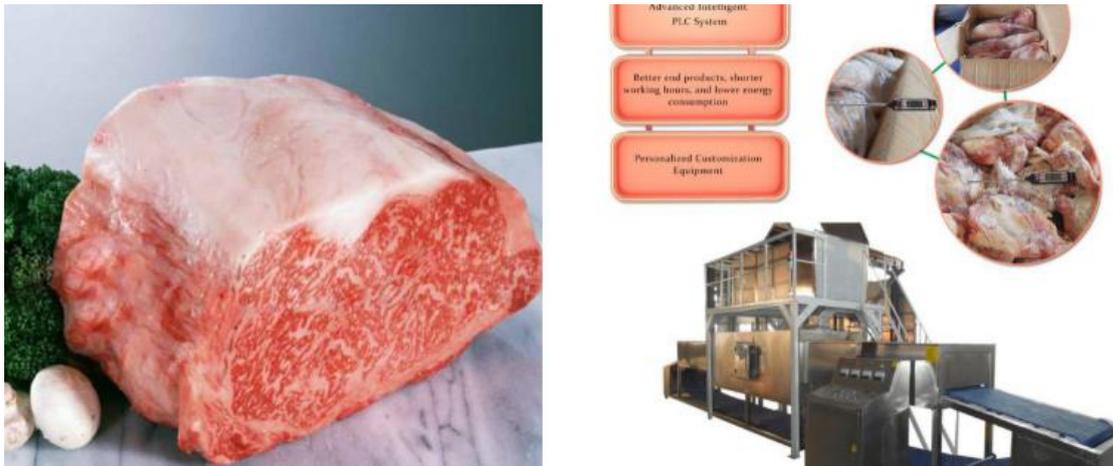


Microwave Defrosting Pork Equipment LD1701

The LD1701 microwave defrosting pork equipment uses the polar wave vibration to generate elastic collision with surrounding molecules and frictional heat generation by the action of electromagnetic wave high-frequency radiation. The heating method is generated from the inside of frozen meat products. It has the advantages of low production cost, high efficiency, no bacteria growth and small footprint by using of this method to warm the defrosted food.



Due to the moisture content fat meat in pork is much lower than that of lean meat in the process of microwave thawing and tempering. At the same microwave frequency, the freezing and tempering time of fat meat is lower than that of lean meat. At present, this factor is usually not considered in the process of tempering and thawing of pork. All of meat is uniformly thawed by microwave. When the content of fat in the defrosted pork is large, the use of uniform microwave thawing time will lead to waste of electric energy and time. Therefore, a device for microwave thawing of pork is needed to improve the above problems.

The defrosting cavity and antenna technology of the traditional industrial microwave thawing equipment is similar to the household microwave oven antenna. The magnetron emits microwaves, which are irradiated on the microwave agitator through the waveguide antenna and the microwave agitator is continuously rotated to uniformly reflect the microwaves into the cavity or thaw the food. Due to the limitation of the size of the microwave agitator, the design of the length of the microwave thawing chamber is limited in the application of the tunnel blasting industrial microwave thawing equipment. Generally,

two microwave agitators are required and equipment costs will increase when the defrosting chamber is 2.5 m. A package of 251kg frozen meat (length 600mm) thawing time is about 4min under 915MHZ-75KW microwave, the tunnel transmission speed is $2500/4=625\text{mm}/\text{min}=1.04\text{ pack}/\text{min}=62.5\text{ pack}/\text{H}=1562\text{Kg}/\text{H}$. Thawing capacity is lower than our equipment.

Under the premise that the total length of the LD1701 microwave defrosting pork equipment is constant, the length of the heating chamber, the effective space utilization rate and the equipment thawing capacity are increased, the equipment cost is reduced. The slot antenna and the polygonal heating cavity are arranged to make the material thawing more uniform, the loss of microwave energy can be avoided and the energy utilization rate is increased at the same time.



Features of LD1701 microwave defrosting pork equipment:

1.The LD1701 microwave defrosting pork equipment is provided with a slot antenna and a polygonal heating cavity. The microwave is transmitted into the heating cavity through the aperture on the slot antenna and the microwave is reflected by the polygonal heating cavity to achieve uniform thawing.

2.The metal screen door provided by the LD1701 microwave defrosting pork equipment can reflect the microwave that leaks into the feed suppression chamber and the discharge suppression chamber back into the device. Further, the length of the feed suppression chamber and the discharge suppression chamber can be greatly reduced under the premise

of the total length of the device, the length of the heating chamber can be increased, thereby increasing the effective space utilization rate, reducing the equipment cost, and increasing the equipment thawing capacity.

3.The metal shielding door of the LD1701 microwave defrosting pork equipment reflects the microwave in the feeding suppression chamber or the discharge suppression chamber and irradiates the material in the feeding suppression chamber or the discharge suppression chamber to avoid the loss of microwave energy,it can increase ncrease energy efficiency and production capacity.

