

Serving the food deep processing industry  
Dedicated to providing high-end freezing equipment

**SHANDONG DINGTAISHENG REFRIGERATION TECHNOLOGY CO., LTD**

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The company reserves the right to continuously improve product technology and appearance design. We will not notice if there are any changes in product information. The Chinese version shall prevail if there is any inconsistency between the Chinese and English versions of the product introduction. The product images in this brochure are based on the actual product, and the final interpretation of the brochure belongs to our company.



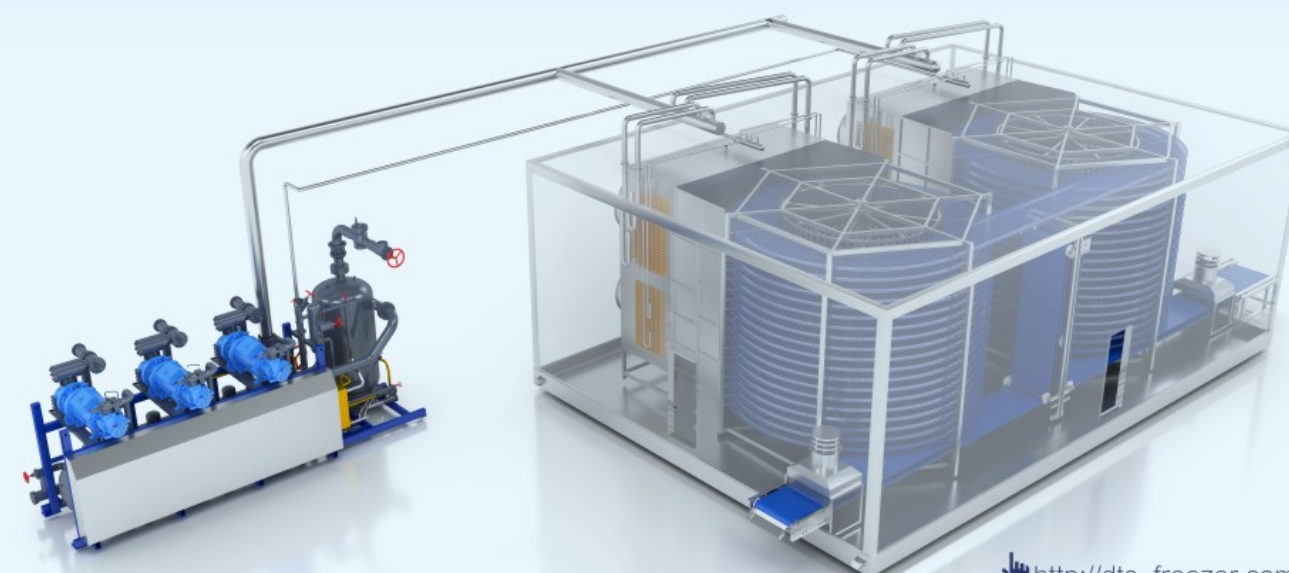
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National Sales Service Hotline  
**+86 400-837-8158**



**DTS FREEZER**  
**鼎泰盛制冷**

COMPLETE SET OF QUICK FREEZER AND TECHNICAL SOLUTIONS



<http://dts-freezer.com>



**SHANDONG DINGTAISHENG REFRIGERATION TECHNOLOGY CO., LTD**



## DTS FREEZER 鼎泰盛制冷 | Company Profile

DTS Freezer is a global turnkey engineering company that provides quick-frozen food processing solutions. We can provide highly optimized system solutions to meet users' extreme needs for food quick-freezing technology and ensure that they meet international leading hygiene and safety standards.

Freezer DTS was founded in 2022, formerly known as Shandong OPC Machinery Technology Co., Ltd. and joined DTS in 2024, officially changed its name to Shandong Dingtaisheng Freezer Technology Co., Ltd. As a subsidiary corporation and technical strategic partner, we have further enriched our production line through "one-stop service" to satisfy the customer needs.

The core team members have more than 25 years of experience in the industry, providing excellent products and services to 48 countries and regions around the world, as well as establishing agents and sales organizations in many countries. Over the years, we have established solid relationships with international brands such as Mars, Nestle, Purina, Herrman's, Dali, Yinlu, Nongfushanquan, Want Want, Tongyi, Shuanghui, Arctic Ocean, Plum Garden, Coconut Tree, Karaoke, Haijilao, Budweiser, Weetabix, Catsdodo Li, Xiajin, Wang Xiaohalu, Noguchi, and Manaf Foods, etc, and we have been jointly promoting the innovation and development of the industry.

