HITREES

天津市海特瑞思机械设备有限公司

Tianjin Hitrees Machinery Equipment CO.,Ltd






只做精品，服务致胜！

公司简介 COMPANY PROFILE

天津市海特瑞思机械设备有限公司坐落于天津市宁河区潘庄工业园，是一家设计、制作及安装食品速冻设备，食品解冻设备，果蔬前处理设备的专业生产厂商。

公司主要产品包括螺旋速冻机，隧道速冻机，流态化速冻机，低温高湿空气解冻机，各种规格的冷库和速冻库，大枣加工生产线，青皮核桃加工生产线，玉米加工生产线，鲜杏加工生产线及其他定制化食品加工设备。

公司技术力量雄厚，产品远销美国，加拿大，英国，法国，澳大利亚，韩国，墨西哥，哥斯达黎加，菲律宾等50多个国家及地区。

我们的信念是：只做精品，服务致胜！

欢迎全国各地合作伙伴到我公司参观并莅临指导！

Tianjin Hitrees Machinery Equipment CO.,Ltd.,located in Xingshi Industrial Park, Ninghe District, Tianjin, China,is a professional manufacturer of food freezing machine, food defrosting machine,fruits and vegetables processing machine, etc, integrating design, production and installation.

Our company's main products include spiral freezer, tunnel freezer, fluidized tunnel freezer, low-temperature high-humidity air defrosting machine, various specifications of cold room and quick-freezing room, jujube processing line, green walnut processing line, corn processing line, fresh apricot processing line and other customized food processing equipment.

Our company is strong in technology. Our products have been exported to more than 50 countries and regions such as the United States, Canada, UK, France, Australia, South Korea, Mexico, Costa Rica,Philippines,etc.

Welcome partners from all over the world to visit our factory.

目录

螺旋速冻机

螺旋速冻机是一种结构紧凑、适用面广、占地面积小、冻结能力大的节能型快速冻结设备。按结构形式可分为单螺旋式速冻机和双螺旋式速冻机。广泛适用于水产品、面点、肉制品、乳制品、调理食品等产品的单体速冻。可根据客户的需求和场地限制进行定制设计和制造。

