



烟台冰轮  
YANTAI MOON

致力于人类生活质量的提高  
Making a better life

## 隧道式速冻装置

Tunnel Freezer

高效

High efficiency

节能

Energy saving

易清洁

Easy-cleaning

烟台冰轮股份有限公司  
YANTAI MOON CO.,LTD.



烟台冰轮集团创建于 1956 年，是以工商业制冷成套设备、中央空调、精密铸件、密封材料、电站设备、换热设备等为主导产业的跨行业，国际化经营的大型集团企业。

烟台冰轮股份有限公司（股票代码 000811）是冰轮集团的核心企业，以制冷空调设备、气体压缩设备的研发、制造，制冷空调应用系统集成、制冷空调节能服务、工程成套服务为主业，是中国民族制冷空调行业的领军企业。

烟台冰轮拥有国家认定的企业技术中心，建有国内最先进的制冷性能实验室，掌握了以螺杆压缩机技术为代表的具有国际先进水平的核心技术，拥有发明专利 28 项，实用新型专利 35 项。是中国唯一拥有半封闭螺杆压缩机制造资质的企业，也是世界上唯一能够同时生产开启式、半封闭式和全封闭式螺杆压缩机的企业。烟台冰轮的活塞式压缩机 1988 年获得中国制冷产品最高质量奖 - 国家质量银质奖章，开启式螺杆压缩机的“理论技术及产品研发” 2006 年荣获中国制冷行业最高科技奖 - 国家科技进步二等奖。

烟台冰轮生产的 8 个系列，500 多种制冷空调产品覆盖了食品冷冻冷藏、化工工艺制冷（冷却）、人工智能环境等领域。凭借先进的技术、可靠的品质和良好的服务为中国和全球超过 65 个国家的用户提供了“节能、环保、安全”的使用体验，帮助客户实现业务的成长。烟台冰轮全资子公司——具有综合甲级资质的鲁商冰轮建筑设计有限公司，可为用户提供专业的工程项目整体规划及系统综合设计服务。

烟台冰轮在中国各地拥有 35 个营销服务机构，在全球 21 个国家设有 22 个海外营销服务机构，在越南设有海外工厂，构建了比较完善的营销服务网络，可快速响应用户从技术咨询、项目规划、系统设计、设备采购、工程施工，到技术培训、维护保养、系统改造升级等全过程的服务需求，承诺为用户提供产品全生命周期的服务保障。





Yantai Moon Group was founded in 1956, which is a cross-industry and international operations of large enterprise groups with industrial and commercial refrigeration equipment, central air-conditioning systems, precision castings, sealing materials, power plant equipment, heat transfer equipment as its leading industries.

Yantai Moon Co., Ltd. (stock code of 000811) is the core business unit of Moon Group, with research and development and manufacturing of refrigeration conditioning equipment and gas compression equipment, integration of refrigeration air-conditioning application systems, refrigeration air-conditioning energy-saving services, engineering service packages as its main business, and it is an industry leader of China refrigeration conditioning industry.

Yantai Moon Group has a state-certified enterprise technology center, and build the most advanced refrigeration performance lab in China. The company mastered the international advanced core technology with the screw compressor technology as its representative, and hold 28 invention patents and 35 utility model patents. It is the only enterprise with manufacturing qualification of semi-hermetic screw compressor in China, and also is the world's only enterprise who can produce open-type, semi-hermetic type and hermetic type screw compressors. The reciprocating compressor manufactured by Yantai Moon Group achieved the highest quality award in China refrigeration products - National Quality Silver Medal in 1988 and the "theory and product research and development" of open-type screw compressor achieved the highest technology award in China Refrigeration

industry - Second-class National Science and Technology Progress Prize in 2006.

8 series, over 500 kinds of refrigeration & air-conditioning products from Yantai Moon Group have covered the food refrigeration, chemical process refrigeration (cooling), artificial intelligence environment and other fields. With advanced technology, reliable quality and good service, it has provided the user experiences of "energy-saving, environmental protection, safety" for customers in China and more than 65 countries around the world, and assisted customers to achieve the business growth. The wholly-owned subsidiary of Yantai Moon Group - Lushang Binglun Architectural Design Co., Ltd. with Class A integration qualification can provide customers with the professional overall project planning and system design services.

Yantai Moon Group owns 35 marketing services agencies in China and 22 overseas marketing services agencies in 21 countries, and has set up an overseas factory in Vietnam. It has built a comprehensive marketing and service network, which can make quick response to customers for the technical advisory, project planning, system design, equipment procurement, project construction, technical training, maintenance and repair, system upgrading and other services. The company is committed to provide customers with service support within the whole product life cycle.

## 产品用途

隧道式速冻装置可高效、经济的快速冻结单体或盘装的多种形状、多种类型的产品，可实现产品的连续进出货，适合流水线加工。隧道（板带）式速冻装置主要用于肉类、水产品以及部分果蔬的快速冻结；隧道（网带）式速冻装置主要用于调理食品如水饺、包子、汤圆，也可用于单体或盘装肉类、水产品的快速冻结。

相对普通板带式及网带式速冻装置，高效隧道式速冻装置有冻结时间短、冻品品质高的特点。该设备不适用于面包鱼、面包虾等沾浆裹粉类在高风速下易变形食品的快速冻结。



## Product use

The tunnel freezer can freeze single or dish products of multiple shapes and types quickly, effectively and economically and realize continuous entry and output of products for assembly line processing. The tunnel (plate belt) quick freezer is used mainly in quick freezing of meats, aquatic products and Certain fruits and vegetables; the tunnel (mesh belt) quick freezer is used mainly in quick freezing of prepared foods including dumplings, stuffed bun, rice dumplings, etc. as well as single or dish meats and aquatic products.

Compared with common plate belt freezers and mesh belt quick freezers, the high-efficiency tunnel freezer is characterized by short freezing time and high freezing quality. The equipment is unsuitable for quick freezing the easily deformed foods such as bread fish, bread shrimp, etc.

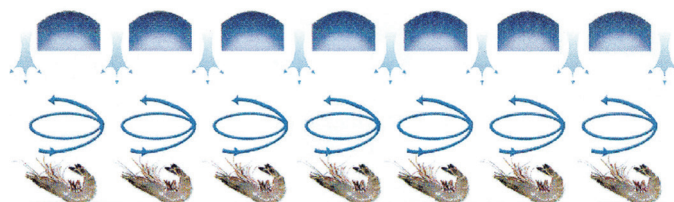
## 产品核心特点

采用日本东洋专利速冻技术核心——“热波动”配风系统，使得高速均匀的冷气流“脉动式”地喷射到食品的表面，食品表面处于垂直风和涡旋风的交替作用下，形成冷气流与食品表面、食品表面与食品心部快速、连续的传热，有效地加速了食品的冻结速度，大大提升食品的冻结品质。

## Core features of the product

The product Introduces the core technology of TOYO's patent quick freezing technology——“thermal fluctuation” air distribution system, so that high-speed uniform cold air currents are sprayed onto food surfaces in “pulsing mode”, and food surfaces are under the alternate action of vertical wind with vortex wind, thereby realizing quick and continuous heating between cold air currents and food surfaces and between food surfaces and food centers, effectively increasing food freezing speed and greatly improving food freezing quality.

## “热波动” 配风系统 “Thermal fluctuation” air distribution system

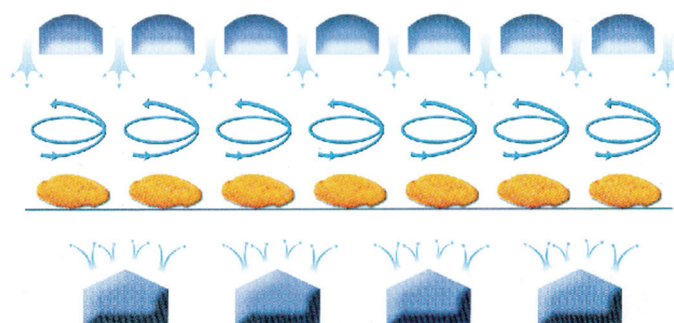


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## “双向热波动” 配风系统 “Two-way thermal fluctuation” air distribution system



## 结构形式及特点

隧道式速冻装置由进料口、保温结构、出料口、传送带、传动系统、配风系统、蒸发器、风机、电控系统组成。根据传送带的数量分为单板带、单网带、双板带、双网带等形式。双板带式、双网带式速冻装置是将一个保温结构用保温板分隔为两个相对独立的速冻空间，并设置两套完全独立的传动系统和配风系统。在满足客户加工工艺和产量的前提下，大幅度的缩短了加工车间的长度需求。

## Structure form and features

The tunnel freezer consists of feed inlet, insulation structure, discharge gate, conveyor belts, transmission system, evaporator, fan and electric control system. In terms of the number of conveyor belts, the tunnel freezer includes multiple forms such as single plate belt, single mesh belt, dual plate belt, dual mesh belt, etc. In the dual plate belt quick freezer or the dual mesh belt quick freezer, an insulation structure is separated by insulation boards into two relatively independent quick freezing spaces, which are fitted with two sets of completely independent transmission systems and air distribution systems. This greatly shortens the length of the processing workshop on the premise of meeting the customer's requirements for processing techniques and quality.