**5000<sup>+</sup>**  
Cover An Area

**20<sup>+</sup>**  
year  
Manufacturing Experience

**2000<sup>+</sup>**  
Global Customer Service



### Company purpose

Strive to build DTS into an ideal platform for employees to realize their own life value



### Company atmosphere

Enjoy self-respect, receive care, worship fairness, respect innovation, harvest, happy and share



### Company core values

Respect customers, talent-based, market-oriented, innovation as the soul



## DTS FREEZER 鼎泰盛制冷 | Qualification



# Freezer DTS Advantage

# Catalog



## Many years of manufacturing experience, quality assurance ❖

Our company has many years of experience in the production and manufacturing of quick freezing machines with excellent equipment and production capacity!

## Excellent technical team ❖

A strong technical team provides technical support and guarantee for the quality of products, making customers more confident and worry free when purchasing!

## Complete models and wide application ❖

Our company produces a complete range of quick freezing machine equipment with guaranteed quality and a wide range of applications!

## Strict factory quality inspection ❖

We conduct quality inspections on every factory product strictly, ensuring that you can use it with confidence and comfort!

## Worry-free after-sales service, quality assurance ❖

A comprehensive after-sales service system, timely response to answer your questions and provide worry free after-sales service!

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## Our equipment

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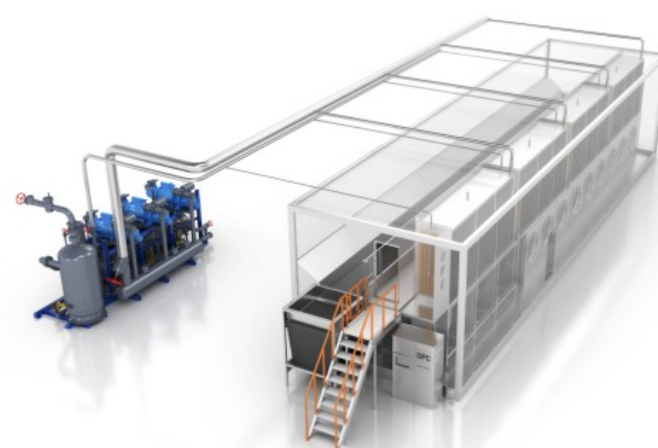
# Our Equipment

We have the expertise to manufacture a wide range of quick-freezing machines, including Spiral Quick Freezer, Individual Quick Freezer ( IQF ) , Brine Plate-belt Freezer.

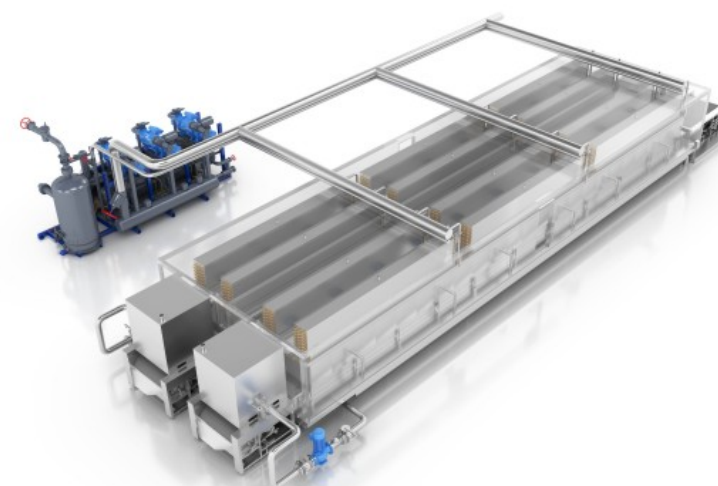
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DOUBLE SPIRAL QUICK FREEZER



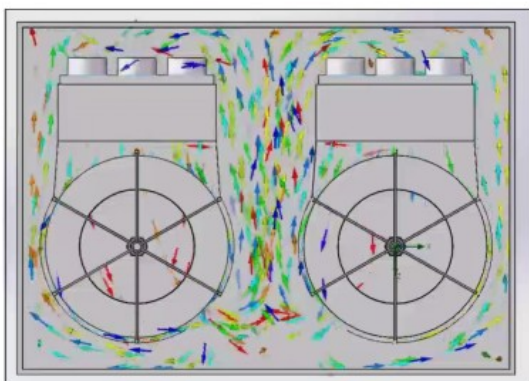
INDIVIDUAL QUICK FREEZER ( IQF )



