

THE GREEN WASHROOM GUIDE

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CHAPTER 1: Introduction

WHAT MAKES A GREEN WASHROOM?

It's more important than ever now that companies are seen to be green. Increasingly consumers are preferring to do business with organisations that have solid green credentials and, all else being equal, a greener organisation will have a more positive brand image than one that is perceived to be environmentally less friendly. Additionally, reducing your energy and water use has an immediate impact on your company's bottom line. Organisations can take steps to be more environmentally friendly in all areas of their business, but the washroom is one area which offers significant opportunities for improving one's green credentials.

Traditional washrooms can be extremely wasteful of both water and energy and can generate significant amounts of waste and have a substantial carbon footprint. However, this is one area of the organisation where it is possible to make very significant improvements relatively easily. This guide is designed to help you identify areas of your washrooms where environmental improvements could be made.

If you're refitting your washrooms then that's obviously the ideal opportunity to start this process with a blank sheet of paper, however there are many improvements that you can make to your existing washroom without needing to refit the whole thing. This guide will help you understand the environmental impact of different areas of your washroom and identify quick wins as well as longer term goals.

1.1 Saving water

The most obvious benefit of a greener washroom is the water saving opportunities that come with it. It's incumbent on all organisations to try and reduce their water usage. Obviously there are significant environmental benefits associated with doing so, but let's not

forget that water is also a resource that organisations must pay for directly, and saving water also means saving money. Many of our clients have realized savings of tens of thousands of pounds per year or more by reducing water use in their washrooms.

In most organisations the washrooms are responsible for the vast majority of that organisation's water use, so represent a real opportunity to make significant savings. Think about the times you've been into public washrooms and seen taps still running with no one using them, or urinals continually flushing regardless of whether they're in use or not. A standard tap can use up to 10-15 litres of water per minute. A single urinal can use more than 270 litres of water per day, and up to 100,000 litres of water per year. According to Watersafe, a single leaking toilet can cost between £300 and £6,000 per year. Reducing the amount of time people spend in the shower by three minutes can save 30 litres of water (and the cost of the electricity needed to heat that water). Cutting water use has a significant and immediate environmental impact as well as a substantial benefit for your organisation's bottom line.

1.2 Saving energy and minimising your carbon footprint

Reducing carbon emissions is now part of the strategic objectives of many organisations in the UK and indeed all public companies are required to include information about their greenhouse gas emissions in their annual company report. Consumers are also growing more demanding and becoming more carbon-aware and alert to examples of wastage.

When you're thinking about reducing energy usage in your washroom there are two aspects that you should consider. One is the direct cost of the energy used to operate your washroom facilities, for example the energy required to heat the water in your hot water system or to run the lighting or ventilation systems. The other is the indirect energy cost associated with manufacturing and supplying the different elements of your washroom. In this guide we will include advice on how to effectively reduce carbon emissions from both direct and indirect sources.

1.3 Reducing chemical use

Washrooms can be home to quite a number of different harsh chemicals such as cleaning materials, soaps and disinfectants, as well as air fresheners and the chemicals associated with air conditioning. However, there are now alternatives to many of these products that are much more environmentally friendly, reducing your organisation's impact on the environment as well as potentially having a positive impact on the health of your cleaners, maintenance staff and others who work directly with these chemicals.

That said, reducing chemical use in washrooms isn't just about swapping harsh chemicals for a friendlier alternative. It's also about removing the need for harsh chemicals in the first place. For example, many facilities managers are spending lots of money on air fresheners and other chemically-

intensive methods of masking the problem of odour in their washrooms. However, it's possible to remove this requirement altogether by solving the initial problem that is causing your washrooms to smell in the first place. In this guide we'll not only suggest how you can swap chemicals for more environmentally-friendly alternatives, but also show you how to reduce your need for chemicals in the first place.

1.4 Brand image and style

The impression that a washroom makes on visitors to a building can have a huge impact on how they perceive the building as a whole, as well as on their perceptions of the brand. Washrooms

can be very high footfall areas that get a high number of visitors and its critical that, at the very minimum, they are clean and well maintained. Taking it to the next level and putting in washrooms that are creatively designed with style in mind gives the impression that the organisation as a whole operates with attention to detail and quality in mind.

As well as style, many organisations are coming to realise that a clear commitment to the environment is an important factor in determining the public's attitude to their organisation. Here again the choices made in the washroom can have a significant impact. The washroom is an obvious place where an organisation can overtly demonstrate its commitment to water and energy saving in a way that is visible to visitors.



CHAPTER 2:

START BY READING YOUR METER

If your goal is to create greener, more efficient washrooms, the first and most important step is simple: start reading your water meter. While it might not seem like a natural place to begin, your water meter holds the key to understanding how much water is being used — and potentially wasted — in your facilities every single day. Without this knowledge, it's impossible to manage usage effectively or identify where improvements can be made.

Washrooms are often responsible for a significant portion of a building's overall water consumption, particularly in busy commercial or public environments. Yet most leaks and inefficiencies in washrooms go unnoticed, especially when they develop gradually — like a dripping tap, a faulty flush, or a urinal control that's misfiring overnight. The water meter is your first line of defence in catching these issues early. Regular meter readings offer a real-time view of how your building is performing and can help expose problems that wouldn't otherwise come to light.

By checking your meter daily or weekly and logging the readings, you begin to build a baseline of typical water use. This makes it easier to spot unexpected increases, as well as unnecessary water consumption during evenings, weekends or closed hours — all of which are common signs of leaks or system faults in washrooms. Just a few weeks of consistent readings can provide powerful insights that inform better decisions, whether that's adjusting cleaning routines, investigating maintenance issues, or exploring low-flow technology.

A greener washroom doesn't always require a large upfront investment. Often, it starts with better awareness. Meter readings cost nothing, but the savings they can unlock are very real. In many cases, facilities managers who begin monitoring water use regularly uncover hidden leaks and inefficiencies that would otherwise have gone unnoticed. So before you install new fittings or rethink your cleaning protocols, do the simplest, greenest thing first: read the meter. It's the foundation for every smart step that follows.

CHAPTER 3:

URINALS

3.1 Why waterless urinals are better than flushing urinals

Traditional urinals aim to keep odours at bay and to keep the urinal bowl clean by applying a constant or regular automated flush. Depending on your settings, a single urinal can flush away more than 270 litres of water per day, or up to 100,000 litres of water per year. A saving of 100,000 litres of water equates to a carbon reduction of 17.5kg, so switching to waterless urinals will significantly reduce your carbon footprint and water usage.

MORE HYGIENIC

Urine itself is sterile so it's only when urine is mixed with water that bacteria begin to develop. When you switch to waterless urinals the urine no longer comes into contact with any water so remains sterile and bacteria cannot develop. Additionally, there's no splashback from the flushing water, a common issue with traditional urinals which can lead to urine and water together splashing onto the walls and floors of the washroom.



CLEANER

URIMAT urinals are much easier and quicker to clean than traditional urinals. Each bowl is made of a super-smooth polycarbonate or ceramic material to which deposits cannot stick, and is specially molded with no pipes, awkward corners or sharp edges to clean. Your cleaners need only spray the inside of the bowl with MB Active Cleaner, a micro-biological cleaner which then breaks the urine down organically. There's no need for scrubbing and scouring so cleaning time is reduced and effectiveness increased.



ODOUR-FREE

Once you install URIMAT urinals, bad odours in your washrooms are a thing of the past. URIMAT urinals guarantee an odour-free washroom, with no need for a constant flush. The patented URIMAT drain trap stops any odours from the drainage system entering the washroom.