### ● 保温结构

- ◎ 保温结构采用双面不锈钢硬质聚氨酯夹芯板拼装而成，整体刚性底框架支撑，保温性能卓越。
- ◎ 采用环保材料 R141B 做为发泡剂，既保护了环境，又获得了优良保温性能。
- ◎ 进、出料口用双面不锈钢硬质聚氨酯夹芯板拼装，有效的防止漏冷现象的发生，节约了能源。
- ◎ 为了彻底排出存水，底板整体倾斜一定角度，单板带、单网带向一侧倾斜，双板带、双网带从中间坡向两侧。
- ◎ 速冻机能够直接平稳地放置在平面或带有排水坡度的地面上，无需设置基础，利于地面清洗。
- ◎ 设置了能够调节高度的万向脚蹄，能够按照安装现场的实际情况进行一定范围的调节。

### ● Insulation structure

The insulation structure is assembled of two-sided stainless steel rigid polyurethane laminboards and supported by an integral rigid bottom frame and has excellent heat retaining property.

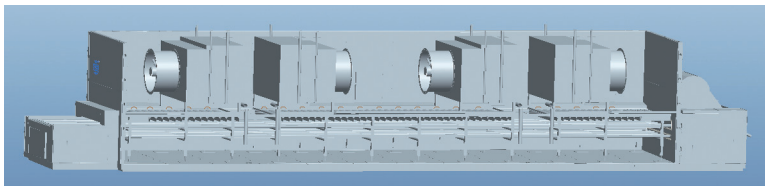
Uses the environment-friendly material R141B as a foaming agent, thus both protecting environment and obtaining excellent heat retaining property.

The feed inlet and discharge gate are assembled of two-sided stainless steel rigid polyurethane laminboards, thereby effectively preventing cold leakage and saving energy.

In order to thoroughly discharge the accumulated water, the bottom board is inclined to a certain angle integrally; for the single plate belt freezer and the single mesh belt freezer, the bottom board is inclined towards one side; for the dual plate belt freezer and the dual mesh belt freezer, the bottom board is inclined from the middle towards the two sides.

The freezer can be placed on a plane or the ground with drainage slope directly and stably without need to set up a foundation, thus making for ground cleaning.

Universal bun foots of adjustable height are installed and their height can be adjusted within a certain range according to the actual conditions of the installation site.



## ● 检修门

- ◎ 设置在速冻机两侧，操作人员可随时方便地进、出单冻机内部，便于清洁处理和维护保养。
- ◎ 采用 PVC 门框整体发泡成型，并带有自动控温的电加热装置，彻底杜绝了门漏冷现象的发生。
- ◎ 新型不锈钢门铰链、锁件，美观、耐用；优质密封胶条、耐低温、抗老化，使用寿命长。
- ◎ 进、出料口的两侧设置检修小门，便于彻底的进行卫生清洁处理。

## ● Access door

The access doors are set up on the two sides of the quick freezer. Operating personnel can conveniently enter and exit out of the quick freezer via the access door, thus making for cleaning and maintenance.

The access door uses an integrally foam-formed PVC door frame and is provided with an automatic temperature control electric heater, thus thoroughly eliminating cold leakage of the access door.

Newly designed stainless steel door hinges and locking pieces are attractive and durable; high quality sealing rubber strips are resistant to low temperature and aging and have long service life.

The two sides of the feed inlet and discharge gate are fitted with small access doors for convenience of thorough cleaning.



## ● 蒸发器

- ◎ 采用铝管铝片结构形式，水 + 热氨联合冲霜方式，符合食品卫生、安全的需求。
- ◎ 大尺寸翅片，采用进口专用设备胀接，接触紧密、热阻小，换热效率高。
- ◎ 变片距方式，配以最佳的气流组织形式，可长时间高效连续的工作。
- ◎ 供液、回气装置采用日本东洋专利技术，杜绝盘管内积油问题的发生。

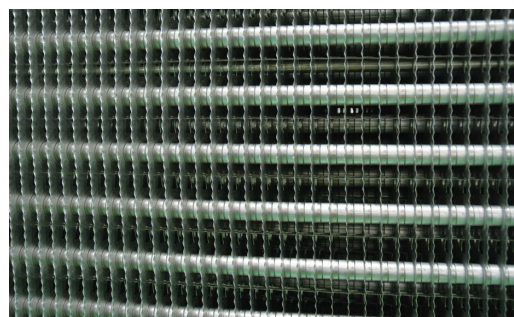
## ● Evaporator

Structure form with aluminum tubes and aluminum sheets, combined defrosting mode with water + hot ammonia, conforming to food hygiene and safety requirements.

Large size fins, imported special equipment for expanded connection, tight contact, small heat resistance, high heat exchange efficiency.

Variable pitch of fins and the optimum air current organization form so as to realize long-term continuous working with high efficiency.

The liquid feed device and air return device use TOYO's patent technology, thus preventing oil from being accumulated in coil pipes.



## ● 传送带

◎ 采用进口高强度不锈钢板带，抗拉强度和表面硬度均超过国产不锈钢板带的两倍。板带的线性波浪度、线性弯曲度远低于国产不锈钢板带，成为目前国际市场上品质最优的输送用不锈钢板带。

◎ 高硬度的板带表面不仅美观，而且使用寿命长，承载能力高，适应冻结产品的范围更加广泛。

◎ 表面平整，确保运行的稳定性，再配以防板带跑偏的装置，彻底杜绝了板带跑偏现象的发生。

◎ 全不锈钢网带，采用进口数控网带成型机制造，品质可媲美欧美等国产品。可选择“菱”形、“人”字形和“一”字形等多种形式，保证食品获得完美的外观。运用新型材料精铸成型的网带托条托举平稳，减少网带的磨损，使用寿命更长久。

◎ 进料口处设置了高效清洗装置，彻底地清洗板带，避免滋生细菌，并相应配备刮水、除冰装置，可防护板带，避免损伤。



## ● Conveyor belts

The conveyor belts use high strength stainless steel plate belts and their tensile strength and surface hardness are considerably improved. The linear wave degree and linear bending of the plate belts are far lowered and the plate belts have become the stainless steel conveyor plate belts with the best quality on the international market at present.

The belt plate surface with high hardness is neat and also has long service life, high load bearing capacity and more extensive applicable scope of frozen products.

The surface is flat, thus ensuring operation stability; in addition, a plate belt centering device is installed so as to thoroughly eliminate off-tracking of plate belts.

Full stainless steel mesh belts are made using imported CNC mesh belt forming machines. Multiple shapes of mesh belts including “diamond-shaped” ones, “herringbone” ones, “in-line” ones, etc. can be selected to ensure perfect appearance of foods. The mesh belt backing strips from precision casting of new materials reduce mesh belt wear and result in longer service life.

A high-efficiency cleaning device is set up at the feed inlet to thoroughly clean belts and avoid the growth of bacteria; in addition, water scraping and deicing devices are set up accordingly to protect belts from being damaged.

