

Product Portfolio



Self-stacking Freezer



Tunnel IQF



Fluidized bed IQF



Refrigeration System



Air Cooler



Cold Storage



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Stock Code : 603339

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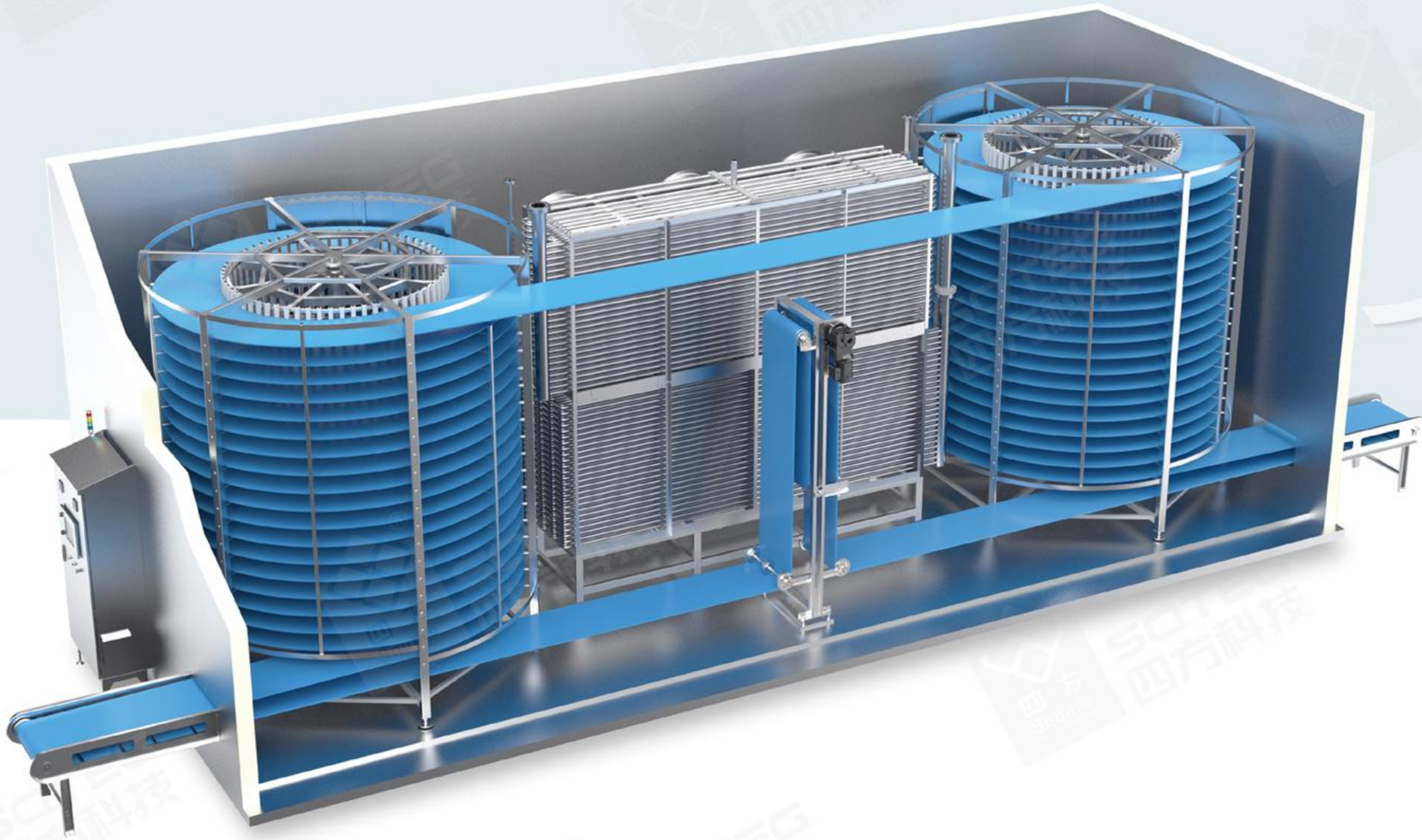


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SPIRAL FREEZER

SQUARE TECHNOLOGY GROUP CO., LTD.

