

# What is microwave drying equipment?

## Introduction of Microwave drying equipment:

Microwave drying equipment, also known as microwave dryer, is a microwave machine used to dry food, herbs, wood, building materials, cardboard and other materials, compared with traditional drying equipment, microwave drying equipment features: drying speed, high efficiency, environmental protection and energy saving, is a response to the low-carbon economy of new equipment. Its working principle is to use the penetrating microwave heating to raise the temperature of the material, so that the moisture in the material vaporisation evaporates, and the evaporated water vapour is discharged by the moisture discharge system to achieve the purpose of drying the material. The following is detailed information about microwave.



## Feature Of Microwave Chili Powder Drying Machine:

**1. Stainless steel construction** - The machine is made of high-quality stainless steel, which makes it durable, corrosion-resistant, and easy to clean.

**2. High efficiency** - The machine uses microwave radiation to dry the chili powder quickly and efficiently. It takes only a few minutes to dry the powder, which is much faster than traditional drying methods. Heating quickly and evenly, traditional heating is from the outside of the object to be heated for heat transfer, but microwave heating is to make the object to be heated into a heating body, without the process of conduction, which greatly reduces the heating time. The heating is uniform, as with conventional heating to increase the speed of heating, the heating temperature has to be

increased, which tends to produce a charred skin on the outside and a raw interior. When microwave heating is used, all aspects of the material are evenly heated by electromagnetic waves and heat is generated, so the heated material becomes more even.

**3.Uniform drying** - The microwave radiation is evenly distributed inside the chamber, resulting in uniform drying of the chili powder. This ensures that every particle of the powder is dried effectively.

**4.Adjustable power and temperature** - The power and temperature of the machine can be adjusted to suit the specific requirements of the chili powder being dried.

**5Automatic control and monitoring** - The machine has an automatic control system that monitors the drying process and stops the machine when the chili powder is dry.

**6.Energy-saving** - The machine uses less energy compared to traditional drying methods, which makes it more cost-effective and environment-friendly.In microwave heating, microwaves can only be absorbed by the heated material, the air in the heating chamber and the corresponding containers are not heated, so the efficiency is high and the production environment is significantly improved.

**7.Safe and easy to operate** - The machine is safe to operate and easy to use. It requires minimal human intervention and can be operated by a single person.



### **Applications Of Microwave Drying Machine:**

**1.Food industry** - The machine can be used to dry chili powder, spice blends, and other ingredients used for food seasoning.

**2.Pharmaceutical industry** - The machine can be used to dry herbs, medicinal plants, and other raw materials used for

making medicine.

**3. Chemical industry** - The machine can be used to dry chemicals, catalysts, and other materials.

**4. Agricultural industry** - The machine can be used to dry agricultural products such as fruits, vegetables, and grains.

**5. Cosmetics industry** - The machine can be used to dry ingredients used for making cosmetics such as herbal extracts and powders.

Overall, the microwave chili powder drying machine is a versatile and efficient tool that can be used in different industries for drying a variety of materials.



### **Advantages Of Loyal Microwave Drying Equipment:**

**1. Energy Efficient:** The equipment uses less energy compared to traditional drying and sterilization methods, reducing energy costs and contributing to a more sustainable food manufacturing process.

**2. Improved Product Quality:** Microwave drying preserves the natural flavors, colors, and nutritional benefits of the food, resulting in a higher quality end product.

**3. Uniform Drying and Sterilization:** Microwave technology allows for even and consistent drying and sterilization, ensuring that all parts of the food are treated equally.

**4. Reduced Microbial Load:** Microwave sterilization can effectively eliminate harmful bacteria and pathogens from the surface of the food, ensuring that it is safe for consumption.

**5. Increased Shelf Life:** The reduction in moisture and microbial load can result in an extended shelf life of the food, reducing waste and enhancing food safety.

6. **Versatility:** Microwave drying and sterilization equipment can be used for a wide range of food products, including fruits, vegetables, meats, and grains, making it a more versatile tool in the food processing industry.

Overall, the benefits of microwave drying equipment make it a valuable and cost-effective investment for food manufacturing companies looking to improve efficiency, quality, and safety.