

Press release

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Yorkshire invention could save billions of litres of water a year

An innovative water-saving device, which can halve the amount of water used in toilet flushing, is set to be launched on the mass market after its inventor received investment and support from CO2Sense Yorkshire.

Yorkshire inventor David Wilks, who has appeared on TV's Dragon's Den, has been awarded £25,000 by CO2Sense Yorkshire, a business support and market development programme funded by Yorkshire Forward and the European Regional Development Fund.

The investment will help David to manufacture and develop his innovative Saver-Siphon device for distribution via a major DIY retailer.

The device has the potential to save billions of litres of clean water from being wasted. Toilets fitted with the Saver-Siphon only flush when the handle is held down – cutting water consumption by about half. For houses with water meters, the Saver-Siphon, which will retail for about £20, has the potential to cut household water bills by about 20% and save people about £67 a year.

David, a former science teacher from Mirfield, West Yorkshire, said: "Water is the most precious resource we have and water companies are the largest single users of energy. Toilet flushing accounts for more than one third of a household's water use¹, so there is clearly massive potential to deliver major environmental benefits if we can find a way to reduce the amount of water we use when we flush."

He added: "With this investment from CO2Sense I hope to realise the true potential of the Saver-Siphon. No other system can flush a toilet with less water².

David's device can be easily installed to a wide range of toilets, preventing the wasteful emptying of the full toilet cistern every time the user flushes.

The investment provided by CO2Sense means the Saver-Siphon will now have the potential to become an integral part of all new siphon-based toilet systems or to easily replace broken siphons in existing toilets.

CO2Sense project manager Steve Ogden said: “The Saver-Siphon has the potential to have the biggest impact on domestic water saving of any new piece of technology in 150 years.

“CO2Sense has invested in David's company, Varyflush, to help it take the device to the mass market. A major retailer is already interested in selling it and our investment has been matched by a manufacturer based in West Yorkshire, Zeta Plastic Components, who have taken an equity stake in the business. Zeta will make the new full siphon, which can be used on a much wider range of toilets including new ones. Funding from CO2Sense will pay for design and testing, developing the manufacturing and distribution processes.”

Varyflush is aiming to sell 175,000 of the new-design Saver-Siphon devices in the next three years. This would save 4.5 billion litres (4.5million tonnes) of water – enough to fill 18,000 Olympic-sized swimming pools. This reduction in water use will save 4,360 tonnes of CO₂; helping Yorkshire and Humber to reach its ambitious target of reducing carbon emissions by 25% by 2016.³

David hopes to have the new Saver-Siphon device on sale in shops during spring 2010.

ENDS

Notes to editors

1. The average person uses 150 litres of water each day. Of this 60 litres is used flushing the toilet. The flushing toilet is by far the biggest single user of water.
2. Toilets developed in the last 150 years tend to work by pressing (or pulling) and letting go. This releases the full cistern, and all the water in it, every time we flush. The Saver-Siphon (and its predecessor the Interflush device) works by only flushing when the handle is held down. To date a 'retrofit' device – called Interflush – has only been available for front handle toilets. Fitting the device also requires some level of DIY skill. However, the new 'full siphon'

device can be easily installed in either new toilets or to replace a toilet's existing cistern. It can be used on toilets with front, side or chain pull handles – massively increasing the market potential of the product.

3. Ofwat estimates the carbon footprint of water to be 0.969 kg of CO₂ per tonne of water used (UK Sustainability Report 2008/09). Sales of 175,000 units of the Saver-Siphon device would save 4.5million tonnes of water. 4.5million tonnes of water is equal to 4,300 tonnes of CO₂ emissions (4,500,000 x 0.969 / 1000).

CO2Sense Yorkshire

- CO2Sense Yorkshire is a not-for-profit business development programme, which helps businesses in Yorkshire and Humber to succeed in the low-carbon economy
- It is a fully-owned subsidiary of the Regional Development Agency, Yorkshire Forward
- It is funded by Yorkshire Forward and European Regional Development Fund (ERDF)
- It has four programmes:
 - Resource Efficiency, which helps businesses to use fewer resources and helps businesses in the environmental sector to grow
 - Carbon Reduction, which helps the region's largest businesses to adapt their business plans to a changing environment and to prosper in the low-carbon environment
 - Renewable Energy, which helps businesses to find sources of low-carbon energy and helps generators of low-carbon energy to sell their energy
 - Carbon Capture and Storage, which encourages industry and investors to develop CCS infrastructure in the region

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