★ QUALITY ★ INNOVATION
★ SERVICE ★ FRESHNESS

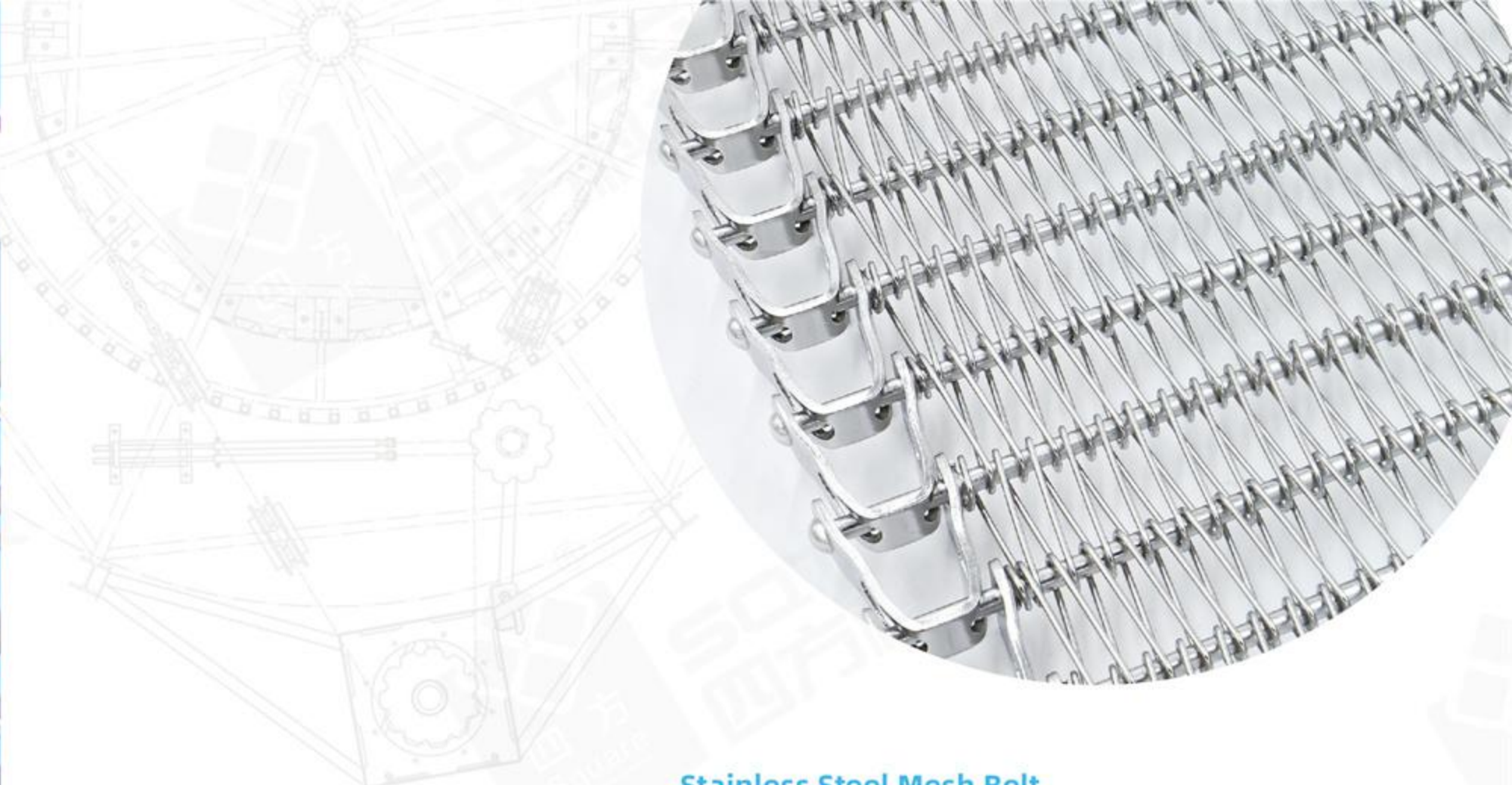


Low Tension Spiral Freezer

Hygiene, Food Safety

Fully welded, open structure,
fully-accessible to cleaning.

Installations
5000+

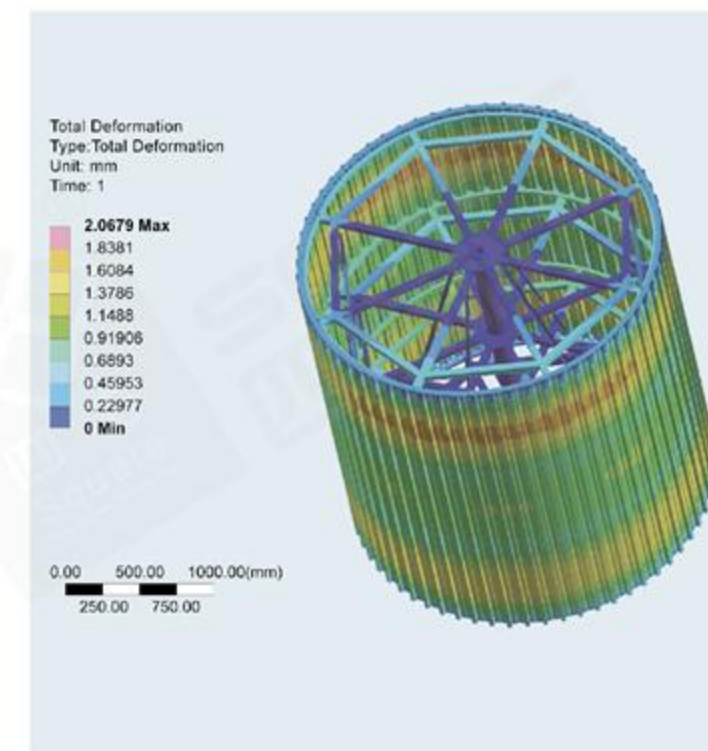


Stainless Steel Mesh Belt

SUS304 food grade spring wire, high strength, 8-10 years' service life.
Open structure, easy for cleaning, width suitable: 400~1372mm.
Optional edge guard board to prevent products dropping.
High ventilation, high efficiency.

Finite Element Analysis

When designing a spiral freezer, structural analysis is performed to ensure its structural integrity during operation.



Spiral Belt Conveyor System Chain-Driven, Robust, Heavy Load Design.

Large Sprocket/chain Drive

Synchronized Triple Drive
SUS304 fully welded structure, heavy load, easy for maintenance.
Variable belt speed.

Efficient evaporator

The design was simulated with European professional heat exchanger software.

