

## **Is a Demand Electric Water Heater For You?**

The main difference between a regular (“storage” water heater) and an instantaneous or demand water heater is the storage tank. A demand water heater doesn’t store water. Rather, when hot water is “demanded” (by turning on the hot water faucet) water is instantaneously heated as it passes over an electric element. By eliminating standby losses (heat lost when water sits in a tank) energy consumption can be reduced by 10-15%. This equates into about a \$2.70 - \$4.00 savings every month.

While the savings may appeal to many people, demand water heaters are not for everyone. And depending on the amount of hot water used in the home, the savings may not be all that great.

Demand heaters are rated by gallons per minute (GPM), not hour, based on a predetermined temperature rise. For example, if the water coming into the heater is 50 degrees and the desired temperature is 120 degrees the temperature rise is 70 degrees. High input demand water heaters will provide a gallon or more per minute of continuous hot water. This is enough to shower or do just about any chore around the house. However, if more than one chore needs to be done at a time one heater may not be enough.

How many gallons per minute a particular demand water heater will produce depends on the size of the elements, with larger elements producing more GPM. The typical amperage requirements for a tankless water heater (240 v @ 40 amps) and may be more than an existing electrical breaker box can handle.

Demand heaters make the most sense for installation in remote areas of a large home, homes with 2 or less occupants, homes with small and easily coordinated hot water requirements or in seasonal cabins/houses.

The following table provides an estimate of hot water capacity given a heater’s wattage. The figures assume a 70 degree temperature rise.

<b><u>Heater size in Watts</u></b>	<b><u>HotWater GPM</u></b>
<b>11,000</b>	<b>1.07</b>
<b>10,000</b>	<b>.97</b>
<b>8,000</b>	<b>.78</b>
<b>6,000</b>	<b>.58</b>