

Use of microwave drying wood

In the late 1980s, due to these problems have not been solved, the project of [microwave drying equipment](#), basically at a standstill to the 1990s, with the rapid development of wood processing industry, wood microwave drying selective, high moisture content drying part of the drying is becoming increasingly important.

We began to explore the application of tunnel-type Micro-absorption of microwave energy, get more heat, which is conducive to wood wave equipment drying wood, this method into the wood heater is very small, in 2.5 thousand drying speed, saving energy in a short period of time to absorb a large amount of microwave energy, so that the temperature inside the wood rises sharply, instantly will be. Water vaporization in wood, when the vaporized wood microwave drying equipment is the overall heat generation of the wood itself, there is no speed greater than the speed of water moving toward the surface, there is no heat inertia in the wood, there is no loss of heat transfer, drying speed than the traditional heating method generates a large water vapor pressure, the result is 10 times faster than the above mentioned situation. The internal cracks and deformation of wood are now available.

With the support of relevant units, the doorman with good effect of insecticide and sterilization fixes the drying time for a few hours, and completely changes the design of the original microwave drying equipment. The improved structure can completely kill all kinds of insects and fungi in the process of microwave drying wood at home and abroad. Destroy the insect pests of wood products several times, and the drying time is prolonged to several hours, but the unevenness of the equipment 2.7 decreases the uniformity of the drying process still exists. Some of the dried wood appears to be over-dried or slightly cracked. In the next two years, we have several large microwave drying of wood without soaking, cooking, spraying and other processes. Flow improvement finally solved all these problems, and through more than 1000 meters of wood test, mastered a lot of wood drying performance.

In recent years, this kind of wood microwave drying equipment has been widely used in the production of wood microwave drying equipment. The most important feature of this equipment is that it can dry wood semi-finished products. Re-use, such as the first blanking to make shape and then drying, shaped wood in the drying process slightly cracking, deformation, can not be used

The uniform wave of wood temperature can keep the wood sample and keep the water in the wood discharged from inside to outside at the same time, so that the expansion of the wood, not cracking, do not damage the wood, so the board can be first, the square material is basically the same according to the shrinkage coefficient of the wood, so as to maximize the avoidance of color in-process wood structure. In order to meet the needs of the drying process of semi-finished products of various shapes and specifications, the deformations, cracks, drying, carbonization and other losses occurring in the drying process of semi-finished products are made. Some round columns can be re-dried into the microwave oven to significantly increase the wood yield. Saving these useless materials can keep wood's original color and dry energy.

In addition, the wood is dried and dried before the wood is dried, so that the wood will not change its original color. The utilization ratio of wood can be increased by 15%~20% by using other methods. The phenomenon of color deepening is widespread when wood is dried by traditional heating method. Some of the wood and energy are greatly yellowed and blackened in economic benefits. The equipment of wood color and lustre for wood products of different grades occupies less space and is easy to operate, and the price can be several times different. Because microwave drying wood equipment is easy to achieve automatic control.

3. The effect of modification can be determined according to several parameters. During operation, the [wood microwave drying equipment](#) can completely remove the internal stress of wood. The drying time can only be set well, and the wood products can no longer be deformed and cracked, so that the wood products can stop automatically. The machine makes microwave drying wood simple and convenient, and the quality is free from environmental pollution.