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Stock Code : 603339

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SQ-G202405

SQUARE TECHNOLOGY

COOLING YOUR FUTURE WITH COLD CHAIN TECHNOLOGY

FREEZING EQUIPMENT | REFRIGERATION SYSTEM | COLD CHAIN SOLUTION | FOOD MACHINERY



Stock Code : 603339

★ QUALITY

★ INNOVATION

★ SERVICE

★ FRESHNESS



Culture

Mission

Provide quality cold chain solutions, make the world a better place.

Vision

To be a world leader in cold chain technology

Values

Quality, Innovation,
Respect, Integrity,
Responsibility, Passion

CULTURE

Square Introduction

Square Technology Group Co. Ltd (formerly Nantong Square Freezing & Heating Mechanical Equipment Co. Ltd.) is a listed company in Shanghai-stock Exchange. The company has been manufacturing freezing systems for over 30 years and is the largest industrial freezer manufacturer in China.

Our manufacturing facility is located in Nantong, China, with some 1300 employees and 64 hectares' land. We serve a wide range of food processing industries and can draw from our extensive experience to provide our customers the best value and ensure maximum profitability.

The product line includes spiral freezer, plate freezer, tunnel IQF, refrigeration system, cold storage, air cooler, insulated panel, cooker, oven, ice machine, etc.

Our products have been exported to over 80 countries, covering various applications, including seafood, protein, bakery, vegetable, fruits, etc. Square dedicate to deliver the superior quality freezing equipment to our clients.



Milestones



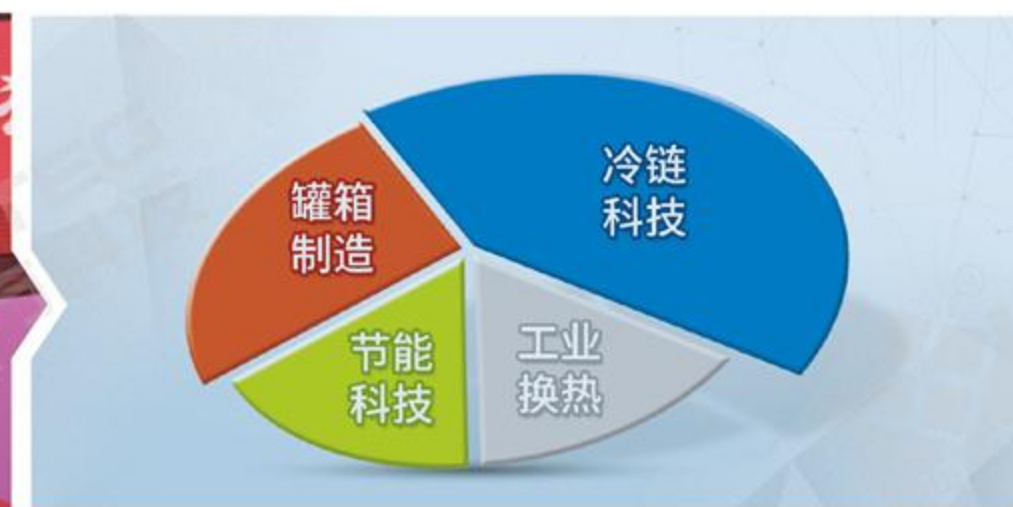
Founding team



Drafter of National standards



IPO



Diversity

1986

Square Technology Founded in Nantong, China.
First plate freezer developed.

1987

Plate freezers began to be widely used for frozen seafood processing.

1994

First spiral freezer developed.
First flake ice machine introduced to the market.

1995

Freezing equipment exported to international market, including the U.S, Thailand, Iceland.

1998

First Fluidized freezer was developed.

2007

Appointed to compile the National Standard of Spiral Freezer and Plate Freezer.

2008

Certified as the National High-tech Enterprise.

2009

Over 260 plate freezers and a complete fish production line delivered to the then largest fish processing vessel Lafayette.

2012

First self-stacking freezer was developed.

2013

Cold storages and turnkey projects delivered overseas market.

Impingement freezer developed.

2014

First carton freezer was developed. Daily freezing capacity for meat can reach 500 tons/day.

2016

IPO in Shanghai Stock Exchange.

2017

Total solution of bakery cooling, proofing, freezing and handling delivered to multi-national bakeries including Bimbo, Bama, Dr Oetker.

2018

Square Technology Group owns six companies and a R&D research center. The group business includes cold chain, tank container, insulated panels, heat exchangers, food processing machineries.

2019

New heat exchanger plant is founded, fabricating tube / fin heat exchangers.

2020

The company invested three German Hennecke GmbH panel production line, and start the production of insulated panels.

2021

100% owned Shanghai Star Limited is founded in Shanghai as a workplace for elite talents.

Lean Manufacturing

Key Drafter of **3** National Standards

Co-Drafter of **6** National Standards

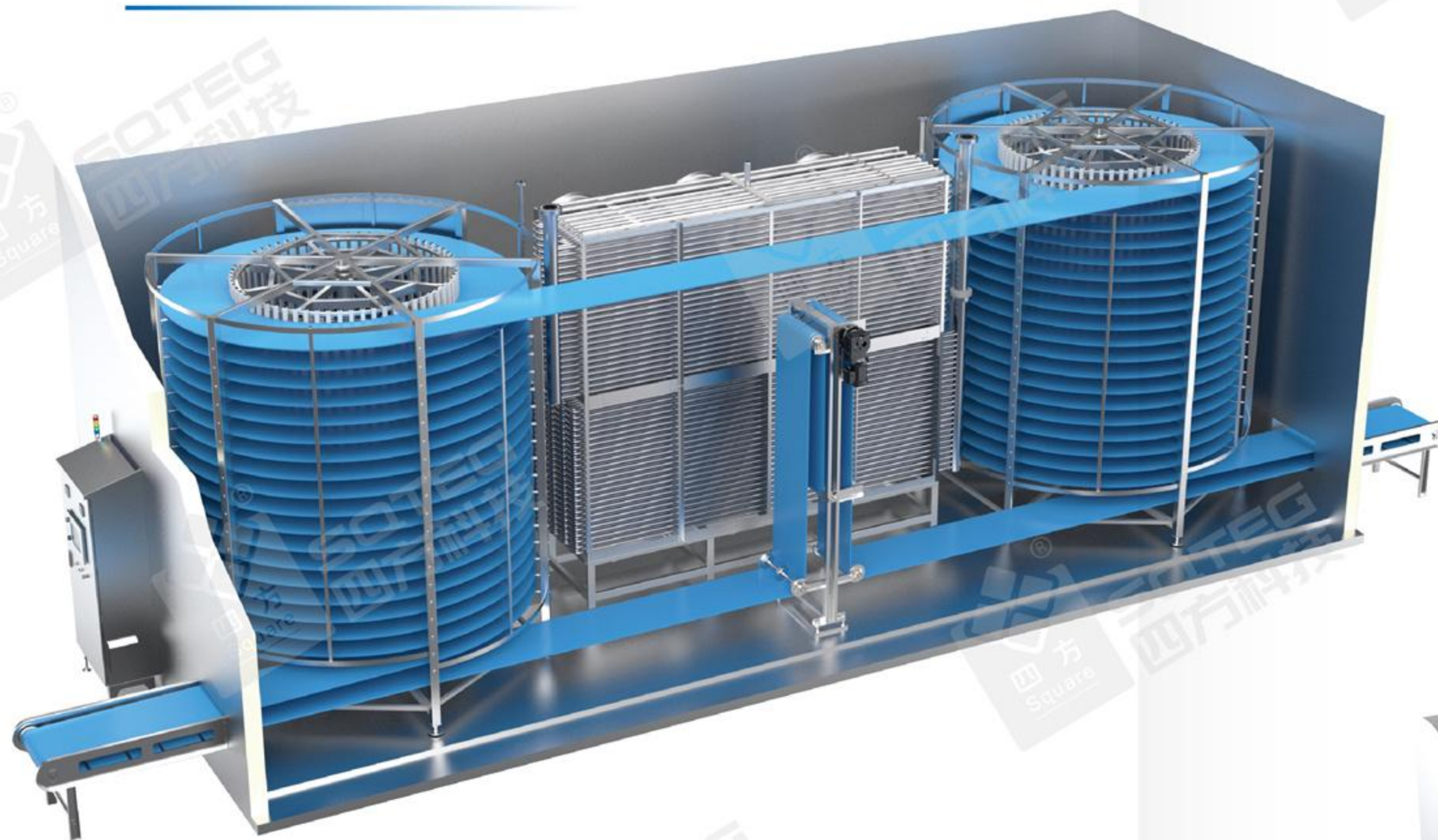


200+ Patents



Square Technology possess major international certifications, includes CE, PED, ASME, etc.