BRINE PLATE-BELT FREEZER



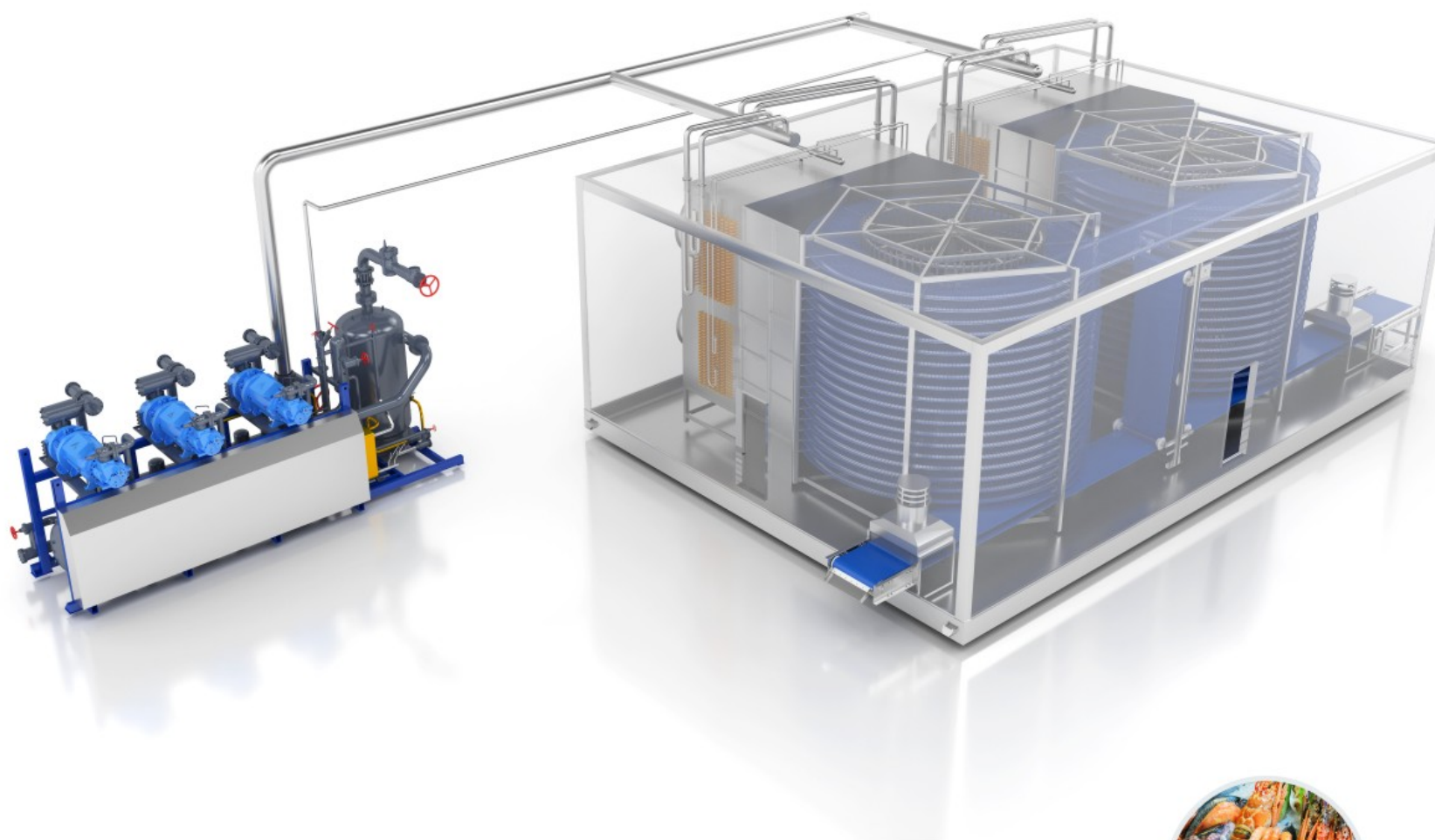




## DOUBLE SPIRAL QUICK FREEZER

Double spiral quick freezer is an energy-saving and fast freezing equipment with a compact structure, wide applicability, small footprint and strong freezing ability. It mainly consists of the transmission part, evaporator, storage plate, refrigeration unit part and electrical device.

