

hansgrohe

A RESOURCE FOR KITCHEN AND BATH TRENDS

Trends Report

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“You can save water without sacrificing comfort, but you must do something to the water flow beyond simply using a flow-restricting device.”

How Green Grows My Home

What is Hansgrohe doing to help America go “green”?

Nicolas Grohe (NG): We are a company whose roots are in Germany and whose products are made mainly in Atlanta, Georgia, and in Germany. The company’s headquarters has a very advanced R&D department that is continually developing new spray technologies. With this, we are assuring ourselves the worldwide leadership in shower and faucet spray technology, and of course, these innovative technologies make lower flow rates possible.

Can the new low-flow showerheads and faucets save water without sacrificing comfort?

NG: To respond to this need, we introduced a revolutionary technology called **AIR**, which draws air into the product and mixes it with the water in a three-to-one ratio. The result is a thicker spray that feels much more comfortable on the skin than a conventional spray.



Until 2007, this technology was used simply to improve the performance of the spray and therefore the shower experience at the federally mandated flow rate of 2.5 gallons per minute [GPM]. But over the past two years, Hansgrohe has used it to reduce the flow rates of showerheads, allowing us to offer products with flow rates as low as 1.6 GPM. However, because the flow is air-enriched, the showerhead delivers the same comfort as a normal 2.5 GPM showerhead.



AIR technology mixes air with the water in a three-to-one ratio inside the showerhead, resulting in a thicker and more comfortable spray than a conventional shower.

Based on this same AIR technology, we are reducing the flow rate of all our faucets from 2.2 GPM to 1.5 GPM. In 2009, some of our showers, as well as, all our faucets will exceed the WaterSense guidelines, established by the U.S. Environmental Protection Agency.

So my answer to your question is: Yes, you can save water without sacrificing comfort and pleasure. But to achieve that happy balance, you must do something to the water flow beyond simply using a flow-restricting device.



Less water usage need not mean less comfort, as this multiple spray-mode handshower demonstrates.

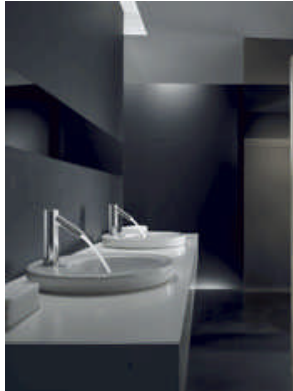
How do electronic faucets save water?

NG: In two ways — one more easily measured than the other. **Electronic faucets** are equipped with low-flow aerators that substantially cut the number of gallons per minute flowing through them — on the order of 30%.

Not so quantifiable is the amount of water saved thanks to the automatic-shutoff mechanism. An electronic faucet will shut down after a preset amount

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of time. You put your hands in front of the sensor and the flow begins, getting your hands wet. When you move to soap up your hands, moving them away from the faucet sensor, the flow stops. When you return your hands to the front of the faucet, the flow resumes. Since the time the faucet continues to run after the hands are pulled away from sensor can be programmed to the user's need, it is difficult to calculate an exact savings percentage, but the savings are very real.



Electronic faucets deliver both water efficiency and stylish design.

As the electronic market is growing, Hansgrohe has worked to develop more stylish faucet designs that offer a better decorative fit with modern residential bathrooms, from master baths to powder rooms. Consumers should expect this category to expand with a greater variety of styles and finishes.

Will electronics move into the kitchen?

NG: This might happen, too, but it's important to recognize that we use a kitchen faucet differently than its bathroom counterpart. To activate an electronic faucet, you must stand in front of its sensor. But is a busy cook — professional or amateur — willing to stand in front of the sink, hands outstretched in front of the electronic sensor, to fill a pasta pot? Wouldn't he or she prefer to be elsewhere in the kitchen, making other preparations, while the faucet fills the pot unattended? You can't do that with conventional electronic sensor technology, so it probably doesn't make total sense in the kitchen.

“By definition, an electronic faucet should be touchless. So the technology to date is not yet fully responding to consumer needs in the kitchen.”

New “touch” technologies are therefore under development: You simply touch the faucet, and it will switch it on automatically. Touching the faucet, however, defeats the basic rationale for electronics. By definition, an electronic faucet should be touchless. So the technology to date is not yet fully responding to consumer needs.



Is a busy cook willing to stand before a sink, hands outstretched in front of an electronic sensor, to fill a pot?

Are thermostatic shower valves “green”?

NG: **Thermostatic** technology maintains a consistent water-temperature output from one shower to the next. What makes the thermostatic valve green is the way it mixes water when you turn it on and the water it saves as a result.

