

Chewing Food Microwave Drying Machine

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Application characteristics of [microwave drying machine](#), technical parameters of microwave dryer type:

The basic properties of microwave are usually presented as penetration, reflection and absorption. For glass, plastics and porcelain, microwave almost passes through without being absorbed. For water and food, they absorb microwaves and heat themselves. For metals, microwaves are reflected. Microwave drying equipment, also known as microwave dryer, is a kind of microwave dryer used to dry food, medicinal materials, wood, building materials, cardboard and other materials. Compared with traditional drying equipment, the characteristics of microwave dryer are: fast drying speed, high efficiency, environmental protection and energy saving, and it is a new type of equipment responding to low-carbon economy. Its working principle is to use the penetrating heating of microwave to raise the temperature of the material, to vaporize and evaporate the water vapor in the material, and to drain the evaporated water

vapor from the dehumidification system to achieve the purpose of drying the material.



The [chewing food microwave drying machine](#) is mainly composed of microwave generator, power supply, waveguide device, heater, cooling system, transmission system and control system. The microwave tubes used for heating and drying are mainly klystrons and magnetrons. Klystron is often used in high frequency or high power applications. Microwave generated by microwave tube is transmitted to heater through waveguide device. The heaters are mainly box type, plate type and waveguide type.



Characteristics of microwave dryer: Microwave drying is an efficient, energy-saving, stable, reliable, simple equipment, easy operation and new technology. Microwave dryer is characterized by continuous production of equipment, only need electricity, no need for other energy, can quickly dry materials, equipment occupies a small area, pollution-free, simple operation; no need for preheating and no energy loss after shutdown. Less labor, high quality products. The advanced equipment is a high-tech product which can not be replaced by other equipment. Heating Principle of Microwave Dryer: Microwave refers to electromagnetic waves with frequencies ranging from 300 MHz to 300 MHz. The water molecule in the heated medium material is a polar molecule. Under the fast changing high frequency electromagnetic field, its polar orientation will change with the change of external electric field, resulting in the movement of molecules and mutual friction effect. At this time, the field energy of microwave field can be transformed into heat energy in the medium, which makes the material temperature rise, and produces a series of physical and chemical processes, such as heating and expansion, to achieve the purpose of microwave heating and drying.