

# Do you know freeze-dried vacuum food?

## Detail Introduction :

You can see all kinds of freeze-dried foods in the European, American, and Japanese markets. These are produced by vacuum freeze-drying technology. Vacuum freeze-drying technology is a high-tech dehydration technology that protects the color, freshness, and quality of food and medicine. Freeze-dried and dehydrated vegetables, fruits, meat, aquatic products, seasonings, etc., in addition to being used in aerospace, military supplies, mountaineering, tourism, exploration, mining, and other industries, have now entered restaurants and homes. From the general development trend, the energy consumption of equipment is getting lower and lower, and the production cycle is getting shorter and shorter. The price of freeze-dried food in the international market is 4-6 times that of hot air-dried dehydrated food, and it is becoming a hot commodity in international trade.

Freeze-dried food is made by quickly freezing fresh food and then sending it into a vacuum container for dehydration. Under vacuum conditions, the water is lifted from solid ice to gas so that the material is dehydrated and dried. Food made by a freeze-drying process not only has perfect color, aroma, taste, and shape but also preserves nutrients such as vitamins and proteins in food.

After the freeze-dried food is sealed and packaged, it can be stored, transported, and sold at room temperature for a long time without deterioration within three to five years. Since freeze-dried food has a low water content of 5%, it is of good quality and lightweight, which can greatly reduce its operating costs. In the production of vacuum freeze-dried food, there are generally processes such as material selection, cleaning, cutting, blanching, and sterilization. Radiation heating is generally used.

Freeze-dried food is porous, and the tissue surface is 100 to 150 times larger than the original, so the area of contact with oxygen increases. It should be carried out in a nitrogen environment when returning to normal pressure from low temperature and low pressure. Crushing and packaging should be carried out at a relative humidity of 30-40% and a temperature below 25°C. To keep the moisture content of dried food below 5%, a desiccant should be placed in the package to absorb trace moisture. Packaging materials with poor air permeability, high density, and deep color should be selected.