TCA

SHANDONG XINDAXIN FOOD INDUSTRIAL EQUIPMENT CO., LTD.



FRUIT AND VEGETABLE FREEZE-DRYING PROJECT

FAMOUS BRANDS IN FOOD MACHINERY PROJECTS

TCA

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VELTECH MACHINERY

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TCA

A GROUP OF PEOPLE WITH THE SAME BELIEF
"QUALITY FIRST, ETERNAL IMPROVEMENT, INTEGRITY-BASED, CONSIDERATE SERVICE"
ON AN HONEST TRADING PLATFORM
CREATE HARMONY FOR SOCIETY
CREATE VALUE FOR CUSTOMERS
CREATE THE FIRST BRAND IN THE FOOD MACHINERY INDUSTRY



COMPANY PROFILES

Shandong Xindaxin Food Industrial Equipment Co., Ltd. is a global supplier specializing in the production of food frying equipment. The company focuses on production lines for Frozen French fries,potato chips, meat prepared foods, snack foods, fruit,, fish meat, dried fruit foods, etc. R&D, manufacturing and sales and providing customers with complete complete solutions. The company's products have passed CE certification and ISO9001-2015 international quality management system certification, and comply with QS standards for food companies. After years of hard work and innovation, Xindaxin food equipment has been exported to the United States, the United Kingdom, Italy, Spain, Saudi Arabia, India, Thailand, Indonesia, Australia, Chile and other countries, and enjoys a high reputation among its peers.

The company has powerful technical force and standardized management. it not only has a leadership team composed of business management experts, professional designers and engineers, but also has a large number of employees with many years of production experience. At the same time, it has introduced foreign advanced equipment and production technology, research and development, and manufacturing and sales to provide global customers with complete solutions for food production and processing.

The company's main products: vacuum freezer dryer; vacuum frying equipment; single frying machines;frying production lines; French fries and potato chips production lines; chicken nugget and patty processing production lines; meat product processing lines;fruit processing production line, quick freezer machines,dryers and other food processing equipment.

FREEZE DRYING EQUIPMENT

Vacuum freezing and drying technology is currently the most advanced technology for food dehydration processing in the world. Compared with the commonly used drying method, the freeze-dried food produced with this technology features long period of quality assurance, good rehydration nature, good-looking color, good flavor, taste and high content of nutritious components. The dried food basically remains unchanged in its volume and shape, looks like sponge and has no shrinking. This drying technology can be widely used in process of vegetables,fruits,condiments, aquatic products, biological products, medicine, beverage, exemplar etc.



INTRODUCTION

Freeze-dried fruits and vegetables

The vacuum freeze dryer is mainly used for freeze-drying vegetables, fruits, meat, beverages, and dairy products.Mainly used in food, biology, pharmaceuticals, nutrition and health products and other fields.Cold trap type,rear.Working pressure in drying

One machine for all types of fruits vegetables and so on



FREEZE-DRIED SNACKS



FREEZE-DRIED FRUITS AND VEGETABLES



FREEZE-DRIED DAIRY PRODUCTS

Outstanding advantages:

Drying silo: silo body shape

Door opening method: Suspension railtranslation warehouse door

Heating method: steam heating

Cold trap water trap: tubular cold trap

Control part: PLC control system

Vacuum unit: Roots water ring vacuum unit

Refrigeration unit: Bitzer Germany



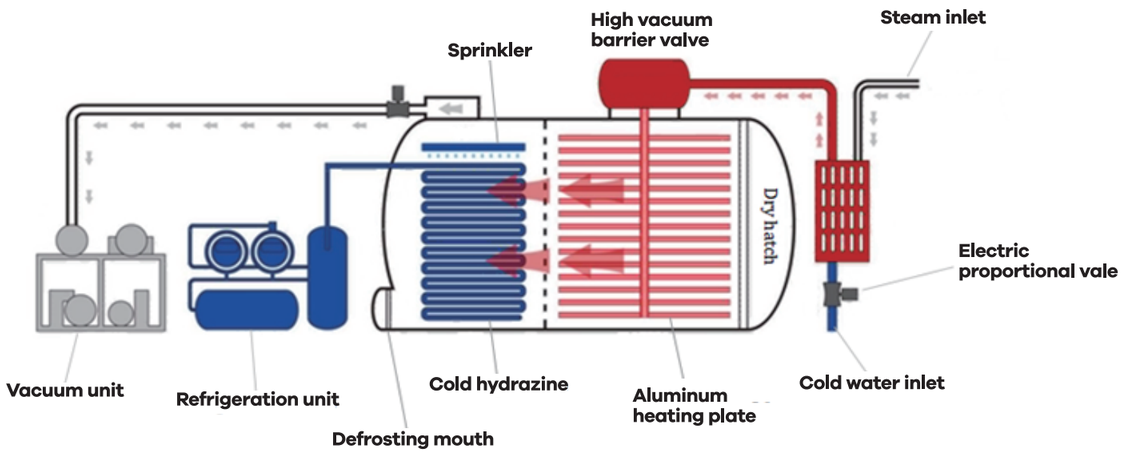




EQUIPMENT INTRODUCTION

Freeze-dried fruits and vegetables

STRUCTURE AND FUNCTION:



Working principle:
Freeze-drying is a drying technology using the principle of sublimation, so that the moisture in the pre-frozen material is directly sublimated into water vapor in the ice state without melting the ice to be removed, so as to achieve the purpose of freeze-drying. When drying at low temperature, the loss of some volatile components in the substance is very small, the volume is almost unchanged, the original structure is maintained, and no concentration phenomenon occurs. It is suitable for drying some chemical products, medicines and food.

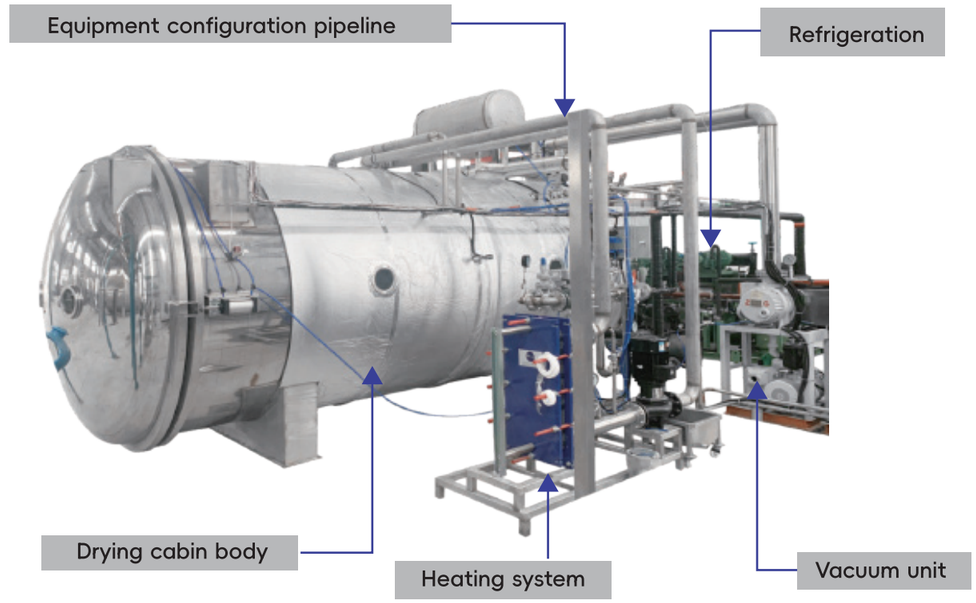
Steps1:Freezing
After the vacuum freeze dryer is turned on, the material is put into the material box for freezing. It is the process of quickly freezing the dried material at low temperature, and then directly sublimating the frozen water molecules into water vapor in a suitable vacuum drying oven environment. In the freezing process of materials, on the one hand, the vacuum system is evacuated to take away part of the water; on the other hand, when the material is frozen, the water contained in some molecules is discharged to the surface of the material for freezing. After the freezing requirement is met, the material is heated and dried by the heating system. Through vacuuming, the moisture contained in the material is brought to the freezer and trap box for freezing, so as to meet the requirements of freeze-drying of the material.