## ● 传动系统

- ◎ 采用球墨铸铁精铸而成的传动滚轮，刚柔适度，能够确保长久平稳的运行。
- ◎ 滚轮外侧为利于传动而经过特殊热处理工艺粘结的橡胶涂层，防止了板带打滑现象的发生。
- ◎ 采用涨紧结构调整板带或网带运行，调整方便，防止板带或网带跑偏和松弛。
- ◎ 传动链轮、链条以及轴承座均为不锈钢材质，符合食品卫生要求。
- ◎ 配置国内知名品牌减速机，无级变频调速，可灵活调整传送带的速度以适应不同产品的要求。

## ● Transmission system

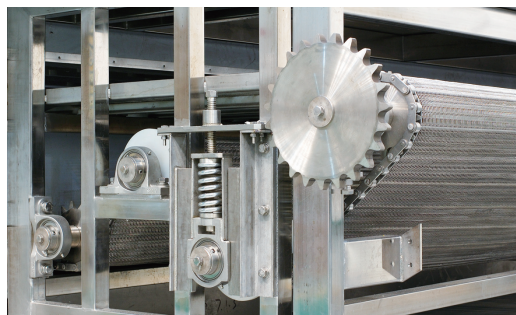
The transmission roller from precision casting of ductile cast iron has moderate rigidity and flexibility and can ensure long-term stable operation.

The outside of the roller is the bonded rubber coating that makes for transmission and undergoes special heat treatment, for the purpose of preventing plate belt slipping.

A tensioner structure is used to adjust the operation of plate belts or mesh belts conveniently and thus to prevent them from off-tracking or loosening.

Drive sprockets, chains and bearing seats all use stainless steel materials and conform to food hygiene requirements.

A reduction gear of well-known domestic brand is installed and can realize stepless frequency conversion and speed control; with the reduction gear, the speed of conveyor belts can be flexibly adjusted to meet the requirem.



## ● 风机

- ◎ 通过合理的气流组织，并配以低噪音、高效率的轴流风机，保证被冻结物料的快速冻结。
- ◎ 配置国内知名品牌轴流风机，运行平稳可靠，使用寿命长。
- ◎ 风机外壳及叶片均为不锈钢材质，符合食品卫生、安全的要求。
- ◎ 电机防护等级达到 IP55，在低温状态下能够保证长期稳定的运行。

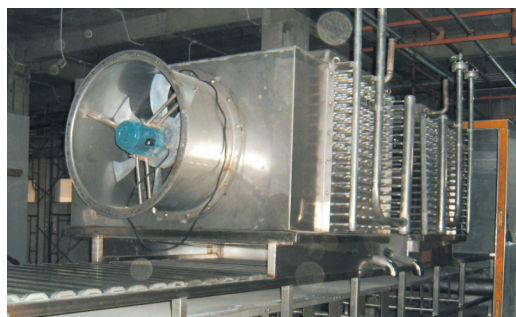
## ● Fan

Reasonable air current organization and the high-efficiency axial flow fan with low noise ensure freezing of materials.

Axial flow fan of famous domestic brand, stable and reliable operation, long service life.

Both the shell and the blades of the fan use stainless steel materials and conform to food hygiene and safety requirements.

Motor protection level up to IP55, which can ensure long-term stable operation at low temperature.





## ● 配风系统

- ◎ 采用日本东洋专利技术特殊设计的导风槽，保证了“热波动”冻结方式的实现，冻结效率高。
- ◎ 高强度防锈铝合金拉伸而成的导风槽外形美观，具有良好的制造精度，达到均匀送风的效果。
- ◎ 导风槽整体经过阳极氧化处理，符合食品卫生、安全清洁的要求。必要时能够全部取出清洁。
- ◎ 由导风槽构成的配风系统，能够灵活地调节风速和风量，保证了食品的冻结效果。
- ◎ 板带下部配置了均布的多个冷风装置，提高了板带下部的换热效率，大大缩短了冻结时间。
- ◎ 根据不同食品随时优化调整的配风系统，有效的保证了食品的速冻品质，同时也节约能源。

## ● Air distribution system

The air distribution system uses the air guide groove specially designed with TOYO's patent technology, thus ensuring the realization of the "thermal fluctuation" freezing mode and high freezing efficiency.

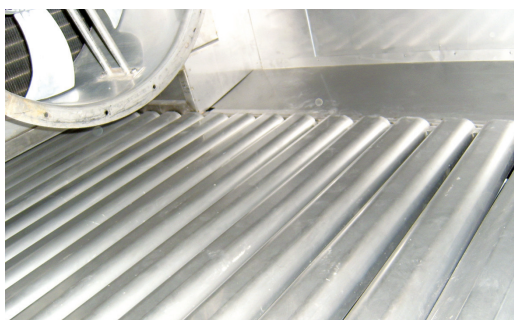
The air guide groove formed from drawing and stretching of high-strength antirust aluminum alloy has attractive appearance and good manufacturing precision and can reach uniform air feed effect.

The air guide groove undergoes anodic oxidation treatment and conforms to food hygiene, safety and cleaning requirements. If necessary, the air guide groove can be completely taken out for cleaning.

The air distribution system composed of air guide grooves can flexibly adjust air speed and air volume, thus ensuring food freezing effect.

Multiple uniformly distributed cold air devices are installed in the lower part of plate belts, thus improving the heat exchange efficiency of the lower part of plate belts and greatly shortening freezing time.

The air distribution system that is optimized and adjusted at any time as per different foods effectively ensures the freezing quality of foods and also saves energy.



## ● 控制系统

- ◎ 控制系统操作简便、可靠，可以根据客户的不同需求添加控制功能。
- ◎ 控制元件采用施耐德等知名厂家产品，控制系统操作合理、简便、可靠，可满足各种不同客户的需求。
- ◎ 控制柜采用不锈钢防水结构设计，更加符合食品加工车间的使用要求。
- ◎ 在进料口设置急停按钮，在意外事故发生时，可立即停止设备的运行。

## ● Control system

The control system is operated simply, conveniently and reliably and its control functions can be added according to the customer's different demands.

The control components use the products of famous manufacturers including Schneider etc. and the control system is operated reasonably, simply, conveniently and reliably and can meet the demands of different customers.

The control cabinet is designed with a waterproof stainless steel structure, thus meeting the application requirements of food processing workshops all the more.

An emergency shutdown button is installed at the feed inlet; in the event of an emergency, by pressing the button, equipment can be immediately shut down.

## ● 产品延伸

◎ 为了适应时代的发展，我们为客户特殊设计了超高强度塑料传动滚轮，整个传动系统实现全不锈钢化，为食品的安全提供了又一可靠的保障。

◎ 为客户特殊设置符合其要求的进料口或出料口长度，满足其在生产过程中的要求。能够根据客户的实际产品，特别定制各种形式的网带和相应配套的传动系统。

## ● Product extension

In order to meet the requirements of the development of the times, we have designed plastic transmission rollers with ultra-high strength for customers and the whole transmission system uses stainless steel materials, thus providing a reliable guarantee to food safety.

The length of the feed inlet or discharge gate is specially designed as needed by customers to meet their requirements in the production process. Various forms of mesh belts and the corresponding matching transmission system can be customized according to the customer's actual products.



## 特别提示

### ◎ 冻结能力

冻结能力与食品的形状、大小、含水量和物化性质有关。

### ◎ 制冷工质

制冷工质可以采用氨、氟或其他制冷剂和载冷剂。标准产品为氨和 R22 两种，如有特殊需求请在订货时注明。

### ◎ 制冷系统

制冷系统单独配置的情况下使用该系列产品效果更佳。

### ◎ 使用环境

本系列产品在加工车间温度低于 20℃ 情况下运转效果最佳。

## Special tips

### Freezing capacity

The freezing capacity is related to the shape, size, water content and physical and chemical properties of food.

### Refrigerant

The refrigerant can use ammonia, fluorine or other refrigerants or secondary refrigerants. There are two sorts of standard products such as ammonia and R22; if there are special requirements, please clearly indicate them on the order form.

### Refrigerating system

When the refrigerating system is provided individually, the use of the series products can obtain a better effect.

### Application environment

The running effect of the series products is the best when the temperature of the workshop is lower than 20℃.