Double Spiral Freezer



The spiral freezer is ideal for quick freezing various foods, including meat, poultry,

seafood, ready meal, pizza, boxed ice cream. Square Technology is the drafter of the China national standard of spiral freezer.(GBAT22733-2008)

The open design of the structure is 100% accessible for cleaning and repair.

Several cleaning modes are pre-programed in the computerized control system. The automatic CIP system (clean in place) is available as option to save the cleaning labor and time.

Insulated enclosure can be either fully-welded (optional) or groove-tongue caulked, providing excellent insulation and water proof.

All spiral freezers are custom designed to meet the customer's unique designs. Freezing capacity ranges from 200kg to 10000kg/hr.

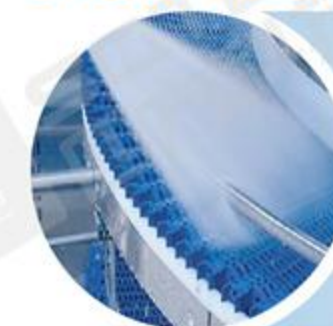


Direct Drive Spiral Freezer

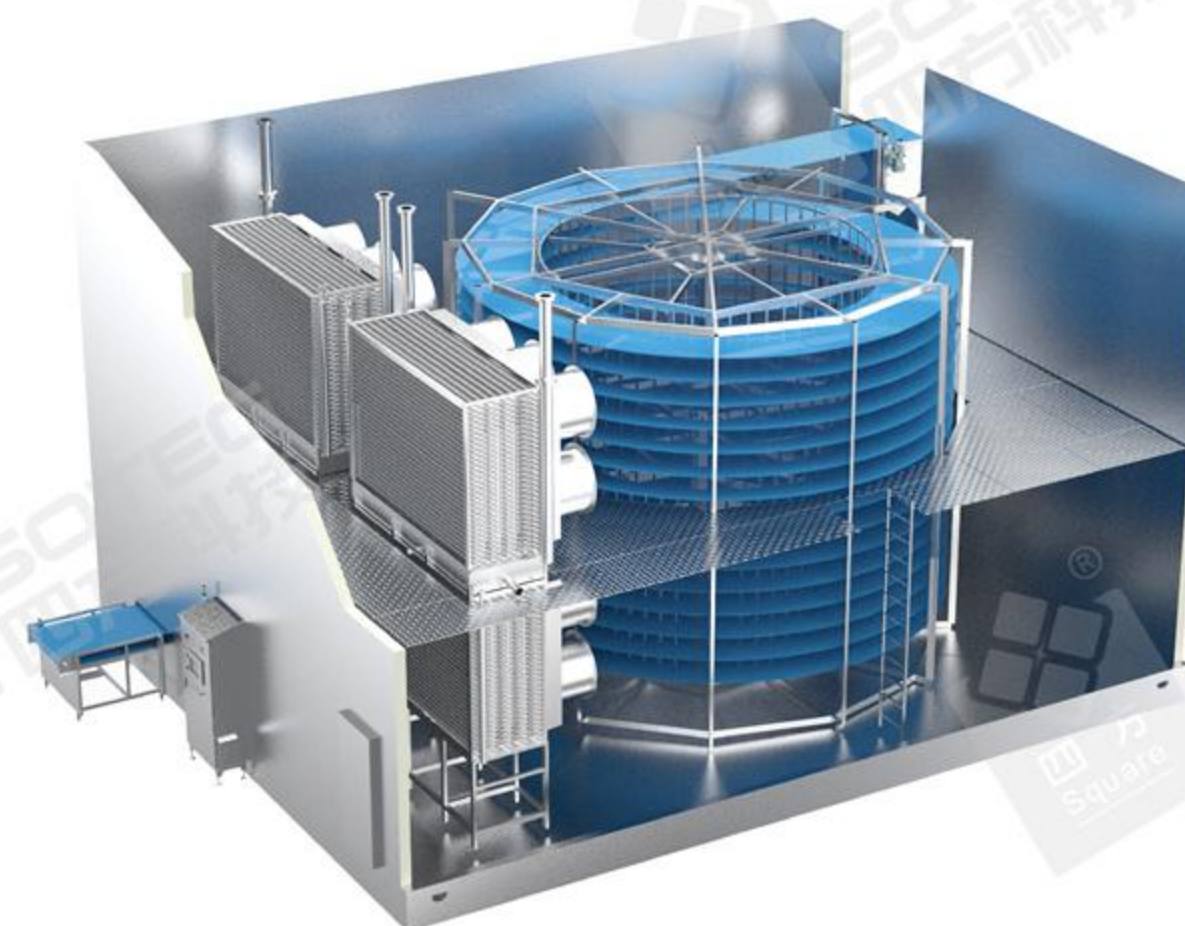


The belt engages with and is driven by the spiral drum directly. It is suitable for the system with many tiers, and wide belt. Light, easy to install and serve.

SIDE DRIVE SPIRAL FREEZER

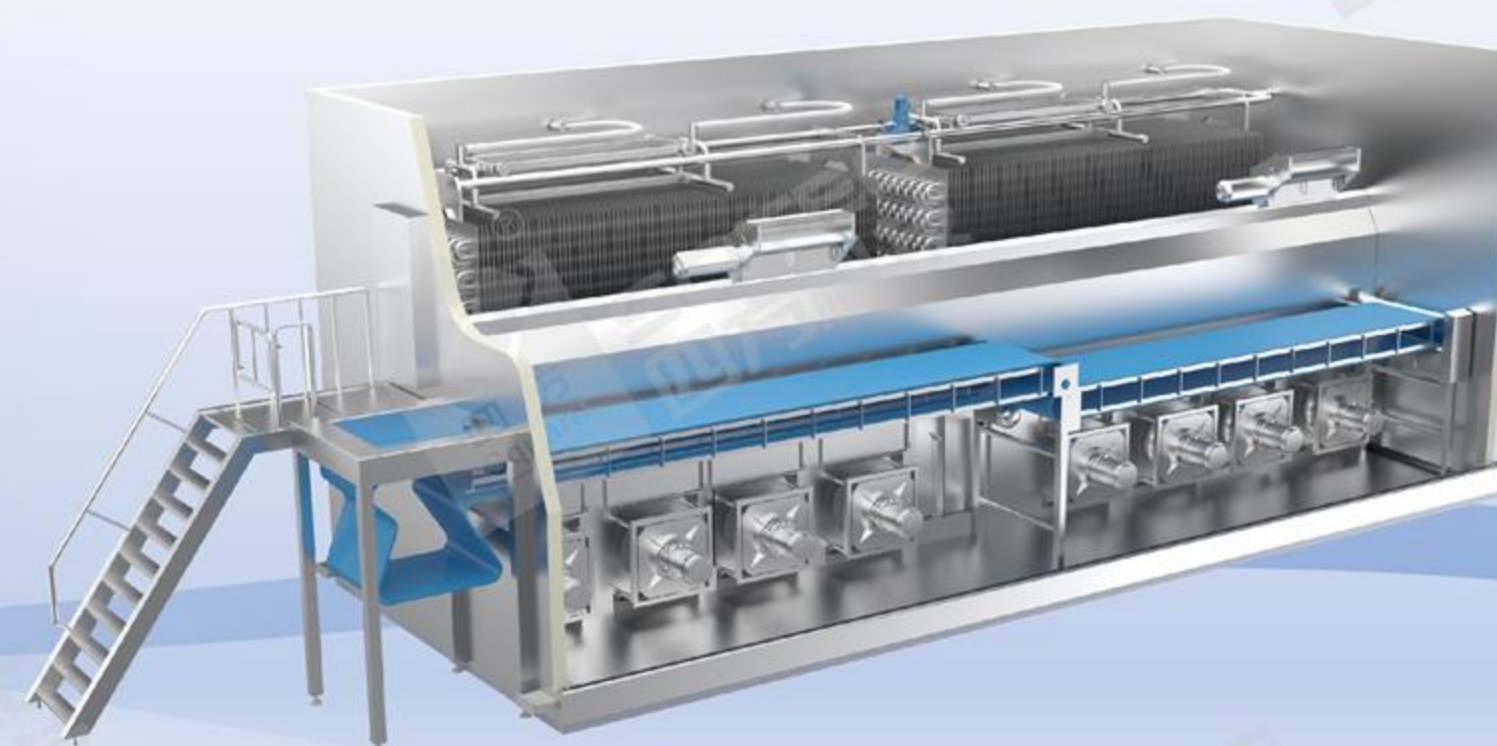


Eliminated drum; simple structure; easy to clean. Make possible low-in/low-out and high-in-/high-out in a spiral freezer. Flexible spiral configuration allows maximum utilization of floor space.



