

Industrial Conveying Mesh Belt Microwave Drying Machine

In ancient times, people began to use natural conditions for material drying, including fire, sun, wind and other methods, clothing, food can be simply dried. With the development of the times, drying materials under natural conditions can not meet people's requirements. The emergence of [microwave drying machine](#) and other drying equipment has greatly improved the drying efficiency and drying effect.



Electromagnetic radiation drying is to use the electromagnetic induction or infrared radiation effect of microwave to heat and dry materials. Different from other external heating drying methods, this drying method is a method of uniform heating from both outside and inside of the material. Therefore, this drying method has a short time, does not deteriorate or coke due to overheating, and its drying products are of good quality, especially the drying effect of heat-sensitive food is more satisfactory.



[Industrial conveying mesh belt microwave drying machine](#) is a kind of microwave drying equipment, which is obtained by the special movement of electrons in the magnetic field through DC or 50Hz alternating current on the electro-vacuum device or semiconductor device. This motion can be explained simply as follows: from the point of view of dielectric structure, one kind of molecule is called non-molecule dielectric, and the other kind is called molecule dielectric. Microwave drying equipment in general, they are arranged irregularly, if they are placed in an alternating electric field, the orientation of the neutral molecules of these media also changes with the electric field. Change by change, which is called change. The stronger the applied electric field is, the stronger the microwave drying equipment will be. The faster the applied electric field changes, the faster the microwave drying equipment will change. The more intense the thermal movement of molecules and the friction between adjacent molecules will be. In this process, the conversion of electromagnetic energy to thermal energy is completed. When the heated material is placed in the microwave field, the molecule of microwave drying equipment swings and rubs back and forth with the microwave frequency of billions of times per second. The heat generated by microwave drying equipment is enough to make the material hot-dry in a very short time.



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.