NO MORE WASTE PIPE BLOCKAGES

The URIMAT urinals collect urine in a patented drain trap, from where it is discharged into the drainage system without the need for a constant flush. This means that no limescale or urine stones can form in the pipework, reducing the possibility of blockages and significantly decreasing your urinal maintenance costs. Unlike traditional urinals, waterless urinals have no moving parts such as flush valves or sensors, so require much less maintenance.

AN END TO OVERFLOWING URINALS

The urine is immediately passed into the waste system and none is retained within the urinal. The absence of water flushing means that the waste pipework does not become scaled up and block, causing a backup into the urinal.

THE URIMAT SYSTEM IS ENTIRELY CHEMICAL-FREE

The urinal bowl is made of 100% recyclable polycarbonate. The manufacturing process is carbon neutral. The recommended MB ActiveCleaner contains no harmful chemicals and, because it's biological, it is not dangerous to humans, animals or plants and it biodegrades completely. Dermatological tests confirm that it doesn't irritate cleaners' skin, as do the harsher cleaning agents required to clean traditional urinals.

3.2 How waterless urinals work

There are three types of waterless urinal technology.

OIL OR CHEMICAL CARTRIDGES

Urine passes through a oil or chemical-based barrier which is then supposed to form a seal which reduces odours. Using this system requires expensive cartridges to be replaced every few months, and the maintenance costs are high, particularly since the oil seal can easily be accidentally broken, for example by a cleaner washing a bucket of water down the urinal.

SLEEVE TECHNOLOGY

Urine passes through a sleeve and then through a seal into the waste system. Using this system can also be expensive as the sleeves need to be regularly replaced. Plus, the seal needs to remain moist which can lead to some hygiene and odour issues.

URIMAT'S PATENTED ACTIVETRAP

URIMAT waterless urinals are the only ones that use this technology, which is much more effective at preventing odours and hygiene issues as well as being significantly cheaper and easier to maintain.

"We used to get a lot of blockages in traditional urinals on campus and they can cause all kinds of problems but we haven't had any of that with the waterless urinals.

The traditional urinals run on battery sensors that regulate the flush. From time to time the battery runs out and if the guys don't spot that on their check then they don't flush at all for a few days which causes huge problems with odour. It's not an issue at all with the waterless urinals.

Similarly, we used to get overflows and floods caused by blockages in the traditional flushing urinals. These can be hugely damaging. If they happen over a weekend then you can come in on Monday and find that you've got a ceiling down on the floor below. Again, the waterless urinals remove this problem completely."

LOUISE LYTTLE, CAMPUS SERVICE SUPERVISOR, LEEDS BECKETT UNIVERSITY

3.3 How does the MB ActiveTrap work?

The patented and exchangeable ActiveTrap used in URIMAT waterless urinals collects the urine and discharges it into the drainage system without using any water at all. No pollutant oils or chemicals are used and no odours can develop.

- Collected urine is channeled via a funnel into the odour trap and runs through the vertically positioned membrane into the sewage system.
- As soon as urine stops flowing, the membrane closes and in this way prevents gases from the sewage system from escaping.
- The integrated MB ActiveCube improves hygiene, reduces deposits and prevents the inside of the odour trap and the waste pipe becoming encrusted with organic matter, urine deposits and fats.
- After the MB ActiveCube has dissolved, the red surface beneath the transparent cover signals that the odour trap needs replacing.
- The vertical membrane technology guarantees that odours are completely sealed away and can withstand both negative and positive pressures, so it is impossible for gases from the sewage system to escape.



3.4 How to keep waterless urinals clean and odour-free

We do sometimes speak to people who are concerned that waterless urinals might smell. Often this is because they have used a waterless urinal in a smelly environment. However, when waterless urinals do smell this is always indicative of a lack of maintenance or an incorrect

cleaning regime. If you clean your urinals properly then we guarantee that they'll be odour-free. As one of the respondents to our recent customer survey wrote "anyone who has issues with odour cannot be maintaining the urinals correctly".



3.4.1 What causes waterless urinals to smell?

The issue arises because waterless urinals need to be cleaned in a different way from traditional flushing urinals. Indeed, it's critical that your waterless urinals must not be cleaned in the same way that you'd clean traditional flushing urinals. That's because what works for flushing urinals is actively damaging for waterless urinals.

The good news is that the cleaning regime for waterless urinals is actually much less onerous than the equivalent for flushing urinals. The design of waterless urinals means they're much easier to keep clean and odour-free if your cleaners clean them correctly.

That's why it's vital that when you install waterless urinals you also invest in proper training for your cleaning staff. Without that, you risk your staff damaging the urinals by cleaning them incorrectly and once that happens you can start to get issues with odour.

People often worry that if the urinal isn't regularly flushed then this means that the bowl becomes less hygienic and will eventually begin to smell. However, the reverse is actually true. Every time you flush a urinal the limescale in the water used to flush starts to accumulate an absorbent layer in the urinal bowl. Bacteria can then develop in this layer and that results in odour. By contrast, the bowls of waterless urinals are made from a super-smooth polycarbonate or ceramic material to which deposits cannot stick. There's nowhere that odour-causing bacteria can grow.

3.4.2 Make sure your cleaners don't scrub the waterless urinals

All your cleaners need to do is spray the inside of the bowl regularly with MB ActiveCleaner, a microbiological cleaner that breaks down the urinal organically. It's really important that your cleaners don't scrub the interior of the waterless urinal bowls (as they're probably used to doing with traditional flushing urinals) as doing this can damage the super-smooth surface and introduce microscopic cracks in which odour-causing bacteria can live.

3.4.3 Use the correct cleaning materials

It's important too that you use the correct cleaning materials to take care of your waterless urinals. We recommend MB ActiveCleaner. That's because MB ActiveCleaner has micro-bacterial spores in it which are activated as soon as they come into contact with anything organic, such as the fat, protein and other organic elements found in urine. As soon as the spores are activated they eat all the organic materials that they can find before falling dormant again. They then lie dormant until the next person comes along and uses the urinal.

Other non-biological cleaning products tend to mask odours by forming a temporary cover over the organic matter that can cause smells. This effect will only ever be temporary. In contrast, the bacterial agents in MB Active Cleaner are actively destroying the organic matter that causes odours and can also lead to blocked pipes. MB Active Cleaner also offers another benefit. If used regularly it starts to form a permanent protective layer on the surface that's being cleaned, helping to further ensure that the area concerned stays clean and odour-free between cleans.

Sometimes people mistakenly think that MB Active Cleaner is more expensive than other cleaning products and so they switch to something they think is cheaper, not realising that the product is going to be much less effective and may even be damaging their urinals. In fact, MB Active Cleaner is extremely

economical as it can be used highly diluted. You can clean your urinals with a one to twenty solution which means that one bottle used on four urinals being sprayed twice per day will last for approximately four months.

3.4.4 Never put water down a waterless urinal

Another issue that can arise is when cleaners put water down a waterless urinal, perhaps when they're cleaning them or perhaps at the end of their cleaning round when they have a bucket of dirty water they need to dispose of. It is absolutely critical that no water goes down your waterless urinals during the cleaning process as water damages them.

When water and urine meet, the calcium in the water reacts with the uric acid in the urine and creates limescale deposits that block pipes. In traditional flushing urinals this problem is counteracted to some extent by the fact that there's a continuous flush to wash these deposits away. However, that's not the case in waterless urinals. It only takes a small amount of water to hit a urine deposit and this limescale reaction will occur. Without a constant flush it won't get washed away and over time these deposits will build up and block your urinal as well as causing issues with odour.

3.4.5 Treat your waterless urinals correctly and they won't smell

If you're investing in waterless urinals, then it's critical that you also invest in the training and education that's necessary to ensure that the urinals are cared for correctly. If you clean your urinals correctly, then we guarantee that they won't smell. But the cleaning method for waterless urinals is different from that your cleaners will be used to using

for your traditional urinals. You need to ensure that your cleaners understand how critical it is that they follow the waterless urinal cleaning instructions. The good news here is that the correct cleaning regime for waterless urinals is much less onerous and time consuming than that required for traditional urinals!