Single Spiral Freezer

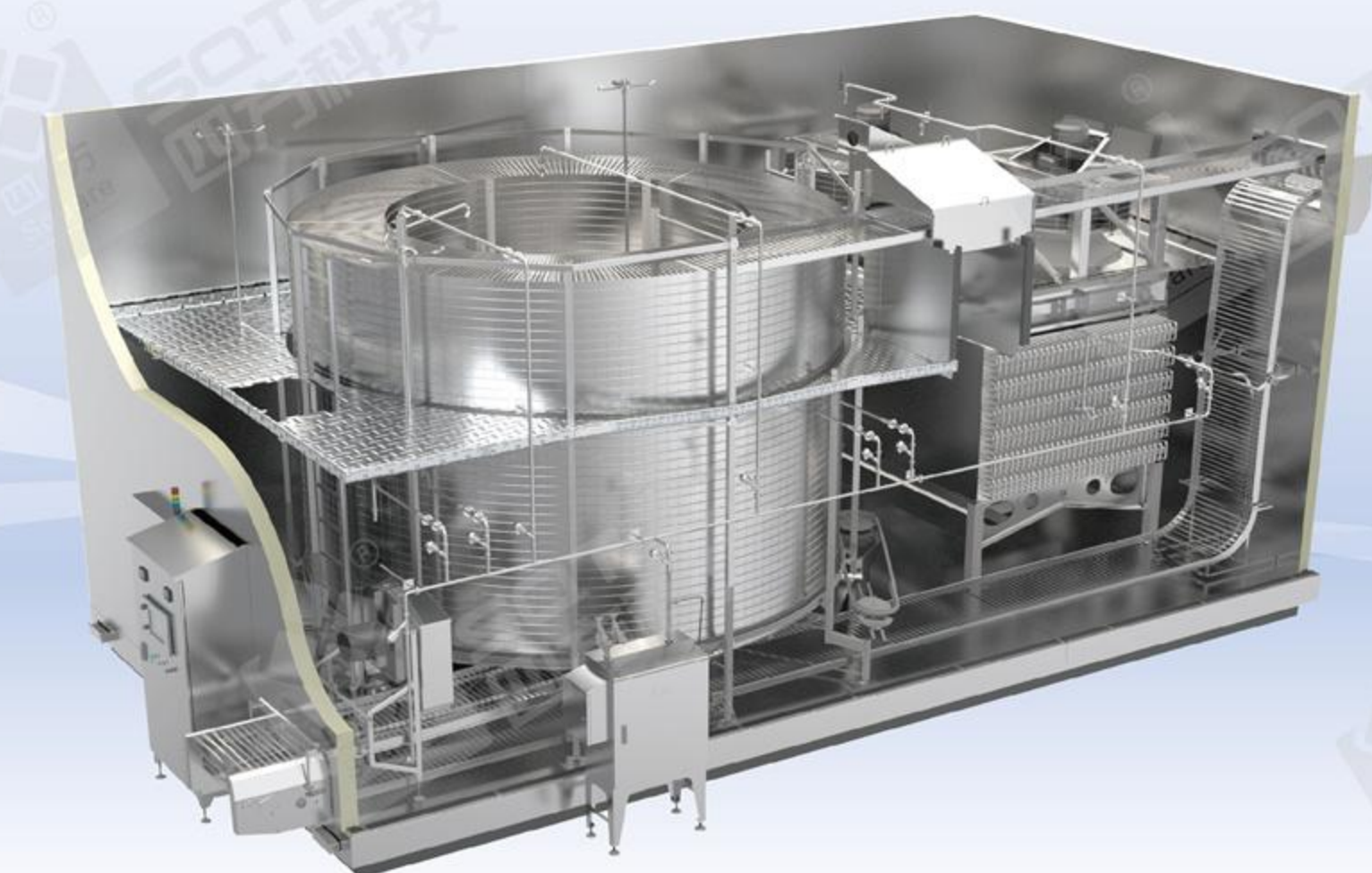
Fluidized Bed Freezer



Food particulates generally of a uniform size are placed on a mesh conveyor or a vibrating platform, the airstream is in an upward direction and the velocity of the air is adjusted to just lift the product off the belt and this also causes the product to flow as there is a change in elevation of the conveyor, the solid particles begin to act like a fluid as they are submerged in the air.

As the product moves in the fluidized bed, it comes in good contact with the air; there is an excellent heat transfer between air and product. ADF (air defrosting) is optional for longer defrosting interval and better coil performance.

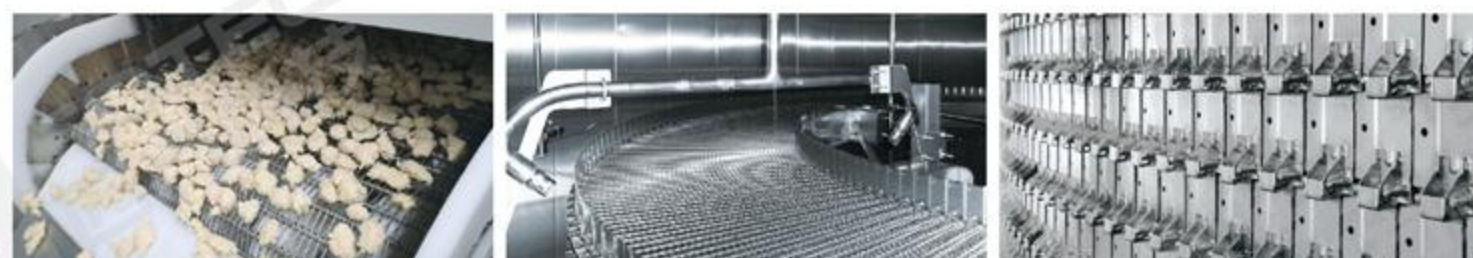
Square Technology participated in drafting the China national standard of Fluidized bed freezer (GB/T 22732-2008). Some of the common products that are frozen in a fluidized bed freezer are strawberries, blueberries, diced meat, peas, beans and French fries.



