

## Fast Low Temperature Microwave Thawing Equipment

Some frozen items such as quick-frozen foods are generally stored in an environment below  $-18\text{ }^{\circ}\text{C}$ , and need to be thawed before production. If adopts improper thawing methods, the quality and taste of the food will be affected.



The fast low temperature microwave thawing equipment adopts cold and humid airflow and low temperature environment as the microwave thawing environment. During the thawing process, the cold and humid airflow forms a frost film on the surface of the frozen material. After the frost film is formed, it is melted and destroyed from the inside to the outside as the temperature inside the frozen material rises due to microwave heating. At the same time, there is a new cold moisture condensation on the outside to form a dynamic balance so that the frost film always exists on the surface of the frozen material and maintains a low temperature, it protects the surface of the frozen material so that is not matured or coked and the effect of uniform thawing inside and outside during thawing. When used for thawing quick-frozen food, it can have the effect of keeping fresh and thawing.

**Compared with traditional thawing equipment, fast low temperature microwave thawing equipment has many advantages:**

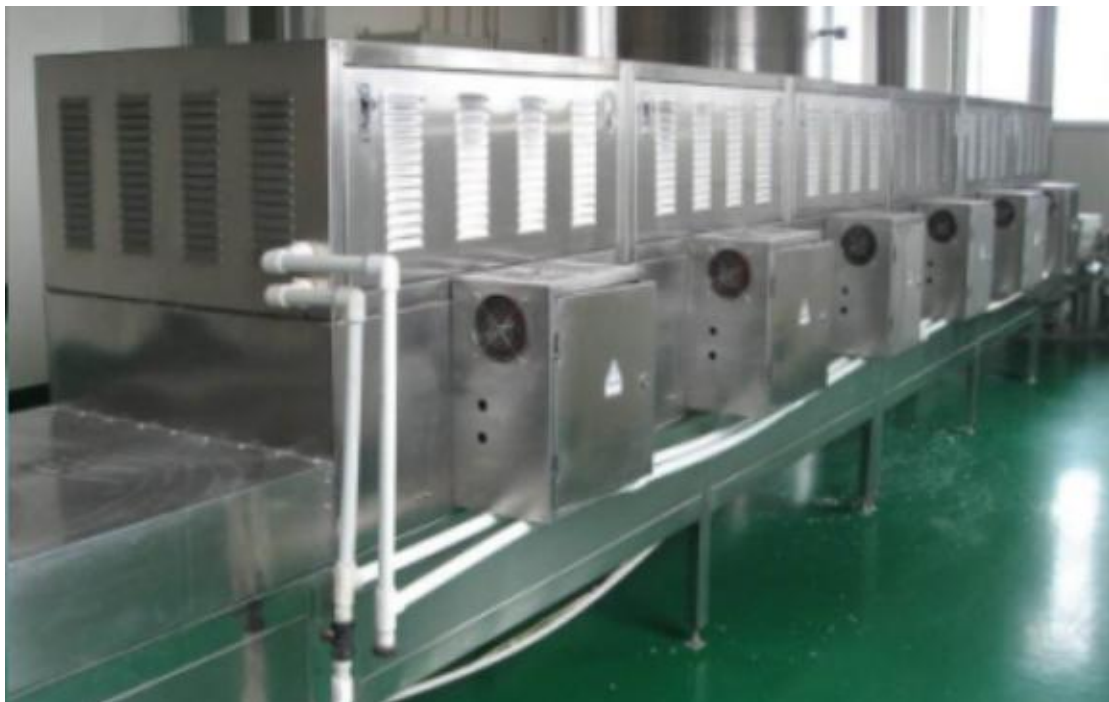
1.The ordinary water bath method of defrosting is to put frozen goods directly into normal temperature water or cold water for defrosting.It generally takes a few hours or even a few days to achieve thawing, which can damage the quality of the frozen product due to excessive time.

2.There is also a commonly used low-temperature thawing method, that is, the frozen articles are thawed in a fresh-keeping freezer of  $TC\sim 4\text{ }^{\circ}\text{C}$ , although the method can keep fresh, the time is longer.

The traditional thawing method mainly has the problems of slow thawing speed and low

efficiency. At present, there is a thawing method in a microwave oven. In general, the frozen articles are directly placed in a microwave oven or a microwave thawing machine for heating and thawing. This method has serious corner effect and external heat internal cooling. Therefore, it is easy to damage the quality of frozen products, and it is impossible to ensure the freshness of foods, especially in high-end restaurants where food quality and freshness are critical, existing thawing methods and equipment cannot simultaneously meet the needs of high efficiency, high freshness and high quality thawing.

