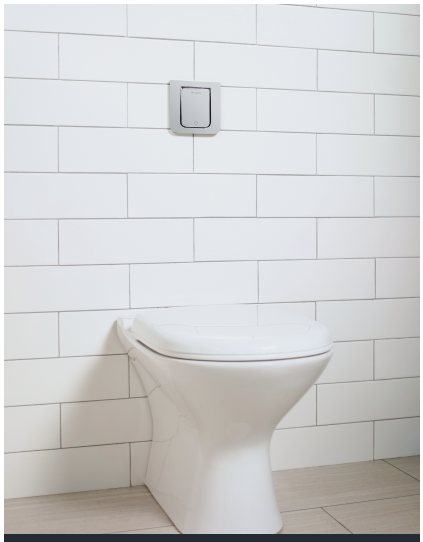
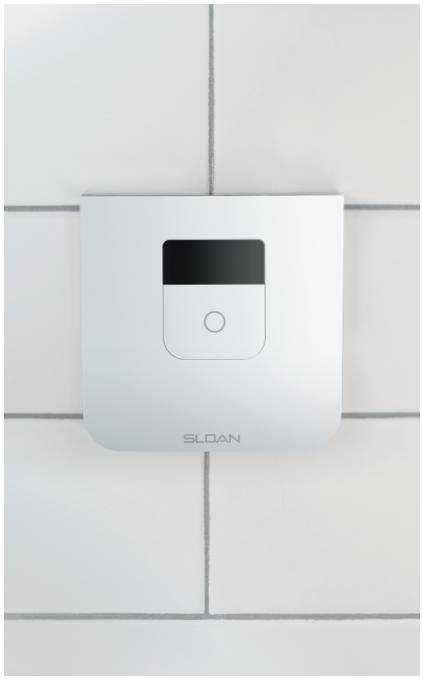


The TruFlush is available with manual and sensor models, varying flush volume, and a wide variety of flush connections to fit the needs of your commercial restroom.

TruFlush Features

Sloan's TruFlush isn't just any true flushometer with piston technology. The patent pending TruFlush was designed and engineered specifically to meet the wide variety of demands in the global market.

The TruFlush is compatible with a variety of washdown and siphon jet fixtures and offers flush connections and adapters to fit any commercial restroom design in any global application. The TruFlush Flushometer is engineered with as few parts as possible for easy installation and is simple to service and maintain directly through the wall plate. The wall plate is chrome plated, corrosion resistant, and vandal resistant, thus built to last in any application. The TruFlush is a true flushometer that will ensure high efficiency flush volumes as low as 4.8 liters for toilets or 0.5 liters for urinals. Flush volume accuracy is ensured regardless of pressure or flow rate adjustment. The TruFlush limits the flow rate to 7.5 Lpm/2 gpm, no matter how long the button is pushed, ensuring accurate and reliable performance with every push. As a result, the TruFlush will not overwhelm the fixture, providing water savings and flood prevention.



Conclusion

With construction, population, and water usage rapidly increasing around the world, the need for affordable, reliable, accurate, and water efficient plumbing solutions is greater than ever. Hold-open flush valves and tank toilets, which are hard to install, wasteful, and unsafe, no longer provide the most efficient solution in commercial restrooms around the world. A true flushometer always dispenses a preset amount of water each time, thus providing accuracy and efficiency. Sloan's patent-pending TruFlush Flushometer takes it even further by using Sloan's fixed volume piston technology and applying it to a variety of global applications. The TruFlush is a highly efficient flushometer delivering consistent water conservation. It is suitable on new construction projects or as a retrofit to replace those old units that are wasting millions of gallons of water. With fewer parts, fewer tools, and fewer problems, the TruFlush is a simple but efficient product to specify and maintain, fit for any project around the world.

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