产品特点

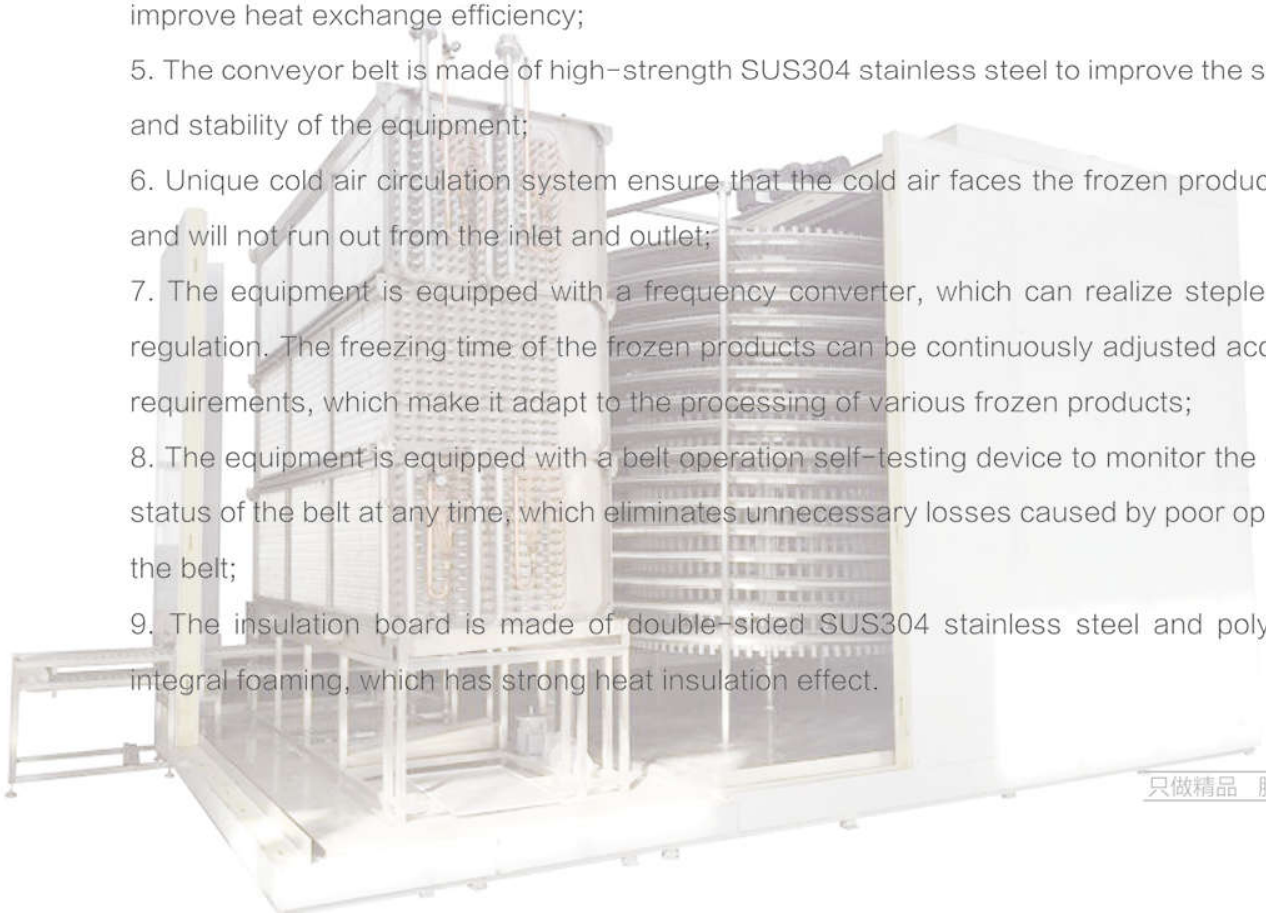
1. 冻结能力大；
2. 结构紧凑，占地面积小；
3. 大量地采用机械加工件，消除了因焊接件产生的焊接变形、焊接应力集中导致的传动累积偏差、传动的不一致性；
4. 蒸发器采用变片距设计，有效的防止霜堵，提高换热效率；
5. 传送网带采用高强度SUS304不锈钢材质，从而提高设备的使用寿命和稳定性；
6. 独特的冷风循环系统，冷风均匀面对冻品，确保进出料口不跑冷；
7. 设备配有变频器，可实现无极调速，冻品冻结时间可根据需要连续调节，可适应多种冻品的加工；
8. 设备设有网带运行自检装置，随时可以监控网带运行状况，消除了因网带运行不良，带来的不必要的损失；
9. 保温库板采用SUS304双面不锈钢聚氨酯整体发泡制作，保温效果强。

Spiral Freezer

The spiral freezer is an energy-saving fast freezing device with compact structure, wide application range, small occupied space and large freezing capacity. According to the structure, it can be divided into single spiral freezer and double spiral freezer. It is widely used for quick freezing of aquatic products, pastry, meat products, dairy products, and prepared foods. We can custom design and manufacture according to customer needs and site constraints.

