What are microwave drying and its use in the food industry?

Detail Introduction :

Microwave Drying has become more and more important in various fields of drying because of its au mode, ease to control and high efficiency, uniform drying, etc. Since the 1960s, foreign countries hav research on Microwave Drying Technique.

At present, China's Microwave Drying Technology has been developed enough to mature and gradua applied in various industries, so how does Microwave Drying work in the end? What is the principle o operation?

What is microwave drying, and what use does it give to the food industry?

Microwave Drying is a drying method that uses electromagnetic waves as the heating source and the material itself as the heating body to make the internal moisture of the material evaporate and get th effect. Microwave Drying Equipment has fewer supporting facilities, occupies less land, is easy to ope be operated continuously, and is convenient for automatic production and enterprise management.

Microwave Drying makes the heated object itself become the heat source, and dries from inside to ou overcoming the problem of forming hard shells and crusts in conventional drying due to the outer lay material drying first, Microwave Dryer heats up quickly and evenly, significantly improving the heat tr efficiency and drying rate, and can better retain the original properties of the material.

Advantages of Microwave Drying.

1	Microwave Drying Process, temperature gradient, heat transfer, and vapor pressure migration direction are consistent, thus significantly improving the moisture migration conditions in the drying process, which is more outstanding than conventional drying.
2	Due to the existence of pressure migration power, Low-Temperature Drying has the characteristic of drying from inside to outside. The inner layer of the material is dried first, which overcomes the characteristic of forming a hard shell of crust in conventional drying. The outer layer of the material is dried first and prevents the internal moisture from moving out.
3	Compared with traditional drying methods such as hot air, steam, and electric heating, the speed of Microwave Drying Equipment can be increased by more than several times, significantly improving production efficiency; the energy consumption of Microwave Dryer Machine is reduced by more than 50%.
4	When using Microwave Dry, regardless of the shape of the material, the heat can penetrate evenly and produce a puffing effect, which is conducive to crushing.
5	Microwave Drying Technology can maintain the color, aroma, taste, and tissue structure of the dried material and not decompose and destroy the active ingredients.
6	Microwave Drying Process has a high energy utilization rate. The microwave heat is generated directly inside the wet material, less heat loss, high thermal efficiency, no environmental and noise pollution.

Tea Drying is a more critical process in the initial processing of tea, mainly through heat evaporation moisture, to form the unique sensory quality and stable quality characteristics of tea.

Tea Microwave Dryer mainly uses rapid temperature rise to blunt the active oxidation enzymes of fre leaves, inhibit the accelerated oxidation of tea polyphenols and other enzymes in fresh leaves, preve profound color changes in the subsequent drying process, and at the same time volatilize the fishy h taste of fresh leaves, so that the tea fragrance can be better formed. The function of the Tea Microwa Drying Machine is to dry tea leaves, kill tea leaves and sterilize tea leaves.

The purpose of Microwave Drying Of Tea is to use high temperatures to stop the enzyme activity; furt evaporate the water so that the water content of tea leaves is controlled within 13%; further improvi quality and color of tea leaves.

A tea Drying Machine is a microwave drying machine. This microwave generator radiates electromag waves to the tea leaves. It penetrates the interior, inducing the water and other polar molecules of th leaves to rotate simultaneously, rotating billions of times per second. The internal temperature is hig the surface temperature of the material, making the enzyme lose its vitality, and some water molecul evaporate to kill and dry.

Tea Microwave Drying Equipment has the advantages of short processing time, high efficiency of gre drying, retaining the original nutrients and flavor such as color, aroma, taste, and shape, improving th of tea, automatic control of production process, energy-saving, uniform sterilization, and easy contro simple operation.

In addition, Microwave Technology in pharmaceutical drying and sterilization is developing rapidly, bu due to Microwave Vacuum, Microwave Vacuum Freezing Sublimation Technology breakthroughs, and promote the development of Microwave in the pharmaceutical processing industry.

Pharmaceutical Microwave Drying is actually through induction heating and medium heating. The mo and fat in Chinese herbal medicines to varying degrees absorb microwave energy and transform it in to achieve the purpose of drying.

Microwave Drying Technology For Medicine can kill microorganisms and mold, have the effect of disi so that the herbs meet the health standards, and prevent the herbs in the storage process of mold a insects. The Microwave Heating Equipment produced in China has two frequencies: 915mhz and 245

The above is the introduction of the Microwave Dryer Machine and the basic information of the Micro Drying Technology Application. From this, we can know that Microwave Drying Technology is widely u present, which can keep more nutrients from the original product and improve the quality of the pro

2021 Microwave Drying Machine Customer Case:

2021 Industrial Microwave Vacuum Dryer customer case	
1	Sale of 700-800kg/h Microwave Vacuum Oven in India
2	Japan 600kg/h Microwave Dryer Machine for sale
3	Vietnam sale of 2t/h high-quality Vacuum Drying Equipment
4	Italy sale 600-700kg/h professional Microwave Wood Drying Machine

2021 Customer Repurchase Case of Industrial Microwave Systems	
1	Sale of 800kg/h Industrial Drying Machines in the USA
2	Sale of 700kg/h Industrial Microwave Dryer in Russia
3	Sale of 800kg/h cost-effective Microwave Vacuum Dryer Machine in Thailand
4	1t/h Dryer For Food Products sold in Indonesia

Our company has matured Microwave Dryer Production technology, and we have worked intensively engineers who have many years of experience in Drying Machine Manufacturing. We are now selling

Microwave Vacuum Dryer all over the world. If you have any questions about Microwave Vacuum Dry
Equipment, please feel free to contact us, and we look forward to working with you.