4.The structure of the microwave thawing equipment for LD1701 microwave thawing pork equipment is detachable. After the equipment is commissioned in the production workshop, it can be decomposed and packaged for transportation convenience. When it is installed directly at the customer site, it reduces the installation time of the customer, the work intensity of the installerand the impact of on-site welding deformation on the equipment.

5. Under the premise that the total length of the LD1701 microwave defrosting pork equipment is constant.We increase the length of the heating chamber, the effective space utilization rate and the equipment thawing capacity.In addition,we reduce the equipment cost ,set the slot antenna and the polygonal heating cavityand make the material thawing more uniform. And can avoid the loss of microwave energy and increase energy efficiency

Figure LD1701-4 is a schematic diagram of the three-dimensional structure of the microwave thawing equipment

1705-distribution chain transmission motor, 18-photodetector, 19-slot antenna, 1901-porosity, 20-fixing, 21-mixer, 22-waveguide, 23-arc sensor, 24-microwave generator, 25-boom.

Below are more details of the industrial microwave thawing machine we sell.

Capacity	6T	8-10T	15-20T	Customized
Total power	30KW	60KW	80KW	Customized
Feed per hour	500KG	800-1000KG	1500-2000KG	Customized
Operational pressure	Atmospheric pressure			
Service life	5-8years			
Working method	Completely continuous			
Heating method	Electric energy			
Leakage value	$\leq 3\text{mw/m}^3$			
Microwave frequency	2450/915MHz			
Transmission speed	0-5m/min(adjustable)			
Cooling method	Water cooling			

Feeding principle of LD1701 microwave defrosting pork equipment:

The material to be thawed is input into the feed suppression chamber from the external transmission system of the industrial microwave thawing machine. When the material reaches the first outer screen door mechanism, the material is detected by the photoelectric probe. The metal screen door of the first outer screen door mechanism is opened and the metal screen door in the first inner screen door mechanism is closed (used to reflect microwaves transmitted through the apertures in the slot antenna to prevent microwave leakage). After receiving the signal that the metal screen door in the first outer screen door mechanism is open, the material enters the feed suppression chamber. After the photodetector detects that the material has entered the feed chain, the first outer screen door mechanism is closed. After waiting for the material on the feed adjustment chain to be transferred to the main transmission chain, the metal screen door in the first inner screen door mechanism is opened (the microwave leaking into the feed suppression chamber is absorbed by the material through the reflection of the metal screen door). After the photodetector detects that the material has entered the feed chain, the first outer screen door mechanism is closed. After waiting for the material on the feed adjustment chain to be transferred to the main transmission chain, the metal screen door in the first inner screen

door mechanism is opened (the microwave leaking into the feed suppression chamber is absorbed by the material through the reflection of the metal screen door). The material quickly enters the feed adjustment chain in the heating chamber, closing the metal screen door in the first inner screen door mechanism. The material is then transferred from the feed adjustment chain to the main transmission chain network. The material spacing on the main transmission chain is controlled by the feed chain adjustment motor and the feed is repeated.

The principle of discharging LD1701 microwave defrosting pork equipment:

When the material completely enters the discharge adjustment chain network, the metal screen door in the second inner screen door mechanism is opened and the material quickly enters the discharge chain network in the discharge suppression chamber (The microwave which leaks into the discharge suppression chamber is absorbed by the reflection of the metal screen door). Closing the metal screen door in the second inner screen door mechanism and opening the metal screen door in the second outer screen door mechanism, and then transmitting it out from the discharge chain net. Closing the metal screen door in the second outer screen door mechanism. Repeat the above steps.

The metal shield doors in the first inner screen door mechanism and the second inner screen door mechanism are simultaneously closed and opened. When opened, the first outer screen door mechanism and the second outer screen door mechanism are necessarily closed. Microwave agitator is also called electromagnetic field mode agitator. Its function is to disturb the electromagnetic field inside the cavity and make it evenly distributed to improve the heating effect of the microwave oven. The agitator is shaped like an electric fan, but the shape of the blade is not regular, and it is generally made of a metal having good electrical conductivity and high strength (such as magnesium alloy). The agitator is generally installed at the output port of the waveguide. The special small motor drives the blade to rotate at a low speed of several tens of revolutions per minute. It constantly changes the reflection angle of the microwave during the rotating motion to reflect the microwave into the cavity. At each point, the food in the oven cavity is heated evenly. Some microwave ovens do not have a stirrer, but the rotation of the turntable supporting the food can not only change the distribution of the microwave field, but also uniformly heat the food itself.

Our Leader Microwave Equipment Company provides services to users of the LD1701 microwave defrosting pork equipment and LD1702 Microwave Seafood Thawing Equipment: We put ourselves in the place for the user to consider, set up a technically competent service team to provide full service for consulting, repair and maintenance equipment for new and existing users.

Users can learn more about the various information of the equipment before purchasing. After purchase, we are responsible for installing equipment, training employees and guiding operations. Later users have problems using our products, please contact us by phone or email, we will respond to you immediately and provide solutions.