## MTS 系列隧道式（板带）速冻装置（中国大陆生产基地制造产品）

### MTS series tunnel (plate belt) freezers (Products manufactured by Chinese mainland base)

### 性能参数

#### Performance parameter

| 产品型号<br>Product model                                                  | MTS250       | MTS500       | MTS600       | MTS750       | MTS800       | *MTS800      | *MTS1000     | *MTS1200     | *MTS1500     |
|------------------------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 订货代号<br>Order code number                                              | 018601010000 | 018601020000 | 018601030000 | 018601050000 | 018601060000 | 018645040000 | 018645010000 | 018645020000 | 018645030000 |
| 公称冻结能力 (kg/h)<br>Nominal freezing capacity (kg/h)                      | 250          | 500          | 600          | 750          | 800          | 800          | 1000         | 1200         | 1500         |
| 板带有效宽度 (mm)<br>Effective width of plate belt (mm)                      | 1150         |              |              |              | 1150*2       |              |              |              |              |
| 通货高度 (mm)<br>Cargo-through height (mm)                                 | 60           |              |              |              | 60           |              |              |              |              |
| 进 / 出料心部温度 (°C)<br>Inlet & outlet material core temperature (°C)       | +10/-18      |              |              |              | +10/-18      |              |              |              |              |
| 冻结温度 (°C)<br>Freezing temperature (°C)                                 | -40          |              |              |              | -40          |              |              |              |              |
| 冲霜水量 (m³/次)<br>Defrosting water quantity (m³/time)                     | 4            | 8            | 9.6          | 12           | 12.8         | 12.8         | 16           | 19.2         | 24           |
| 名义工况耗冷量 (kW)<br>Cold consumption under nominal working conditions (kW) | 45           | 80           | 90           | 110          | 120          | 130          | 150          | 180          | 220          |
| 装机功率 (kW)<br>Installed capacity (kW)                                   | 5.71         | 10.25        | 13.85        | 15.19        | 19.99        | 20.15        | 20.15        | 27.49        | 29.89        |
| 净重 (t)<br>Net weight(t)                                                | 6            | 10           | 11           | 13           | 13.5         | 16           | 20           | 22           | 25           |
| 运行重量 (t)<br>Operating weight (t)                                       | 6.6          | 11           | 12.1         | 14.3         | 14.9         | 17.6         | 22           | 24.2         | 27.5         |

注：

- 带 \* 为双板带式速冻装置；
- 公称冻结能力按圆贝丁计，规格  $\Phi 20 \times 18$ 、80 粒 / 磅；含水量 80%，布料密度  $4\text{kg/m}^2$ ；
- 名义工况耗冷量按蒸发温度  $-45^\circ\text{C}$  工况计。实际使用冻结温度与表中不同时，请按实际使用工况配置系统设备。
- 适用于制冷剂为 R717、R744、R22、R404A、R507G、R134a 等多种制冷剂或载冷剂。
- 以蒸发器供液方式为泵供液计。

Note:

- The freezers with\* are dual plate belt freezers.
- The nominal freezing capacity is designed as per scallop, with the specification of  $\Phi 20 \times 18$ , 80 pieces/lb, the water content of 80% and the material distribution density of  $4\text{kg/m}^2$ ;
- The cold consumption under nominal working conditions is calculated as per the operating condition at  $-45^\circ\text{C}$  vaporization temperature. When the actual freezing temperature is different from the value in the table, please configure the system equipment according to actual operating conditions.
- Applicable to multiple refrigerants or secondary refrigerants such as R717, R744, R22, R404A, R507C, R134a, etc.
- The evaporator feeding mode is used as the pump feeding mode.

# 冻结能力比较

## Freezing capacity comparison

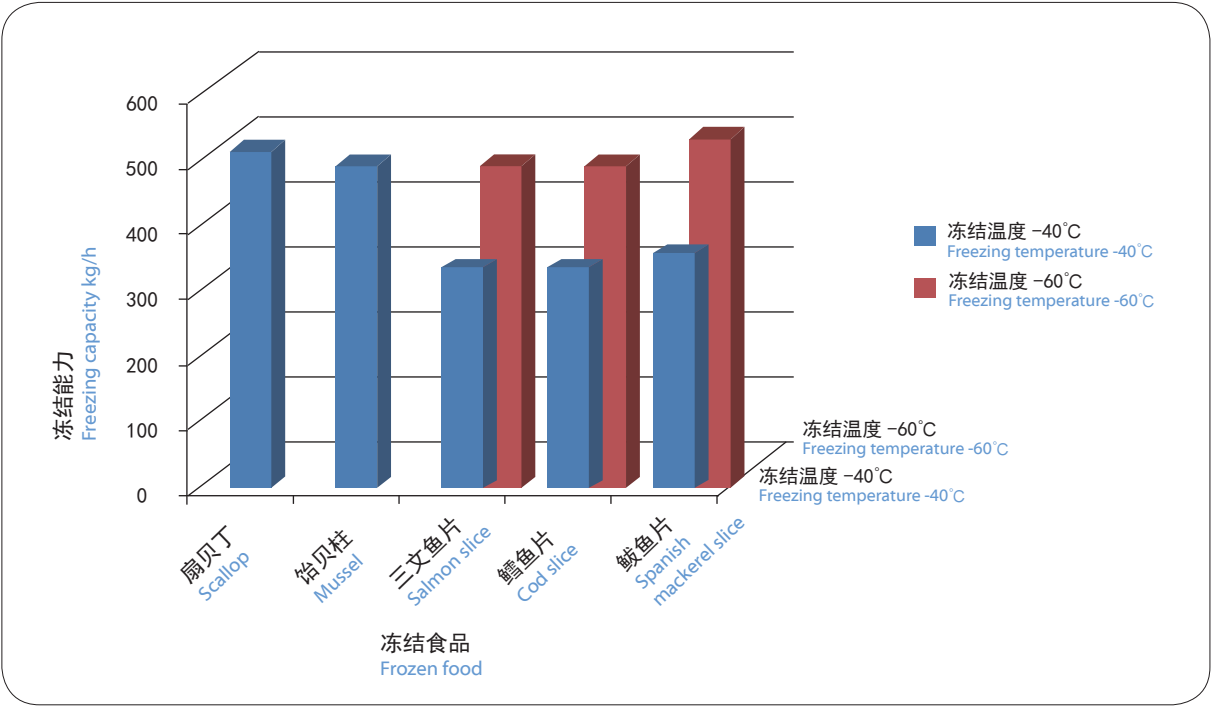
同一型号速冻装置，冻结不同食品、在不同的使用环境下，冻结能力是不同的。以 MTS500 为例，不同食品、不同库温时，冻结能力可参考下表：

The freezing capacity of the freezers of the same model is different when they are used to freeze different foods in different application environments. Taking MTS500 as an example, refer to the following table for the freezing capacity for different foods at different storage temperatures:

| 食品名称<br>Food name             | 食品规格 mm<br>Food specification mm | 食品单重 g<br>Unit weight of food g | 冻结温度 °C<br>Freezing temperature °C | 冻结能力 kg/h<br>Freezing capacity kg/h |
|-------------------------------|----------------------------------|---------------------------------|------------------------------------|-------------------------------------|
| 扇贝丁<br>Scallop                | Φ 20*18                          | 6                               | -40                                | 510                                 |
|                               |                                  |                                 | -60                                | -                                   |
| 贻贝柱<br>Mussel                 | Φ 45*28                          | 35                              | -40                                | 490                                 |
|                               |                                  |                                 | -60                                | -                                   |
| 三文鱼片<br>Salmon slice          | 245*110*20                       | 244                             | -40                                | 340                                 |
|                               |                                  |                                 | -60                                | 460                                 |
| 鳕鱼片<br>Cod slice              | 370*120*30                       | 505                             | -40                                | 330                                 |
|                               |                                  |                                 | -60                                | 450                                 |
| 鲛鱼片<br>Spanish mackerel slice | 270*90*26                        | 300                             | -40                                | 360                                 |
|                               |                                  |                                 | -60                                | 500                                 |

注：以进 / 出料心部温度 +10/-18℃计。

Note: calculated as per the inlet & outlet material core temperature +10/-18℃ .