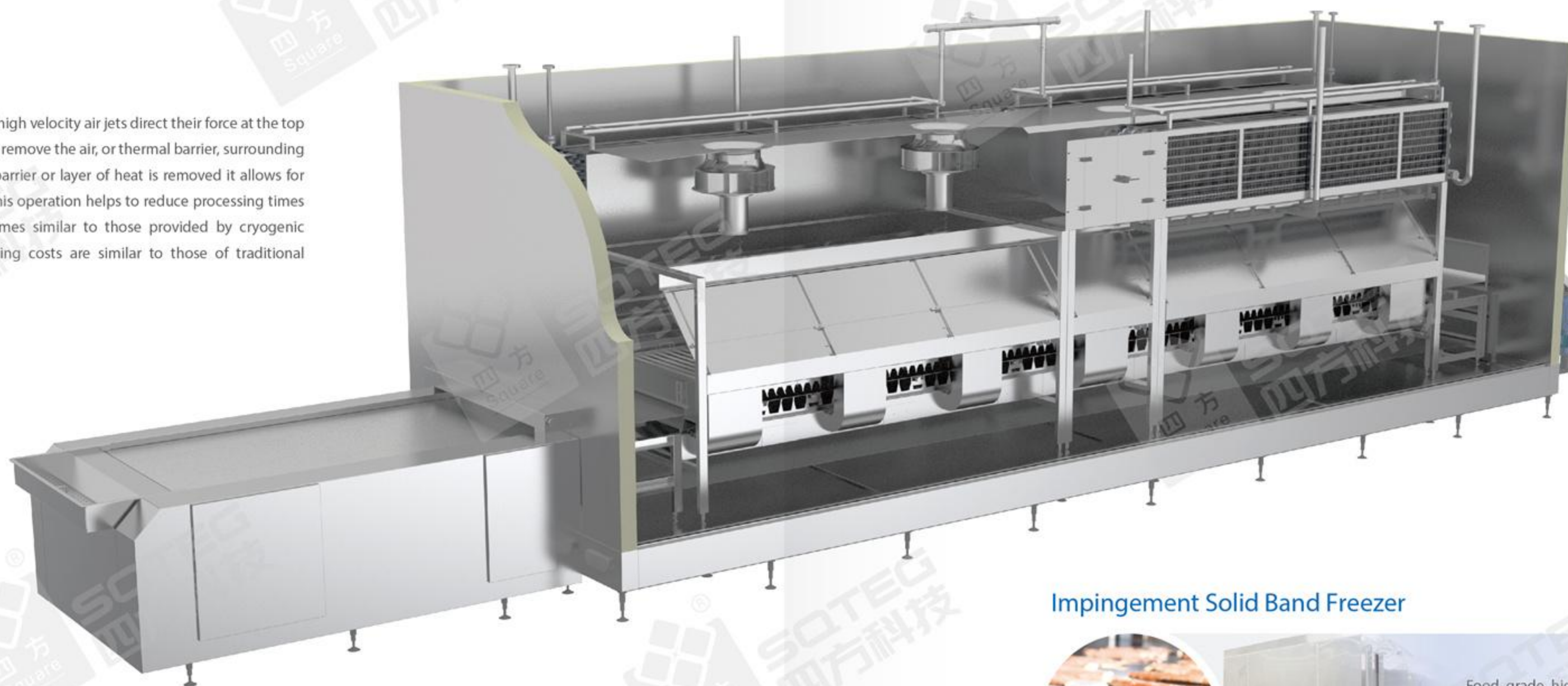
Self-stacking Spiral Freezer

The self-stacking spiral freezer is a compact and hygienic freezer design. Compared to the traditional low tension spiral freezer, the self-stacking spiral freezer eliminates the rails supporting the belt, that means up to 50% more freezing output with the same foot print. The conveyors are almost 100% accessible to cleaning thanks to the elimination of the belt rail and drum. The freezer has combined the state-of-the-art clean-in-place (CIP) system.

An open, easily cleanable and accessible design optimizes sanitation standards and decreases system downtime for cleaning and maintenance. This feature reduces contamination and extends the life of the equipment by preventing waste buildup and simplifying the cleaning process.



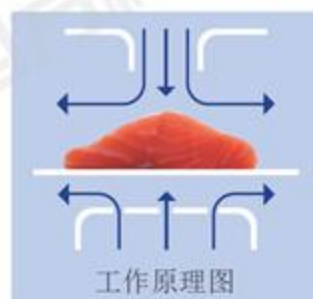
The impingement freezer utilize high velocity air jets direct their force at the top and bottom of a food product to remove the air, or thermal barrier, surrounding the product surface. Once this barrier or layer of heat is removed it allows for faster freezing of the product. This operation helps to reduce processing times considerably, giving freezing times similar to those provided by cryogenic equipment. In addition, operating costs are similar to those of traditional mechanical equipment.



Impingement Tunnel Freezer

Performance Feature

- Faster freezing times result in smaller ice crystals, which mean less cellular damage to food products. The products are juicier, have better texture and exhibit less drip loss when thawed.
- Harden the surface of food rapidly and lock the internal moisture, so minimized dehydration loss.
- The short freezing time not only keeps the freshness and nutrition of food, but also provides a good freezing efficiency.
- Energy saving and small footprint.

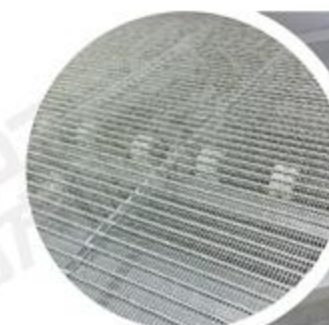


Impingement Solid Band Freezer



Food grade high Strength stainless steel solid belt leaves no mark on product, particularly friendly to the flat and thin product, like chicken breast, fish fillet.

Impingement Mesh Belt Freezer



Food grade stainless steel mesh belt. Open mesh allows good penetration of vertical jet air. Ideal for granular products like shelled shrimp, packed ready meals, etc.

Brine Solid Band Freezer



Food grade high Strength stainless steel solid belt leaves no mark on product. The top side of the belt is exposed to high velocity air, the bottom side of the belt is sprayed with refrigerated brine. particularly friendly to the flat and thin product, like chicken breast, fish fillet.

Plate Freezer

Plate freezers are commonly used for freezing brick-shaped products in mold or box. In plate freezers, refrigerant is allowed to circulate inside thin channels within the plates. The packaged products are firmly pressed between the plates. High rates of heat transfer can be obtained between the packaged product and the evaporating plates. We are proud to be the drafter of the China National Standard of Plate Freezer (GB / T22734-2008).



Horizontal Plate Freezer

Vertical Plate Freezer

Shelf Plate Freezer

Marine Horizontal plate Freezer

Plate Freezer with Refrigeration Unit



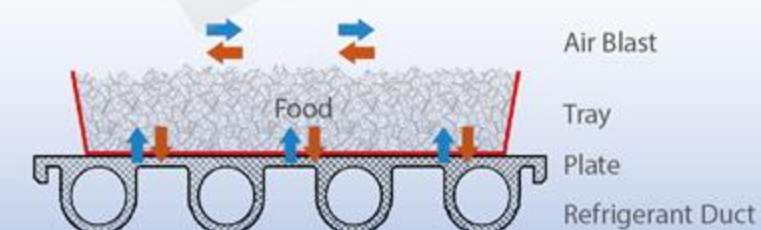
The plate freezer is very suitable for frozen blocks, such as fish, shrimp, surimi, meat, pet food, juice, etc.



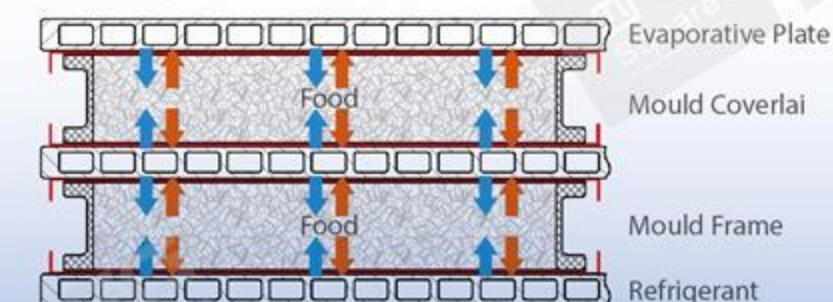
Features

- Made out of sea water resistant Aluminum, food grade. The 25mm thick Square aluminum plate gives high strength, high corrosion resistance and thermal conductivity. The plate is automatic welded and has minimum deformation.
- The enclosure is insulated with one piece of Polyurethane foaming to ensure robust structure and minimize the cold loss by eliminating the joints. The plate freezer's enclosure is stainless steel. It can sustain the harsh marine environment and easy to clean.