Suitable for fast monomer freezing of small items such as processed foods, small packaged foods, segmented meat, ice cream, as well as monomer freezing of large frozen products such as fast food, whole chicken, whole fish, etc. The double spiral freezer provides flexible feeding and discharging options. This device can easily connect with the customer's front and rear processing production lines on the ground, ensuring ease of use.



### Small volume saves space

The double spiral freezer is equipped with multiple layers of spiral conveyor belts, and food is transported in a spiral manner inside the freezer. The rotating method progresses layer by layer and is combined with the circulating frozen airflow to achieve rapid freezing. This structure can efficiently freeze a large amount of food in a limited space.

### Optimize airflow to increase production

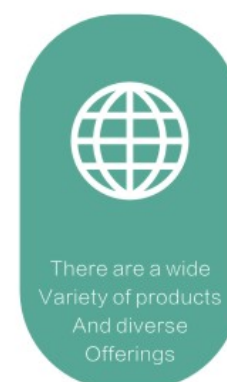
We use fluid mechanics simulations to design the most energy-efficient and scientific wind field cycle for the double spiral quick freezing machine, forming a more stable horizontal airflow. Combined with high-performance evaporator coils, the cold air can continuously circulate, achieving high efficiency and energy saving, thereby increasing production.

### Sanitary design

Pay attention to details, ensure that all welds are continuous and uninterrupted, components are not offset, surfaces are not concave and avoid the accumulation of moisture or food residue. At the same time, reduce the number of internal structures and components of the equipment, or integrate them with the casing to minimize the areas that need to be cleaned inside.

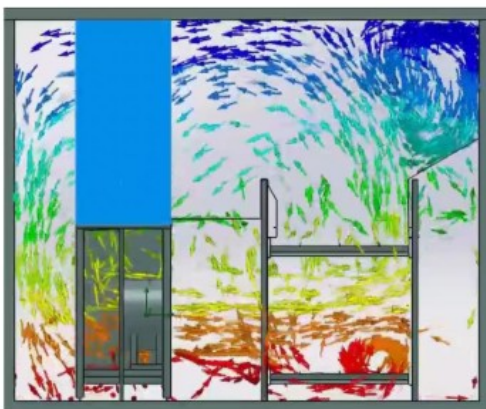
### Product diversity

Spiral freezer is suitable for rapid freezing of various products, including dough, meat, and poultry.



Model	Nominal freezing capacity ( kg/h )	Compressor unit	Condensation form
DTS-LDS500	500	Hitachi, Fusheng, Hanzhong, Bitzer and other brands	Evaporative condensation
DTS-LDS1000	1000		
DTS-LDS1500	1500		
DTS-LDS2000	2000		
DTS-LDS3000	3000		