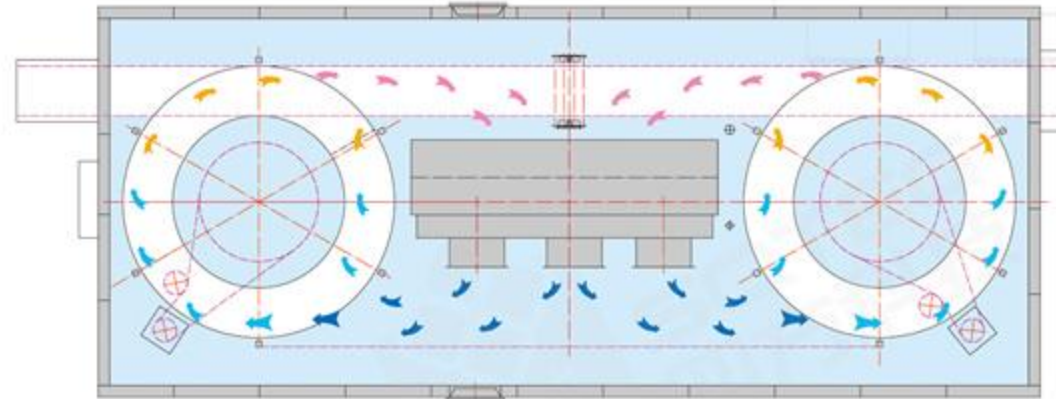
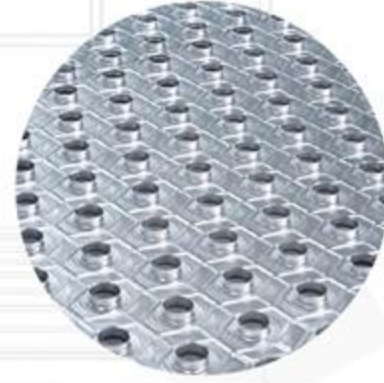
All tubes are expanded hydraulically rather than mechanically. More uniform expansion and tighter fit between tube and fins. Improved heat exchanging performance.

Variable fin pitch used to delay the frost formation on the fins surface. Longer frosting interval.

Easy access and cleaning

Tube material: Stainless steel, Aluminum

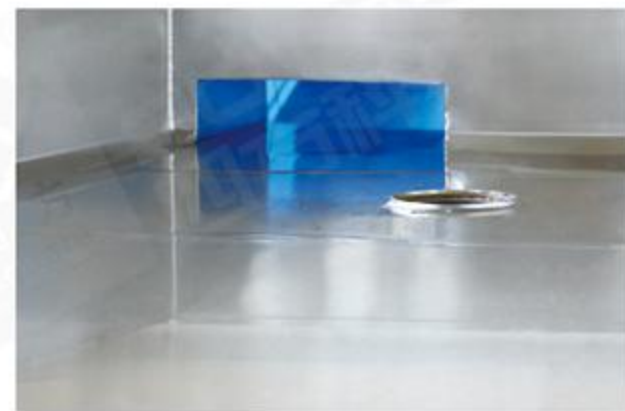
Fin material: Aluminum



Insulated enclosure

Continuous PIR panel fabrication line from German Hennecke. 50mm to 250mm thick. Limited combustibility.

Fully welded stainless steel enclosure available as option.



Fully welded floor

Modular stainless steel fully welded floor, leak proof.

Sloped floor, fast drainage through four drains at the corners. Easy Access.

Air Flow Design

The cold and high velocity air flow is guided with the air baffles evenly through the product area.

Minimum food dehydration, best heat transfer.

Air shrouds provided to minimize cold loss at the opening of infeed and outfeed.

Spacious access inside freezer for maintenance and cleaning personnel.



**Efficient, Safe, Hygienic
Evaporator design**



Intelligent control system

PLC touch screen, friendly interface, easy operation.

Real-time display of equipment running status, temperature of each area, fault alarm.

Preset freezing programs tailored for different products.

Optional remote troubleshooting module.



CIP main station



Intelligent, User-Friendly, Network

Air defrost system

The ADF blows pulses of pressurized air of high velocity repeatedly over the evaporator fins while the products continue to run in the freezer.

The freezer inside temperature is more stable because of less frost on the fin.

Thanks to longer runtime, the production output is increased.

Optional configuration



CIP (Cleaning-in-Place)

The system cleans and disinfects the interior of the freezer completely to meet the sanitary requirements of food safety production.

Our system design is programmed with tailored CIP recipes to suit various product and needs.