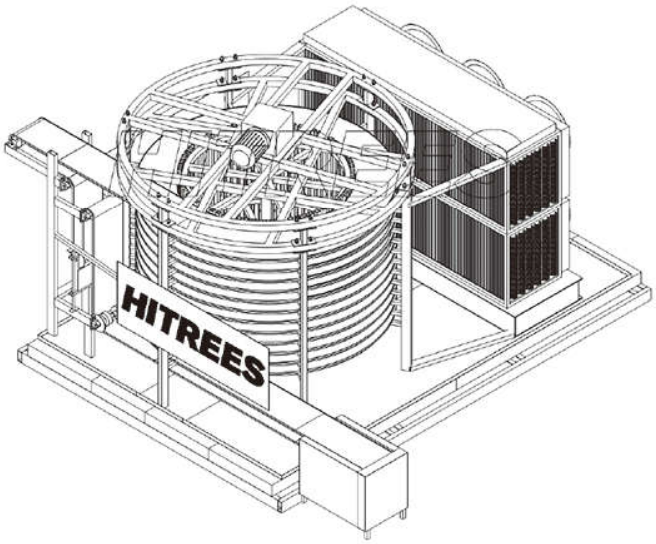
Features

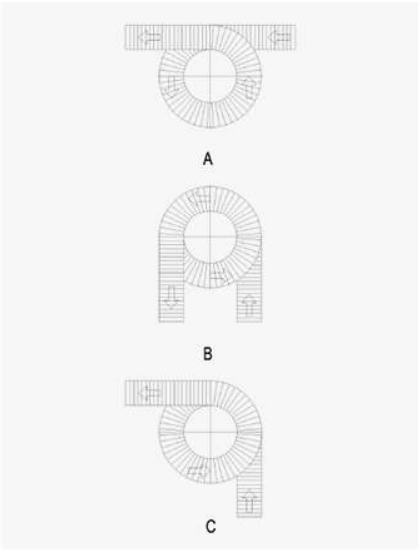
1. Large freezing ability;
2. Compact structure and small space occupied;
3. A large number of machined parts are used to avoid the deformation caused by welding, the cumulative deviation of the transmission caused by the concentration of welding stress, and the inconsistency of the transmission;
4. The evaporator adopts a variable fin-pitch design to effectively prevent frost blockage and improve heat exchange efficiency;
5. The conveyor belt is made of high-strength SUS304 stainless steel to improve the service life and stability of the equipment;
6. Unique cold air circulation system ensure that the cold air faces the frozen products evenly and will not run out from the inlet and outlet;
7. The equipment is equipped with a frequency converter, which can realize stepless speed regulation. The freezing time of the frozen products can be continuously adjusted according to requirements, which make it adapt to the processing of various frozen products;
8. The equipment is equipped with a belt operation self-testing device to monitor the operation status of the belt at any time, which eliminates unnecessary losses caused by poor operation of the belt;
9. The insulation board is made of double-sided SUS304 stainless steel and polyurethane integral foaming, which has strong heat insulation effect.



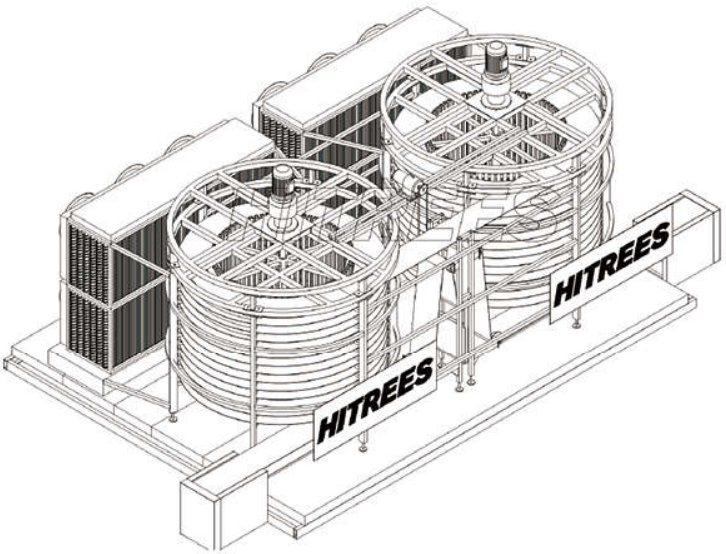
螺旋速冻机进出料口方向的结构形式

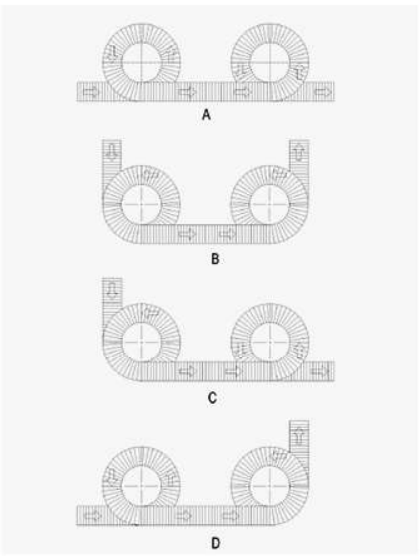
单螺旋速冻机





双螺旋速冻机





应用领域 Application area

隧道式速冻机

隧道式速冻机是一种结构简单、运行可靠的速冻机，广泛适用于水产品、面点、肉制品、乳制品、调理食品等产品的单体速冻。可根据客户的需求和场地限制进行定制设计和制造。

产品特点

1、结构简单，运行方便，使用寿命长；

2、采用热波动吹风方式，冻结效率高；

3、蒸发器采用变片距设计，有效的防止霜堵，提高换热效率；

4、保温库板采用SUS304双面不锈钢聚氨酯整体发泡制作，保温效果强；

5、传送网带采用高强度SUS304不锈钢材质，从而提高设备的使用寿命和稳定性；

6、设备配有变频器，可实现无极调速，冻品冻结时间可根据需要连续调节，可适应多种冻品的加工；

7、独特的冷风循环系统，冷风均匀面对冻品，确保进出料口不跑冷。

Tunnel freezer

Tunnel freezer is a quick freezing machine with simple structure and reliable operation. It is widely used for IQF freezing of aquatic products, pastry, meat products, dairy products, prepared foods, etc. It can be customized on design and manufacturing according to customers' demands and room limitation.