3.5 Self-cleaning waterless urinals

One of the most attractive features of our URIMAT waterless urinal range is how easy the urinals are to clean when compared with traditional flushing urinals. URIMAT has taken this 'easy to clean' approach to the next level with its latest range – the URIMAT CS self-cleaning urinal.

The URIMAT CS comes with a built-in cleaning fluid dispenser in the form of the MB Active Trap CS which sits in the urinal drain opening. An LED light flashes green to indicate that the system is ready to use and the programmable cleaning intervals start automatically.

The MB Active Trap automatically releases a burst of MB ActiveCleaner at regular intervals (which is programmable), ensuring that the interior of the urinal stays clean and fresh throughout the day. Obviously your janitorial staff will still need to wipe around the urinal's exterior surface but this system means that the manual work associated with keeping the urinal clean is reduced to really the bare minimum.

The benefits of this system are significant. As well as all the standard benefits of the URIMAT urinal range (saving up to 100,000 litres of water per urinal per year, a much pleasanter washroom environment and so on) you get the added advantage of a significant reduction in the manual intervention required to keep your washroom clean. The LED light on the URIMAT CS

system will change from green to red to alert you when the MB ActiveTrap needs to be replaced. It's a simple matter to remove the empty MB ActiveCleaner bottle from the trap and screw in a new one – something that your cleaners will be able to do themselves as part of their regular routine.

One of the biggest benefits of this system is that it enables you to keep your urinals clean and fresh throughout the day in between standard cleaning rounds. Perhaps your cleaners only visit each washroom once a day but your washrooms are in regular use. The URIMAT CS system means that the urinals are still being cleaned in between your cleaners' visits, and also reduces the amount of work that they will need to do when they do visit by keeping the interior of the urinal fresh throughout the day.



3.6 Making traditional flushing urinals greener

If your aim is to improve the environmental credentials of your washroom and to reduce water usage, then we'd always recommend waterless urinals as the best option. However, it's not always possible or realistic to install an entirely new set of urinals. If you're not planning to refit your washroom, what steps can you take to ensure that your flushing urinals are as environmentally friendly as possible?

The main environmental cost of flushing urinals is the flush itself and so the quickest and simplest way to reduce water usage is to review how frequently the urinals flush. Automatic flushing of urinals when they're not actually being used is extremely wasteful. Start by reviewing usage patterns of your urinals. Are they used 24 hours a day, for example, or just during standard working hours. If so, consider whether they need to flush after working hours. Consider also how much water is used for each flush and whether this can be reduced.

Water regulations state that urinals should use no more than 7.5 litres of water per urinal bowl per hour for a cistern that serves two or more urinals. This rises to 10 litres per urinal bowl per hour if your cistern serves a single urinal. This means that a 3.75 litre cistern supplying two urinals should flush no more than twice an hour. A simple way to reduce water usage then can be to decrease the number of flushes by reducing the flow of water entering

the cistern. This generally just requires turning the valve anti clockwise with a screwdriver.

You can also reduce water usage further by installing a flush control system. These systems either use a timer to match flushing patterns to the hours of urinal use, or they can also work by detecting the presence of people by using passive infrared sensors and thus ensuring that the urinals only flush when actually being used.

Other options worth considering include:

- Manually shutting off water to the urinals – this solution can be the cheapest and simplest if the usage hours of your urinals are predictable.
- Install a timer and solenoid valve on the urinal pipework to shut off water supply during periods of non-use – again this solution is really only suitable if your urinals are only used during specific, predictable hours.
- Fit a pressure sensitive hydraulic valve to the inlet pipework of your urinals. If water is used elsewhere in the washroom, for example when someone turns on a tap to wash their hands, then the temporary reduction in water pressure to the urinals acts as a signal to open a diaphragm-operated valve which allows water to pass into the urinal cistern.



3.7 How waterless urinals are made

As already discussed, it is important to not only consider the direct environmental cost of equipment once installed in your washroom but also to think about the environmental cost associated with manufacturing that equipment in the first place. Look for manufacturers who are using environmentally-friendly and sustainable processes at all stages of the supply chain, from the materials used through to the way in which their products are transported.

URIMAT waterless urinal bowls are manufactured using high tech facilities and machinery. The polycarbonate

bowls are manufactured in a carbon neutral process using 100% renewable power sources. Reject and end of life products are able to be recycled and reprocessed. Additionally, URIMAT polycarbonate bowls are manufactured in a process that uses renewable energy from wind and hydro-electric sources.

Finally, the URIMAT polycarbonate urinal bowls are extremely light and are packed inside each other, two per carton, which keeps the environmental impact of packaging and transportation to an absolute minimum.

CHAPTER 4:

TRADITIONAL TOILETS

Obviously, for male washrooms we recommend installing waterless urinals as the best option from an environmental point of view. However, this advice obviously doesn't apply in female washrooms and of course you will still require at least some traditional toilets in your male washrooms for occasions when urinal usage is not appropriate. So how can you ensure that your toilets are as green as they can be?

As with urinals, this tends to come down to two broad considerations – firstly, reducing the amount of water that the toilets use, and secondly ensuring that the manufacturing process is as green as it can be. Your options also differ depending on whether you're starting from scratch or refitting an existing washroom and so able to install new toilets, or if you're looking for ways to make your existing toilets more sustainable.

4.1 Making your existing toilets more sustainable

A fairly simple way to reduce water usage in your existing toilets is to fit the cisterns with volume adjusters that reduce the amount of water used per flush. For example, cistern displacement devices can save three litres per flush from a nine or thirteen litre cistern, or two litres per flush from a smaller six litre cistern. Installing a single such device in one toilet cistern is estimated to save 1.64kg of carbon per year. Note that these devices cannot be installed in dual-flush toilets, only in those with a lever flush.

It's also possible to retrofit a variable flush or siphon mechanism to your existing toilets which can reduce the volume of water used in each flush by up to four litres. However, bear in mind that a siphon mechanism can cause your cistern to refill more slowly so you'll need to consider whether that's appropriate for the needs of your organisation. Whenever you're fitting a flush device to an existing toilet it's important to ensure that it is installed correctly – poor installation can lead to increased water usage rather than decreased and may cause other longer term maintenance issues. Consider too that any fittings added to the water main need to comply with the Water Supply (Water Fittings) Regulations (1999).

4.2 Installing new toilets

If you are installing new toilets as part of a washroom refit, then make sure that you install the most efficient ones possible. Newer toilets are available which use a combination of air and water to flush and hence can reduce water usage to as little as 1.5 litres per flush. Such pressure-assisted toilets have the additional benefit of leaving the toilet bowl cleaner because the flush is stronger and the water level in the bowl is higher.

When considering new toilets, consider the fall of the waste to stack to ensure the most effective flush. When looking at flush volumes, consideration should be given to whether single flush or dual flush is the better solution (and either way, solutions should be of the sort that provide for flexibility to increase or decrease these volumes for perfect flush results and no blockages).

Dual flush toilets conserve water through operating two different flush volumes – a

lower flush for liquids and a higher flush for solids. These types of toilets tend also to have a wider trapway (the whole at the bottom of the bowl) and have a water down flushing design rather than a siphon system, so they can get the job done with much less water. Note, however, that they may also require a more robust cleaning regime since using less water can sometimes mean that not all the waste is removed. It is also possible to retrofit dual flush technology onto an existing toilet. If you are installing dual flush toilets, make sure that the two buttons are clearly labeled so people know which is which, otherwise you risk double flushing which ends up using more water.