Optional configuration

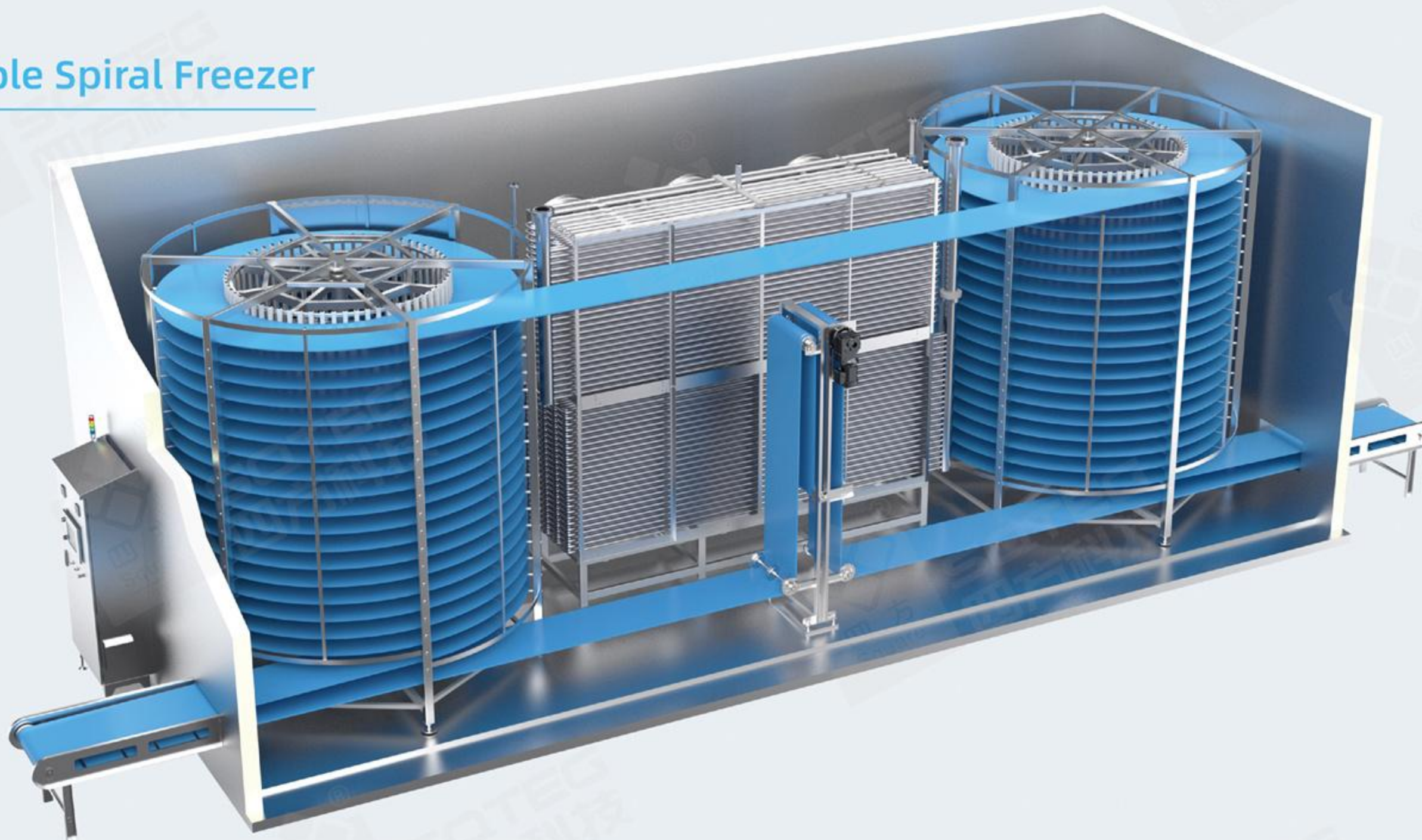


Belt washer

Control valves

Efficient, Energy-saving, Reliable Freezing Solutions

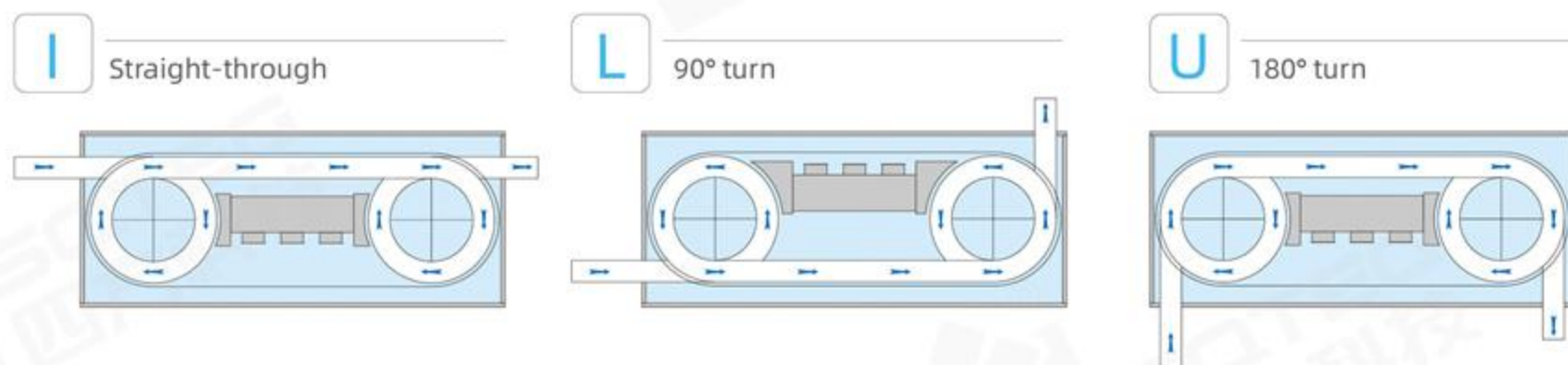
Double Spiral Freezer



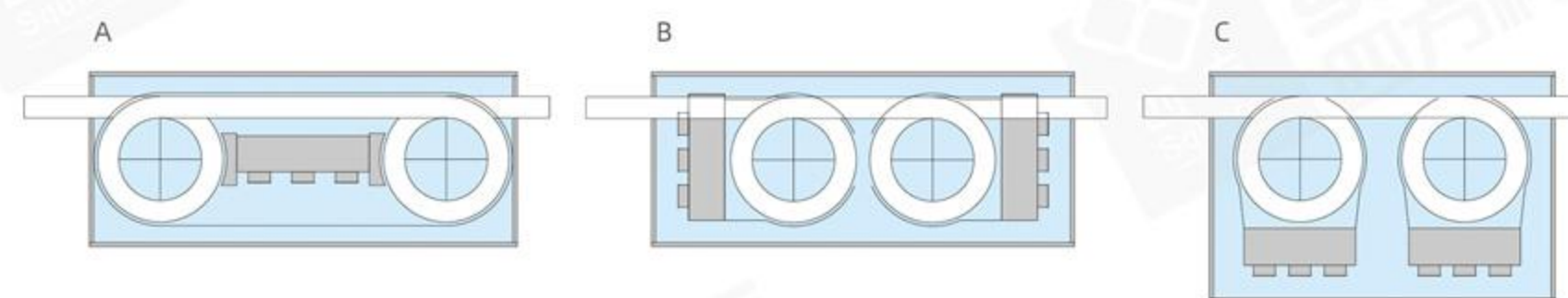
Technical Data

Structure	Double spiral freezer
Drum diameter	1620~5800mm
Layers	6 ~ 40
Insulated enclosure	PIR/PU, SS skin at both sides
Mesh belt width	520 ~ 1220mm
Infeed length	500mm
Outfeed length	500mm
Control panel	PLC touch screen, SS panel
Refrigerant	Freon, Ammonia, CO2
Evaporator	Al/SS tube, aluminum fin, variable fin pitch
Defrost	Water/hot gas/ADF optional
Freezing\cooling time	Stepless variable frequency adjustable
Cleaning	Manual\ Belt Washer\ CIP