## 结构参数 Structural parameters

单位 unit: mm

| 型号<br>Model | 总长<br>Total length L | 总宽<br>Total width W | 总高<br>Total height H | 库体长<br>Storage body length<br>L1 | 入料高度<br>Feeding<br>height H1 | 出料高度<br>Discharging<br>height H2 |
|-------------|----------------------|---------------------|----------------------|----------------------------------|------------------------------|----------------------------------|
| MTS250      | 11330                | 2300                | 2760                 | 7760                             | 1050                         | 680                              |
| MTS500      | 18120                |                     |                      | 14550                            |                              |                                  |
| MTS600      | 20060                |                     |                      | 16490                            |                              |                                  |
| MTS750      | 23940                |                     |                      | 20370                            |                              |                                  |
| MTS800      | 24910                |                     |                      | 21340                            |                              |                                  |
| *MTS800     | 15210                | 4400                | 2760                 | 11640                            |                              |                                  |
| *MTS1000    | 18120                |                     |                      | 14550                            |                              |                                  |
| *MTS1200    | 19860                |                     |                      | 16490                            |                              |                                  |
| *MTS1500    | 23940                |                     |                      | 20370                            |                              |                                  |

注：带 \* 为双板带速冻装置；

Note: The freezers with \* are dual plate belt freezers.

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## 管口明细 Interface details

单位 unit: mm

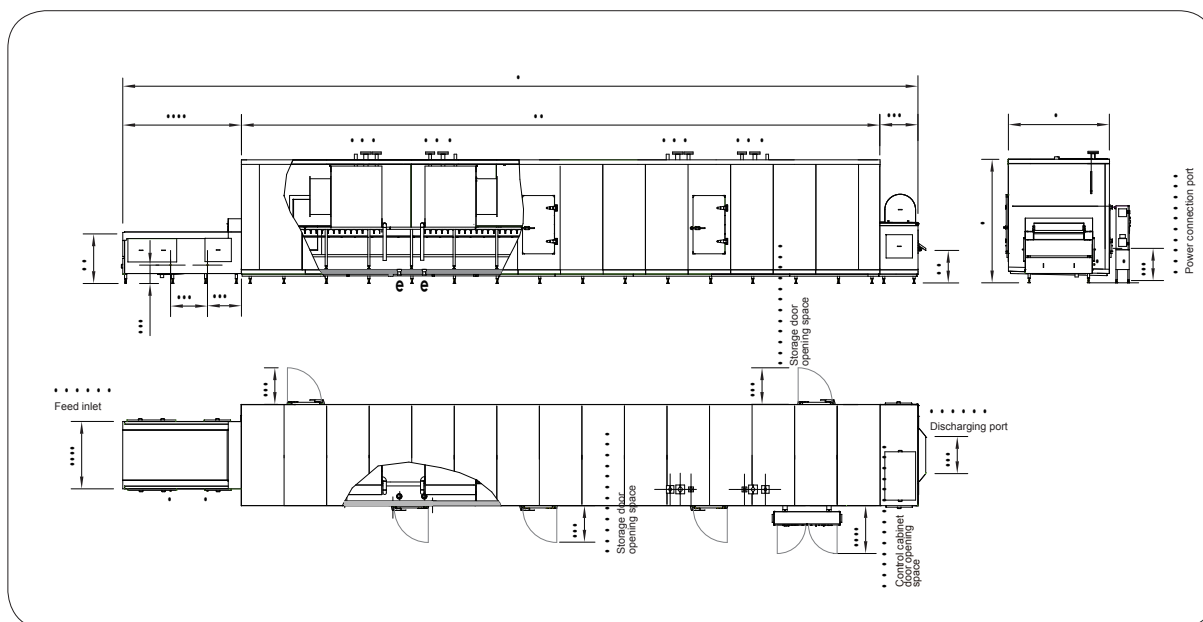
| 产品型号<br>Product model | a 供液口<br>a. Liquid feed<br>interface | b 回气口<br>b. Air return<br>interface | c 冲霜水口<br>c. Defrosting water<br>interface | d 清洗水口<br>d. Cleaning water<br>interface | e 库体排污口<br>e. Storage body<br>sewage outlet | f 电控接口<br>f. Electrical control<br>connecting port |
|-----------------------|--------------------------------------|-------------------------------------|--------------------------------------------|------------------------------------------|---------------------------------------------|----------------------------------------------------|
| MTS250                | 2*DN32                               | 2*DN50                              | 2*R1 1/2                                   | R3/4                                     | 3*Φ75                                       | Φ40                                                |
| MTS500                | 4*DN32                               | 4*DN50                              | 4*R1 1/2                                   |                                          | 7*Φ75                                       |                                                    |
| MTS600                | 4*DN32                               | 4*DN50                              | 4*R1 1/2                                   |                                          | 7*Φ75                                       |                                                    |
| MTS750                | 6*DN32                               | 6*DN50                              | 6*R1 1/2                                   |                                          | 7*Φ75                                       |                                                    |
| MTS800                | 6*DN32                               | 6*DN50                              | 6*R1 1/2                                   |                                          | 7*Φ75                                       |                                                    |
| *MTS800               | 8*DN32                               | 8*DN50                              | 8*R1 1/2                                   | 2*R3/4                                   | 14*Φ75                                      | 2*Φ40                                              |
| *MTS1000              | 8*DN32                               | 8*DN50                              | 8*R1 1/2                                   |                                          | 14*Φ75                                      |                                                    |
| *MTS1200              | 8*DN32                               | 8*DN50                              | 8*R1 1/2                                   |                                          | 14*Φ75                                      |                                                    |
| *MTS1500              | 12*DN32                              | 12*DN50                             | 12*R1 1/2                                  |                                          | 14*Φ75                                      |                                                    |

注：带 \* 为双板带速冻装置

Note: The freezers with \* are dual plate belt freezers.

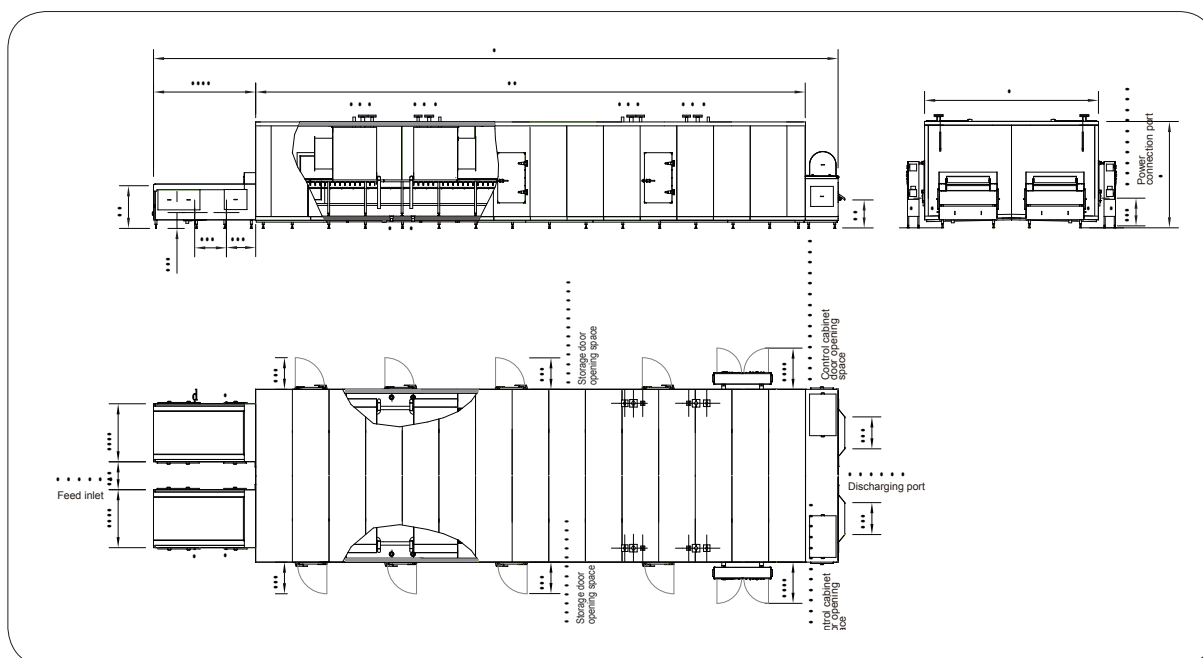
## 外形图

### Outside drawing



注意：冻结装置底板均设水漏，标准单板带水漏由进料口看均在右侧，双板带在两侧。

Note: the base plate of each freezer is fitted with a water drain; the water drain of all standard single plate belt freezers is on the right side as seen from the feeding port, and that of all standard dual plate belt freezers is on the two sides.