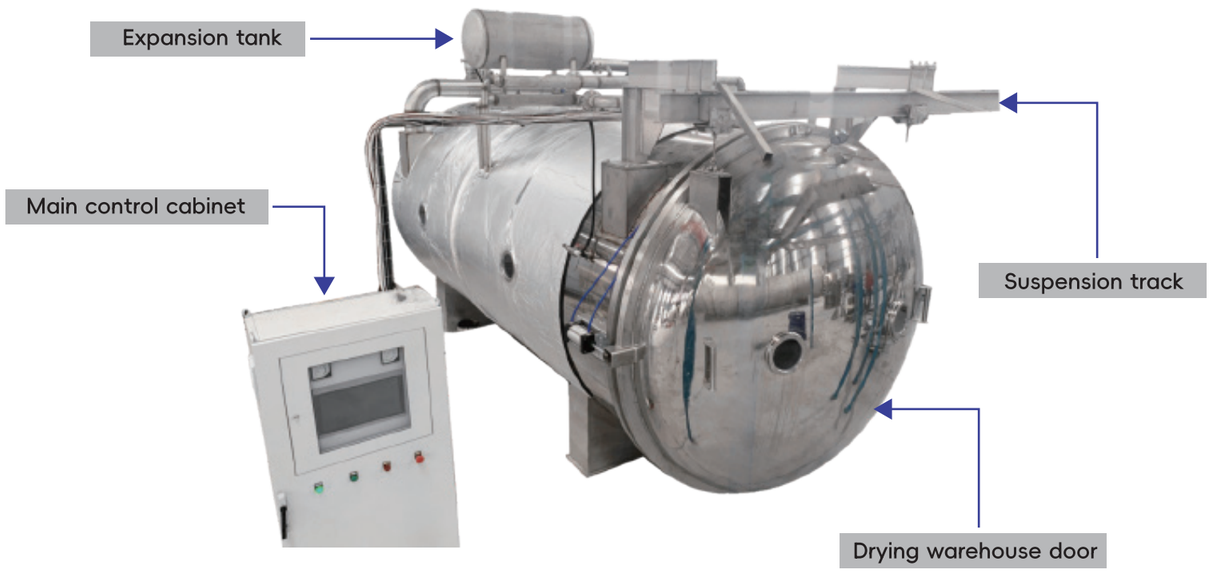
Steps2:Low temperature drying
The material is always at a low temperature (frozen state) before drying, and the ice crystals are evenly distributed in the material, the sublimation process will not cause condensation due to dehydration, and avoid side effects such as foaming and oxidation caused by water vapor. The dry substance is porous in the form of a dry sponge, the volume is basically unchanged, and it is easily soluble in water and returns to its original state. Greater protection against physicochemical and biological denaturation of dry matter.

Shandong Xindaxin Food Industrial Equipment Co., Ltd.

RELATED EQUIPMENT

Freeze-dried fruits and vegetables



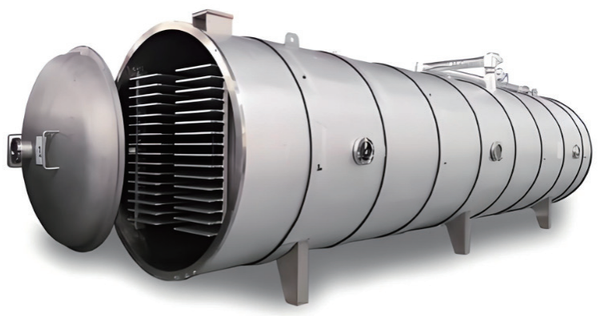


RELATED EQUIPMENT

DRYING CHAMBER: SHAPE OF CABIN BODY

Freeze drying chamber is the shape of cylinder, with the front door open, and the material trolley enters and exits from the front. The outer wall of the silo has a reinforcing ring (16# channel steel 4 lanes) and a base.

The dry chamber door is a translational door. The direction of the door is that one opens the door to the left and the other opens the door to the right.



COLD TRAP WATER TRAP: TUBULAR COLD TRAP





The cold trap is a tubular cold trap, which is horizontally arranged at the rear of the drying silo body. The diameter of the cold trap cylinder is the same as that of the drying silo. The cold trap and the drying silo are separated by electric stainless steel shutters. The barrel is made of SUS304 stainless steel, and the ribs and base of the barrel are made of carbon steel.

