

ARE TANKLESS WATER HEATERS A WISE CHOICE?

While variations of the tankless water heater have existed for more than 100 years, they've become much more readily available over the past couple of decades. Water heating is the second largest energy cost in most households, making the tankless version's reputation for efficiency appealing to many consumers. But is a tankless water heater the best choice for your home?

Like traditional storage tank-style water heaters, tankless versions can be powered by electricity or natural gas. Traditional models heat water to the desired temperature and then store it in a tank for later use. They must also occasionally run to maintain this temperature so that hot water is readily available. Tankless versions, on the other hand, operate on an "as needed" basis, passing the water through a heat exchanger before it travels through your faucet, showerhead, or clothes washer. This eliminates the need for the unit to "reheat" the water like a traditional water heater does, thus making the tankless unit use less energy.

However, efficiency is just one of several important factors to take into consideration when deciding what type of water heater is right for your home. For starters, tankless water heaters have a higher upfront cost. Ten gallons-per-minute (GPM) is the size unit recommended for a family of four. To achieve this, you would likely need to install two five-GPM electric tankless units, which cost roughly twice as much as a standard 50-gallon electric storage tank-style unit.

This cost difference can be further inflated by installation fees, since a tankless water heater may require an upgrade to your home's electrical system or gas line in order

to handle the new technology. Some owners of electric tankless units have also reported dimming or flickering lights due to the increased draw of power.

The increased efficiency of a tankless unit may also not be worth the added upfront costs. According to the U.S. Department of Energy, a household using less than 40 gallons of hot water per day may see up to 34% greater energy efficiency with a tankless unit. Combined with a longer average lifespan of 20 years (compared to the traditional tank's 10- to 15-year lifespan), a single tankless version's payback may outweigh the higher upfront cost.

However, Consumer Reports found that most families are "heavy" users, requiring 80 gallons of hot water or more per day. This is the equivalent of about three showers, one load of laundry, one dishwasher cycle, and turning the faucet on multiple times. In this "heavy" use scenario, efficiency of a tankless unit is only 8% to 14% better than a traditional tank. Any small savings is essentially wiped out by the higher initial costs.

Also, keep in mind that many homes may require multiple tankless units to meet their hot water needs. A single unit is unlikely to be able to supply enough hot water for several simultaneous uses. For example, one tankless water heater can't keep up if you are doing a load of laundry while someone else is taking a shower.

One final item to take into account is the maintenance of a tankless unit. Like a traditional water heater, tankless versions should have the sediment removed periodically. It's recommended to have the heat exchanger and filter flushed at least

once a year — every six months or less if you have hard water. If you plan to flush the unit yourself, keep in mind that the process is a bit more complicated than with a traditional water heater, and that DIY kits cost anywhere from \$100 to more than \$250. If you hire a professional, the cost could be upwards of \$300 per unit.

The bottom line is that tankless water heaters are well-suited for certain situations. If you don't need to provide a large amount of hot water, such as for an outbuilding or a small addition to your home, and

you have water with little mineral content, a tankless unit may be perfect for the job. However, if you need to supply a larger amount of hot water, it's important to take the above items into consideration before you make that leap.

If you would like additional information about the pros and cons of tankless water heaters, visit www.consumerreports.org/water-heaters/tankless-water-heaters-vs-storage-tank-water-heaters or www.energy.gov/energysaver/tankless-or-demand-type-water-heaters.