## MES 系列高效隧道（板带式）速冻装置（中国大陆生产基地制造产品）

### MES series high-efficiency tunnel (plate belt) freezers (Products manufactured by Chinese mainland base)

### 性能参数

#### Performance parameter

| 产品型号<br>Product model                                                        | MES500       | MES750       |
|------------------------------------------------------------------------------|--------------|--------------|
| 订货代号<br>Order code number                                                    | 018631010000 | 018631030000 |
| 公称冻结能力 (kg/h)<br>Nominal freezing capacity (kg/h)                            | 500          | 750          |
| 板带有效宽度 (mm)<br>Effective width of plate belt (mm)                            | 1150         |              |
| 通货高度 (mm)<br>Cargo-through height (mm)                                       | 50~90        |              |
| 进 / 出料心部温度 (°C)<br>Inlet & outlet material core temperature (°C)             | +10/-18      |              |
| 冻结温度 (°C)<br>Freezing temperature (°C)                                       | -42          |              |
| 冲霜水量 (m <sup>3</sup> /次)<br>Defrosting water quantity (m <sup>3</sup> /time) | 10           | 15           |
| 名义工况耗冷量 (kW)<br>Cold consumption under nominal working conditions (kW)       | 100          | 145          |
| 装机功率 (kW)<br>Installed capacity (kW)                                         | 35           | 51           |
| 净重 (t)<br>Net weight(t)                                                      | 12           | 15           |
| 运行重量 (t)<br>Operating weight (t)                                             | 13.2         | 16.5         |

注:

- 公称冻结能力按罗非鱼片计，规格 200\*100\*20mm、120g/片；含水量 75%，布料密度 7.5kg/m<sup>2</sup>；
- 名义工况耗冷量按蒸发温度 -47°C 工况计。实际使用冻结温度与表中不同时，请按实际使用工况配置系统设备。
- 适用于制冷剂为 R717、R744、R22、R404A、R507C、R134a 等多种制冷剂或载冷剂。
- 以蒸发器供液方式为泵供液计。

Note:

- The nominal freezing capacity is designed as per Tilapia slices, with the specification of 200\*100\*20mm and 120g/slice, the water content of 75% and the material distribution density of 7.5kg/m<sup>2</sup>;
- The cold consumption under nominal working conditions is calculated as per the operating condition at -47°C vaporization temperature. When the actual freezing temperature is different from the value in the table, please configure the system equipment according to actual operating conditions.
- Applicable to multiple refrigerants or secondary refrigerants such as R717, R744, R22, R404A, R507C, R134a, etc.
- The evaporator feeding mode is used as the pump feeding mode.

# 冻结能力比较

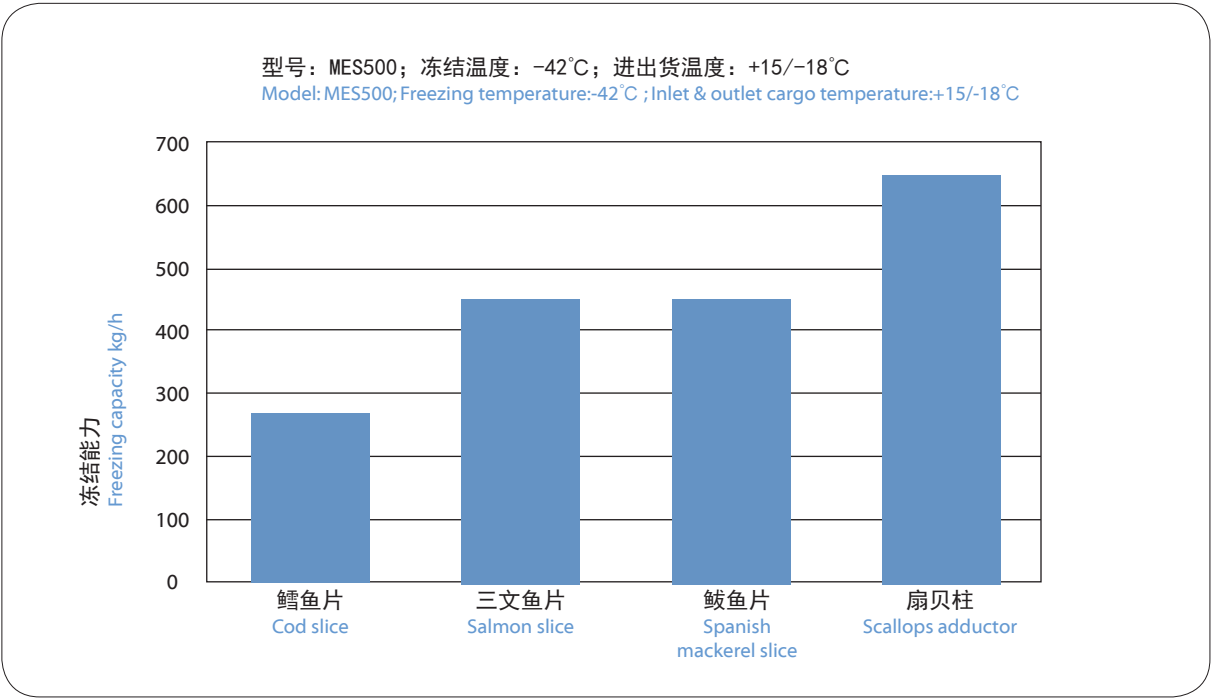
## Freezing capacity comparison

同一型号速冻装置，冻结不同食品、在不同的使用环境下，冻结能力是不同的。以 MES500 为例，不同食品的冻结能力可参考下表：

The freezing capacity of the freezers of the same model is different when they are used to freeze different foods in different application environments. Taking MES500 as an example, refer to the following table for the freezing capacity for different foods:

| 食品名称<br>Food name             | 食品规格 mm<br>Food specification mm | 食品单重 g<br>Unit weight of food g | 冻结温度 °C<br>Freezing temperature °C | 冻结能力 kg/h<br>Freezing capacity kg/h |
|-------------------------------|----------------------------------|---------------------------------|------------------------------------|-------------------------------------|
| 鳕鱼片<br>Cod slice              | 380*120*30                       | 563                             | -42                                | 270                                 |
| 三文鱼片<br>Salmon slice          | 240*100*26                       | 260                             | -42                                | 450                                 |
| 鲛鱼片<br>Spanish mackerel slice | 270*90*26                        | 300                             | -42                                | 450                                 |
| 扇贝柱<br>Scallops adductor      | Φ 17*17                          | 5.6                             | -42                                | 650                                 |

注：以进 / 出料心部温度 +10/-18℃计。  
Note: calculated as per the inlet & outlet material core temperature +10/-18℃



## 结构参数

### Structural parameters

单位 unit: mm

| 产品型号<br>Product model | 总长<br>Total length L | 总长<br>Total length L | 总宽<br>Total width W | 总宽<br>Total width W | 总高<br>Total height H | 总高<br>Total height H | 库体长<br>Storage body length L1 | 入料高度<br>Feeding height H1 | 出料高度<br>Discharging height H2 |
|-----------------------|----------------------|----------------------|---------------------|---------------------|----------------------|----------------------|-------------------------------|---------------------------|-------------------------------|
| MES500                | 19090                | 2800                 | 3200                | 15520               | 1090                 | 720                  | 15520                         | 1090                      | 720                           |
| MES750                | 24910                |                      |                     |                     |                      |                      | 21340                         |                           |                               |

