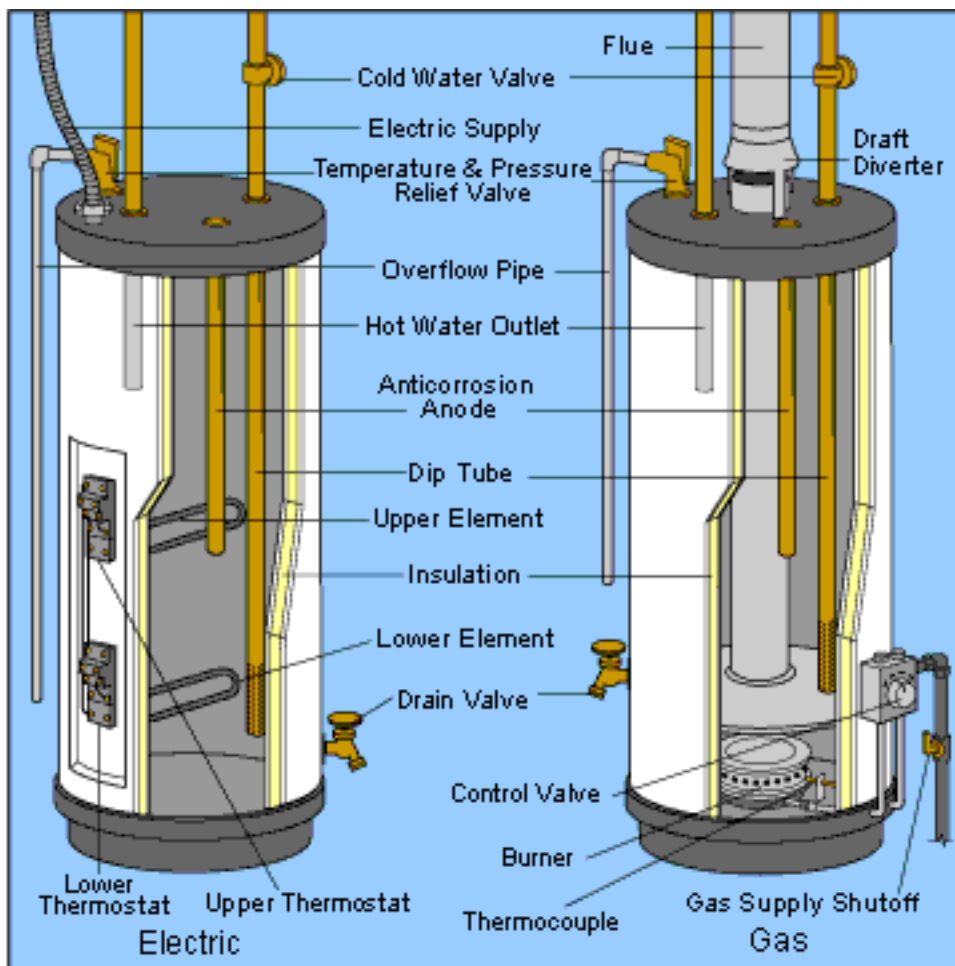


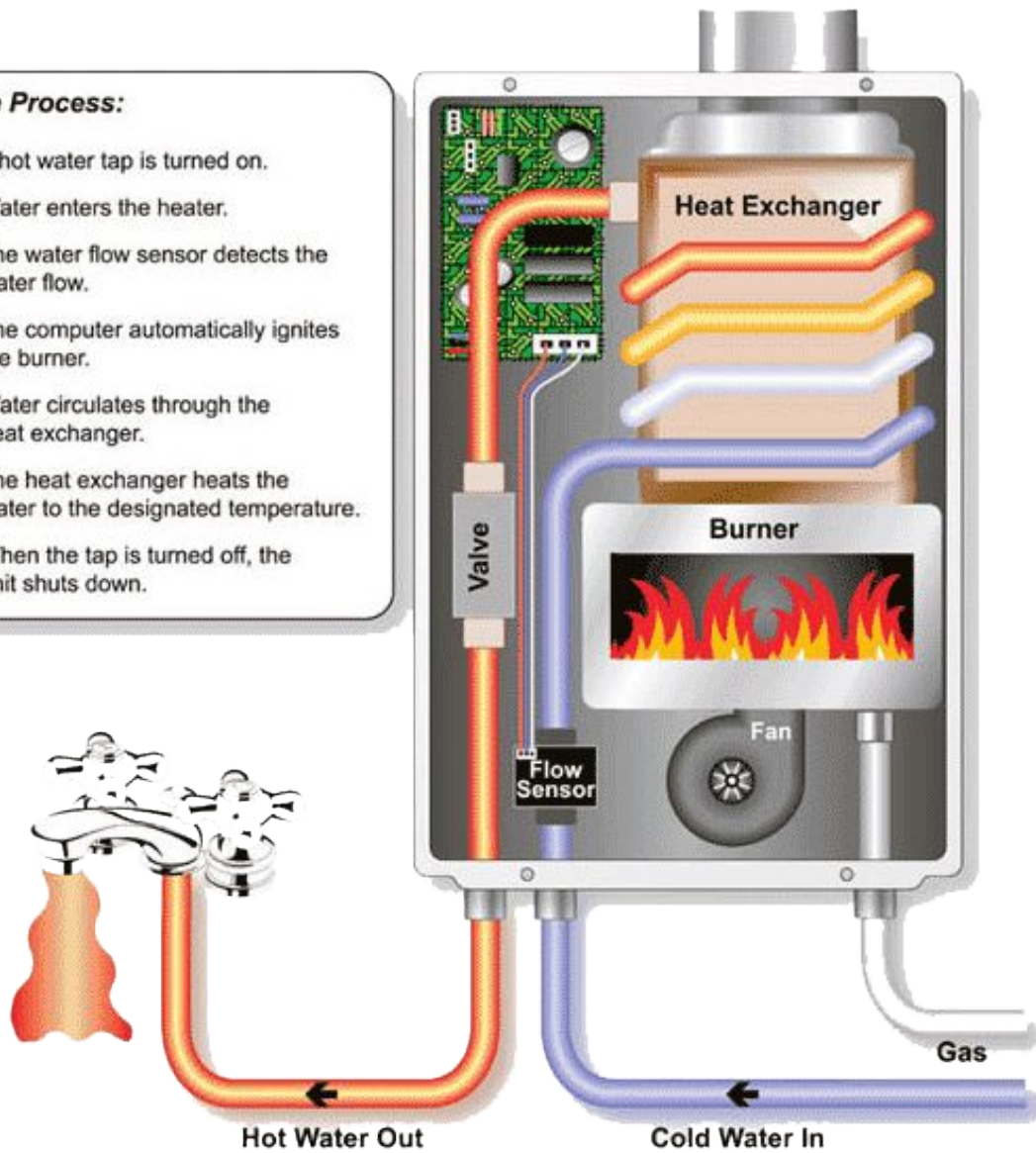
Choosing a water heater: gas, electric or tankless?

