



waterwise

UK Water Efficiency Product Awards

Winner

Category: Bathroom

Propelair 1.5 litre flush toilet

Key Features: A reinvention of the flush toilet, it uses on 1.5 litres per flush, is more energy efficient and is more hygienic than traditional toilets.

Despite the vital role it plays in effective sanitation, the toilet has not fundamentally changed since the late 1800s. With UK toilets averaging 9 litres per flush and accounting for up to 90% of commercial water use in buildings, it's easy to see why traditional toilet systems have become inefficient for modern use.

Propelair has developed and patented a new type of water saving toilet system called Propelair®. It uses an innovative air-based operating principle and only 1.5 litres of water per flush, which allows it to comply with existing building regulations. In addition to significant water savings which provide a fast payback for customers, the Propelair



toilet is more hygienic than conventional toilets as it reduces the creation of aerosolised contaminants by 95%. It has a quick refill which reduces queuing time; it has an excellent performance using a powerful and consistent single air flush; it incorporates an easy-off side hinge system to aid lid removal and cleaning which is much more robust than traditional hinges; and it produces less sewage so less treatment is required, which reduces carbon emissions, and there is less emptying of holding tanks, which saves money.

The average flush volume of toilets in use in the UK is 9.0 litres. This is 7.5 litres more than the Propelair toilet. The Propelair 1.5 flush toilet is ideal for commercial businesses with heavy use of their toilets. Propelair not only has a powerful and effective flush but quickly refills in just 20-30 seconds compared to conventional systems which can take up to 2-3 minutes. An efficient flush saves time and reduces queues, especially during periods of high usage.

The propelair system can be installed in new developments and refurbishments as well as retrofitted and can even be used in portable systems. Properlair currently have over 100 customers including public and private organisations such as Anglian Water, Coca Cola Enterprises, Ecotricity, London School of Economics, Victoria & Albert Museum and the Princess Alexandra Hospital NHS Trust. Collectively the Propelair units installed at the Princess Alexandra Hospital are expected to pay for themselves in just 1.9 years via the water savings and associated reduction in bills. Propelair help to maintain the highest standards of hygiene for staff, patients and visitors at the hospital.

Currently, propelair toilets are saving 1.8 million litres of water and 1,850 kgs of CO₂ each week, and this will continue to grow as more businesses install the 1.5 litre flush toilets.

The propelair system shows that with technological innovation massive water savings can be made in everyday products. The additional energy savings also help stress the underlying relationship between water consumption and energy usage.



The Waterwise UK Water Efficiency Product Awards celebrate products and technology that contribute to water efficiency, which benefits the economy, society and environment.