

## **SWIG Awards Product / Non Domestic Category**

### **The Free Flow Valve from Envirowater**

The Free Flow Valve from Envirowater is a revolutionary, low tech, low cost retrofit conversion solution to water saving in standard male urinals. It saves 100% of the clean drinking water used to flush conventional urinals. It is easy to fit and requires no maintenance. It needs no chemicals; unlike it's competitors and is easy to clean using only mild soapy water.

As there is no water used there can be no flooding and most important is there is no smell normally associated with male washrooms.

Male urine is sterile when it leaves the body so the product is designed to move the urine to the stack as quickly as possible in order to prevent the urine coming into contact with any other substance. The valve has a non- return function, which means that the urine and the smell are locked outside the washroom.

The product was launched in March 2015 after extensive tests at Keele University Innovation Centre 1 and the Sustainability Hub at Keele under the supervision of the Bathroom Manufacturers Association since the end of 2013 and the product has a Waterwise checkmark. (Testimonials and case studies attached)

The main additional benefit concerns the use of harsh chemicals traditionally needed to clean male urinals, which are no longer required and pipes at Keele have remained clear of blockages.

The use of toilet blocks and fragrance products are no longer required – there is no smell!

Finally the cleaning staff are not being asked to use harsh chemicals to clean the urinals, as only mild soapy water is required.

There is no water so there can be no floods

A normal urinal should flush at least every 10 minutes in order to overpower the urine using on average 2 litres of water per flush.

Each urinal therefore uses approximately 100,000 litres of water per annum,

There are 3.6 million water fed urinals in the UK, which if converted to water free would save 360 billion litres of water every year!

Many companies, often with the advice of the water companies, reduce the water consumption by using water reduction devices or simply turn the flow of water down in order to reduce flushing.

This is disastrous advice in that reduced flushing causes static urine to solidify in the u-bend and pipes causing “hedgehogs” to form which block the pipes, are a breeding ground for bacteria and cause flooding. Often the water saving is more than offset by the need to rod and jet wash the pipes on a regular basis.

In summary converting to the Free Flow Valve:

Reduces to zero the amount of water used to flush the urinal

Reduces to zero the blockages caused by “hedgehogs” and lime-scale crystallisation and the ensuing bacteria build up

Reduces to zero the smell normally associated with male washrooms

Reduces to zero the need for regular maintenance of the product

Reduces to zero the need for plumbers to unblock male toilets

The Free Flow Valve is priced at just £49.95 and after six months usage the internal cartridge needs replacing at a cost of £39.95. In addition there is the cost of fitting which is approximately £25 plus any extra fittings to adapt to existing individual systems, which are minimal. So in year one the costs are £115 and the savings are between £300 and £600 dependant on location within the UK. Thereafter the costs are £80 per annum with no additional costs in terms of maintenance and chemicals.

The fitting and cleaning instructions are easy and simple and are attached. The product is manufactured under ISO 9000 quality system and has a patent pending and there are no issues in respect of buildings regulations as the valve simply replaces the u-bend.