If you're refitting your washroom, then it is always worth considering installing wall hung toilets as these tend to reduce maintenance costs in the washroom as well as having the aesthetic benefit of making the space feel larger. They also make the floor much easier to clean.



CHAPTER 5:

CUBICLES, SCREENS AND FLOOR SCREENINGS

5.1 Cubicles

When thinking about the choice of materials for the cubicles and screens in your washroom the key things to consider are the environmental credentials of the materials they're made from, their durability (which will impact upon how frequently they need to be replaced) and how easy they are to clean.

Toilet cubicles see a lot of use so durability can be a significant issue. For many organisations natural wear and tear will be the main concern here but others may also have issues with deliberate damage.

The choice of material you use will have a significant impact on the lifespan of your cubicles. At the luxury end of the market are glass cubicle partitions and doors – this can offer an extremely stylish look and is durable due to the fact that glass is completely waterproof. Solid grade laminate is also a good choice as it is totally impervious to water so you will never suffer from swollen panels and other issues associated with water damage. A less expensive option is high pressure laminate which is water resistant and still significantly more robust and durable than melamine faced chipboard (MFC) which is often used.



5.2 Screens

For urinal dividers we recommend URIMAT's own urinal privacy screens. URIMAT offers elegantly shaped urinal privacy partitions made of Trespa®. These durable dividers have a smooth surface, good hygiene properties and are extremely robust. In addition, they are also very easy to keep clean. Trespa has a dense molecular coating making it extremely durable and virtually impervious to temperature and humidity. Any contamination such as dirt or graffiti can be removed extremely easily. Alternatively there's the URIMAT ESG screen, made in etched and toughened safety glass which is also easy to clean and extremely robust.

5.3 Flooring

Choosing the correct flooring can be one of the most important considerations if you're fitting out a new washroom, particularly if it's in a high traffic environment where large numbers of users can lead to significant wear and tear on the floor. There are also safety considerations here as you'll need to ensure your floor covering is anti-slip. Tiles can be a good option as they're durable and can come in a variety of anti-slip finishes, however bear in mind that the grout lines can attract dirt and bacteria as well as pooling water.

Another option to consider is safety flooring like Altro or something similar – a smooth, anti-slip material which can be installed in a single piece. It can also be installed so that it covers the first few inches of the wall as well as the floor, thus creating a watertight barrier between the floor and wall which makes conducting deep cleans much simpler. This kind of flooring often works in conjunction with floor drains, enabling the floor to easily be hosed down.



5.4 Floor drain traps

At Ecoprod we're absolutely committed to offering our customers a range of innovative and environmentally friendly washroom products. All the products we sell offer environmental benefits as well as functional benefits, otherwise we wouldn't sell them. We want to help our clients to save water, reduce the use of harmful chemicals in the washroom and cut their carbon emissions. We're always on the look out for new products we can add to our range that will help our clients to achieve this. Additionally, we want to help our clients improve the ambience and appearance of their washrooms, whilst maintaining the highest environmental standards.

That's why we recommend the Green Drain to anyone who has floor drains in their washroom. The Green Drain solves a number of problems that are common in washrooms, kitchens and other places where floor drains are installed.

- Preventing odour from drains re-entering the washroom - Odour is a common problem in washrooms and other environments where floor drains are in use. The Green Drain has a one-way valve which eliminates these odours, whilst still keeping the drain fully functional at all times. The Green Drain's one way valve creates a seal to eliminate floor drain odour issues, meaning there are no more gases emanating from the floor drains.
- Reducing the need for harmful cleaning chemicals and air freshener

- Traditionally, the issue of odour from floor drains has been addressed through the use of chemicals: heavy duty, caustic cleaning chemicals are poured down the drain and air fresheners are used in the washroom to mask the smell. These kinds of cleaning chemicals tend to be either extremely acidic or basic in nature. They are usually used in high concentrations and can cause severe burns to the eyes, nose, throat and lungs. Most of these products consist of either potassium hydroxide or acids such as sulphuric acid, citric acid, hydrochloric acid or concentrated chlorine bleach. Over time all of these chemical cleaning products are destructive to plumbing fixtures and piping systems. Most importantly, the toxicity of these chemicals attacks the environment.

Traditional floor drains require consistent chemical treatments as part of their maintenance. However, the Green Drain eliminates the need for chemical applications, both cleaning fluids and air fresheners, while contributing to a healthier environment.

- Prevent pests from entering your washroom - Traditional floor drains often serve as the point through which pests (flies, cockroaches and even rodents) enter the building. The Green Drain has a silicone skirt attached, completely preventing pests from entering the washroom. Bugs can no longer crawl back up through the floor drain leading to a much more pleasant and hygienic washroom environment.
- Cuts installation time and maintenance costs - Traditional floor drain liquid trap components need to be changed often and are generally difficult to replace. In contrast the Green Drain takes mere seconds to install and also acts as a barrier trap protection device. The Green Drain is a great solution in both new construction and as a retrofit into existing floor drains.
- Save water and improve washroom hygiene - The Green Drain is crucial to preventing the spread of dangerous bacteria that can escape from sewers causing potential health hazards. The Green Drain eliminates the need to frequently pour fresh water down the drain to maintain the liquid trap seal. It truly is an 'install and ignore' solution for floor drain problems, saving a significant amount of time, water, costs and energy.

CHAPTER 6:

TOILET PAPER

When it comes to toilet paper, the two most important environmental considerations are firstly ensuring the green credentials of the actual paper itself, and secondly taking whatever steps you can to prevent overuse.

6.1 Sourcing environmentally-friendly toilet paper

Toilet paper has a significant environmental impact, both in terms of how it is made and how it is disposed of. A typical tree provides about a thousand rolls of toilet paper and estimates suggest that America alone uses around 7 billion rolls of toilet paper per year, requiring 7 million trees to be cut down. The first thing you can do, therefore, is look for toilet paper that has a high percentage of recycled paper, or only use recycled paper. Keep an eye out too for paper that is unbleached or processed without chlorine, as well as non-paper alternatives such as bamboo.

6.2 Reducing toilet paper use

Consider installing double-roll toilet paper dispensers. The aim is to ensure that each roll is not replaced until it has fully run out. In double roll dispensers another fresh roll is always available, so reducing people's natural urge to start a new roll before the first roll has reached its end.

You can also reduce toilet paper usage by using toilet paper dispensers that reduce the rolling speed and so discourage wastage. Dispensers are available that simply dispense toilet paper a single sheet at a time.

It's often tempting to go for cheaper toilet paper in a commercial washroom environment but this can be a false economy as it means that people will need to use more paper. Aim for a minimum of two ply paper and preferably four ply. This means that the paper will be more absorbent and hence last longer.

CHAPTER 7:

LITTER BINS AND SANITARY BINS

In female and gender neutral washrooms it is important to provide sanitary bins in every cubicle and to discourage the flushing of tampons and sanitary pads as much as you can, as not only can this cause blockages and damage to your drainage systems but it also means that such items get into the waterways where they can cause significant environmental damage. Consider using signage to educate users on how and why they should dispose of sanitary items in the bins provided rather than flushing them. It can also be helpful to provide bags in which users can place such items before binning them.

It's also good practice to provide litter bins near to the wash basins in all your washrooms to enable users to dispose of any other waste materials they may

need to. This will reduce your cleaning costs by minimizing the amount of waste and litter that ends up on the floor. To improve hygiene consider using bins that can be operated without needing direct hand contact, such as pedal bins or those that operate using an electronic motion sensor.

Products such as FabLittleBag can help ensure environmentally friendly disposal of sanitary products. FabLittleBag is an innovative disposal bag for sanitary pads and tampons. It can also be used for some incontinence pads, condoms and any other item that shouldn't be flushed. FabLittleBag is sustainable and low carbon – the bags are made from plants and other recycled materials, locking in carbon.