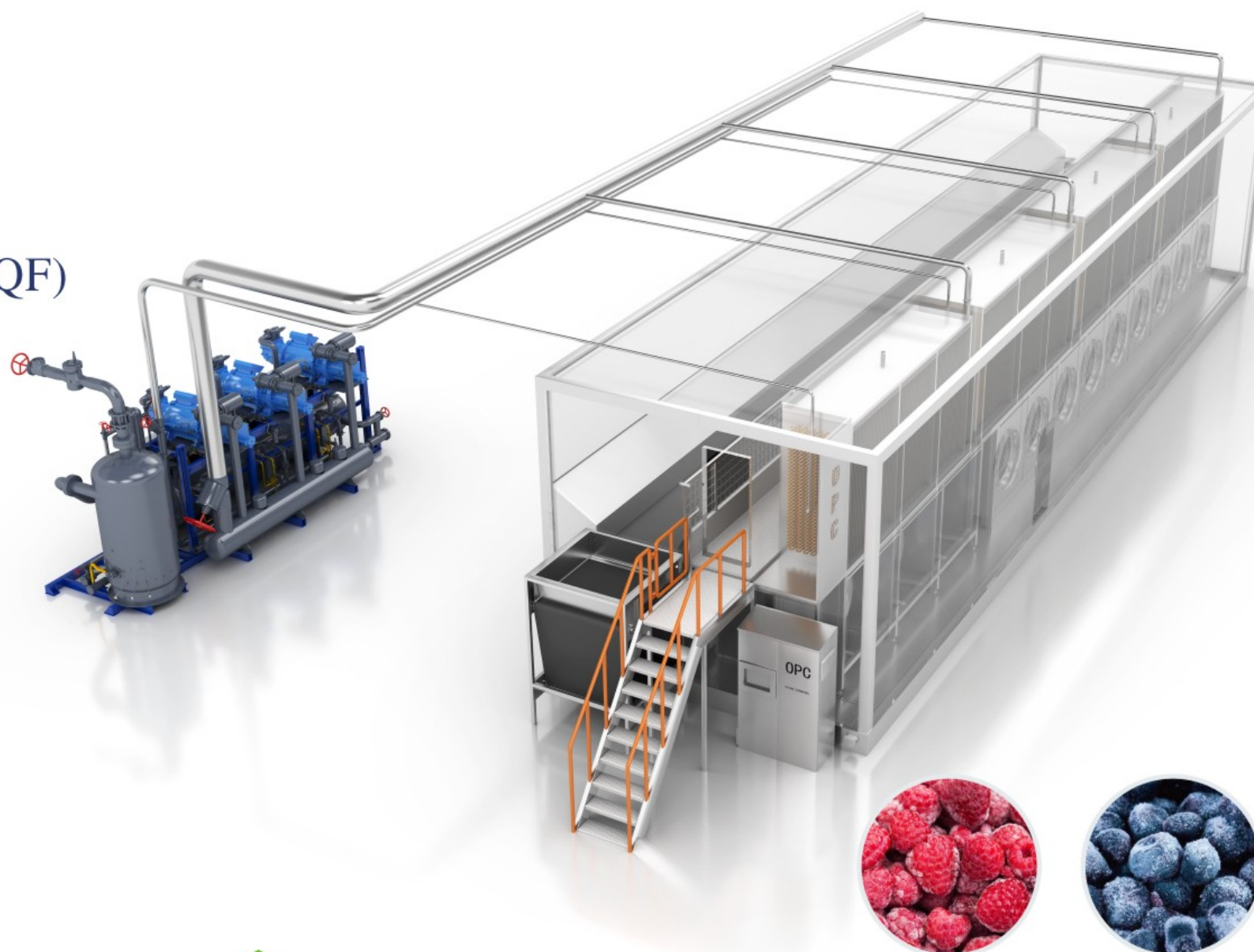




## INDIVIDUAL QUICK FREEZER(IQF)

The IQF of DTS uses stainless steel mesh belt for conveying. During the quick freezing process, the products to be frozen are affected by the strong cold air flow from bottom to top on the mesh belt, forming a semi-suspended state. The cold air flows around each food unit, effectively promoting the rapid dissipation of heat inside the food and significantly accelerating the rate of heat exchange. At the same time, a large amount of monomer food is driven by the stainless steel mesh belt in a semi-fluid state and moves forward.

IQF is the best choice for quick freezing of fruit and vegetable foods in the form of slices, blocks, strips, and granules. For example, strawberries, French fries, peas, mushrooms, corn kernels, green beans, diced carrots, etc.



### Pulse fluidization ensures quality

Using advanced fluidization technology, the pulse flow monomer quick freezing machine is specifically designed for bulk products that require gentle processing, such as fruits and vegetables. By evenly distributing airflow and pulse vibration, it ensures that the material surface is not damaged to provide stable product quality and capacity.

### Synchronized defrosting seamless operation

On the basis of not compromising the performance and product quality of the quick freezing machine, the synchronous continuous hot air defrosting system ensures the continuous and stable operation of the equipment, achieving uninterrupted operation. Through precise airflow control, the product is able to maintain a constant temperature and wind speed, thereby ensuring consistency in the production process.

### Easy to clean and reduce maintenance

The fan design aims to facilitate cleaning and reduce maintenance requirements. In daily operation, these fans can operate continuously and stably, efficiently generating fluid airflow. By selecting aluminum or stainless steel materials, suitable construction schemes can be chosen according to different cleaning processes.

### Optimize airflow to increase production

We use fluid dynamics simulation technology to design the most energy-efficient and scientific wind field circulation system for fluidized freezing machines, in order to form a more stable horizontal airflow. By working in conjunction with high-performance evaporator coils, the continuous circulation of cold air is ensured, thereby achieving the goal of high efficiency and energy conservation, and ultimately increasing production.



