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Try a tankless water heater on for size

Tankless systems are hot in more ways than the water

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For *The Tennessean*

Jason Higgins, a music industry executive, is way ahead of his time as a homeowner.

In 1997, while serving in the Air Force in San Antonio, Texas, Higgins was doing some Internet research about water heaters for the new house he and wife Tammy were building. He came across a tankless water heater, which heats water on demand by using a large burner. Traditional tanks heat and store water, which involves a constant cycle of heating to maintain the temperature.

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"Being in the Air Force, we always had a lot of people visiting, and with trying to wash dishes, washing clothes and a lot of people taking showers, we ran out of (hot) water fast," says Higgins, co-owner of Powersource Music, part of the Higgins Music Group.

So a tankless heater seemed like the perfect answer to Higgins' hot water woes, except that he couldn't find a plumber who had the experience to install the technology.

Fast forward to 2006. The Higginses and their two sons now live in Goodlettsville in a new 4,000-square-foot home, and their water is always hot

when they turn on the faucet.

"I love it. We can turn water on now, fill up the Jacuzzi tub in the master, and my son can take a bath upstairs at the same time."

Tankless on the rise

Higgins is one of a small but growing number of Nashville homeowners going tankless for their hot water needs.

Because they don't use a storage tank to hold water that gets consistently heated, tankless water heaters are small, about two feet by three feet by one foot, and they can be mounted on the wall. Saving space is just one of the benefits; saving energy is another reason they're gaining popularity in Nashville and around the country.

"I won't build a house without one," says Chris Parker of Parker Custom Homes. "Number one is the energy efficiency. Number two, is as long as you design the systems properly, and sit down with the client and figure out what their water needs are . . . You never run out of hot water."

Tankless systems, which use either natural gas or propane to heat water, generally cost two-to-three times as much as a traditional tank heater. Electric models are available but require extensive modification to electrical systems and are more expensive than gas-fired systems to operate. A gas-powered system from the two most popular U.S. brands, Rinnai and **Noritz**, typically costs just under \$1,000. By comparison, a traditional 40-gallon tank heater by Whirlpool retails for \$399.

Planning is the key

While the higher front-end cost of a tankless system is an important consideration factor, the system's location is critical for efficient operation.

"Its exhaust and intake needs are very specific, unlike an electric water heater, which you can put anywhere," says John Petrucelli, production manager for Crane Builders. Crane's business is about 90 percent remodeling, and Petrucelli says given the rigid specifications for venting, installing such a system in an existing home is not always possible or logical.

While the company has yet to install a tankless system for a client, Petrucelli recently installed one in his own home during a major renovation.

"I had an appropriate installation scenario," Petrucelli says of his home, which includes two baths and a laundry room upstairs not in regular use. "And since I don't use it often, I have all the hot water I need when I need it, but I'm not paying for holding water if I don't need it."

In addition, detailed front-end planning and using a plumber with experience in installing the brand of system to be used is critical. "Plan, plan, plan," says Petrucelli says. "If you plan for it, it works great."

Savings down the drain?

Just how energy efficient is a tankless heater? That's not easy to answer, says Jim Lutz, professional engineer and researcher at Lawrence Berkeley National Laboratory in

Berkley, Calif. Lutz specializes in residential appliances, specifically water heaters and furnaces.

"I'm not sure they are as good as the hype," says Lutz, who says that while the tankless systems certainly use less energy to heat water, there are some tangible trade-offs to consider. They require electricity, which cuts into any energy savings; and the instant gratification of endless hot water may result in the homeowners taking more or longer showers.

"You could imagine the case where they end up using more energy, as opposed to running out of water with the tank type," he says.

Lutz says he hasn't seen any field studies on the technology that would prove or disprove manufacturer claims of up to 40 percent savings on natural gas bills. But all things being equal, he says, tankless systems will save money.

"You will save," he says, because you don't pay to heat water when you're not using it. "So they are more efficient."

Builder Richard Cammeron of Parker Custom Homes plans to pull out the two conventional tank heaters in his 2-year-old Brentwood home and replace them with a tankless system. The convenience of instant hot water and Parker's high praises of tankless influenced his decision to make the swap.

"Plus, I get clients who ask, 'Why didn't you put it in your home?' " says Cammeron, who wants to be able to talk about his experiences when encouraging clients to upgrade.

Homeowners who install a tankless system can recoup some of the higher cost with a one-time \$300 tax credit for systems installed in homes by Dec. 31, 2007. The tax credit also is available for energy-efficient new windows, insulation, doors and roofs. For details, see www.energy.gov/taxbreaks.htm).

Only a few percent of American homes are using tankless water heaters, but that number is growing, says Lutz.

"They'll cut into the market quite a bit, but I don't know that they'll ever completely replace a tank type."