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RELATED EQUIPMENT

Freeze-dried fruits and vegetables

CONTROL PART: PLC CONTROL SYSTEM



Touch control panel



Control cabinet

The control cabinet is made of stainless steel, and the material is 304. The main control circuit part adopts Siemens PLC, Kunlun touch screen, Siemens inverter, Siemens temperature control module, and Siemens analog output module. Schneider circuit breaker, Schneider circuit breaker, Jiegu terminal block, Schneider AC contactor, Weidmüller relay, Siemens switch, Siemens warning light.

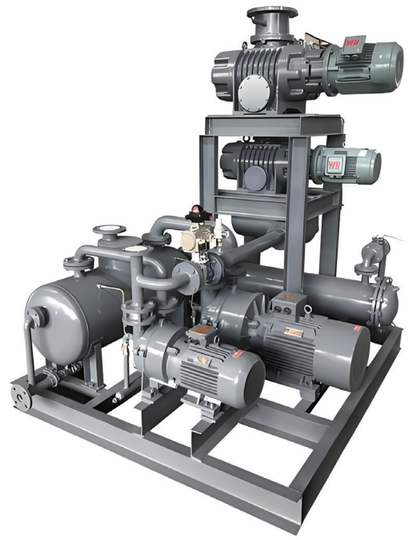
VACUUM UNIT

Composition:

The Roots water ring vacuum unit is composed of a Roots pump as the main pump and a water ring pump as the backing pump in series.

Advantages:

Roots water ring vacuum unit chooses water ring pump as the backing pump, which is more advantageous than other vacuum pumps, it overcomes the limit pressure difference when a single water ring pump is used (the ultimate pressure of the unit is greatly improved than that of water ring pump)), the disadvantage of low pumping rate under a certain pressure, while retaining the advantage that the roots pump can work quickly and has a larger pumping rate.



RELATED EQUIPMENT

Freeze-dried fruits and vegetables



REFRIGERATION UNIT

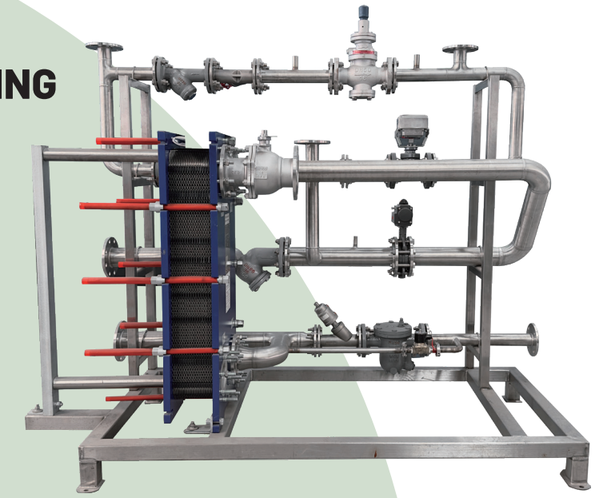
Composition:
Suitable for all kinds of refrigerants, up to 6 compressors can be connected in parallel, the displacement of the compressors is divided into 11 levels, and the cooling capacity is also the same. The use of parallel systems can bring additional benefits to the customer

Advantages:
The reliability of the system is high, the compressors are used as backup for each other, the cooling capacity is adjusted steplessly, the compressors are always working at full load, and the partial load efficiency of the system is high. The compressor system has a compact structure and is easy to maintain and repair.

HEATING PLATE: STEAM HEATING

Radiant heating, the water is heated by the heat exchanger and introduced into the heating plate in the cabin for heating, and the water is always in a circulating state during the heating process.

The size of the heating plate is 5100*630*16mm. The heating plate header is made of stainless steel 0Cr18Ni 9, and the connecting hose is stainless steel hose.