CHAPTER 8: WASHBASINS

When it comes to washbasins the main environmental considerations are how to reduce water usage and how to minimize the amount of cleaning needed. We will consider the issue of taps in the next section so here will focus on reducing cleaning needs.

It's not recommended to install flat-bottomed wash basins as these do not effectively enable all dirt to be washed into the drain pipes. Another related consideration is whether the design of the basin discourages water from spilling onto the counter.

If you install basins that are standalone or that sit on top of a counter then you need to ensure that they are deep enough to prevent water from splashing out when in use. Installing washbasins inside toilet cubicles can lead to wetness on the floor of the cubicle, so to avoid that we'd generally recommend installing basins outside the cubicles for common use. Basins should also be installed into vanity tops that have splashbacks and apron edges to make cleaning easier and the minimize the chances of water seeping into the joint between the vanity top and the wall.

CHAPTER 9:

TAPS

Along with the urinals or toilets, it's the taps that use the most water in the washroom and which offer the most potential for water saving. There are now many different options for water saving taps, some of which can reduce your water usage by up to 70%.

9.1 Install water-saving sensor taps

Many people consider installing sensor taps, driven primarily by a desire to make their washroom more hygienic, and of course improved hygiene is a big benefit of sensor taps. However, they can also have substantial environmental benefits too.

SENSOR TAPS USE LESS WATER

Sensor taps generally include an aerator in the spout which disperses the water and means that much less is needed for washing than is the case with traditional taps. This means that sensor taps generally have a much lower flow rate than traditional hand-operated basin taps. Traditional taps can use up to 10-15 litres of water per minute. In comparison, taps such as those in the Conti+ range offer flow rates of as little as 2 litres per minute, up to 70% less than traditional taps, and our miscea taps use around 60% less water than traditional taps.

SENSOR TAPS ARE MORE ENERGY-EFFICIENT

We sometimes speak to customers who are concerned that switching to sensor taps might increase their energy usage, given that sensor taps need electricity in order to work. However, there are many more factors to consider when determining the energy efficiency of taps. Whilst traditional hand-operated taps don't require any electricity for their operation, they are extremely inefficient in other ways. Choosing the user's preferred flow and temperature every time a traditional tap is turned on wastes a great deal of energy. In contrast, sensor taps enable you to keep water at a constant temperature so you don't need to expend energy changing the water temperature. For this reason, taken as a whole, they tend to be much more energy efficient than traditional hand operated taps.

SENSOR TAPS ARE CLEANER AND MORE EFFICIENT

Another difference between sensor taps



and traditional taps is that the flow rate of sensor taps is predetermined whereas for traditional taps the user has to select their preferred flow rate every time. This is very inefficient, given that 99% of the time users will want the same flow. Pre-setting the flow rate also prevents user from selecting a flow rate that's too powerful, which helps to reduce splashing and means that the bathroom stays cleaner.

SENSOR TAPS ARE MUCH MORE HYGIENIC

As already discussed, hygiene is one of the key benefits of sensor taps. The user is not required to actually touch the tap with their hands at any point during the hand-washing operation. This means that there can be no cross contamination between users. Additionally, products such as those in our miscea range take this further by enabling hands-free dispensing of soap and other cleaning liquids as part of a single hand-washing operation.

CUSTOMERS INCREASINGLY EXPECT TO SEE SENSOR TAPS IN PUBLIC WASHROOMS

As hands-free taps are installed in an ever-wider range of locations, customers increasingly expect them to be provided as part of a high quality washroom environment. If you're installing hands-free taps in your premises for the first time it's always worth including some clear signage to ensure that visitors know how to use them. Overall however we find that modern hands-free taps are very intuitive to use and completely remove many of the user-error problems that can occur with traditional manually operated taps, such as people leaving the taps running, scalding themselves with water that's too hot, or splashing water over the washroom.



9.2 Does the tap water need to be heated?

It's a common assumption that washing your hands in hot water kills more germs than using unheated water but a recent study by Canadian academics showed that not to be the case, finding that the temperature of the water used for washing made no difference to the amount of germs removed from the hands. Of course, there are other reasons why people prefer to wash their hands with warm water: people often expect to be able to wash their hands with warm water and prefer the feel of warm water to that of cold. However, heating up water for hand washing comes at a significant environmental cost.

Taps such as the CONTI+ Maxx address this problem. The CONTI+ Maxx is a premium, touchless lavatory faucet available in two versions—M10 (with temperature mixing) and M20 (for cold or premixed water only). Its low temperature operation means that it consumes 90% less water than traditional taps and saves more than 85% of the energy costs associated with traditional hot water taps (100% if you operate the cold-only version). The spray-pattern aerator jet ensures that the water does not feel cold to the user, even when using the cold water only option. Instead the water jet produces an optimal sensation of cleanliness when washing hands and leaves a pleasant feeling on the skin.

9.3 Making traditional taps more environmentally friendly

Of course, sometimes you have to work with the taps that you already have. If that's the case, there are still a number of things you can do to reduce water usage.

MAKE SURE TAPS ARE TURNED OFF FULLY

Even a 5mm stream of water will end up wasting over 500,000 litres of water per year and could cost up to £1,000 (substantially more if it's heated water).

FIX DRIPPING TAPS

Again, it's important not to underestimate the wastefulness of dripping taps. A single dripping tap will

typically waste at least 5,000 litres of water per year.

REGULATE THE FLOW TO THE TAP

If your water pressure is too high, then you can easily find that you're using far more water than is actually necessary for effective hand washing. Consider regulating the flow using devices such as tap aerators and flow restrictors, which can reduce water use by up to 70%.

REGULAR MAINTENANCE IS IMPORTANT

Soap deposits and scale, left alone to build up, can cause tap mechanisms to jam leading to drips and leaks.

CHAPTER 10:

SOAP DISPENSERS

When buying soap dispensers it's important to consider both how they operate and what should be in them. It's possible nowadays to do away with the requirement for separate soap dispensers altogether – taps such as the miscea sensor tap come with built-in sensor-operated soap dispensers. However, for most commercial washrooms a separate soap dispenser of some kind is the most likely option.

To minimize the environmental impact of handwash dispensers it's important to choose an environmentally friendly brand of handwash to be in the dispenser in the first place. You can then reduce wastage by installing a refillable liquid soap dispenser and ordering your refills in bulk. If you want to offer individual pump bottles then glass is a more environmentally friendly choice than plastic. Ultimately you can get rid of packaging altogether by offering traditional bars of soap instead, if that's appropriate in the environment in which you're operating.

CHAPTER 11:

SHOWERS

Showers can use up a lot of water if not managed correctly. Timer controlled operation is vital to ensuring that showers are not left to run unchecked. Ideally look for a shower that enables you to customise the amount of time for which it will run after each push of the button. We recommend CONTI+ showers which come preprogrammed to run for 3 minutes but can be tailored to the requirements of your users.

Timer controlled operation removes completely any risk of users leaving the shower running. You can also educate your users to take shorter showers by reducing the running time depending on your users' habits. For example, we know that people tend to shower for much longer in universities than they do in hotels or gyms.

Trial installations in universities show that reducing the time for which the shower automatically runs can change users' habits and encourage them to take shorter showers.

Typical shower valves are prone to leaking and drips and a lot of water can be wasted this way, but CONTI+ showers have precision electronic control meaning there's no way that the shower can drip, thus further reducing your water bill and maintenance costs. The shower panel is made from AVW plastic which is 100% anti-bacterial so no germs, bugs or bacteria can grow on the surface of the shower panel itself – this makes cleaning the shower easier and reduces the need to use harsh cleaning chemicals.