Demonstration for heat exchanging of Shelf Plate Freezer (contact heat exchange + air blast)



Demonstration for heat exchanging of Shelf Plate Freezer (two sides contact heat exchanging)





M
series

MYCOM Refrigeration Unit



B
series

BITZER Refrigeration Unit



K
series

KOBELCO Refrigeration Unit



F
series

FUSHENG Refrigeration Unit



S
series

CO₂ Refrigeration Unit



N
series

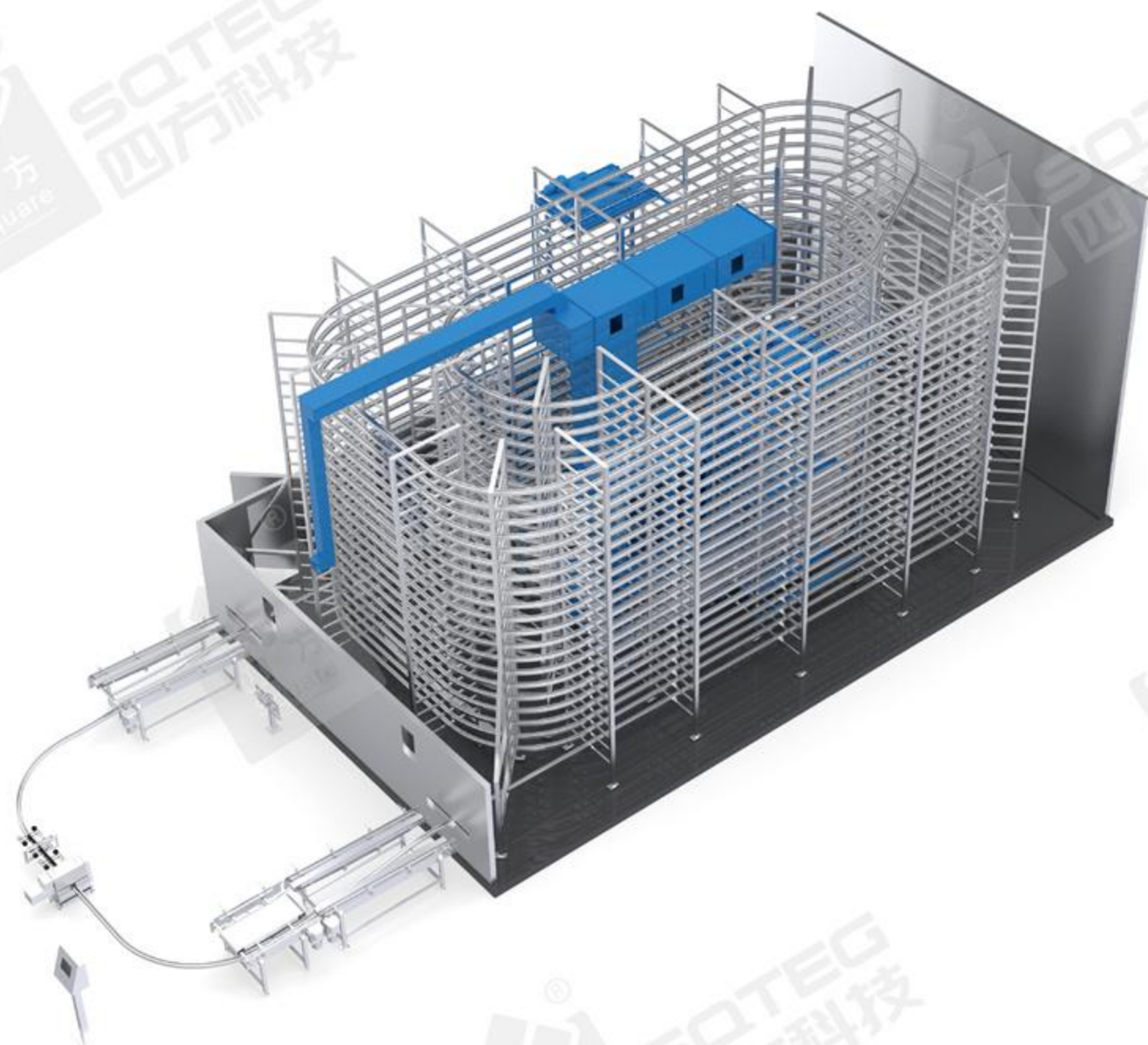
CO₂ Refrigeration Unit

Refrigeration System

After some 20 years of designing, manufacturing, building, and servicing, we literally have hundreds of industrial refrigeration systems around the world. We are also known for designing and building the CO₂ cascade, Freon, Ammonia system around the world. We only use the internationally recognized refrigeration parts. For example, Compressor are German Bitizer, Japanese Mycom. Valves are Danfoss, Emerson. All the pressure vessels are built in house in strict compliance to American Society of Mechanical Engineers (ASME). And our welders and technicians are ASME certified. We have the state of art plasma welding machines, rollers, radiography test equipment to ensure the pressure vessels for the refrigeration system are reliable and meet the international pressure vessel codes.



Continuous Proofer



A conveyor system is inside the insulated enclosure. The moisture and temperature inside the proofer is automatically regulated by the PID control of the valves. The proofer is suitable for the proofing of a variety of bakery products and pastries. The proofing quality is better; The moisture and temperature is more consistent, and more automatic than the traditional proofer.

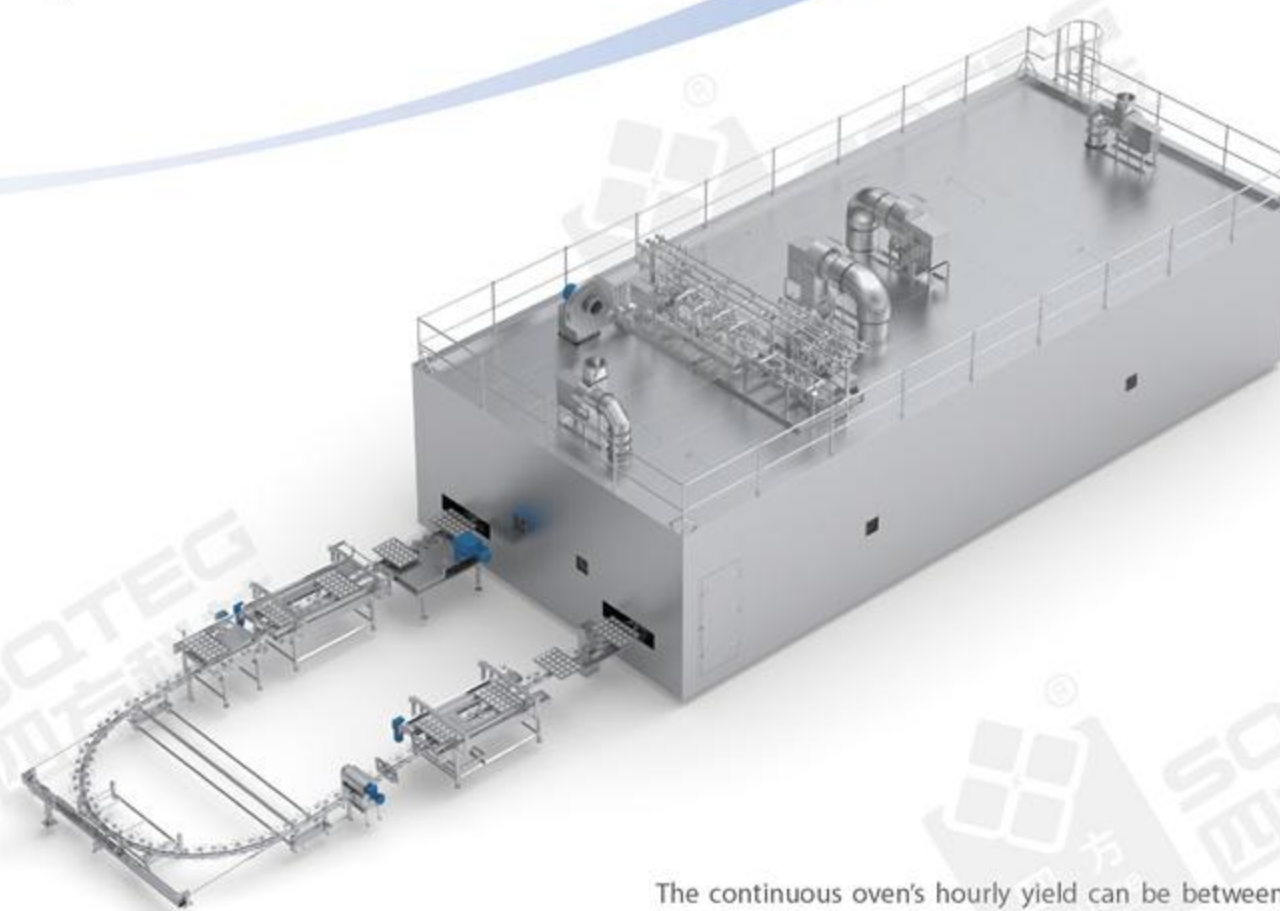


Spiral cooler



The spiral proofer has a spiral conveyor inside the enclosure. The product passes through the temperature and moisture controlled environment and well controlled airflow.

