

GREEN TECH THE SERIES COLUMN FOR DECEMBER 2, 2015
HEADLINE: WHAT IS A BIDET TOILET SEAT?

I must admit I never thought I would be promoting a toilet seat that cleanses “thine derriere,” but it seems that this type of bathroom convenience has arrived with many merits, none of which is more important than the accompanying environmental benefits.

The prime mover in this technology is “TOTO,” one of the world’s leading manufacturers of toilets and bathroom fixtures. They call their bidet toilet seat the “Washlet.” A Washlet combines the functions of a bidet within a conventional toilet, actually within the toilet seat. To coin one of their marketing phrases, “Washlet use pure clean water, a myriad of technological innovation, to make their users cleaner, happier, more refreshed than they have ever felt after a bathroom break by reinventing the humble toilet seat as a warm water personal cleansing system.”

These replacement toilet seats start with a contoured heated seat that can be set at a desired setting between 86 and 104F. Under the seat, set at the back of the seat base, the lower section is a nozzle that extends out and with a touch of the controls, either remote or attached to the side of the seat; a soothing warm water cleansing begins. This water is the same temperature that you have set the seat temperature at thereby not giving you a surprise temperature when the water is activated. You can set this nozzle to pulsate or oscillate during the cleansing mode, the nozzle moves in and out of the housing attached to the seat. Once you have finished with the cleansing, a hands free drying mode takes over and permits the comfort of temperature adjusted warm air drying. Once you are finished, the nozzle completes a self-cleaning function, cleaning and sanitizing the entire nozzle before and after each use. All of these Washlet toilet seats come with the soft close lid. The heated seat has an energy saving mode that reduces the heat to a minimum once you get up off the toilet.

I have been aware of this toilet accessory for some time and am aware of the growing pains Toto has gone through to get where they are today. They actually introduced the Washlet in Japan in 1983 and began international sales in the US three years later. Only in the past few years have they really got this bidet style seat to the point where it is really effective. In 1999, they introduced what they call “Wonder-Wave” technology where the water is turned into tiny shaped waveforms that work very effectively in cleansing. It took until 2011 to electrolyze

the tap water, giving it a slightly acidic value that helps keep the bowl clean and sanitized. This process is environmentally responsible and, within two hours, it resumes its normal PH and reverts to its tap water state. This eliminates toilet bowl cleaning chemicals. In 2013, they integrated a UV light and photocatalysis glaze to break down invisible waste, after which it is rinsed with the electrolyzed water to clean the bowl. This was one of the biggest drawbacks with the earlier models, keeping the bowl clean.

The Washlet toilet seat has seen amazing acceptance outside of North America. 77% of Japanese homes have a bidet style toilet seat. From initial sales that rose to one million by the end of 1987, this year Toto expects to sell over 40 million of these worldwide. As with any good idea, numerous other companies now manufacture this type of toilet accessory. One of Toto's major competitors is Bio Bidet. They advertise a model that not only has similar functions, they offer a USPA 6800 model that has a feminine dual nozzle at the front of the seat, an intensive impulse pulsation function to help with constipation, automatic deodorizer and a kids mode. Today Toto and Kohler are the biggest players of these toilet seats in North America.

Of course, the biggest question is the price and they are not cheap. The USAP 6800 can be bought on-line for \$549.99 CDN. The Toto folks have a full line of Washlet models that start above this price and that quickly rise to over the \$1000.00 mark.

So how do you justify spending this kind of money on a toilet seat? While there are no Canadian figures available, prorated to our population size, the US figures are staggering. They use over 3.2 million tons of toilet paper annually. This represents cutting down over 54 million trees to produce this amount of toilet paper. An average roll of toilet paper requires 1.5 lbs of wood, 13.5 L of water and 1.3 KW of electricity to produce, never mind the chemicals like chlorine that are needed in the manufacturing process. On the other side is the cost of operation of the toilet seats and, based upon a family of four, an average annual electrical cost ranges from \$30 to \$70.00 a year and, again with the same size family, daily usage consumes about 10 litres of water a day.

One area where I can see the popularity of these units is in a home with a senior member or someone with arthritis or back issues that makes the use of toilet paper difficult. So why are they not popular in North America and here at home, in particular? Kohler found in their studies that we prefer the "shield" of toilet paper and that the early models were not efficient, though this has changed

dramatically. I think the time has come to rethink these bidet toilet seats, especially when the wastefulness of manufacturing toilet paper is factored in.

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