CHAPTER 12:

LIGHTNING

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CHAPTER 13:

CLEANING

Your aim here is to reduce the amount of harsh chemicals that are needed to keep your washroom clean. We recommend using MB ActiveCleaner for most washroom cleaning. Most of our clients use it for cleaning their waterless urinals but in fact it can be used for virtually all aspects of washroom cleaning.

MB ActiveCleaner has micro-bacterial spores in it which are activated as soon as they come into contact with anything organic, such as the fat, protein and other organic elements found in urine. As soon as the spores are activated they eat all the organic materials that they can find before falling dormant again. They then lie dormant until the next person comes along and uses the urinal.

VERSATILE

MB ActiveCleaner can be used for cleaning any area where you might find organic matter of any kind, so you can use it anywhere in the bathroom or kitchen. Many of our customers use it for cleaning the floor in their washrooms. This means your cleaners only need one product for almost all their cleaning, making life simpler and the cleaning process quicker.

FAR MORE ECONOMICAL

MB ActiveCleaner is supplied as a concentrate, which you then use at a one to twenty dilution when cleaning urinals (one to fifty if you're using it to clean other parts of your washroom). That's just 50 millilitres of cleaning fluid mixed with water in a standard size spray bottle.

One bottle of MB ActiveCleaner used on four urinals being sprayed twice per day will last for approximately four months.

SIMPLE AND QUICK, NO SCRUBBING NEEDED

To keep your waterless urinals clean, all your cleaners need to do is spray the inside of the urinal once or twice a day and they're done. Unlike with other cleaning solutions, there's no requirement to scrub the urinal or wipe it down (unless of course there are solid elements in the urinal that require removal). Indeed, we strongly recommend not scrubbing the urinal as this can damage its surface, leading to small cracks and scratches in which bacteria can potentially flourish, making it more likely that your urinal will smell bad.

NO MORE YELLOW STAINS

if you're used to traditional flushing urinals then you know that yellow stains on the urinal bowl are a fact of life. That's not the case when you clean your waterless urinals with MB ActiveCleaner – the biological agent in MB ActiveCleaner means that you'll never get yellow stains because the spores in the cleaner eat away the organic matter that causes them.

LASTING PROTECTION

If you disinfect something with a traditional disinfectant then the disinfectant will kill everything, bad bacteria and good. However, it does not provide you with any lasting protection so as soon as the urinal is used again, the bad bacteria start multiplying again. The difference with MB Active Cleaner is that, used regularly, it starts to grow a protective biological cover over the area that's been cleaned. This cover helps ensure that the cleaning effect endures in between cleans, keeping your urinals hygienic and odour-free.

REDUCE THE CHANCES OF BLOCKED PIPES

By using MB ActiveCleaner you'll also reduce significantly the chances of your waste pipes becoming blocked with organic matter. With traditional urinals this is a real problem but if you're using MB Active Cleaner then the bacterial agents in the cleaning fluid will be 'eating' all the organic matter than traditionally leads to blocked pipes. MB ActiveCleaner also eliminates limescale, soap and shampoo residue, keeping your washroom clean and cutting your maintenance costs significantly over the longer term.

ELIMINATES THE SOURCE OF ODOURS RATHER THAN SIMPLY MASKING THEM

Traditional urinals and surrounds are generally made of porous materials, which means that organic matter gets into the microscopic gaps in these surfaces, remaining there and causing odours. Traditional cleaning liquids will mask this problem by forming a temporary cover over the organic matter rather than getting rid of it permanently. However, the active organisms of MB Active Cleaner can penetrate into these cracks and scratches to fight contamination on a much deeper level.

SAVE MONEY ON ODOUR-MASKING SUBSTANCES

Cleaned correctly, your waterless urinals should be completely odour-free, so you won't need to spend money on odour-masking substances any more. No more scented oils or room deodourisers. The MB ActiveCleaner keeps your washroom smelling fresh.

If you're using air fresheners to mask odours in your washroom then it's worth spending some time investigating what's causing these odours and addressing this, so that you can eliminate the requirement for chemical air fresheners altogether. We discussed earlier in this book how the Green Drain seal trap can eliminate odour coming from floor drains, and we've also talked already about how URIMAT waterless urinals are guaranteed to be odour-free if cleaned and maintained correctly.



CHAPTER 14:

DRYERS

14.1 Sensor dryers or paper towels?

At Ecoprod one of our main aims is to help washroom environments become more sustainable. All the products we sell help our customers save water and / or save energy. As well as waterless urinals and sensor taps we also offer a range of electric hand dryers. The environmental benefits of waterless urinals and sensor taps are pretty clear cut but the case for electric hand dryers is more complex as there are so many different factors that need to be taken into account. That said, we firmly believe that electric hand dryers are the more environmentally sound choice.

14.1.1 The environmental impact of paper towels

There are two main aspects of the environmental impact of paper towels that need to be considered. Firstly, the impact associated with the manufacturing of the towels and secondly how the towels are disposed of.

Clearly the manufacturing of paper towels has a significant environmental impact. Firstly, trees must be destroyed to provide the raw materials for the towels (although non paper alternatives such as bamboo are now available). Secondly, there's the environmental impact associated with transporting

that wood to factories and the cost of the manufacturing process itself. One could argue that deforestation is not such a high concern as the raw materials for paper towels generally come from commercial sustainable forests. However, the environmental impact of the transportation and manufacturing process definitely can't be ignored.

Another environmental consideration with paper towels is what happens to them after they are used. Although possible in theory, in practice relatively few paper towels are recycled. For the most part, they get sent to landfill where they decompose slowly over time. Contrary to what many people

think, paper towels don't break down quickly or easily. They tend to retain their original structure for a long time. Then, as they begin to break down, they release harmful greenhouse gases such as methane into the atmosphere. One paper towel dispenser, used 200 times per day, will create 1,800 lbs of paper towel waste each year, so across an entire organisation the waste generated this way is very significant.

14.1.2 The environmental impact of electric hand dryers

dryers also have an impact that we shouldn't ignore, however this impact is significantly less than many people think. For example, the Mitsubishi Jet Towel Slim requires only 1,250 watts to dry hands in just 10 seconds, and the Jet Towel mini uses only 890 watts. This compares to 1,400+ watts used by other hand dryers. With the heater turned off the Jet Towel uses only 730 watts, almost 50% less than other dryers on a comparable setting.

We estimate that users of the Mitsubishi Jet Towel can reduce the carbon footprint associated with hand drying by 85%. This is because the CO2 emissions associated with transporting the product are so much less for the hand dryer. Once the hand dryer is installed, that's it. Nothing more is required in terms of transportation, whereas the paper towels represent an ongoing (and everlasting) cost in this regard. We'd expect a typical hand dryer installation to last at least ten years.

Additionally, there's no rubbish associated with electric hand dryers and, as discussed above, the waste disposal implications of paper towels are very significant indeed. Switching to hand dryers reduces massively the amount of rubbish going into landfill and the amount of greenhouse gases associated with hand drying.

14.2 More environmentally friendly paper towels

If you cannot switch to automated hand dryers, you can still reduce the environmental impact of paper towels by ensuring that you use a brand that is FSC (Forest Stewardship Council) certified. FSC certification means that the product's 'chain of custody', from processing to manufacturing to distribution, is intact. Also look for paper towels that are processed chlorine-free (PCF) and that contain at least 80% post-consumer recycled content, as well as those which are fully biodegradable or compostable.