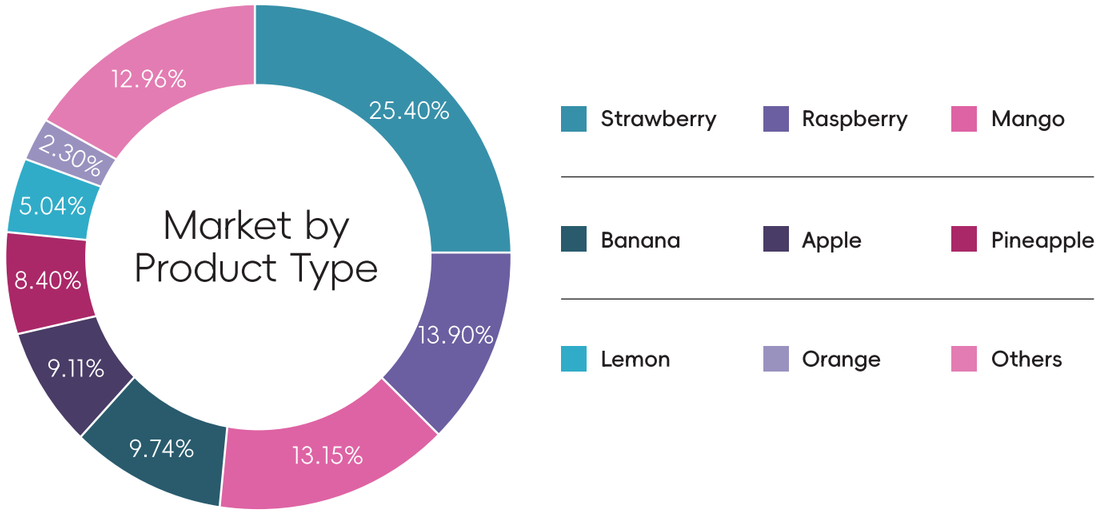


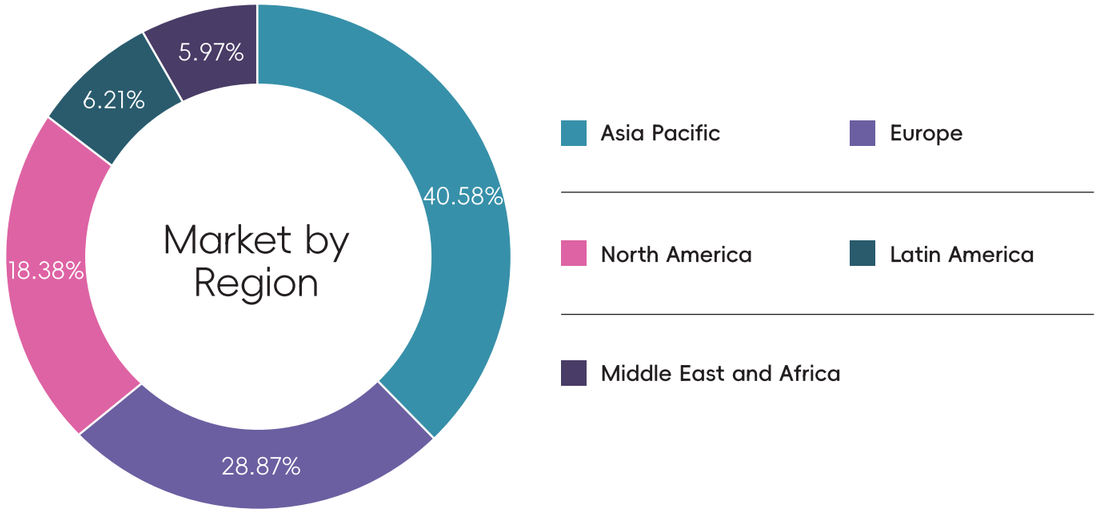
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POPULAR PRODUCTS

Freeze-dried fruits and vegetables

GLOBAL FREEZE DRIED FRUITS PRODUCT MARKET





PROCESSING

Freeze-dried fruits and vegetables

PROCESSING FOR POPULAR PRODUCT

Strawberry processing line

1.Working table to remove leaves → 2.Bubble washing 1 → 3.Bubble washing 2 → 4.Air drying → 5.Freeze → 6.Freeze dryer → 7.Packaging




Mango processing

1.Mango peeling,pitting → 2.Mango Washing → 3.Cube/ Chips cutting → 4.Freeze → 5.Freeze dryer → 6.Packaging




Orange/Lemon chips or powder processing

1.Orange/lemon brush washing → 2.Bubble washing → 3.Chips cutting → 4.Freeze → 5.Freeze dryer → 6.Grinding(for powder use) → 7.Packaging