Product Feature

1. Simple structure, convenient operation and long service time;

2. Adopting thermal fluctuation blowing method which makes high freezing efficiency;

3. The evaporator adopts variable fin-pitch design to effectively prevent frost blockage and improve heat exchange efficiency;

4. The thermal insulation board is made of double-sided SUS304 stainless steel and polyurethane integral foaming, which has strong heat insulation effect;

5. The conveyor belt is made of high-strength SUS304 stainless steel to improve the service life and stability of the equipment;

6, The equipment is equipped with a frequency converter which can achieve stepless speed regulation. Freezing time can be continuously adjusted according to needs which adapts to processing of a variety of products;

7. Unique cold air circulation system. The cold air evenly faces the frozen products. No cold air runs away from inlet or outlet of freezer.

流态化速冻机

流态化速冻机是通过机械振动和风压使产品在不锈钢网带上半悬浮状态或全悬浮状态运行，从而实现单体快速冻结，防止粘连。 主要适用于蔬菜、水果、菌类、部分海产品等颗粒，片状，块状食品的快速冻结。

产品特点

1.冻结效率高，冻结产品种类多；

2.配备网带振动，冷风循环系统，防止产品与网带粘连；

3.蒸发器采用变片距设计，有效的防止霜堵，提高换热效率；

4.传送网带采用高强度SUS304不锈钢材质，从而提高设备的使用寿命和稳定性；

5.设备配有变频器，可实现无极调速，冻品冻结时间可根据需要连续调节，可适应多种冻品的加工；

6.保温库板采用SUS304双面不锈钢聚氨酯整体发泡制作，保温效果强。

Fluidized tunnel freezer

The fluidized tunnel freezer makes the product in a semi-suspended state or a fully suspended state on the stainless steel belt by mechanical vibration and air pressure. Thereby realizing individual quick freezing and preventing adhesion. It is mainly suitable for quick freezing of granules, flakes and blocky foods such as vegetables, fruits, fungi and seafood.

Product Feature

1. High freezing efficiency and various frozen products;

2. Equipped with belt vibration device and cold air circulation system to prevent the product from sticking to the belt;

3. The evaporator adopts the variable fins distance design to effectively prevent frost blockage and improve heat exchange efficiency;

4. The conveyor belt is made of high-strength SUS304 stainless steel to improve the service life and stability of the equipment;

5. The equipment is equipped with a frequency converter which can achieve stepless speed regulation. Freezing time can be continuously adjusted according to needs which adapts to processing of a variety of products;

6. The thermal insulation board is made of SUS304 double-sided stainless steel polyurethane integral foaming, which has strong heat insulation effect.

低温高湿解冻库

低温高湿解冻库配有制冷系统，加热系统，加湿系统和循环系统。其工作原理是利用低温高湿空气均匀吹拂解冻物品，通过PLC控制系统，分阶段控制解冻温度、湿度和时间，使其在合理的温度和湿度的环境下解冻。低温高湿解冻库主要用于块状冻肉的解冻，与其他解冻方式相比，低温高湿解冻库的解冻效果更均匀，无交叉污染，失水率极低。

Low temperature high humidity defrosting room is equipped with refrigeration system, heating system, humidification system and circulation system. The working principle is to use the low temperature and high humidity air to blow the products uniformly. The thawing temperature, humidity and time are controlled in stages through the PLC control system, which make the products be thawed under the environment with reasonable temperature and humidity. The low temperature high humidity defrosting room is mainly used for defrosting of frozen blocky meat. Compared with other thawing methods, the low temperature thawing room has more uniform thawing effect, no cross-contamination and low water loss rate.