There are also steps you can take in your washroom to reduce wasteful usage of paper towels. Encourage your staff to use fewer towels when drying their hands, perhaps



as part of a wider staff engagement campaign around reducing waste. There are also technical ways of discouraging people from thoughtlessly using multiple sheets of paper. For example, consider paper towel dispensers that can save paper by only dispensing a single sheet at a time or, if using a roll of paper towel, that contain an automated inner mechanism that cuts the paper roll. It's also possible to get paper towel dispenser that operate using touch-free sensors (so improving hygiene).

14.3 Recycling your paper towels

If you're not already recycling paper towels, then speak to your existing waste contractor to determine what their requirements are. They may be able to take used hand towels along with other mixed recyclables such as bottles, cans and so on. However, it's possible they may ask you to separate out paper towels in which case you'll need to put processes in place to ensure that this happens effectively.

CHAPTER 15:

VENTILATION SYSTEMS

Good ventilation is vital in washrooms. Without it bad smells can linger and you'll probably also notice problems with condensation. Excessive condensation leads to mould and bacterial growth, particularly around windows, grout lines and anywhere that your fittings meet the walls. Left unchecked, this will quickly

begin to degrade your washroom's fixtures and fittings, and you'll also begin to notice water stains on your taps and other stainless steel or aluminium fixtures. The key point here is to maximise use of natural ventilation to reduce need for electric air extraction in your washroom, whilst also installing a reliable exhaust fan.

CHAPTER 16:

THE IMPORTANCE OF CORRECT MAINTENANCE

A lot of water and energy is wasted in washrooms because of a lack of correct maintenance. Letting small maintenance tasks slide is a shortcut to substantial water and energy bills. Make sure you have a regular schedule for leak checking. Leaks can be very expensive in terms of water use, and can also lead to significant damage to your buildings if left unchecked.

Keep an eye on your water meter readings and try and monitor your consumption so you know what normal looks like. If you discover that your water consumption is significantly higher than you were expecting, then this could indicate that you have a leak. Taking a reading from your water meter first thing in the morning and last thing at night can quickly tell you if you're using water outside of your normal office hours.

Since April 2017 organisations in England have been able to choose which supplier provides their water and waste water retail services (note, this change doesn't apply in Wales and organisations in Scotland have had this option since 2008). This means that water companies will need to compete to provide better service and improve their offering to customers. We're seeing many water companies begin to offer more services such as water consumption management and other initiatives to help customers make more efficient use of water resources. This means that it could be a good time to shop around, and Ecoprod works with a number of partners who can offer expert consultancy advice on water supply and waste water treatment. If this is of interest contact us to find out more.

CHAPTER 17:**WATER MANAGEMENT SYSTEMS**

If you're responsible for the water management in a gym, school, hospital or other large site then a water management system can save you a lot of time and improve both the hygiene and the water usage of your facilities.

A system such as the CONTI+ CNX water management system enables the

complete management of up to 150 connected products such as urinals, taps or showers. Tasks such as hygienic flushing and thermal disinfection can be controlled through its intuitive user interface using a tablet included in the standard delivery. This tablet can also be used to change settings, call up status information, activate individual and

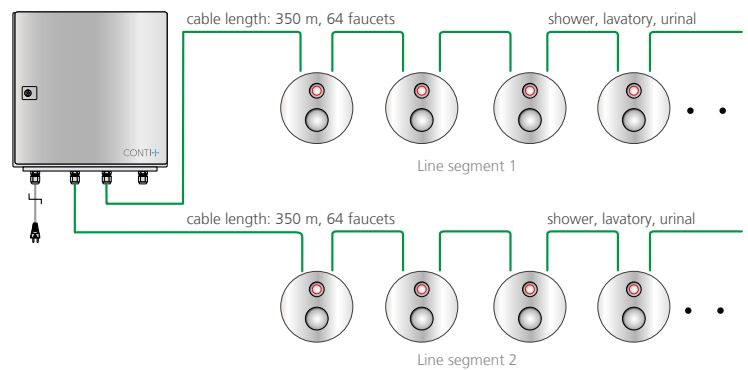
group functions and access recorded data.

In addition to the tablet interface, the CONTI+ Service App provides convenient access to key features of the CNX system via your mobile device. This makes it even easier to make quick adjustments, check system performance, and monitor hygiene status while on the go.

Logging, safety routines and verifiable function checks of all hygienic measures provide reassurance to all users of the

quality management of the water system whilst providing essential proof of safety reports. Reports are saved in PDF format and can be printed and sent easily.

One of the biggest benefits of a system like this is obviously improved hygiene, but centralised flushing also has an environmental role to play, allowing you to control the settings for flush duration, interval and water run-on time for every tap installed on your system, thus ensuring that you're not using any more water than you need to.



CHAPTER 18:

BENCHMARKING YOUR PERFORMANCE

Get an idea of how much typical water consumption should be for an organisation such as yours and use that figure to benchmark your actual water consumption. For example, the WRAP green office guide recommends that a best-practice office building should be using no more than 2,000 litres of water per employee per year (7.9 litres per day), increasing to around 40 litres per day if there is a canteen on site where meals are being cooked from raw ingredients. Organisations such as CIRIA (<https://www.ciria.org/>) provide a range of benchmark figures for different kinds of organisations.

Schemes such as the Planet Mark™ enable organisations to measure their carbon footprint with a view to achieving a meaningful reduction of their operational carbon emissions. On average Planet Mark certified organisations make a 10% carbon saving per employee per year through reductions in energy, waste, water, travel and procurement. Signing up for such a scheme can be a great way to focus your organisation on improving its sustainability. Ecoprod itself is Planet First certified and has reduced its carbon footprint substantially since signing up for the scheme.



eden project

CHAPTER 19:

GREYWATER HARVESTING

Greywater harvesting is an increasingly important part of making washrooms more sustainable. By capturing and treating gently used water from sources like sinks, showers, and dishwashers, greywater systems can supply water for non-potable uses such as toilet flushing or outdoor irrigation. This significantly reduces the demand on mains water, helping organisations to lower their environmental impact and improve their water efficiency without compromising on hygiene or performance.

In a typical greywater recycling system, the water first passes through a coarse filter to remove visible particles like hair and debris. It then enters a treatment tank, where it is aerated to encourage the breakdown of organic material. From there, the water is filtered through a fine membrane before being stored in a clean water tank, ready for reuse. The entire process is automated, and if there's ever a shortage of greywater or the system is undergoing maintenance, it switches seamlessly to mains supply using a WRAS-compliant air gap — ensuring that facilities continue to function normally.

Incorporating greywater harvesting into your washroom design not only supports your organisation's sustainability goals but also delivers long-term cost savings by reducing your reliance on expensive treated mains water. It's a practical, low-intervention way to turn everyday wastewater into a resource — making your washrooms greener, smarter, and more future-ready. Note that greywater has to be considered 'wholesome' and that's currently defined by your local council, so it's important to check with local planning control before installing a greywater system.

CHAPTER 20:

COMBINING ENVIRONMENTALLY FRIENDLINESS WITH STYLE

When people think of environmentally friendly washroom products such as waterless urinals, sensor taps and automatic hand dryers, they may not always think of style as well. It's not unusual to talk to potential customers who are interested in the water and energy savings that Ecoprod's range of products can offer them but are concerned that they want to maintain a high end look, as if the two things are mutually exclusive. In fact, nothing could be further from the truth. Many of our products have won awards for their design and aesthetics as well as for their energy and water saving credentials.