The Spiral Proofer is available in both Single and Double Drum configurations. The Spiral Proofer is mainly used for proofing a variety of bakery product.

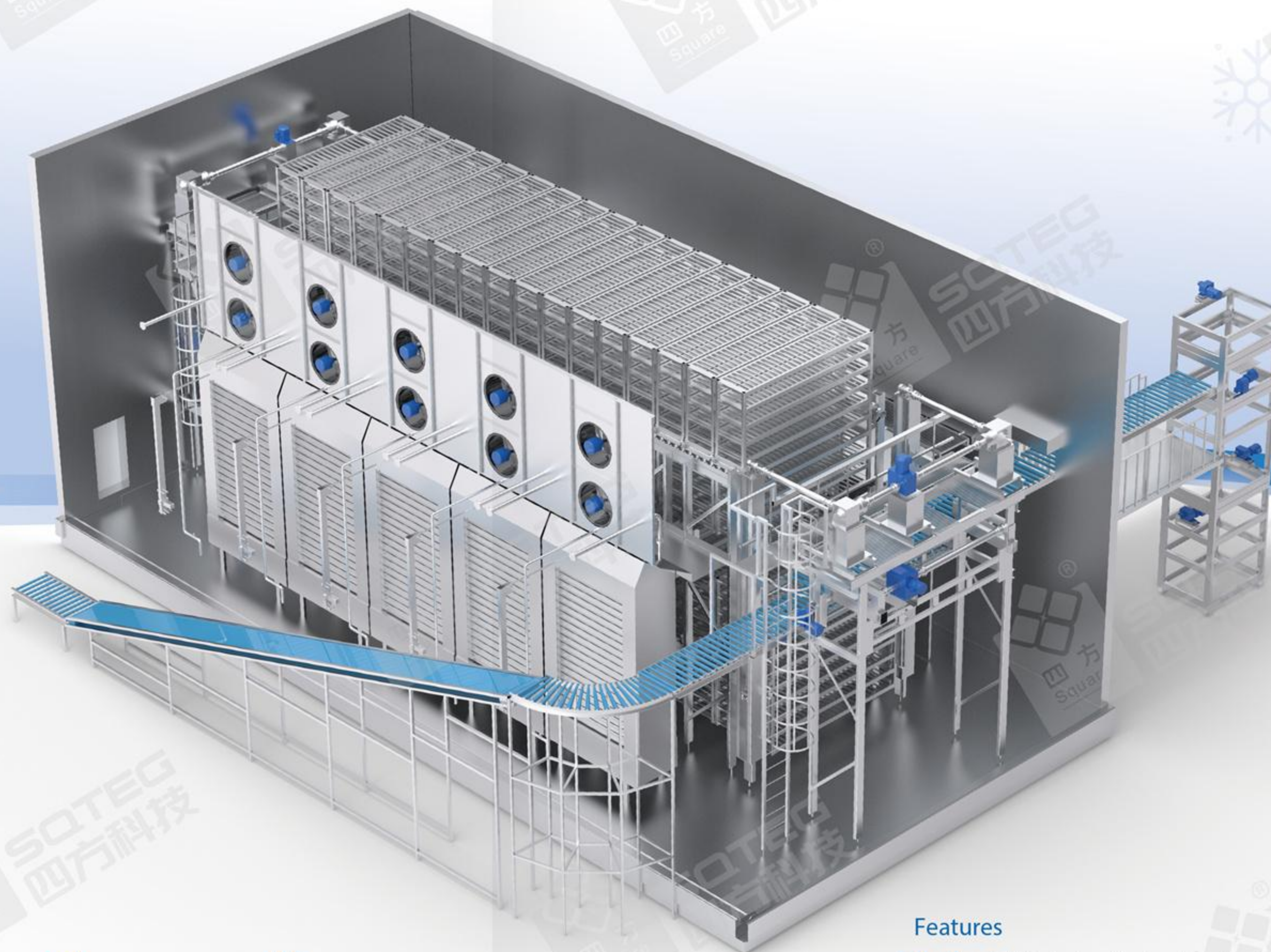


Continuous Oven

The continuous oven's hourly yield can be between 24,000 to 60,000 pieces of burger buns per hour. The working temperature is in a range of 195°C and 230°C, and the baking time is adjustable from 10 to 30 minutes. The oven can work together with our proofer, cooler, and freezer and form a complete bakery production line. It is suitable for automatic and mass production of bread, biscuits, laminated pastries and the likes.

The carton freezer can freeze or chill products in cartons, plastic totes or shrink-wrap. Our tunnel carton freezer ensures rapid freezing that preserves your products optimally. Any packaged product - cartons, boxes, trays or bulk containers

The pre-sorting system, the advanced freezing unit and the output distribution all contribute to product quality, while lowering labour costs.



Carton Freezer

chicken & duck



beef



pork



fish



Features

- **Versatile:** Suitable for freezing of beef, poultry, pork and cooling of fruits, cheese, etc.
- **Capacity:** up to 500 tons/day
- **Efficient Horizontal airflow freezing:** A carton freezer minimizes retention time for the boxed products by maintaining both the air freezing temperature and air speed with a horizontal throughout all levels.
- **Low labor intensity:** A carton freezer reduces work load and time with a resulting labour cost reduction.
- **Product tracibility:** the product's batch no, freezing time, and location is traceable.
- **Flexible:** it can freeze multiple products at the same time.
- **Smart control:** PLC control, servo motor monitoring system, remote trouble shooting.