低温高湿解冻库优势特点

1、解冻品质高

解冻过程中冻品中心温度与表面温度差在最小范围内，使冻品从中心到表面均匀解冻，使被解冻品基本保持速冻前的新鲜状态。

2、产品的失重率低

冻品解冻过程中始终在低温高湿度环境中进行，这样解冻的食品细胞汁液流失极少，保持了食品原有的色泽风味，减少营养成分的损失，降低失重率，为食品企业减少损失，赢得利润。

3、独特的解冻方式

采用高效加湿系统，并分阶段温度解冻，在保证解冻产品质量的前提下，缩短解冻时间。

4、高标准食品卫生要求

库内可选配除菌消毒装置，彻底清除空气及设备内部细菌，消除了可能造成的食品的二次污染，满足食品卫生要求。

5、操作简单适用性强

低温高湿解冻库采用全自动控制。解冻时间、温度可根据不同冻品要求加以调整，解冻后自动转为冷藏保鲜状态，可随时取出冷藏状态下的新鲜食品。

6、适用冻品范围广

广泛应用于肉类、水产及其它食品加工行业。

7、量身定做

产量及机体外形可以根据用户要求及场地实际情况设计制造。理想的解冻曲线，是优质产品的源泉！

Product Features

1. High thawing quality

During the thawing process, the temperature difference between the product center and surface is within a minimum range, so that the frozen product is uniformly thawed from the center to the surface. The defrosted product keeps as fresh as before quick-freezing.

2. Low weight loss rate of products

Frozen food is thawed always in a low-temperature and high-humidity environment. The thawed food cells have little loss of sap, which maintains the original color and flavor, reduces the loss of nutrients and lower the weight loss rate. It reduces the losses and earns more profits for food enterprises. .

3. Unique thawing method

Adopting high-efficiency humidification system and thawing in staged temperature. The thawing time is shortened on the premise of ensuring the quality of products.

4. High standard food hygiene requirements

The sterilizing and disinfecting device can be installed in the room to completely remove the bacteria in the air and inside the equipment, which eliminate secondary pollution of the food and meet the food hygiene requirements.

5. Simple operation and strong applicability

Low temperature high humidity trawing machine adopts fully automatic controlling. The thawing time and temperature can be adjusted according to the requirements of different frozen products. After thawing, it will automatically change to the state of cold storage. The fresh food in the refrigerated state can be taken out at any time.

6. Wide range of applicable frozen products

Widely used in meat, aquatic products and other food processing industries.

7. Custom-manufacturing

The output and room size can be designed and manufactured according to user requirements and actual site conditions. The ideal thawing curve keeps the food with high quality.

几种解冻方式比较及经济效益分析

A.几种解冻方式比较				
解冻方式	低温高湿空气解冻	水解冻	自然解冻	微波解冻
适用范围	适合各类食品	适合水产品及肉类食品	适合各类食品	适合各类食品
解冻效果	解冻质量高，无滴水现象，可实现均匀解冻	滴水现象严重，解冻不均匀食品品质下降很大	滴水现象严重，解冻不均匀食品品质下降很大	很容易发生解冻过度，解冻很不均匀
失重率	1% 以内	2% 以上	3% 左右	2~3%
食品的色味	食品色泽新鲜，能保持食品的原有风味	食品表面色泽暗淡，失去原有风味	食品表面变色严重，品质有所下降	一旦解冻过度将损伤食品的原有风味
卫生性	具有除菌和消除异味的作用满足食品卫生要求	食品相互污染，细菌容易繁殖，卫生性差	空气中的细菌容易附着在食品表面，卫生性差	满足食品卫生要求
解冻时间	短	较短	很长	很短
一次解冻量	较大	较大	较大	较小
操作难度	非常简单	要求操作者具备一定的经验	要求操作者具备一定的经验	相对简单
占地面积	很小	很大	很大	很小

Comparison of several thawing methods and economic benefit analysis

A.Comparison of several thawing methods				
Thawing method	Low temperature high humidity thawing	Water thawing	Nature thawing	Microwave thawing
Application	Various food	Aquatic and meat products	Various food	Various food
Thawing effect	High thawing quality, no dripping, uniform thawing	Serious dripping phenomenon, uneven thawing, food quality dropping a lot	Serious dripping phenomenon, uneven thawing, food quality dropping a lot	Easy to excessive thawing, very uneven thawing
Weight loss rate	Below 1%	Over 2%	Approx 3%	2~3%
Food color and flavor	Fresh food color, keep the original flavor of food	Dim surface, losing original flavor	Surface color changes seriously, quality lowered somewhat	Damage original flavor once excessive thawing
Hygiene	The function of sterilization and deodorization meet food hygiene requirements	Food cross contamination, bacteria easy to breed, poor hygiene	Bacteria in the air easily adhere to the surface of the food, poor hygiene	Meet food hygiene requirements
Thawing time	Short	Relatively short	Very long	Very short
Capacity per batch	Relatively big	Relatively big	Relatively big	Relatively small
Operation	Very simple	Require operator's experience	Require operator's experience	Relatively simple
Area occupation	Small	Big	Big	Small

