

that it's difficult to determine such estimates, because too many variables (how often you operate the spa, the duration that you operate it, and jet settings) influence how much energy that a spa consumes.

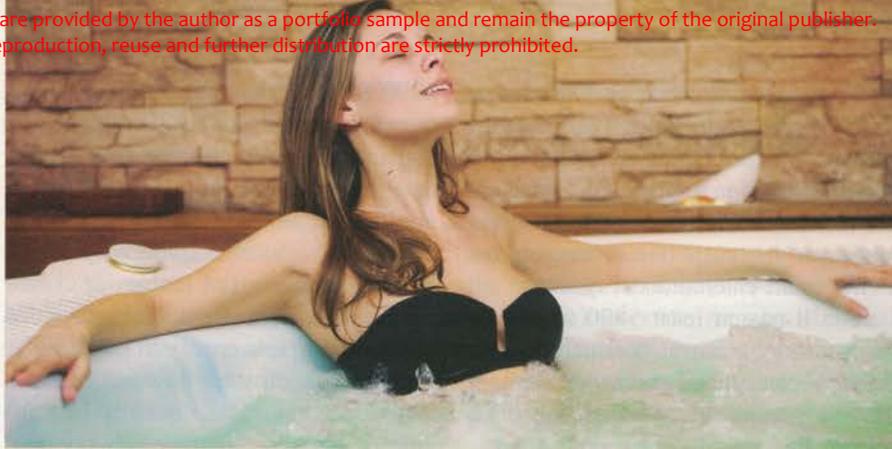
Gary Fernstrom, who is an independent energy-efficiency engineering consultant who helps California Energy Commission to establish efficiency standards for spas, says some of the new motors that are sold to spa manufacturers are 12 percent to 15 percent more efficient than previous motors were, but he believes the motors likely will reduce a spa's overall energy use only by a tiny percentage.

Meanwhile, the number of models that plug into a 120-volt, or standard, outlet has increased by 39 percent over the past 4 years. Models that plug into a 120-volt outlet draw half as much energy as do conventional models that require a 240-volt outlet. However, models that plug into a 120-volt outlet have fewer motors and smaller motors than do models that plug into a 240-volt outlet, which means that they have about half as many hydrotherapy jets. In addition, models that plug into a 120-volt outlet can't run heaters and jets simultaneously, as models that plug into 240-volt outlets can.

Nonetheless, 120-volt spas deliver additional savings for consumers beyond their lower power consumption. The least expensive model that plugs into a 120-volt outlet that we found starts at \$2,199. The least expensive model of similar size and capacity that requires a 240-volt outlet costs \$3,295, or a difference of \$1,096. Furthermore, you have to pay an electrician to add a 240-volt electrical outlet, which typically costs about \$700. We believe that you might want to let that cost difference soak in for a while before you make a decision. ●

Drew Vass is a regular contributor to Consumers Digest. He has written about a wide range of home-improvement topics, including home-heating systems, power tools, and bathroom and kitchen remodeling.

Go to ConsumersDigest.com to learn the difference between a spa motor's brake horsepower and its conventional horsepower.



MicroSilk: Smoother Skin or Snake Oil?

In the past 3 years, three manufacturers incorporated technology into their portable spas that they claim stretches the limits of hydrotherapy, but four dermatologists say manufacturers stretch the truth about the supposed benefits.

In 2012, Artesian Spas was the first manufacturer to incorporate a technology that's called MicroSilk into their spas as an option. MicroSilk requires the manufacturer to incorporate a separate piece of hardware that injects air into the water. Marketing materials by Artesian Spas claims that MicroSilk adds billions of oxygen-rich microbubbles to a spa's water, "giving your skin a luxuriously silky feeling" that's designed to "moisturize and cleanse at the same time." MicroSilk is capable of "lift[ing] away any impurities found in the skin, while plumping, hydrating and reducing fine lines and wrinkles," the company says.

Cal Spas and Marquis Spas added MicroSilk to some of their spas in 2013, and they make similar claims about the technology. Marquis Spas was the only manufacturer to disclose the MSRP to add MicroSilk to a spa—\$2,000.

However, before you write a fat check for the promise of skin that's smoother and healthier, you should know that it's highly unlikely that MicroSilk delivers on the manufacturers' claims, dermatologists tell us. Additional claims that the technology's original developer posts on its website also are questionable, they say. These include claims that MicroSilk energizes skin cells, stimulates the immune system, stimulates collagen production, kills bacteria and promotes healing, and provides better circulation, cellular respiration and skin-cell regeneration.

Jessica Krant, who is a member of American Academy of Dermatology and is an assistant clinical professor of dermatology at SUNY Downstate Medical Center, says no evidence exists to indicate that MicroSilk even generates oxygen-rich bubbles. "These bubbles are just smaller, which may make them feel interesting but does not provide them [with] any magical benefits," Krant says.

Likewise, Thomas E. Rohrer, who is a dermatologic surgeon and an expert in cosmetic and surgical dermatology, says no evidence exists to support the claims that are made by spa manufacturers who incorporate MicroSilk or by the company that developed MicroSilk, Jason International. Krant and Rohrer agree that soaking in warm water can produce the "plumper skin" that's touted by the spa manufacturers that offer the technology, but such changes most likely are temporary and aren't related to MicroSilk technology.

When we asked Balboa Water Group, which manufactures the MicroSilk hardware that spa manufacturers add to their products, for independent clinical evidence that supports the claims about MicroSilk, the company couldn't deliver.

Jason International also failed to provide evidence that supports spa manufacturers' claims. The only independent test results that the company provided show that MicroSilk might help to increase and distribute more evenly body temperature, but the test results didn't address other health- or skin-related claims.

"I think this is all very sophisticated marketing, and possibly a fun gimmick with extra tiny bubbles that feel different," Krant says. "But it doesn't have any science behind it, so spas and consumers can both proceed with a heavy grain of bath salt."