## 管口明细

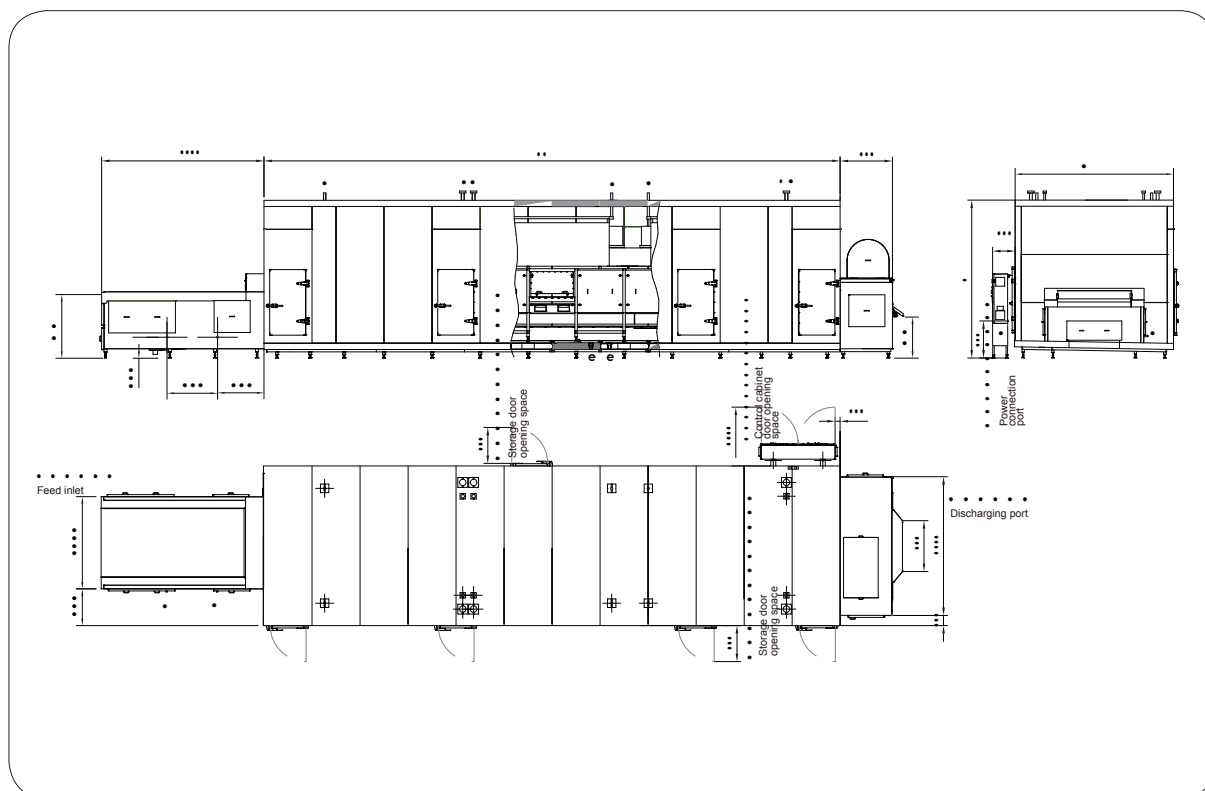
### Interface details

单位 unit: mm

| 产品型号<br>Product model | a 供液口<br>a. Liquid feed interface | b 回气口<br>b. Air return interface | c 冲霜水口<br>c. Defrosting water interface | d 清洗水口<br>d. Cleaning water interface | e 库体排污口<br>e. Storage body sewage outlet | f 电控接线口<br>f. Electrical control connecting port |
|-----------------------|-----------------------------------|----------------------------------|-----------------------------------------|---------------------------------------|------------------------------------------|--------------------------------------------------|
| MES500                | 8*DN32                            | 8*DN50                           | 8*R1 1/2                                | R3/4                                  | 7* Φ 75                                  | Φ 40                                             |
| MES750                | 12*DN32                           | 12*DN50                          | 12*R1 1/2                               |                                       | 9* Φ 75                                  |                                                  |

## 外形图

### Outside drawing



MTN 系列隧道式（网带）速冻装置性能参数表（中国大陆生产基地制造产品）  
MTN series tunnel (mesh belt) freezers (Products manufactured by Chinese mainland base)

性能参数

Performance parameter

|                                                                   |              |              |              |              |              |              |              |              |              |              |
|-------------------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 产品型号<br>Product model                                             | MTN250-1220  | MTN500-1220  | MTN500-1530  | MTN750-1530  | MTN1000-1530 | MTN500-2030  | MTN750-2030  | MTN1000-2030 | MTN1500-2030 | MTN2000-2030 |
| 订货代号<br>Order code number                                         | 018661010000 | 018661020000 | 018662010000 | 018662020000 | 018651010000 | 018663020000 | 018663030000 | 018663010000 | 018652010000 | 018652020000 |
| 公称冻结能力<br>Nominal freezing capacity (kg/h)                        | 250          | 500          | 500          | 750          | 1000         | 500          | 750          | 1000         | 1500         | 2000         |
| 网带有有效宽度<br>Effective width of wire belt (mm)                      | 1180         |              | 1490         |              | 2*1490       |              | 1990         |              |              |              |
| 通货高度<br>Cargo-through height (mm)                                 | 100          |              |              |              |              |              |              |              |              |              |
| 进 / 出料心部温度<br>Inlet & outlet material core temperature (℃)        | +15/-18      |              |              |              |              |              |              |              |              |              |
| 冻结温度<br>Freezing temperature (℃)                                  | -40          |              |              |              |              |              |              |              |              |              |
| 冲霜水量<br>Defrosting water quantity (m3/time)                       | 4            | 8            | 8            | 12           | 16           | 8            | 12           | 16           | 24           | 32           |
| 名义工况耗冷量<br>Cold consumption under nominal working conditions (kW) | 45           | 80           | 80           | 110          | 160          | 80           | 110          | 150          | 220          | 300          |
| 装机功率<br>Installed capacity (kW)                                   | 6.3          | 10.65        | 10.65        | 13.85        | 21.3         | 10.51        | 13.85        | 19.45        | 27.7         | 38.9         |
| 净重<br>Net weight(t)                                               | 4            | 6.5          | 6.5          | 8            | 11           | 6.5          | 8            | 10.5         | 15           | 20           |
| 运行重量<br>Operating weight (t)                                      | 4.4          | 7.2          | 7.2          | 8.8          | 12.1         | 7.2          | 8.8          | 11.6         | 16.5         | 22           |

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| 产品型号<br>Product model                                                  | MTN500-2200  | MTN750-2200  | MTN1000-2200 | MTN1200-2200 | MTN1500-2200 | MTN1500-2200 | MTN2000-2200 | MTN750-2650  | MTN1000-2650 |
|------------------------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 订货代号<br>Order code number                                              | 018664040000 | 018664050000 | 018664010000 | 018664020000 | 018664030000 | 018653010000 | 018653020000 | 018665040000 | 018665010000 |
| 公称冻结能力 (kg/h)<br>Nominal freezing capacity (kg/h)                      | 500          | 750          | 1000         | 1200         | 1500         | 1500         | 2000         | 750          | 1000         |
| 网带有效宽度 (mm)<br>Effective width of wire belt (mm)                       | 2160         | 2160         | 2160         | 2160         | 2160         | 2*2160       | 2*2160       | 2600         | 2600         |
| 通货高度 (mm)<br>Cargo-through height (mm)                                 | 100          |              |              |              |              |              |              |              |              |
| 进 / 出料芯部温度 (°C)<br>Inlet & outlet material core temperature (°C)       | +15/- 18     |              |              |              |              |              |              |              |              |
| 冻结温度 (°C)<br>Freezing temperature (°C)                                 | -40          |              |              |              |              |              |              |              |              |
| 冲霜水量 (m³/次)<br>Defrosting water quantity (m³/time)                     | 8            | 12           | 16           | 19.2         | 24           | 24           | 32           | 12           | 16           |
| 名义工况耗冷量 (kW)<br>Cold consumption under nominal working conditions (kW) | 80           | 110          | 150          | 180          | 220          | 230          | 300          | 110          | 155          |
| 装机功率 (kW)<br>Installed capacity (kW)                                   | 10.51        | 13.85        | 19.45        | 19.45        | 25.85        | 27.7         | 38.9         | 10.71        | 19.45        |
| 净重 (t)<br>Net weight(t)                                                | 6.5          | 8            | 10.5         | 12           | 14           | 15           | 20           | 8            | 10.5         |
| 运行重量 (t)<br>Operating weight (t)                                       | 7.2          | 8.8          | 11.6         | 13.2         | 15.4         | 16.5         | 22           | 8.8          | 11.6         |