Coffee Processing

1.Coffee baking → 2.Grinding → 3.Extraction → 4.Condensation → 5.Freeze → 6.Freeze dryer → 7.Grinding → 8.Packaging




MAIN NECESSARY MACHINES

Freeze-dried fruits and vegetables

BUBBLE WASHING MACHINE

Pot thickness	3mm
Mesh belt	spiral mesh belt
Mesh belt bracket thickness	3mm
Material	SUS304
Power	3kw



Multi-angle cleaning without dead angles, thoroughly remove the residue on vegetables and fruits; low energy consumption, high yield, green and healthy; overall stainless steel, automatic time control, frequency conversion speed regulation, with filter box, water recycling, equipped with blower, high-pressure bubble cleaning， Spray pipe at the outlet

BLANCHING MACHINE

plays an important role in deactivating enzymes, preventing browning, changing cell structure and texture, maintaining the original color and nutrients of fruits and vegetables, and preventing the deterioration of fruits and vegetables after thawing during the refrigeration process . (Appropriate control according to the type and size of raw materials. Generally, the temperature is 90-96 degrees and the time is 2-5 minutes), automatic temperature control, frequency conversion speed regulation



MAIN NECESSARY MACHINES

SLICER/CUBE CUTTING MACHINE

The advanced slicing technology can quickly and accurately complete the slicing of a large number of fruits and vegetables. Whether it is potatoes, sweet potatoes, carrots, or apples, bananas, dragon fruits, you can get fruit and vegetable slices with uniform thickness and consistent shapes.

Different fruits and vegetables use different cutting which can cut into chips, cube or strips as request.

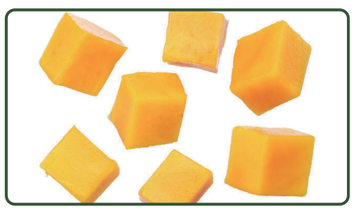












Shandong Xindaxin Food Industrial Equipment Co., Ltd.

MAIN NECESSARY MACHINES

Freeze-dried fruits and vegetables



MANGO PEELING AND DEPITING MACHINE

Mango peeling/destining machine:
For mango peeling and pitting
Capacity: 1000pcs/hour Dia of fruit:40-100mm Height of fruit: 40-140mm

PINEAPPLE PEELING, CORE, HALVING ALL-IN-ONE MACHINE

This machine can cleanly peel the pineapple, remove the head and tail of the peeled pineapple, remove the core.It is easy to operate, efficient, safe and reliable, and is widely used in factories, restaurants, canteens, etc.





HYPOTHERMY PULVERIZER

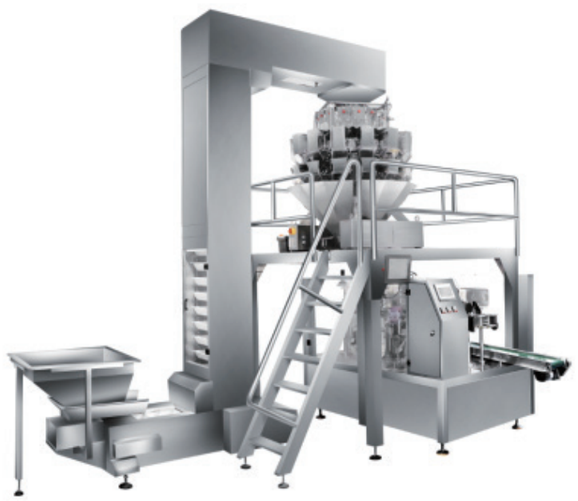
Application: Used for freeze-dried material ultra-low temperature crushing;

MAIN NECESSARY MACHINES

Freeze-dried fruits and vegetables

AUTOMATIC ROTARY PACKAGING MACHINE FOR CHIPS OR CUBE

Material: SUS304
Package specification:
width：50～200mm length：100～350mm
Working process:
1. Bag loading 2. Coding 3. Bag opening 4. Blanking 5. Dust sweeping 6. Heat sealing 7. Heat sealing 8. Cold sealing



AUGER AUTOMATIC PREMADE BAG POWDER PACKAGING MACHINE

Material: SUS304
Application:
it is suitable for the powder packaging
It is with screw hoister, weighing, packaging machine
Air compressor: ⩽0.6m^3/min