Model	Nominal freezing capacity ( kg/h )	Compressor unit	Condensation form
DTS-IQF1000	1000	Hitachi, Fusheng, Hanzhong, Bitzer and other brands	Evaporative condensation
DTS-IQF2000	2000		
DTS-IQF2500	2500		
DTS-IQF3000	3000		
DTS-IQF3500	3500		

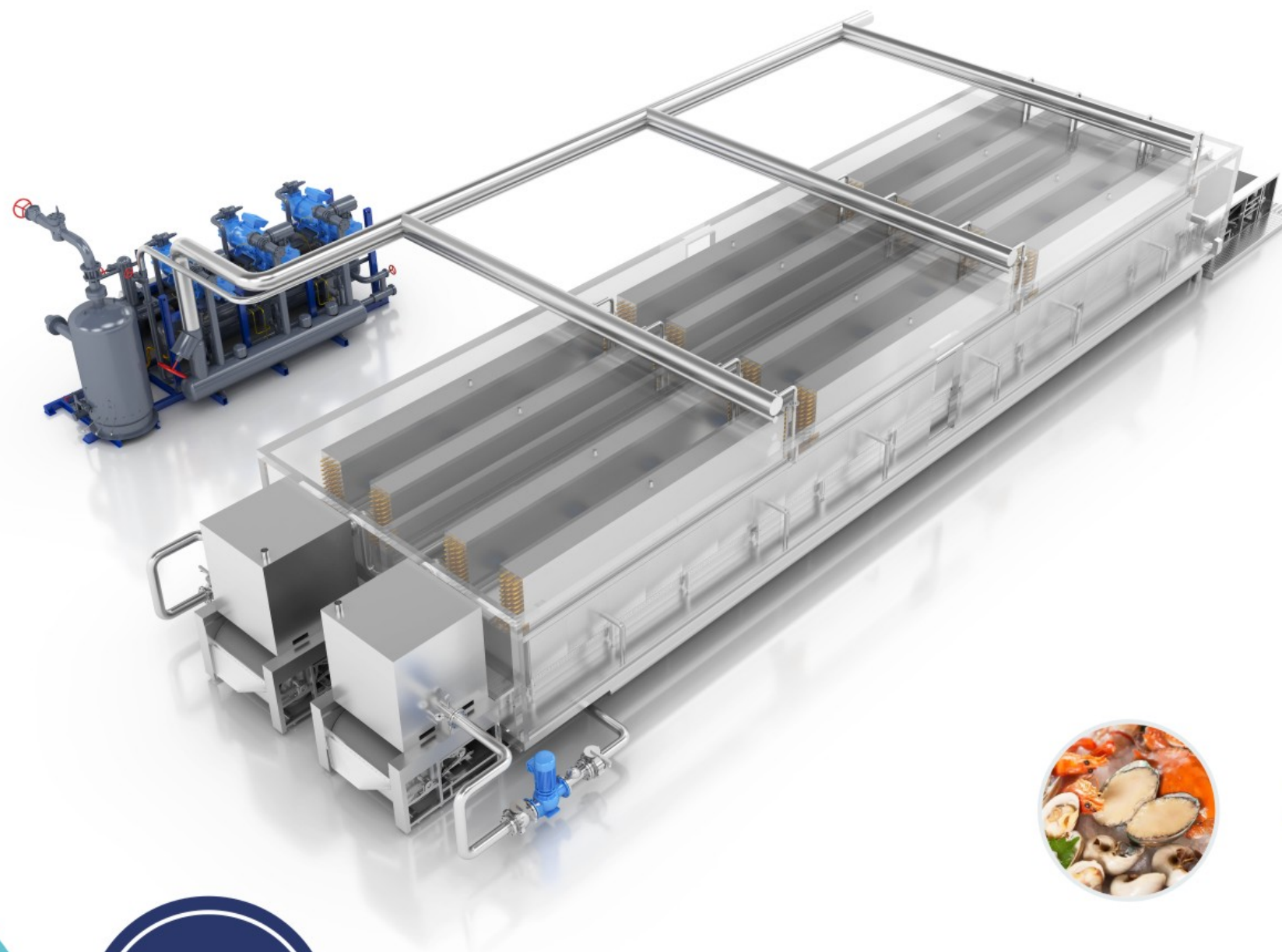




## BRINE PLATE- BELT FREEZER

The Brine plate-Quick Freezer conveyor uses imported high-strength stainless steel strips, which have good elasticity, high rigidity, and are not easy to deform. The transmission motor uses variable frequency stepless speed regulation. It is equipped with a down-blowing device, which greatly improves the heat exchange effect of the lower surface of the strip. Since the food is generally close to the strip, the freezing time is shortened. The plate-belt single freezer has little effect on the appearance of the food and has no mesh marks. It is particularly suitable for large and thin products.

