



Illustration by Carl Bender

HOW LOW CAN YOU FLOW?

From low-flow fixtures to bionic bathrooms, experts in the lavatory trade discuss what's new, what's sustainable, and why your next toilet could have a remote control.

"No one really wants to talk about toilets, but they are important—we use them all the time," says Peter Wirz, the managing partner of Process Design, a collaborator of Swiss bathroom manufacturer Laufen. Over the past decade, potty talk has become an integral part of realizing a sustainable home. With nearly 30 percent of a household's indoor water consumption being used in the loo, people are thinking twice about what goes down the drain.

Consumers don't just want something labeled green, they "want to be more informed about where the products they use come from, how they are made, what the carbon footprint is during production, and eventual daily use," says Paul Flowers, senior vice president of design at Grohe. A typical low-flow toilet model features a dual flush, which uses only 0.8 gallons of water for liquid waste and 1.6 gallons for solid. And manufacturers have redesigned their water propulsion systems to make sure waste goes down and stays down, something that tended to be a problem with earlier low-flow models.

The newest toilets take on a different environmental issue: toilet-paper consumption. Wirz and others are touting the shower-toilet, a combination bidet and toilet already popular in Japan, as the newest in luxury hygiene. In 2011, Duravit unveiled a model designed by Philippe Starck that not only cleans and

dries via wireless remote control, but also features a heated seat.

The other bathroom heavyweights, shower and tub, are not to be ignored: On average, showers and baths consume about 18 percent of the water used indoors. As with toilets, consumers want the product to work perfectly: Ice-cold water or weak pressure can wreak havoc on a morning routine.

In 2004, the big breakthrough in low-flow showers was Hansgrohe's use of aeration, which allowed manufacturers to reduce water flow from 5.5 to 2.5 gallons per minute (gpm). Recently, manufacturers like Kohler have produced a variety of models that use as little as 1.75 and 2.0 gpm. Grohe has integrated digital technology: Users can press a button on the showerhead to cut water flow by 40 percent while soaping up or shaving.

As the low-flow industry progresses, presets for temperature and flow will eliminate waste while users try to arrive at perfect temperatures. Flowers predicts that by 2020, bathrooms will be fully digitized for maximum comfort and efficiency.

Although we are still a few years away from robo-bathrooms, installing an aerated showerhead saves more than 10,000 gallons of water per year—keeping the pressure in your water and not on your wallet. ■■■