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Imagine yourself going in the shower in the morning using a thermostatic valve. When you open the volume control, the brain of the thermostatic valve will automatically shut off the cold-water line until the hot water reaches the valve. Only then it will open the cold-water line enough to keep the water at the temperature you have preset. Within seconds, the wished-for water temperature is reached.

In contrast, a pressure balance valve opens the cold and hot water supply lines as soon as you turn it on. Because the cold water line is opened sooner, the shower reaches the wished-for temperature more slowly and therefore wastes much more water until you can step into the shower.

Can this same thermostatic technology be applied to a faucet on the bathtub?

NG: Hansgrohe already offers several bathtub faucets with a thermostatic valve. With it, you can set your bathtub water temperature just as you would your shower temperature — no more constantly adjusting the temperature while the water is running. Also like a thermostatic shower valve, this product will compensate for pressure fluctuations in the system. So, if one child flushes a toilet while another is taking a bath, you don't have to worry about the tub water suddenly becoming too hot.



Thermostatic valve: Finished trim (right) and behind-the-wall components.

How will the reductions of the lead content of faucets impact the health of the consumers buying bath products?



NG: The impact on American health of moving to low-lead faucets will be close to zero. Frankly, the infrastructure of our waterways, which contains an enormous quantity of pure-lead piping, represents a greater threat to our health than the very small fraction of lead currently included in faucets. And don't think that going lead-free will reduce our carbon footprint: Founding, stamping, machining and drilling low-lead brass will generate more waste and requires significantly more energy.

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This, however, will impact the price of faucets. Will the no-lead premium make the

American consumer reluctant to switch to newer, lower-flow products? The latter does not involve significant additional cost from a manufacturing standpoint, but low-lead has a direct cost impact, which will slow down the switch to green products in American homes. In other words, my concern is that this whole low-lead push will result in a lose-lose-lose situation for consumers, manufacturers and the environment. Of course, Hansgrohe will offer all the required faucets.

Hansgrohe has successfully marketed a graywater-recycling system in Europe. Would such a product be a good idea for North America?

NG: I certainly believe so. Our product, the Pontos AquaCycle® Graywater System, employs an organic technique to clean water from the bath, shower or lavatory for reuse to flush toilets or water gardens. With systems that can reprocess up to 3,300 gallons of water per day, the line has been used in Europe since the mid-1990s in both residential and commercial applications.

In short, the technology exists, has functioned reliably for many years and clearly saves water — and lots of it. Unfortunately, national and local U.S. plumbing codes have made it difficult to secure approval for the Pontos AquaCycle in this country.

But I don't want to dwell on that negative. Rather, I would stress the tremendous opportunity we have, as Americans, to save water. We are currently flushing 30% to 50% of our household water through our toilets, and it is perfectly potable — drinkable — water. That's a shame because we never even touch it. Likewise, there is no need to use perfectly drinkable water to irrigate our grass, flowers and vegetable patches.

AquaCycle would allow us to save up to half of the water consumed in every American home, hotel and public building. The beauty of it is, there's no sacrifice in comfort and convenience. You still use the same amount of water. But by using a certain portion of it a second time to flush the toilets and water the garden, we can reduce consumption of fresh potable water by a substantial amount.

“Hansgrohe is continually working to reduce our water and energy consumption, as well as to cut the waste and noise emission in the manufacturing process.”

Products made in Asia typically carry lower price points. How is that competition affecting the switch to green products in North America?

NG: Price isn't the only factor a consumer, a designer, a contractor or a specifier should consider: What about the carbon footprint of the company that makes a product? China, for example, has little or no environmental norms or regulations. To produce a given product, a manufacturer there will likely generate many times more energy, emissions, waste, noise and so forth than its counterpart in the United States or Europe. There is also a significant environmental impact in transporting a product from China to our shores.

Our company has been involved in sustainable manufacturing processes for years. Just one example, the rooftop of our largest factory, built in the early 1990s, is equipped with solar panels. The panels generate electricity that is used to manufacture our products.

Hansgrohe is continually working to reduce our water and energy consumption, as well as to cut the waste and noise emission in the manufacturing process. These efforts allow us to



manufacture greener products, enabling us to reduce production costs and become more competitive against products from Asia — despite the fact that our labor costs are considerably higher. By controlling our costs, we keep our prices in line with that of Asian products and, in the process, maintain jobs in North America and Europe.



Since 1993, Hansgrohe has generated solar energy on the roof of its Offenburg, Germany, factory.

In other words, when designers, architects, contractors and consumers decide to “buy local,” not only are they supporting the domestic industry, helping keep our jobs here, but they are also giving their children and grandchildren a chance to enjoy living in a cleaner and better world.

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[Back to top](#)