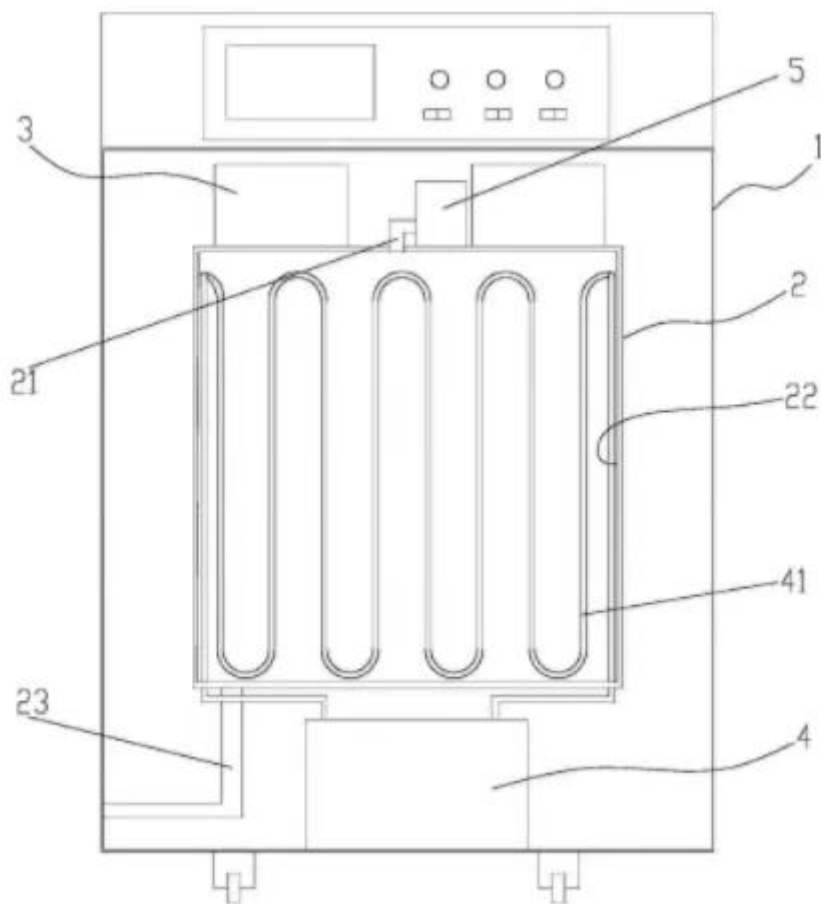
Fast low temperature microwave thawing equipment places the frozen article in a microwave working chamber in the microwave thawing machine, the ambient temperature in the microwave working chamber is  $3^{\circ}\text{C}$  to  $3^{\circ}\text{C}$ ; During the microwave thawing process, a cold and humid air flow is introduced into the microwave working chamber so that the cold and humid air flow condenses into a frost film on the surface of the frozen article. The frozen articles are thawed by microwave in an environment covered with frost film. Since cold water atomization is used to form a cold and humid air flow, a small amount of water can be used to form a plurality of cooling air flows, at the same time, frozen materials can be placed in the entire microwave working chamber without the limitation of a water tank. It can quickly thaw a large or large number of frozen materials to improve efficiency.



Fast low temperature microwave thawing equipment

**The structure of the fast low temperature microwave thawing equipment:**

A fast low temperature microwave thawing equipment comprising a microwave defrosting machine body 1, the microwave defrosting machine body 1 is provided with a microwave working chamber 2 for placing frozen articles and a microwave generator 3 at the periphery, the refrigeration unit 4 is disposed in the microwave thawing machine body 1. The evaporator 41 of the refrigeration unit 4 is disposed on the inner wall of the microwave working chamber 2. Cooling the microwave working chamber 2 to maintain the temperature in the microwave working chamber 2 at  $-3^{\circ}\text{C} \sim 3^{\circ}\text{C}$ . A cold and humid air inlet 21 is connected to the top of the microwave working chamber 2 and an ultrasonic atomizing humidifier 5 is connected. The ultrasonic atomizing humidifier 5 atomizes the water into water vapor and directly flows into the microwave working chamber 2.



The surface of the inner wall of the microwave working chamber 2 is also adhered with a smooth waterproof membrane 22, which can prevent the cold and humid airflow from frosting on the surface so that the cold and humid airflow is more concentrated on the

surface of the material to condense. The bottom of the working chamber 2 is connected to the drain pipe 23 to discharge the sewage dripping when the material is thawed or to drain when it is cleaned.

Of course, the industrialized microwave thawing equipment also needs to use flowmeters, thermometers, hygrometers and other instrumentation devices and various common parts such as pipeline valves to control and display the temperature and flow of low cold and humid airflow. The water level of the ultrasonic atomizing humidifier is visualized to replenish water in time.

**Our first class service:**

1. Our equipment can be customized according to the needs of customers.
2. The low temperature microwave thawing equipment has a one-year warranty.
3. We can help you install on site and train your staff.

Our Leader microwave equipment company has been persisting the principle of “quality first, customer first” for many years and is committed to producing environmentally friendly, energy-saving and efficient production equipment. Provide a more complete service. Looking forward to your call!