Infeed/Outfeed Configurations

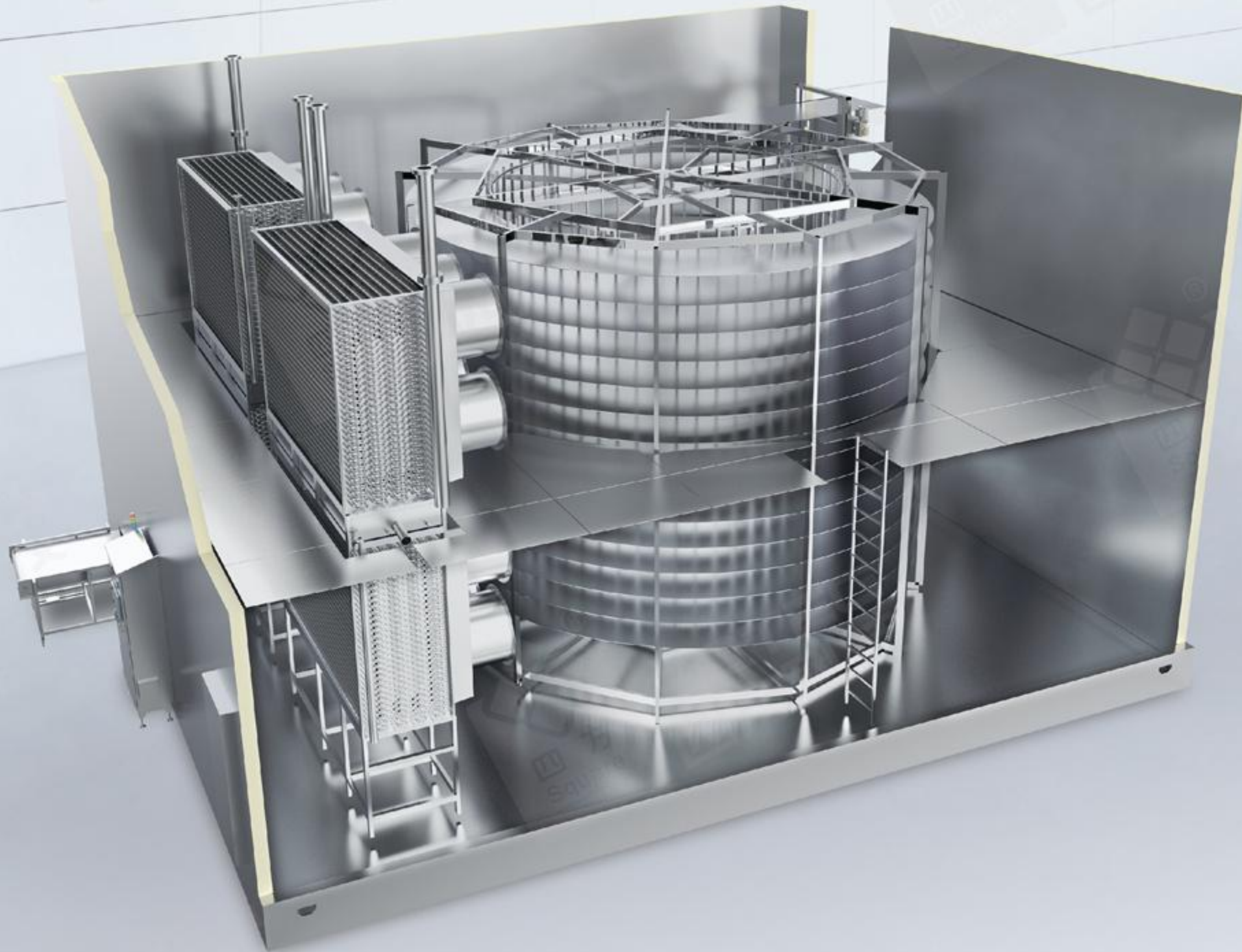


Drum Configurations

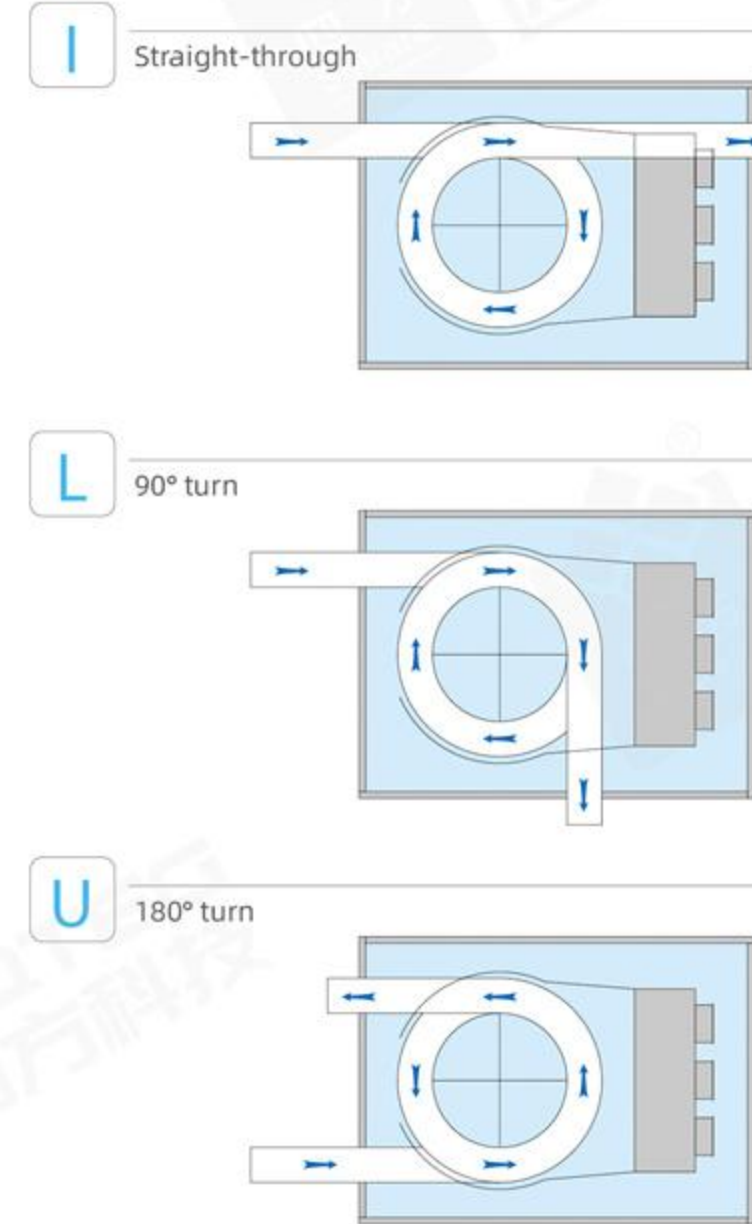


Efficient, Energy-saving, Reliable Freezing Solutions

Single Spiral Freezer



Infeed/Outfeed Configurations



Technical Data

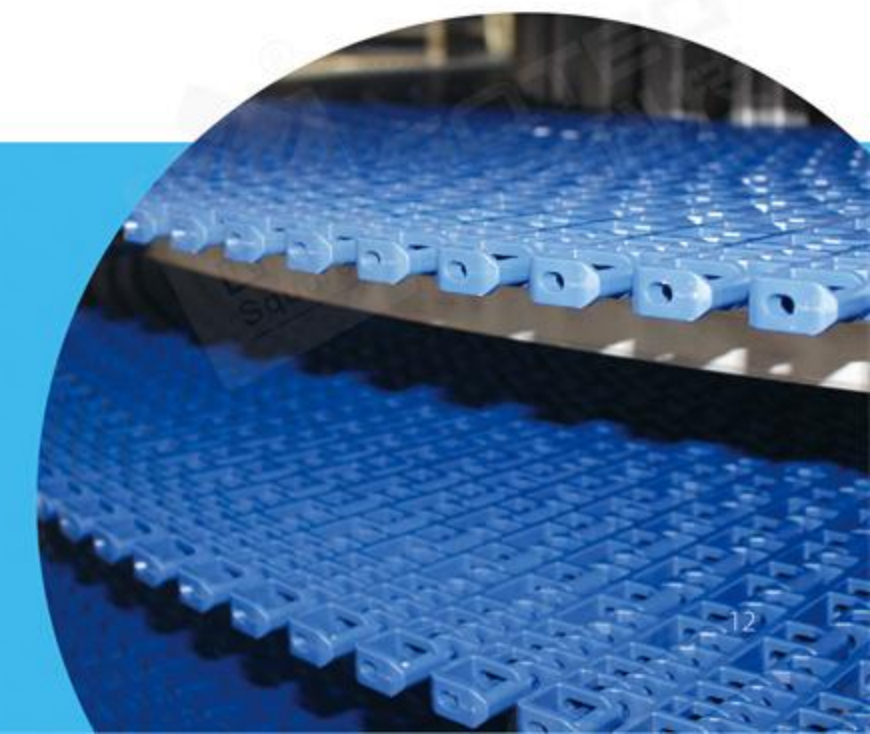
Structure	Single drum spiral freezer
Drum diameter	1620~5800mm
Layers	6~40
Insulated enclosure	PIR/PU, double sides stainless steel panel
Mesh belt width	520~1372mm
Infeed length	500mm
Outfeed length	500mm
Control panel	PLC touch screen, SS panel
Refrigerant	Freon, Ammonia, CO ₂
Evaporator	Al/SS tube, aluminum fin, variable fin pitch
Defrost	Water/hot gas/ADF optional
Freezing\cooling time	Stepless variable frequency adjustable
Cleaning	Manual\ Belt Washer\ CIP

Direct Drive Spiral Freezer (DDS)

The Direct Drive System.