Selecting the right water heater for you. Here are some things to consider. The first step is deciding whether to go with a tank or go tankless.



The Process:

1. A hot water tap is turned on.
2. Water enters the heater.
3. The water flow sensor detects the water flow.
4. The computer automatically ignites the burner.
5. Water circulates through the heat exchanger.
6. The heat exchanger heats the water to the designated temperature.
7. When the tap is turned off, the unit shuts down.



www.tanklesswaterheaterinstallation.com

BUYING A STORAGE TANK OR GOING TANKLESS

Compare the advantages and features of each --

Storage Tank

- Economical
 - Constantly stores hot water which is good for steady high-use demands
 - Capacity to have 20 to 60 gallons on hand
 - Efficiency varies by whether it is gas or electric.
 - Constantly stores heated water which is good for steady high-use demands.
 - Capacity ranges from 20 to 60 gallons
 - Efficiency varies between models and whether they are gas or electric.
-
- Should be flushed annually to prevent a build up of sediment.

Tankless: Heats cold water with a gas burner or electric element as it passes through the water heater. (See diagram above)

- Larger up-front investment
- Tankless water heaters have a life span that's twice as long as traditional systems because the risk of rust and corrosion are significantly lowered.
- May still need to be flushed every two years to reduce mineralization from the water in the pipes.
- Excellent option for residences occupied part-time.
- Hangs on wall and frees up floor space.
- Provides continuous hot water
- Reduces energy consumption by as much as 30%.
- Gas tankless water heaters require venting
- Can be one large unit (whole house) or individual units where hot water is used (point of use).

ELECTRIC OR GAS?

Here is a comparison of the advantages and features of each:

Electric Water Heaters

- Generally cost less to purchase than gas water heaters
- Easy to maintain
- Require no venting or pilot light
- Heat water quickly
- 100% efficient in heating water

Gas Water Heaters

- A slightly higher up-front cost to purchase
- Cost less to operate
- Must be vented outdoors via the chimney or direct vent

CAPACITY

It's important to select a hot water heater that provides enough hot water for your home. An undersized water heater will work harder and have a shorter lifespan.

Storage Tank

Determine the proper capacity for your household based on the number of bathrooms and bedrooms in your home. If you choose to purchase a unit with a tank, consult the table below for help in determining storage capacity.

Determine Water Heater Capacity										
Number of Bathrooms	1 - 1.5			2 - 2.5				3 - 3.5		
Number of Bedrooms	1	2	3	2	3	4	5	3	4 -5	5
Minimum Tank Size	20	30	40	50	50	50	60	50	60	60

Tankless

To determine the size of the tankless water heater you would need, you must calculate how much hot water you need to use at one time. Routine behaviour, such as running the dishwasher while taking a shower, can exhaust a smaller tankless unit. It is best to understand the demands and expectations you have for your tankless water heater before you purchase.

Gallons Per Minute (GPM) represents the amount of hot water a tankless water heater can provide *per minute* while raising the temperature. **An average high-volume tankless water heater will have a GPM between 8 and 12.**

Estimated demand on a tankless water heater from household hot water use

Showers

A regular showerhead uses 2 to 10 Imperial gallons (7.5 to 38 L) per minute while a water-saving showerhead uses 2 to 5 Imp. gallons (7.5 to 19L) per minute. (www.Earthcare.com water related FAQ's).

Dishwashers

The average dishwasher uses between 12 and 16 litres (3-4.25 gallons) of water. The average Energy Star dishwasher uses 15 litres (3.3 Imperial gallons) of water whereas a non-Energy Star dishwasher uses 23 litres (5 Imp Gal.) during the dishwashing cycle. www.energystar.custhelp.com Units converted to Imperial and metric measures.

Clothes washer

Front load clothes washers use about half or 56L to 112.5 L (12.5 to 25 Imp gallons) of water (depending on the capacity of the washer) to wash the same amount of clothes as a top loading washers 108L to 166.5 L (24 to 37 Imp gallons).

www.allianceforwaterefficiency.org

Note on water use in clothes washers:

Water use depends on the cubic capacity of the machine and its design- whether it is a front load or top load machine. Though manufacturers measure "Water Factors" for each model of washer, they are not required to display the rating on the machine. The Energy Star Program reports Water Factors and energy use for nearly every high efficiency washer on the market

at: http://www.energystar.gov/index.cfm?c=clotheswash.pr_clothes_washers.