

Unipolar Plate Thawing Equipment

Cryopreservation of meat and other foods is a good method to maintain the quality of the food. In order to prevent the quality of the food from being greatly affected after thawing, the food experience is affected. We have developed unipolar plate thawing equipment.



Thaw chicken/Thaw chicken

Advantages of unipolar plate thawing equipment:

(1) A combination of a unipolar plate and a cavity is adopted. The unipolar plate resonant structure can be mounted in a cavity of any size, the size of the unipolar plate, the number of turns of the coil and the coaxial feed can be adjusted. The perfect combination of the single-pole resonant component and the different cavity can be achieved by adjusting the size of the unipolar plate, the number of turns of the coil, the tap position of the coaxial feed cable and the like.

(2) The thawing time is short. After the experiment, using the unipolar plate thawing equipment given in this example, 5kg of frozen pork (beef) is thawed from $-25\text{ }^{\circ}\text{C}$ to $-2\text{ }^{\circ}\text{C}$, only 10 minutes, thawing time and frozen meat quality in direct proportion.

(3) High radio frequency energy utilization. During the thawing process, when the standing wave changes to a poor level, the radio frequency power source automatically re-detects the appropriate working frequency, which greatly improves the power utilization efficiency and shortens the thawing time.

(4) The uniformity of thawing is good, and the frozen meat of large quality can be thawed, which can meet the demand of commercial thawing. The unipolar plate thawing equipment adopts the unipolar plate resonance mode and the selection frequency is the frequency of the radio frequency band (13.56MHz or 27.12). The frequency features of this frequency

band are: at the wavelength, the penetration depth is deep, after thawing, there is no hot spot, the temperature difference at different positions will not exceed 5 °C and the uniformity is very good.

(5)The thawing effect is good, the frequency bandwidth is narrow, and the frozen meat of different quality, shape and specification has the best thawing frequency. This requires the radio frequency power source to have a wide bandwidth to adapt, and the invention only needs 10MHz bandwidth, can meet most of the requirements, greatly reducing the difficulty and cost of the power source design.

(6)The unipolar plate thawing equipment given by the microwave thawing equipment is convenient for modular design, for example, the unipolar plate resonance component can be made into a single module to be mounted to different cavities. It only needs to fine-tune individual parts, which is very suitable for mass production and low cost.



Unipolar plate thawing equipment and details

Structural principle of the unipolar plate thawing equipment:

The edge of the partition 12 may be in contact with the inner wall of the device body 11 such that the first cavity 111 and the second cavity 112 are isolated from each other. It is avoided that the object 40 to be thawed or a derivative (such as water) flowing into the second cavity 112 in the first cavity 111 during the thawing process causes damage to the unipolar plate resonance component 13.

The unipolar plate resonance component is configured to form a resonant structure with the accommodating cavity 110. In this embodiment, the unipolar plate resonance component 13 can include a coil 130, a unipolar plate 131 and a coaxial feed cable. 132,

The coil 130 is mounted on the second cavity 112, and the unipolar plate 131 is connected to the coil 130 and located between the coil 130 and the partition 12. One end of the coaxial feed cable 132 is connected to the coil 130, and the other end is connected to the inner wall of the apparatus body 11.



Domestic and foreign customers visiting picture

Our services:

1. We provide customers with first-class microwave mechanical equipment and a complete range of products including frozen seafood thawing equipment.
2. Our Leader Microwave Equipment Company has an excellent sales team, foreign trade documentation team, after-sales service team, etc., to provide you with the most complete service.
3. All mechanical equipment of the company is guaranteed for one year.

Over the years, our company has been committed to the manufacture and sale of high quality microwave equipment and has many old customers. Have a good reputation and reputation, if you want to start a new business, please feel free to contact us. We look forward to working with you!