Brine plate-belt Freezer is widely used in food processing companies, such as the production of quick-frozen dumplings, glutinous rice balls, seafood, meat, etc. At the same time, it is also suitable for some scientific research experiments and medical fields that require rapid freezing.



### Fast

The use of downblow mode, directly blow the surface of frozen products, freezing speed is fast.

### Efficient

Using aluminum tube and aluminum sheet variable pitch evaporator, high heat transfer efficiency.

### Optimize

Optimized air flow design makes the surface wind speed uniform.

### High yield

By using direct blowing method, the yield can be increased.

### Prolonged work hours

The air-cooled evaporator adopts an optimized design, with a larger windward area to improve the ability to work continuously.

### Hygiene

All parts can be easily cleaned, leaving no dead corners.

Double-sided freezing,  
efficient impact

1

Customized to meet  
different needs

2

Sanitary design  
Ensuring food safety

3

Model	Nominal freezing capacity ( kg/h )	Compressor unit	Condensation form
DTS-BIF1000	1000	Hitachi, Fusheng, Hanzhong, Bitzer and other brands	Evaporative condensation
DTS-BIF2000	2000		
DTS-BIF2500	2500		
DTS-BIF3000	3000		
DTS-BIF3500	3500		





## MAIN TECHNOLOGIES

(CIP)Recirculating CIP System  
With Pasteurization

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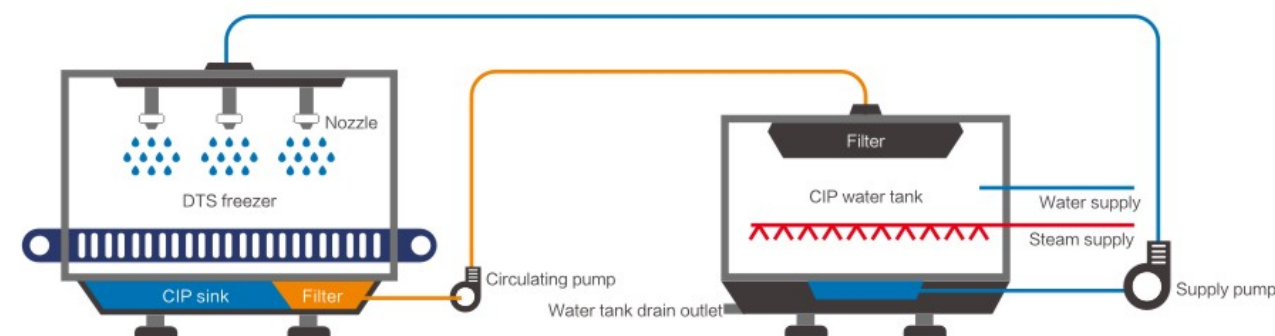


