What is a microwave? Structure and utility of a microwave in life

A microwave or microwave is a popular kitchen tool that makes cooking food faster and more convenient. So what is a microwave? Structure and use like?

A microwave or a microwave is a popular kitchen tool for modern families, helping to cook food faster and more conveniently and is considered an effective assistant for busy users. But in reality, not everyone understands **what a microwave is** ? Structure and use like? So today's article, quantrimang will help you solve this problem.

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What is a microwave?

A microwave is an electrical device that was invented quite early, this device uses electromagnetic waves with ultra-short or super high-frequency messages to heat molecules thereby heating and cooking. food. In other words, microwaves use electrical energy to operate, manipulating the physical properties of the magnetic field to heat food.

This is a smart kitchen appliance that appears in most modern kitchens, mainly used to thaw or cook food, saving you time in the preparation of your dish.

The construction of a microwave

To understand the microwave's operation first, let's learn about the microwave's structure. A conventional microwave will be designed from the main components:

1. Cooking chamber or drying chamber (Usable Space): A part of the space containing the food to be cooked. This cooking chamber is made up of partitions, reflecting the microwaves before they are absorbed into the food.

1. Microcontroller (Microcontroller): Functional control of electronic circuits in the machine.
2. High-frequency generator - Source (Magnetron): This is the most important part of a microwave oven, they are the source of microwave radiation to dry or ripen food. This unit is usually a lamp with a different structure according to the model.
3. Waveguide: Navigate the motion of microwaves.
4. Other parts: Such as electrical circuits, transformers . so you can identify the circuit in detail and accuracy.

Principle of operation of the microwave

Different from the working principle of other types of equipment such as electric stoves, traditional gas stoves, microwaves cook food by using microwave heat from the inside. Specifically, at the start of startup, the device usually takes 2 seconds to produce microwaves (with frequency usually at 2,450 MHz) and blow into the cooking chamber. At this frequency, microwaves easily penetrate deep into the food and transfer energy to the water inside the food, generating large friction between molecules and thereby generating heat to heat the food.

In a microwave, all food molecules are heated at the same time, so it can shorten the cooking time to ¾ compared to other conventional cooking appliances such as gas stoves, infrared cookers. , . According to this principle, only food is heated, so that the efficiency of microwave use is very high, saving electricity well. However, the drawback is that the dish is heated evenly, so the surface will not get golden brown or crispy like when grilled or fried in pots and pans.

The effect of microwaves in life

Reheating food

Helps to reheat food in a very short period of time (only a few minutes) while preserving the inherent flavor of the dish. Especially without the need to add water, not afraid of dry and sticky food.

Defrosting food

A basic effect found in any microwave is defrosting cold food. This function saves you time, cooks fast and conveniently. You only need to choose the defrosting time, after defrosting by microwave, you can bring the food to prepare right away to avoid bacteria invasion.

Conserve nutrients in food

The ability to preserve the nutritional value of food is high because of its short cooking time, less liquid and low processing temperatures. In addition, there are many studies that show that using microwaves preserves sugar or more nutrients than classical methods. This effect is evident with water-soluble substances that are easily destroyed by heat.

Steaming function

A feature commonly found in microwave ovens is steaming. The microwave uses the steam from the enclosed water tank to reheat and then cooks the food. Food steamed by microwave has very soft moist characteristics, not dry, very suitable for steaming dumplings, dumplings .

Baking function

To meet the diverse needs of users, types of microwave ovens are gradually appearing more and more on the market. The microwave grills and cooks the food thanks to the heat radiating from the heat bar inside the oven, suitable for heating and crunching food.

Automatic cooking function according to the menu available

Some electronic microwave products now include an automatic cooking menu function. This feature helps you cook food easily and does not take much time. Depending on the type of microwave oven, there are separate automatic cooking menus. For example, you just need to select on the control panel the type of food to cook as meat, fish, pizza, enter weight . the microwave can automatically adjust the time, temperature and capacity needed to cook. Nine dishes.

Multi-stage cooking function

This function helps you to seamlessly perform 2 or 3 stages (defrosting / cooking / baking) without having to stop the oven to make further adjustments. For example, you can defrost and cook food right at the first installation or perform seamlessly defrosted, cooked and baked . Clearly, this function saves you time and can take time. space for other cooking. However, not all types of microwave ovens have this function.

Above is the basic information about microwave equipment, structure, utility of microwave. Hope it can help you better understand this device and use it to bring delicious, nutritious meals to the family.