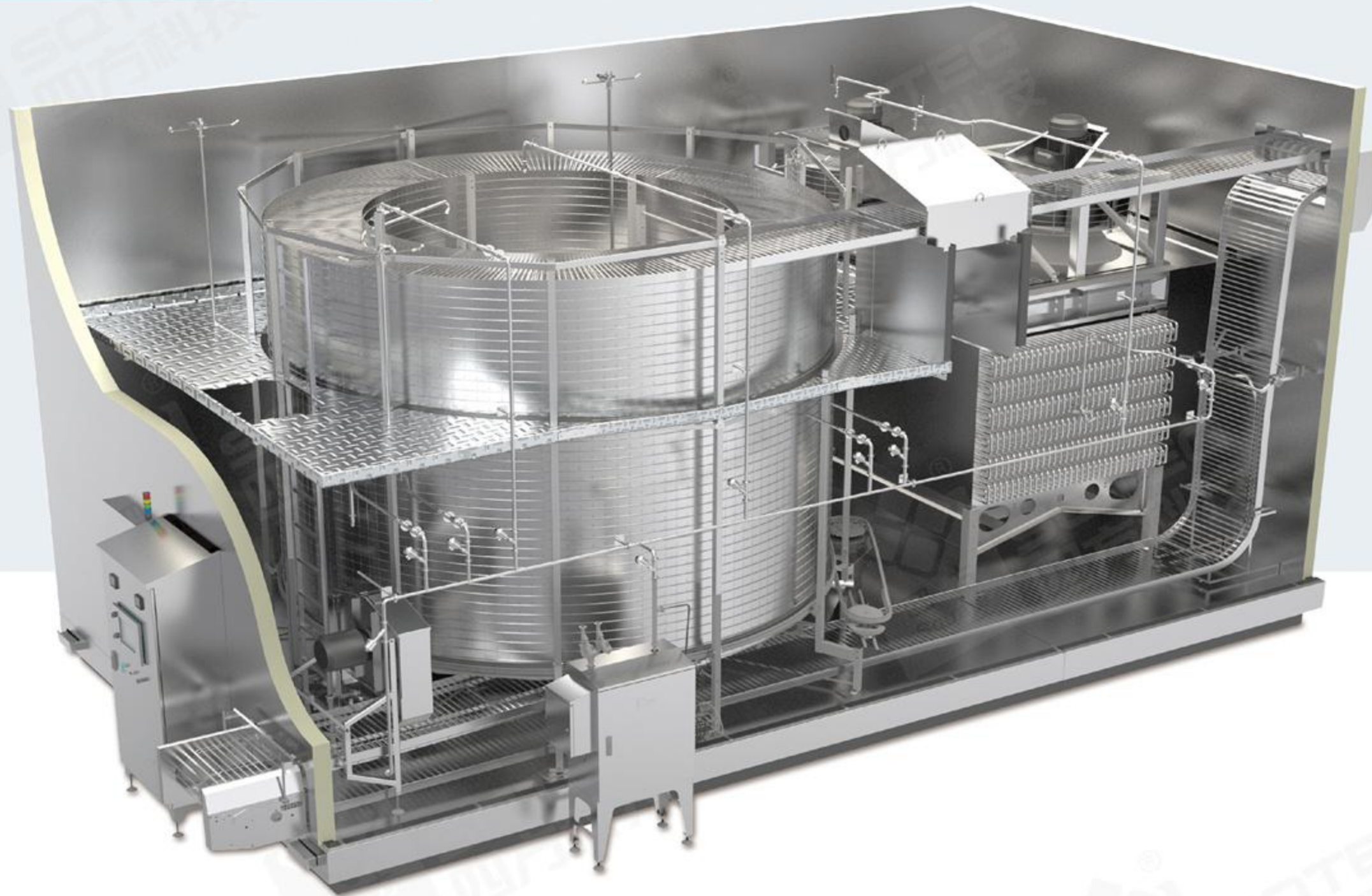
Eliminates friction between belt edge and drum

Modular plastic belt, easy to clean and replace.



