

Why microwave oven is mostly used in the food industry?

Detail Introduction :

To further extend the shelf life of meat, vegetables, fruits, and other food products, as well as to further enhance the flavor of food, carrots, strawberries, bananas, and other food products are usually dried in the modern food processing industry, where the leading Microwave Equipment used is the Microwave Drying Machine.

Microwave Vacuum Dryer Machine is also mainly used in the food processing industry. Do you know why?



Why microwave oven is mainly used in the food industry

The Microwave Dryer Machine is widely used in the food processing industry. The Microwave Drying Machine has processed the dehydrated vegetables and dried meat that we eat every day.

Features of Microwave Drying Machine

Fast and uniform heating	Directly apply energy to the whole meat product, instantly converted into heat inside the meat product, significantly reducing the heating time.
Selective heating	Only substances that absorb microwaves, such as vegetables, can be heated by Vacuum Drying Equipment. Because of the significant medium loss of water, the microwave energy absorbed by water is much greater than that of other substances.

High thermal efficiency, energy-saving	Microwave direct interaction with the material, without heating air or heating a large area of the Microwave Dryer wall, etc., and the heating chamber is a closed cavity made of metal, not only to improve the thermal utilization rate but also to ensure the safety of the operator. At the same time, the cavity reflects the microwave so that it does not leak outward and can only be absorbed by the fruit.
High product quality	In microwave drying, due to convective heat exchange on the surface of condiments, the surface temperature of condiments is lower than the center, and the phenomenon of temperature overheating and crusting rarely occurs on the surface condiments, which is conducive to the evaporation of moisture. The power switch can control the output size of energy to improve the quality of condiments, and the nutrient loss of the dried condiments is slight.
Sensitive and easy to control	The PLC control system makes operation very easy.

The Microwave Drying Technology's superior performance is due to the mighty working principle of the Microwave Vacuum Oven.

How Microwave Vacuum Drying Equipment works.

Microwave Vacuum Drying Equipment relies on microwave heating, which is entirely different from traditional heating methods (conduction, convection, and radiation). When the microwave irradiates the watery broccoli, the water molecules are polar.

The arrangement of polar molecules changes from a disordered and non-polar state to an orderly arrangement. When the direction of the external electric field changes repeatedly, the polar molecules correspondingly change repeatedly, frequently swinging, in the process of swinging, resulting in similar friction between molecules and generating a lot of heat, the temperature of the broccoli also rose.

Microwave heating uses the principle of dielectric loss to convert microwave energy into the heat energy needed for the heating of celandine, and the absorption of heat by celandine is proportional to the loss factor of its dielectric. As the dielectric loss factor of water (or other solvents) is much larger than other substances, the water (or other solvents) molecules are given priority to absorb microwave energy, water molecules from the internal movement of the western bluebells to the surface, continue to absorb microwave energy, water into water vapor and be drained away, to quickly complete the purpose of drying.

It is based on such a working principle, now Industrial Microwave Vacuum Dryer in the food processing industry is very widely used, mainly including microwave ripening of grains and cereals, sauces, soybean products, microwave sterilization of fruit wine, spices, seafood, nutritional powder, snack foods, dried fruit microwave drying sterilization, vegetable dehydration sterilization, microwave thawing and defatting of meat products, pet food drying sterilization, as well as hotels and fast food industry microwave heating, can be said to be closely related to the daily lives of consumers, the use is undeniable.



Over the years, our Microwave Drying Equipment has gained a reputation in the Microwave Industry for its advanced Microwave Process.

2021 Customer Order Form For Microwave Drying.

Dealed Customer Have Plant Of Industrial Microwave Systems	
1	800kg/h Automatically Microwave Drying Of Food For Sale In Canada
2	Brazil 200-300kg/h Easy Operation Microwave Dryer Machine
3	India 1t/h Energy-saving Industrial Drying Machines
4	Pakistan 2-3t/h 500kg/h High Efficiency Industrial Microwave Dryer

Dealed Customers Who Repurchase Of Microwave Drying Machine At 2021	
1	Russia 2t/h High Production Microwave Vacuum Dryer Machine

2	1-2t/h Long Life Microwave Drying Technology In Italy
3	600kg/h Stainless Steel Vacuum Drying Equipment In Turkey
4	Indonesia 600-800kg/h Plc Control Microwave Vacuum Drying Equipment

Industrial Microwave Dryer has made an outstanding contribution to the development of the food processing industry, incredibly satisfying the growing needs of consumers and contributing to the development of the world economy, which is the main reason why Microwave Drying Machine is mainly used in the food processing industry.

We can provide excellent prices for Microwave Dryer machines. We can fully guarantee the quality of Microwave Dryer machines; we can provide perfect after-sales service as long as you contact us. We will provide you with satisfactory answers.

We have always been in the spirit of "innovation, rigorous, pragmatic, efficient" pioneering spirit, the collection of first-class talents and elites at home and abroad, based on muscular technical strength, complete testing methods, scientific management, excellent quality assurance system to ensure the actual "quality first, customer first."

The company staff will adhere to the "scientific innovation, service to the best" business philosophy, dedicated to providing you with the most practical, the most competitive Microwave Drying and quality, and fast service. We welcome you to visit our factory at any time to discuss cooperation!