

# Tankless Water Heaters

Tankless water heating technology has been used in Europe and Japan for many years. Of course, the concept is to save energy through elimination of standby losses.

Electric versions of these units cost less and are easy to install. They can be placed closer to where the hot water is needed, such as the laundry room or kitchen. However, to provide instant hot water, the energy consumption is high when they are in use.

Natural gas versions tend to provide hotter on demand water than electric units, but they require plumbing and proper venting. This typically limits where they can be installed. Also, some of these units have pilot lights, which continuously use energy. Other important features include whether the unit has electronic ignition, and if it has sealed combustion. A sealed combustion ignition system needs proper ventilation.

The space restrictions and code requirements for your particular application should be performed on site by a qualified service technician/installer. It is impossible to make proper recommendations for your needs without a physical inspection by a qualified contractor to consider all the aspects of the design space for the footprint of any new appliance you are considering.

Tankless water heater systems typically require careful sizing to meet the peak demand for hot water. The following is a list of some typical flow rates for appliances in the home:

- ▶ Faucets: 0.75 gallons to 2.5 gallons per minute.
- ▶ Low-flow showerheads: 1.2 gallons to 2 gallons per minute.
- ▶ Older standard showerheads: 2.5 gallons to 3.5 gallons per minute.
- ▶ Clothes washers: 10 to 30 gallons per load
- ▶ Dishwashers: 10 to 12 gallons per load.

The design of a tankless water heating system should not be based on running everything in the home at the same time. For instance, showers and laundry should be done at different times.

Why don't we offer a rebate for tankless water heaters? Rebates are not offered on tankless water heaters because Springs Utilities would see a dramatic increase in the electric system peak demand which could cause electric rates to increase. We offer rebates when there is a win-win situation for both the customer and the utility. This situation has the potential to be a disservice to all of our customers. There are several issues we would have to consider before offering a rebate on tankless water heaters. For example, let's compare a water heater that is rated at 4.5 kiloWatts of power with a 40 gallon tank to a tankless water heater that requires 18–24 kiloWatts of power. The 20% tank losses on a standard electric 40 gallon water heater would cause more fuel to be used. However, 20% tank losses would be outweighed by a 400% increase in electric demand created by a tankless water heater.

One last point which is important in the comparison: In Colorado Springs the current cost for natural gas is approximately \$2 per Therm compared to electricity which is approximately \$3 per Therm. This information will be useful and important for your potential installer to run a cost analysis and will help you to make an informed decision.

Finally, although we cannot make product recommendations, Colorado Springs Utilities offers the HomeVantage® Service Referral program, which gives you a free referral to a qualified local contractor in the Colorado Springs area. If you have access to the internet, please log onto our Web site at [www.csu.org](http://www.csu.org) to see a complete list of services for which we can provide a referral. Thank you for your interest in using your utilities wisely. For more information, please call Colorado Springs Utilities at 448-4800.