The impression that a washroom makes on visitors to a building can have a huge impact on how they perceive the building as a whole, as well as on their perceptions of the brand. Washrooms can be very high footfall areas that get a high number of visitors and its critical that, at the very minimum, they are clean and well maintained. Taking it to the next level and putting in washrooms that are creatively designed with style

in mind gives the impression that the organisation as a whole operates with attention to detail and quality in mind. As well as style, many organisations are coming to realise that a clear commitment to the environment is an important factor in determining the public's attitude to their organisation. Here again the choices made in the washroom can have a significant impact. The washroom is an obvious place where an organisation can overtly demonstrate its commitment to water and energy saving in a way that is visible to visitors. Many of our clients install waterless urinals, sensor taps and automatic dryers as a publicly visible part of their commitment to reducing their environmental impact. We sometimes talk to people who believe that you have to make a choice between sustainability and style but that's really not the case any more. That's why products such as URIMAT waterless urinals don't just have a functional role to play. We're increasingly installing them into high end environments where the look and feel are just as important as the functionality.

One example is our installation of URIMAT waterless urinals at HotelMK – a Hilton-branded hotel at the MK Dons stadium in Milton Keynes. Sue Dawson, operations director of HotelMK, told us that “the key selling points were the fact that the urinals were eco-friendly and the aesthetics of their design – that’s what sold me”. In locations such as HotelMK there are strict brand guidelines that govern the installation of every aspect of the washrooms, with which the URIMAT urinals had to comply. The result is an installation that, in Sue’s words, is “a very modern-looking facility – we’re very happy with the results – it feels fresh and modern”.

Our miscea sensor taps are often installed in dentists’ surgeries, another kind of public environment where style is as important as functionality. Says dentist Philip Friel, “When you’re building a new clinic you want something that looks very nice from an aesthetic point of view and in that respect the miscea tap is outstanding. The look of it is important but it’s also about the function and the reliability. We use it all the time, day in day out, so it gets heavy use.” Another client, Dr Werner Slabbert of the Sussex Implant Centre, agrees: “The first time I saw it [the miscea tap] in someone else’s practice I was quite impressed with it, with the aesthetic look of it...It is a gold standard tap and that’s what our aim was with this practice – to set up a gold standard practice.”

When one thinks of products such as automatic hand dryers, perhaps aesthetics aren’t necessarily top of mind, but products such as the Mitsubishi Jet Towel are designed with form as well as

function in mind. Mitsubishi developed this product specifically with the needs of interior designers in mind. That’s why the Jet Towel is available in white, black or silver – colours that have been chosen because they go with virtually every colour palette that a washroom designer might choose. The Jet Towel also has a cutting edge, slightly futuristic look which works particularly well in ultra modern buildings or those where style is critical, such as nightclubs and restaurants.

Products such as URIMAT urinals, miscea or CONTI+ taps and Mitsubishi Jet Towel dryers can all be included as part of the same installation to give a consistently modern and stylish look to a new washroom installation whilst also significantly cutting water and energy usage, so making a sizeable contribution to an organisation’s efforts to reduce its environmental impact. For example:-

- One paper towel dispenser used 200 times per day creates 1,800 pounds of paper towel waste each year. In comparison, the Jet Towel keeps restrooms cleaner and lowers the carbon footprint of hand drying by 85%.
- Traditional taps can use up to 10-15 litres of water per minute. In comparison, our CONTI+ taps offer flow rates of as little as 2 litres per minute, up to 70% less than traditional taps and our miscea taps use around 60% less water than traditional taps.
- Installing URIMAT waterless urinals can save an organisation up to 100,000 litres of water per urinal per year.

CHAPTER 21:

EDUCATE USERS

A big part of the success of your green washroom initiative comes down to managing user behavior effectively. Obviously you can design in a great deal of environmental friendliness but when it comes to reducing waste, minimizing water use and so on, it's crucial to try and encourage users to display the correct behaviour. With that in mind here's some advice regarding how to get users on board.

PAY ATTENTION TO WASHROOM DESIGN

As already discussed, a well-designed washroom can have a significant impact on your brand image, but that's not the only benefit. Well-lit, stylish washrooms encourage users to take more care and to exhibit positive behaviour.

CONSIDER INSTALLING PUBLIC EDUCATION MESSAGES IN YOUR WASHROOM

Clear, visually appealing signage can be a good way of letting people know which

behaviours are important, from what not to flush down the toilet to how best to dispose of sanitary towels. You can also use such signs to let users know about the steps you've taken to ensure that your facilities are as environmentally friendly as possible as well as to encourage them to report leaks and other maintenance issues.

At Ecoproduct we offer a number of products with built-in communication channels that are ideal for such education campaigns. Depending on the model, the urinals from URIMAT offer either static, sensor steered backlit advertising displays or high-resolution LCD-screens with animated messages that hit home within your target group.

ENCOURAGE YOUR STAFF TO SAVE WATER

if your washroom facilities are primarily used by staff then consider running a wider environmental awareness or water saving campaign. Generally, an



effective water saving strategy needs a two-pronged approach. The installation of some simple technical solutions can reduce water consumption significantly, but at the same time the most effective water-saving strategies are those that have staff buy in, so there's also an educational job to be done to help people understand the importance of conserving water and persuading them to modify aspects of their behaviour. There are many effective measures that can be introduced which cost little or nothing but lead to substantial financial savings as water and sewage use is reduced.

GET STAFF BUY-IN

Key to getting staff buy-in is creating a workplace culture that encourages and incentivises water saving. Greater awareness of the importance of water saving generally leads to a culture in which employees take pride in monitoring water use. Consider ways in which you can acknowledge those

that contribute the most to the water saving regime. In some organisations resource conservation is considered part of employees' performance reviews. In others, less formal initiatives publicly reward those that lead the way in this area.

ASK YOUR STAFF FOR IDEAS

Typically, your staff will know more about where water can be saved in your organisation than you do. It's often the case that water is being wasted simply because either people don't know what to do, or they're not telling you about problems like dripping taps that could easily be fixed if only you were aware of them. Think about running a staff awareness campaign letting them know how important it is to reduce water consumption and how significant the results can be, both in environmental impact as well as in savings to the bottom line.

CHAPTER 22:

LEAK DETECTION AND PREVENTION

Water damage is one of the most common reasons that businesses have to make insurance claims. Indeed, the AIB estimates that £3.9 million is paid out by insurers every day for claims arising from water leaks. Reliance on old technology, concealed infrastructure and a dependence on manual monitoring and intervention means that too often leaks are not spotted until it is too late, and the damage is done. Clearly there are many possible sources of water leaks in most organisations but the washroom is one of the most common.

Too often organisations don't give much thought to the consequences of water leaks until after they have suffered such a leak by which time of course the damage is done and the cost incurred. It's much better to think about avoiding or mitigating the risks associated with the escape of water before you suffer such an event.

The Quensus intelligent water management system monitors water usage within your building 24/7. It learns about the water usage patterns in your building so it can immediately identify anything unusual and alert you. It knows the difference between a surge in water usage caused by a factory shift starting work, or a weekly deep clean and an unexpected leak.

When it detects an unusual change in

usage patterns it automatically alerts you via a smartphone app, at which point you can decide whether to remotely turn off the water to the affected area. You can also set it up so that it will automatically shut the water off itself if a human isn't available to make the decision.

Of course, not all leaks are catastrophic burst pipes or other sudden, massive increases in usage. In fact, most organisations are wasting massive amounts of water each year through small, incremental leaks. Things like dripping taps, toilet cisterns that don't refill properly, leaking pipes due to poor quality installation of equipment and other smaller leaks. Whilst these kinds of leaks may not cause the type of sudden and catastrophic damage that a burst pipe can cause, the cost of them certainly adds up and the damage can still be significant and expensive to put right, all the more so because they can take so much longer to spot.

The Quensus intelligent water management system is also able to use machine learning to identify these kinds of smaller leaks. It's because of this that most of our customers notice roughly a 20% drop in their water bills fairly quickly after installation, even if they never experience a catastrophic leak. Businesses are losing water all the time through smaller leaks that they don't know about.



To find out more about how Ecoprod can help you make your washroom greener

Visit our website
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Give us a call
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