Efficient, Energy-saving, Reliable Freezing Solutions

Self-stacking Spiral Freezer

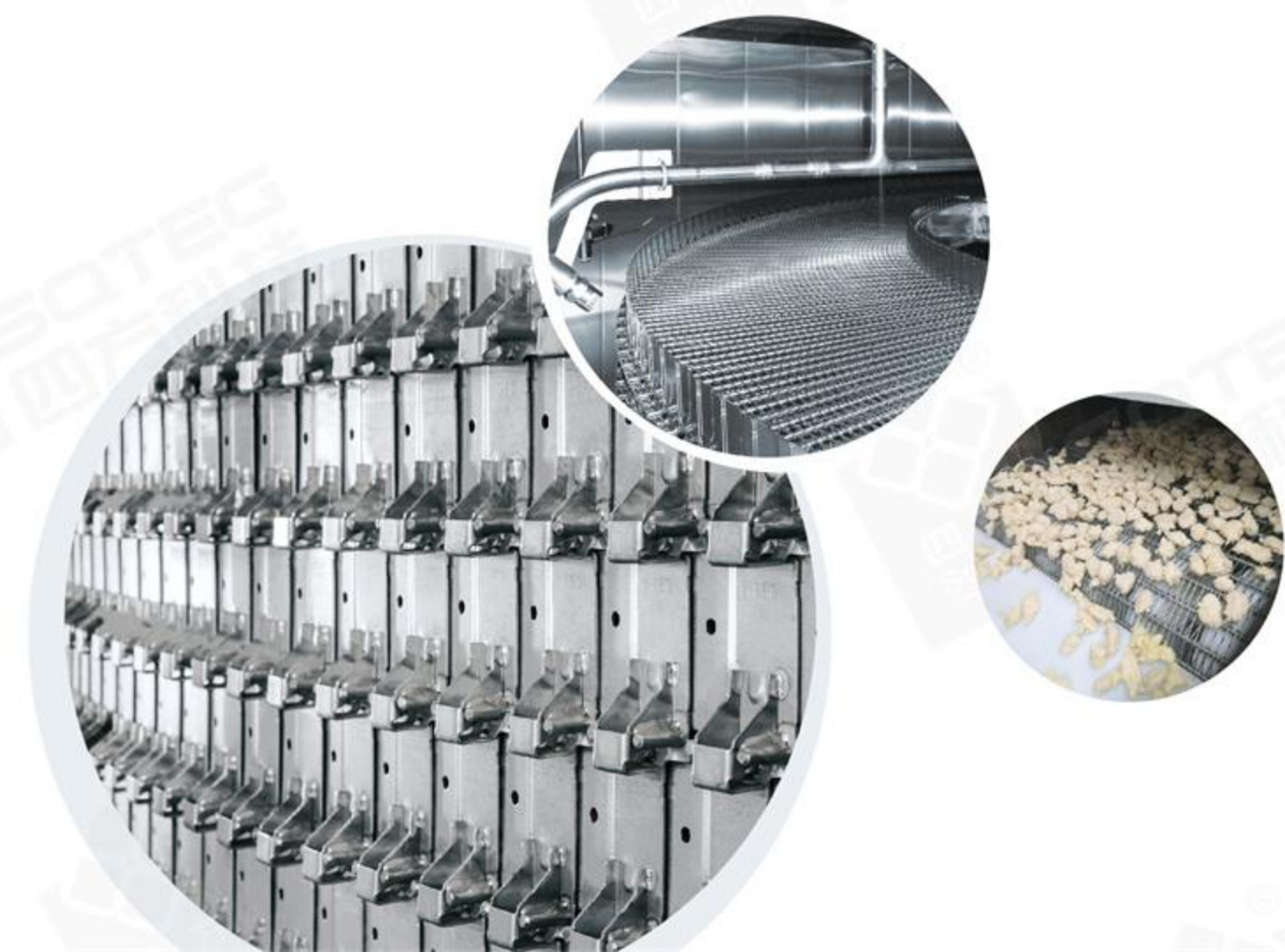


Technical Data

Structure	Self-stacking spiral freezer
Drum diameter	S4, S6, S7, S8, S10
Layers	6~50
Mesh belt width	520~1372mm
Infeed length	700mm
Outfeed length	600mm
Control panel	PLC touch screen, SS panel
Refrigerant	Freon, Ammonia, CO ₂
Evaporator	Al/SS tube, aluminum fin, variable fin pitch
Defrost	Water/hot gas/ADF optional
Freezing\cooling time	Stepless variable frequency adjustable
Cleaning	Manual\ Belt Washer\ CIP

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 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.



Uniformed Humidity And Temperature. Highly Automatic.

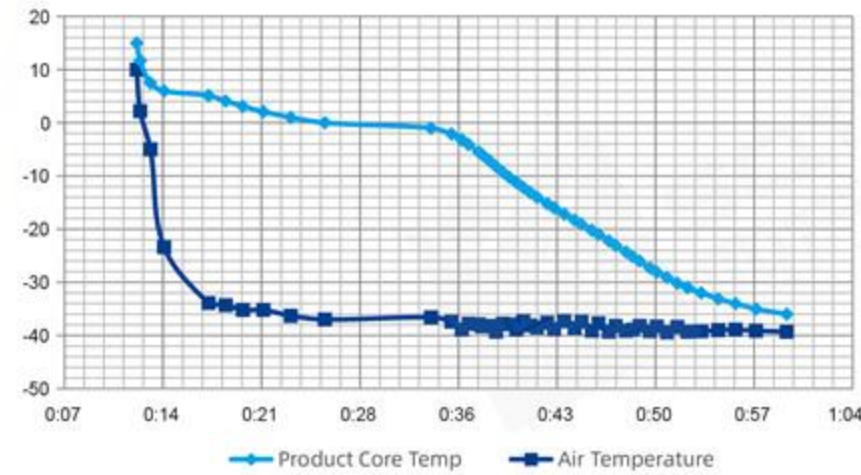
Spiral Proofer

The spiral cooler is popular for pre-cooling of cooked hot pot products and steamed products; and the cooling of sauce pouches, ready meal and bread.



Application Data Library Over 20 years' products freezing data from customer and laboratory

Drumstick
Size:115*60*35mm
Weight:100g



Safety is our priority



Multi-Zone Temperature Monitor



Belt Flip Detector



Cable Pull Switch



Ready meal

Fruits

Vegetable

Bakery

Protein

Hot pot

Ice cream

Seafood

Diversified Applications