### Cleaning-in-place system – pasteurization cycle

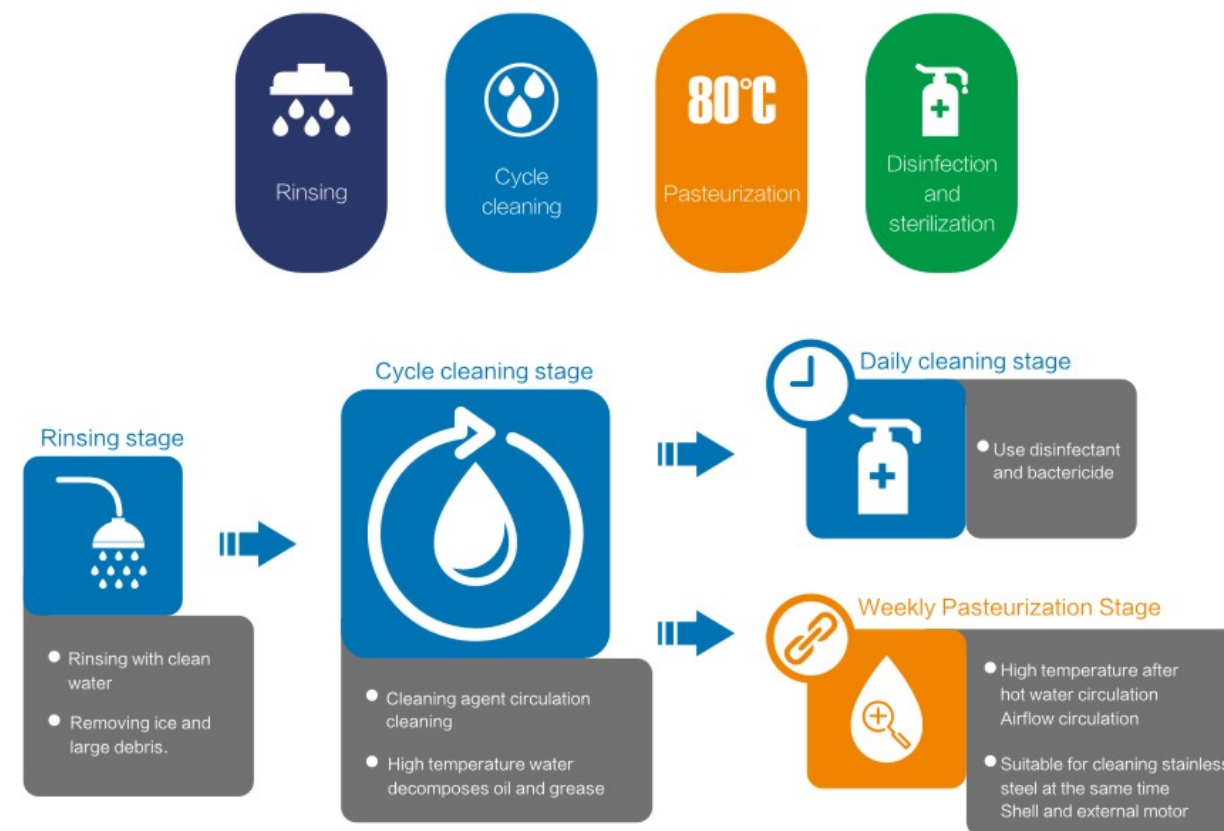
The Cleaning-in-place system can design a cyclical cleaning program for customers. For example, we can provide a cleaning cycle for the equipment, which includes water cleaning and detergent cleaning in the early stage, and a sterilization program of hot water and hot air in the later stage to eliminate all bacteria.



### In situ cleaning system – structural diagram



### In situ cleaning system – cleaning cycle sequence







## MAIN TECHNOLOGIES

### Horizontal Airflow

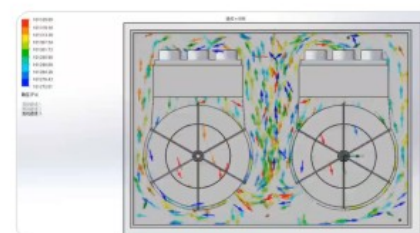
### Air Defrosting

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### Optimize horizontal airflow design to improve efficiency

The optimized design of airflow in the construction of DTS freezer equipment has always adhered to the concept of combining high performance and hygiene. By using as few air baffles as possible, a stable and effective horizontal airflow with a more stable stroke is formed. Combined with high-performance evaporator coils, the cold air can continuously circulate, achieving efficient freezing and increasing food processing output.



### Continuous air defrosting enables continuous operation of equipment

Freezer DTS synchronous continuous air defrosting system can ensure the continuous and uninterrupted operation of the equipment without compromising the performance and product quality of the quick freezing machine. By precise airflow control, the product can always maintain a constant air temperature and speed, ensuring consistency in the production process.



### High quality warehouse board supplier

An excellent warehouse board supplier has provided us with SUS304 grade sanitary grade warehouse boards, with a thickness of 120mm and filled with high-density polyurethane, which have good insulation and cooling performance. Through our installation process, the warehouse has achieved no cold air leakage. The warehouse board adopts TIG full welding technology, which can withstand wide temperature differences from  $-40^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$ , effectively cope with thermal expansion and contraction problems, and ensure a design service life of 30 years.



### Fully welded stainless steel flooring

The floor system is filled with polyurethane insulation foam, which is matched with the design of composite slope to ensure effective drainage. The inner surface of the equipment has the characteristics of anti-slip and safety.

At the same time, we adopt an internal structure with elevated solid support points to design the floor as a whole. High insulation flooring does not require additional heating to the concrete foundation, effectively protecting the concrete foundation and extending its service life.



## MAIN TECHNOLOGIES

### Stainless Steel Body

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# Development History Of Refrigeration Technology

