

# Application of Low Temperature and High Humidity Air Thawing Machine

At present, whether domestic or foreign meat processing plants, the raw meat used to process meat products is mostly frozen meat and fresh meat, and frozen meat accounts for a certain proportion. [Thawing Machine](#)

Before processing meat products, meat enterprises generally need to thaw frozen meat to a temperature suitable for the process requirements, in order to facilitate the subsequent process (such as dressing, raw material mixing, etc.). [Microwave Heating Machinery and Equipment](#)

According to different thawing methods, thawing equipment can be divided into: air thawing (static, flow, pressure, decompression), hydrolysis and freezing.

(static, mobile, pressurized, spray, spray, low pressure steam), microwave thawing, heating and thawing (hot air, steam, hot water immersion, hot plate contact) and other categories, at present, the domestic and foreign meat processing factories, according to their actual situation, the thawing method is also different.

The most common ones are thawing storage at 0 (+2 C), room temperature thawing room and so on. As long as the indoor temperature can be controlled, it can be equipped with meat shelf or case board for thawing.

The quality of raw meat is the best when thawed for a long time in a thawing tank at 0 (+2 C), but the cost is high and the thawing period is long. The cost of thawing in room temperature thawing room is low, but the raw meat juice loses more, the weight decreases greatly, and the thawing period is long.

The more advanced air thawing equipment includes low-temperature breeze thawing device and compressed air thawing device. Microwave thawing is the use of microwave heating to complete the thawing of frozen meat. In the past, thawing frozen meat relied mostly on air and water. Both methods are heat transfer from outside to inside.

Microwave thawing can not only heat the surface, but also heat the interior. Microwave thawing is usually completed in 1 hour, while conventional air thawing is more than 10 hours.

Because the microwave thawing time is short, it will not give enough time for enzymes or microorganisms to function, and it is not easy to cause meat deterioration, so the quality of microwave thawing meat is better.

However, microwave heating is also strong on the surface and weak in the interior, especially in the corner and protrusion, which will produce heating denaturation. In addition, due to the uneven meat tissue, the calorific value of water is significantly higher than that of ice, so there will be a greater temperature imbalance.