Spiral Cooker

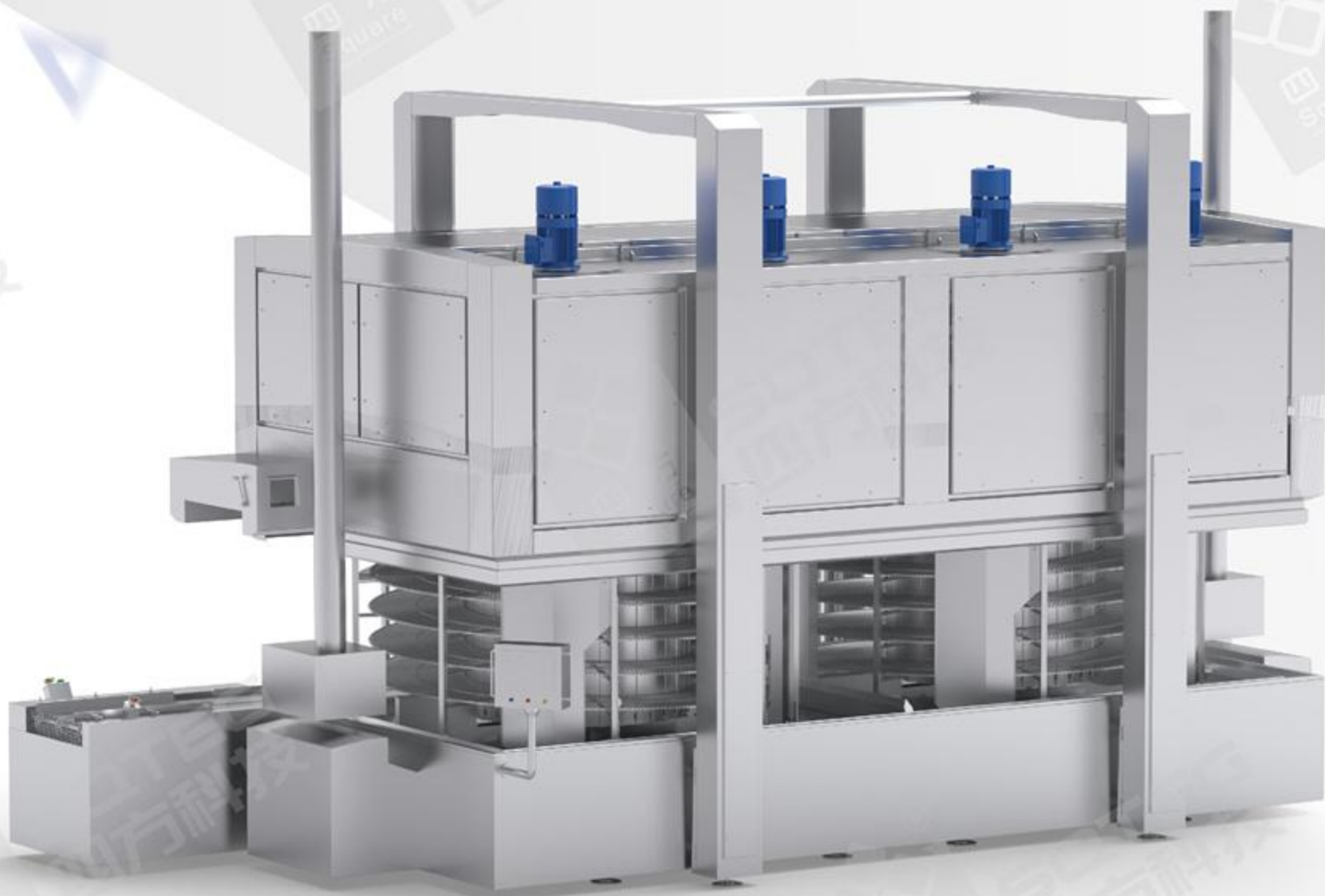
A spiral cooker is a hot air system which can be used to cook or grill a wide variety of food products. Using a spiral cooker, the product gets the colour, bite and flavour you want.

A spiral cooker can handle an unlimited number of combinations of air temperature, humidity and speed.

Spiral cookers have a capacity ranging from 500 to 3,000 kg per hour.

Features & Benefits

- Minimum steam & vapour escape
- Maximum loading density
- Efficient heat control
- Consistent product quality
- Higher yield



Fryer

The "Square" Immersion fryer is suitable for frying the meat products, including chicken, shrimps, meat ball, etc.

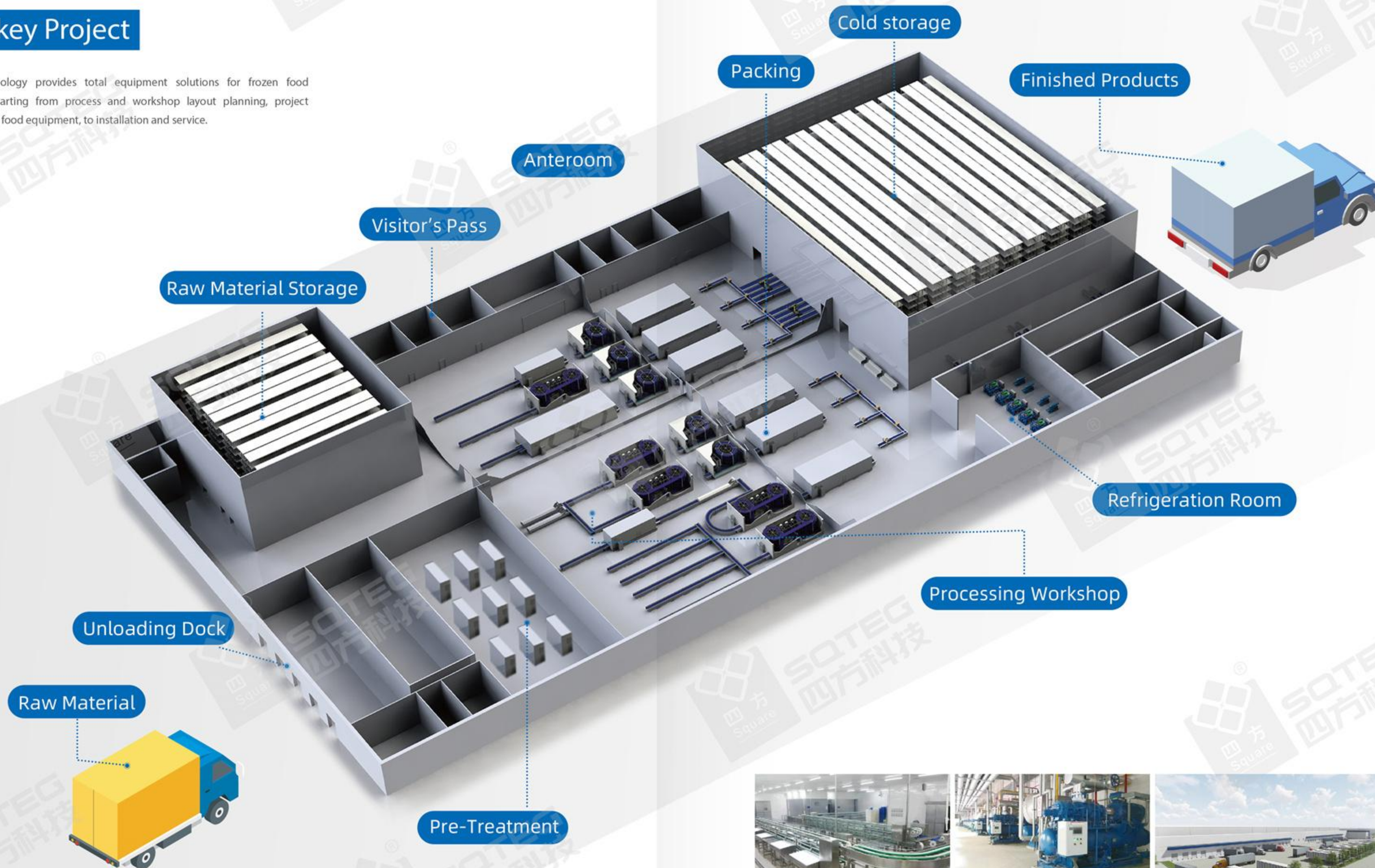
Features & Benefits

- Efficient and precise control of temperature and speed
- Multiple slag scraping technique
- Hygienic design
- Multiple combinations and options
- Teflon belt patent



Turnkey Project

Square Technology provides total equipment solutions for frozen food processors, starting from process and workshop layout planning, project management, food equipment, to installation and service.



Insulation System of Cold Storage



Insulated Panel Production Line

HENNECKE - OMS

42m
Longest forming line in China

50-300mm
Available PIR panel thickness

24m
Available PIR panel length



PIR Cold Storage Insulated Panels



Thickness: 50, 100, 125mm

Applications: -35 to 20°C. Wine, Chocolate, Pharmacy, fruits, seeds, etc.



Thickness: 150, 180mm

Applications: -40 to -5°C, cold storages for frozen meat, seafood, vaccine, etc



Thickness: 200, 250, 300mm

Applications: -20 to -40°C, blast freezers, cryogenic storage for tuna, and other extreme low temperature applications.