B.经济效益分析				
(1).解冻后由于失重造成的经济损失比较（以猪肉解冻量10吨/天计算）				
解冻方式	低温高湿空气解冻	水解冻	自然解冻	微波解冻
失重率	以1% 计算	以2.5% 计算	以3% 计算	以2.5% 计算
重量损失（kg/天）	100	250	300	250
日经济损失（市场平均售价20元/kg）（元RMB）	2000	5000	6000	5000
月经济损失（元RMB）	60000	150000	180000	150000

B. Economic benefit analysis				
Comparison of economic losses due to weight loss after thawing (Calculated with 10 tons of pork per day)				
Thawing methods	Low temperature high humidity thawing	Water thawing	Nature thawing	Microwave thawing
Weight loss rate	Calculated at 1%	Calculated at 2.5%	Calculated at 3%	Calculated at 2.5%
Weight loss(kg/day)	100	250	300	250
Daily economic loss (Average market price 20 CNY/kg) (RMB)	2000	5000	6000	5000
Monthly economic loss (RMB)	60000	150000	180000	150000

应用领域 Application area

肉类冻品






海鲜冻品






包冰衣机

主要是对通过其中的水产品进行包冰作用，提高包冰衣产品的质地、蛋白质、持水能力等各项指标，降低水产品的损耗，改善其质量。同时延长包冰产品的保存时间,防止产品变质,风干,还能增加产品表面的光泽度。

产品特点

1. 整机采用食品级不锈钢制作，没有卫生死角，便于清洗，满足食品卫生要求;

2.可以同时实现浸水包冰和喷水包冰，从而保证包冰效果。与隧道式速冻机或者螺旋式速冻机配套使用;

3. 包冰衣能增加包冰产品的保存时间,防止产品变质,风干,还能增加产品表面的光泽度;

4. 配备变频器，网带运行速度可调;

5. 可根据用户的产量或特殊要求量身打造适合客户的设备。

Ice Glazing Machine

It mainly applies ice coating to aquatic products to improve the quality, protein and water holding capacity of the products, reduce the loss and maintain their quality. At the same time, it can prolong the storage time of the product, prevent the products from deteriorating or drying, and increase the glossiness of the surface of the products.

Product Feature

1. The whole machine is made of food grade stainless steel. Any corner is cleanable easily,meeting food hygiene requirements;

2. The product is ice-coated by soaking and spraying at the same time to ensure the effect. This equipment is used in conjunction with tunnel freezer or spiral freezer;

3. Ice-glazing can increase the storage time of the products, prevent the products from deteriorating, air drying, and improve the glossiness of the surface of the products;

4. Equipped with frequency converter, the machine can run at an adjustable belt speed;

5. Customize as user’s capacity or special requirement.

平板速冻机 Plate Freezer

平板速冻机广泛用于水产品、肉类产品的块状冻结。如：鱼类、虾类、贝类、鱼糜、肉制品等。

Plate freezer is widely used for block freezing of aquatic products and meat products. Such as: fish, shrimp, shellfish, surimi, meat products, etc.

制冷机组 Refrigeration Unit

制冷机组是由压缩机、油分离器、换热器、阀件等组成。核心部件均采用国际高端品牌，可根据客户需求定制制冷机组。

The refrigeration unit is composed of compressors, oil separators, heat exchangers, valve parts and other components. The core components are all from international high-end brands. Refrigeration units can also be customized according to customer needs.

富士豪低温螺杆机组
Frascold low temperature screw unit

比泽尔低温螺杆机组
BITZER low temperature screw unit

神钢双级变频螺杆机组
Kobelco two-stage inverter screw unit

复盛低温双级螺杆机组
Fusheng low temperature double stage screw unit

速冻库、冷藏库

Quick-freezing room, cold storage

速冻库、冷藏库主要用于食品、药品、药材、化工原料等物品的低温冷冻、冷藏。

Quick-freezing room and cold storage are mainly used for low-temperature freezing and refrigeration of food, medicine, chemical raw materials and other items.

营销与服务网络

Marketing and Service Network

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