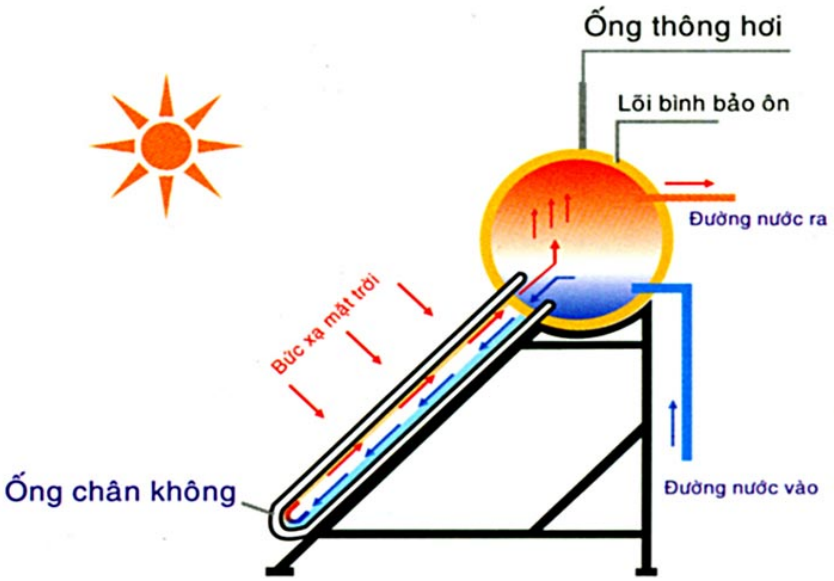
What type of solar water heater, electric water heater should be purchased?

If you are not sure whether to choose a solar water heater or direct water heater, indirect water heater, please read the article below to find out the answer.

Water heaters are divided into two main categories: solar water heaters and electric water heaters. However, users do not know which water heater to use. Check out the review below to choose the most suitable water heater.

What is solar water heater?

Solar energy uses energy from the sun to operate and make hot water. First the water will go into the glass tubes. When there is sunlight, the heat-collecting layer absorbs heat into the glass tube, making the glass tube heat up to transfer heat to the water inside the tube.



Solar water heaters use two main types of pipes: oil pipes and vacuum tubes.

Oil tube solar water heater

The oil pipe is equipped with a heat-absorbing layer, so when the sun is shining, this material absorbs heat and boils the oil inside the tube. At that time, the hot oil will transfer heat to the heat guide at the top of the inserted

tube directly into the insulation vessel, causing the water in the kettle to heat up.

Hot water will flow directly into the insulation bottle to store hot water.

Vacuum tube solar water heater

For water heaters using vacuum tubes, when operating cold water from the water tank will go into vacuum tubes. When the sun shines on the surface of the tube, it absorbs heat, causing the glass tube to heat up and transferring heat to the inside to help the water in the kettle heat up. At this time, hot water will move up to the tank, cold water will move into the vacuum tube for further heating.

The machine will keep heating water alternately so until the water temperature in both the container and vacuum tube is equal, the process is finished.

Electric hot water bath

Electric water heaters are divided into two main categories: indirect hot and cold water heaters.

Direct water heater

Direct water heaters will not need to be equipped with containers, when heated water will be taken to the shower for use. Direct water heater has only 1 outlet, so it is only used for bathing purposes.

The heater is directly heated by resistors, operating capacity up to 4,500W for fast heating effect after only a few minutes with a maximum water temperature of about 45 - 55 degrees C. The climate is not so cold as the Central and the South.

Indirect hot bath

Indirect water heaters also heat up the resistor but the machine is equipped with a reservoir to store hot water. The heating time is longer but a heating session can be used for many bathers.

Indirect hot and cold water tank has many water outlet lines so you can connect to the shower, fight the washing machine, fight the sink, the sink.

Indirect water heaters often have a capacity of 15 liters - 40 liters, operating under the mechanism of taking hot water mixed with cold water to create warm water to help ensure safety bath.

Indirect water heaters heat water with higher temperatures up to 70 degrees C will be suitable for areas with extremely cold weather like the North.

The table compares the features of solar water heaters and electric water heaters

Criteria Electric water heater Solar water heater Initial installation cost Low installation cost, simple bathroom installation. The higher the installation cost, the more difficult the installation parts. **Price**

The price is cheaper than solar water heaters, so it suits the cost of many people.

Direct water heaters cost between 2 and 6 million.
Indirect water heaters cost between 2.5 and 4.5 million.

The price is 2, 3 times higher.

For example: A bottle with a capacity of 140-200 liters has a price ranging from 4-8 million VND / set.
Capacity of over 200 liters usually has a price of over VND 10 million / set.

Capacity Only indirect water heaters with tanks with capacity of 15 liters, 20 liters and 30 liters. The capacity is lower than the solar water heater. Large tank capacity, minimum of 140 liters, can be used for one bath for many baths at the same time, meeting a large demand. **Safety High safety** because it is equipped with safety protection functions such as: TBST thermal stabilizer, the system automatically disconnects when overheating, electric leakage prevention system . Absolutely safe because Do not use electricity that uses solar energy. **Power saving** Direct water heater with an operating capacity of 2.500W - 4.500W helps to heat water quickly, saves electricity consumption and time.
Indirect water heater has a large container of 15 - 30 liters and a heating capacity of 2.500W, so it does not have to be heated many times, saving electricity. There is no electricity cost for the duration of use. **Durability, maintenance Maintenance** costs are higher than solar water heaters. Low maintenance costs, minor damage. **Utility** Use when it is not sunny, rainy day, long winter.
Cannot be used when the power is out.

Does not work when it is not sunny.

Use when power is out.

Number of machines to use Just 1 indirect water heater can be used in many areas for a while such as bath, wash basin .
1 direct hot shower is only available for 1 room in the house. Provide hot water for the entire house.

Should I buy a solar or electric hot water heater?

Depending on the region and the temperature of each region, you can choose the water heater accordingly.

For the southern and southern central regions, the coastal areas with high sunshine and high cold temperatures should use solar water heaters, direct water heaters.

For the northern region, there is usually less sunshine, cold and prolonged cold temperatures, so indirect water heaters are used.

Hopefully, this article will help you choose the most suitable water heater for your family.

You finished reading the article "**What type of solar water heater, electric water heater should be purchased?**" edited by the **TipsMake** team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.

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