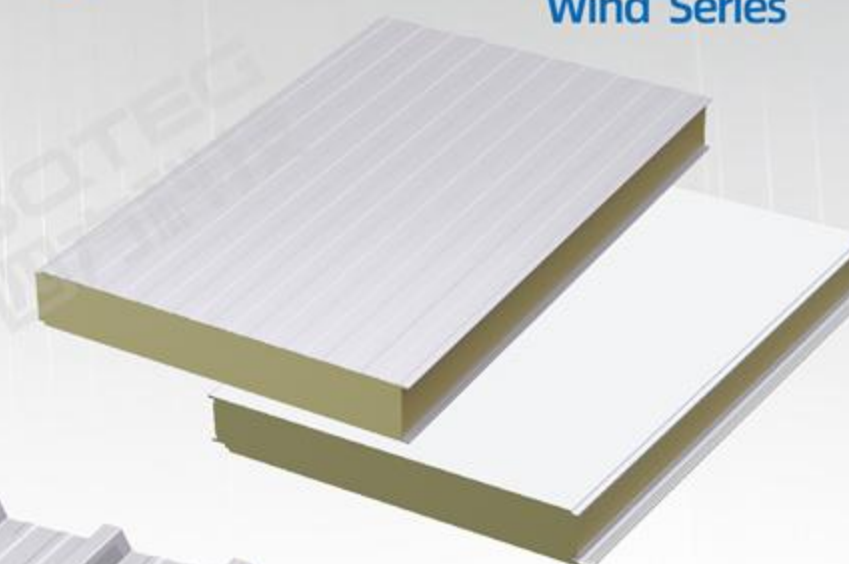
Hidden-joint panel

The hidden-joint panel is suitable for high-rise cold storage. The patented tongue-groove joints allow the fasteners investable and improve the appearance of joints. The cold loss through the joint is minimized.

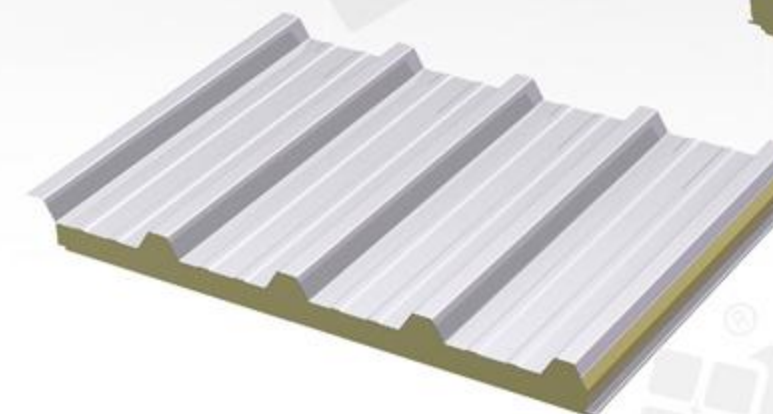
| Thickness(mm) | 40 | 50 | 75 | 100 | 125 | 150 | 180 | 200 | 220 | 250 |
|--|---|-----|------|-----|------|------|------|------|------|------|
| Wall Panel Simply Support Height (m) | 2.5 | 3 | 3.2 | 3.8 | 4 | 4.2 | 4.6 | 4.95 | 5.2 | 5.3 |
| Celling panel simply support length(m) | 2 | 2.5 | 3 | 3.5 | 3.8 | 4 | 4.2 | 4.5 | 4.8 | 5 |
| U Value(W/m²k) | 0.41 | 0.4 | 0.26 | 0.2 | 0.17 | 0.13 | 0.11 | 0.1 | 0.09 | 0.08 |
| Effective Width(mm) | 600 ~ 1150 | | | | | | | | | |
| Core Material | GB8624 B1Grade PIR (Poly Isocyanurate Foam) | | | | | | | | | |

Insulated Building Panels

Wind Series

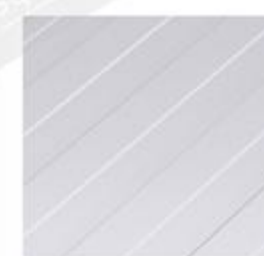


Rain Series



| | | | | | | | | | | | |
|--|----------------|------|-----|------|------|-----|------|------|------------|------|------|
| Thickness(mm)) | 50 | 75 | 100 | 125 | 150 | 180 | 200 | 250 | 50 | 75 | 100 |
| Celling panel simply support length(m) | 1.75 | 2.75 | 3.3 | 3.45 | 3.55 | 3.6 | 3.74 | 3.98 | 3.2 | 3.55 | 4.15 |
| U Value(W/m²k) | 0.75 | 0.44 | 0.4 | 0.37 | 0.33 | 0.3 | 0.27 | 0.24 | 0.75 | 0.44 | 0.4 |
| Effective Width(mm) | 600 ~ 1000 | | | | | | | | 600 ~ 1000 | | |
| Core Material | GB8624 A Grade | | | | | | | | | | |

Options For Surface Steel Sheet Molding



Rib Pattern



Small Ripple



Flat



Big Ripple



Small Triangular

Overhead Sectional Industrial Door



Specification

| | |
|----------------------|---|
| Max size | 8000×6000 mm(WxH) |
| Door Panel Thickness | 42mm /67mm/100mm |
| Door Panel Material | Embossed Color Coated Steel Panel |
| Padding Material | Unfreon PU (PIR)water Absorption: <1.5%close Percentae≥90 % |
| Exterior Color | 5 Kinds RAL Standard Color (other colors can be customized) |
| Interior Color | RAL 9002 Grey-white |
| Lifting Equipment | Drive Motor |
| Encapsulation | Top, Bottom and Sides are EPDM or TPE Rubber |
| Lifting Style | Standard Lift (SL), Low Lift (LL), High Lift (HL), Vertical Lift (VL) |
| Safety Device | Torsion spring breaking protection device, wire rope breaking protection device, bottom anti-pinch air bag, track end buffer and other protective devices |



Loading Dock Leveller

Retractable Series

- It's widely used in cold storage cargo docks, platforms, warehouses and other places.
- Its height can be adjusted in a wide range. Between the vehicle and the platform forms the ramp, to achieve a safe and fast cargo process, improve the logistics efficiency, reduce energy consumption;
- According to the different needs of customers , it is special in terms of shape size and load bearing design.



Tilting Series

- Products are widely used in cold storage cargo docks, platforms, warehouses and other places.
- Its height can be adjusted in a wide range. Between the vehicle and the platform forms the ramp, to achieve a safe and fast cargo process, improve the logistics efficiency, reduce energy consumption;
- According to the different needs of customers , it is special in terms of shape size and load bearing design.



Technical Parameters

Retractable Cargo Platform

| | Retractable Cargo Platform | Tilting Cargo Platform |
|-----------------------------|--|--|
| Length (mm) | 2000/2500/3000/3500/4000/4500 | 2000/2500/3000/3500/4000/4500 |
| Width (mm) | 2000 | 2000 |
| Lap Plate Length(mm) | 400/500 | 500/1000 |
| Operation Range(mm) | 320/720 | -370~500 |
| Hydraulic Cylinder Quantity | 2 Pieces Standard | 2 Pieces Standard |
| Load (ton) | Static Load 10, Dynamic Load 6 | Static Load 10, Dynamic Load 6 |
| Operation Temp. (°C) | -30~60 | -30~60 |
| Power (kw) | 0.75 | 0.75 |
| Voltage (V) | 220/380 | 220/380 |
| Hydraulic oil (L) | 5/7 | 5/7 |
| Surface Color | Standard RAL5010 (other Colors can be Opitonal) | Standard RAL5010 (other Colors can be Opitonal) |
| Executive Standard | EN 1398 (European Standard) WB/T 1081-2018 | EN 1398 (European Standard) WB/T 1081-2018 |



Food Cold Storage



Processing Workshop



Cold Chain Logistics Center



Pharmacy Cold Storage



Mushroom Farm



Building

Air Cooler/Evaporator/Condenser

Square Technology Group integrate the heat exchanger in its product portfolio in 2018. The heat exchanger plant owns the modern manufacturing facility of 38,000 square meters. The heat exchanger product line covers a complete range of fin/tube type air heat exchangers, including air cooler, evaporator, air condenser, evaporative condenser, etc. To ensure the product meets the International standard, the workshop is equipped with the state of art manufacturing machineries. The products are widely used for cold storage, cold chain distribution center, supermarket, hospitals, buildings, data centers, chemical and power industries.



Ceiling Mounted Air Cooler



Commercial Air Cooler



Dual Air Cooler



Evaporator For Blast Freezer / IQF



Flat Air Condenser

Customized Fin/
Tube Evaporator

V-Shaped Air Cooled Condenser



Evaporative Condenser

Global Network

Square Technology is dedicated delivering quality cold chain equipment for the frozen food processors. Through company's global network, our products has been delivered to over 80 countries around the world

5000+
Clients

80+
Countries

Part Of Our Clients

