

IMPORTANT INFORMATION WHEN CHOOSING THE SIZE

When deciding which size water heater to purchase, bigger is not always better! Carefully consider your water flow rates and the amount of heating required before deciding which unit to purchase.

Different situations will vary based on these flow rates, the incoming water temperatures and the elevation lift "head" you are going to have.

Head is basically how much gravitational resistance are you going to have getting the hot water from the water heater to the desired outlet. If your water heater is in the basement and your bathroom is on the second floor, you need to consider your flow rate and the GPM of the unit.

So let us consider the following on a single level application with no "head" resistance.

In determining a gas fired unit (Natural Gas or Liquid Propane Gas) The following breakdown offers a reasonable starting point. If you need .5 to 2 GPM a 5L unit should be good. If you need .75 to 3 GPM a 10L unit and if you need 1.0 to 4.2 GPM you should consider the 16L unit.

In determining the electric units, for point of use, consider the PP110, PP220 and the Stanton models. .66 GPM to 2-3 GPM. For small homes with minimal requirements consider the ECO110 at 3 GPM . For mid size units with multiple simultaneous demands consider the ECO180 at 5 GPM and ECO210 at 5.5 GPM. For larger requirements consider the ECO240 at 6 GPM and the ECO270 at 6.5 GPM.

Understand that if you purchase a unit that is too large for the situation and you don't have sufficient water flowing through the unit, the overheat safety sensors might engage and keep your unit from running consistently by shutting it down when the water is overheated. This is an important safety feature of our tankless water heaters and is a good reason to make sure that you are selecting the appropriate water heater for your needs.

Where as if you have ample water flow and a unit that is not large enough to overcome the "head" you will never receive the set point temperature at your desired faucet.

Check the flow rate and temperature increase chart to determine what will work best in your situation. The downloadable PDF links to these charts are just above this block of text. You may also view them in the provided images for this listing.

Homes in southern climates, due to higher incoming water temperatures, will usually require a smaller water heater than those in northern climates where the incoming water temperature may be considerably lower.

Tankless water heaters are rated by the max possible temperature at a given flow rate. To determine the unit needed, you must find your flow rate and temperature rise desired for a given application.

First, list the number of hot water devices you expect to use at any one time. Then, add up their flow rates (gallons per minute). This is the desired flow rate you'll want. For example, you expect to simultaneously run a hot water faucet with a flow rate of 0.75 gallons (2.84 liters) per minute and a shower head with a flow rate of 2.5 gallons (9.46 liters) per minute. The flow rate through the demand water heater would need to be at least 3.25 gallons (12.3 liters) per minute. To reduce the required flow rates, install low-flow water fixtures.

To determine temperature rise, subtract the incoming water temperature from the desired output temperature. Unless you know otherwise, assume that the incoming water temperature is 50°F (10°C). For most uses, you'll want your water heated to 120°F (49°C).

In this example, you'd need a demand water heater that produces a temperature rise of 70°F (39°C) for most uses. For dishwashers without internal heaters and other such applications, you might want your water heated at 140°F (60°C). In that case, you'll need a temperature rise of 90°F (50°C).

Most demand water heaters are rated for a variety of inlet temperatures. Typically, a 70°F (39°C) water temperature rise is possible at a flow rate of 5 gallons per minute through gas-fired demand water heaters and 2 gallons per minute through electric ones. Faster flow rates or cooler inlet temperatures can sometimes reduce the water temperature at the most distant faucet. Some types of tankless water heaters are thermostatically controlled; they can vary their output temperature according to the water flow rate and inlet temperature.