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|------------------------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 产品型号<br>Product model                                                  | MTN1200-2650 | MTN1500-2650 | MTN1000-3030 | MTN1200-3030 | MTN1500-3030 | MTN2000-3030 | MTN1200-3200 | MTN1500-3200 | MTN2000-3200 | MTN2500-3200 |
| 订货代号<br>Order code number                                              | 018665020000 | 018665030000 | 018666010000 | 018666020000 | 018666030000 | 018666040000 | 018667010000 | 018667020000 | 018667030000 | 018667040000 |
| 公称冻结能力 (kg/h)<br>Nominal freezing capacity (kg/h)                      | 1200         | 1500         | 1000         | 1200         | 1500         | 2000         | 1200         | 1500         | 2000         | 2500         |
| 网带有效宽度 (mm)<br>Effective width of wire belt (mm)                       | 2600         | 2600         | 3000         | 3000         | 3000         | 3000         | 3160         | 3160         | 3160         | 3160         |
| 通货高度 (mm)<br>Cargo-through height (mm)                                 | 100          |              |              |              |              |              |              |              |              |              |
| 进 / 出料心部温度 (°C)<br>Inlet & outlet material core temperature (°C)       | +15/-18      |              |              |              |              |              |              |              |              |              |
| 冻结温度 (°C)<br>Freezing temperature (°C)                                 | -40          |              |              |              |              |              |              |              |              |              |
| 冲霜水量 (m³/次)<br>Defrosting water quantity (m³/time)                     | 19.2         | 24           | 16           | 19.2         | 24           | 32           | 19.2         | 24           | 32           | 40           |
| 名义工况耗冷量 (kW)<br>Cold consumption under nominal working conditions (kW) | 180          | 220          | 160          | 180          | 220          | 300          | 180          | 220          | 300          | 380          |
| 装机功率 (kW)<br>Installed capacity (kW)                                   | 19.45        | 27.7         | 25.85        | 28.25        | 28.25        | 29.7         | 29.7         | 29           | 42.3         | 56.5         |
| 净重 (t)<br>Net weight(t)                                                | 12           | 14           | 19.45        | 12           | 14           | 18           | 12           | 14           | 18           | 24           |
| 运行重量 (t)<br>Operating weight (t)                                       | 13.2         | 15.4         | 11.6         | 13.2         | 15.4         | 19.8         | 13.2         | 15.4         | 19.8         | 26.4         |

- 注:
- 公称冻结能力按生水设计, 规格 20g/个, 布料密度 10kg/m², 裸冻;
  - 名义工况耗冷量按蒸发温度 -45°C 工况计。实际使用冻结温度与表中不同时, 请按实际使用工况配置系统设备。
  - 适用于制冷剂为 R717、R22、R744、R404A、R507C、R134a 等多种制冷剂或载冷剂。
  - 以蒸发器供液方式为泵供液计。

Note:

- The nominal freezing capacity is designed as per raw dumplings, with the specification of 20g/piece and the material distribution density of 10kg/m²; the bare freezing mode is used;
- The cold consumption under nominal working conditions is calculated as per the operating condition at -45°C vaporization temperature. When the actual freezing temperature is different from the value in the table, please configure the system equipment according to actual operating conditions.
- Applicable to multiple refrigerants or secondary refrigerants such as R717, R744, R22, R404A, R507C, R134a, etc.
- The evaporator feeding mode is used as the pump feeding mode.

## 冻结能力比较

### Freezing capacity comparison

同一型号速冻装置，针对不同食品或在不同的使用环境下的冻结能力是不同的，以 MTN1000-2200 为例，在 -40℃ 冻结温度下部分冻品产量可参考下表：

The freezing capacity of the freezers of the same model is different for different foods or in different application environments. Taking MTN1000-2200 as an example, refer to the following table for the output of part frozen products at -40℃ freezing temperature:

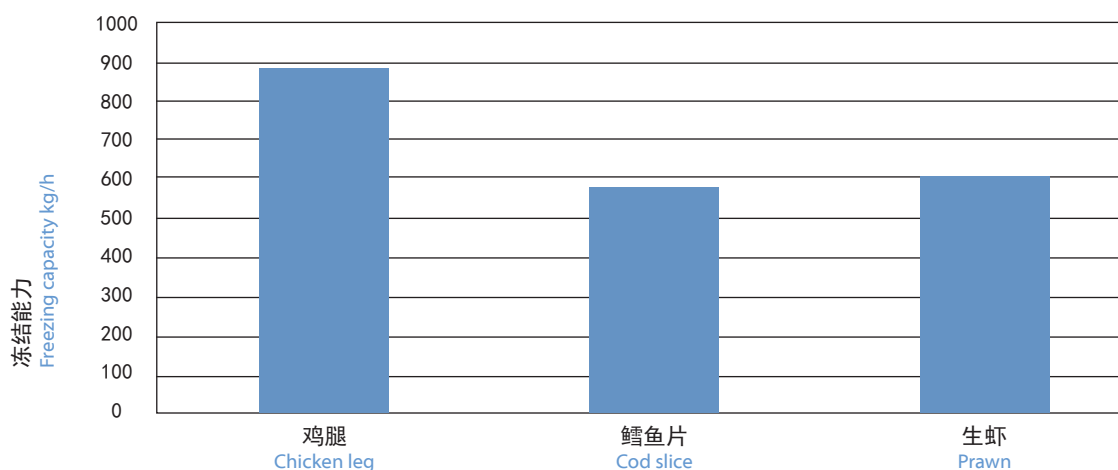
| 食品名称<br>Food name | 食品规格<br>Food specification mm | 食品单重<br>Unit weight of food g | 冻结温度<br>Freezing temperature℃ | 冻结能力<br>Freezing capacity kg/h |
|-------------------|-------------------------------|-------------------------------|-------------------------------|--------------------------------|
| 鸡腿<br>Chicken leg | 120*60*30                     | 160                           | -40                           | 900                            |
| 鳕鱼片<br>Cod slice  | 290*100*20                    | 247                           | -40                           | 580                            |
| 生虾<br>Prawn       | Φ 13*120                      | 20                            | -40                           | 600                            |

注：以进 / 出料心部温度 +15/-18℃计。

Note: calculated as per the inlet & outlet material core temperature +15/-18℃ .

型号：MTN1000-2000；冻结温度：-40℃；进出货心部温度：+15/-18℃

Model: MTN1000-2000; Freezing temperature:-40℃ ; Inlet & outlet cargo core temperature:+15/-18℃



## 结构参数

### Structural parameters

单位 unit: mm

| 产品型号<br>Product model | 总长<br>Total length L | 总宽<br>Total width W | 总高<br>Total height H | 库体长<br>Storage body<br>length L1 | 入料高度<br>Feeding<br>height H1 | 出料高度<br>Discharging<br>height H2 | W1   | W2  |
|-----------------------|----------------------|---------------------|----------------------|----------------------------------|------------------------------|----------------------------------|------|-----|
| MTN250-1220           | 10460                | 2300                | 2760                 | 7760                             | 960                          | 720                              | 1800 | 0   |
| MTN500-1220           | 17250                |                     |                      | 14550                            |                              |                                  |      |     |
| MTN500-1530           | 14340                | 2500                |                      | 11640                            |                              |                                  | 2000 | 500 |
| MTN750-1530           | 20160                |                     |                      | 17460                            |                              |                                  |      |     |
| *MTN1000-1530         | 14340                | 4860                |                      | 11640                            |                              |                                  |      |     |
| MTN500-2030           | 11430                | 3000                |                      | 8730                             |                              |                                  | 2500 | 0   |
| MTN750-2030           | 16280                |                     |                      | 13580                            |                              |                                  |      |     |
| MTN1000-2030          | 20160                |                     |                      | 17460                            |                              |                                  |      |     |
| *MTN1500-2030         | 16280                | 5860                |                      | 13580                            |                              |                                  | 500  | 500 |
| *MTN2000-2030         | 20160                |                     |                      | 17460                            |                              |                                  |      |     |
| MTN500-2200           | 10460                | 3200                |                      | 7760                             |                              |                                  | 2700 | 0   |
| MTN750-2200           | 14340                |                     |                      | 11640                            |                              |                                  |      |     |
| MTN1000-2200          | 18220                |                     |                      | 15520                            |                              |                                  |      |     |
| MTN1200-2200          | 21130                |                     |                      | 18430                            |                              |                                  |      |     |
| MTN1500-2200          | 25980                |                     |                      | 23280                            |                              |                                  |      |     |
| *MTN1500-2200         | 14340                | 6260                |                      | 11640                            |                              |                                  | 500  | 500 |
| *MTN2000-2200         | 18220                |                     |                      | 15520                            |                              |                                  |      |     |
| MTN750-2650           | 12400                | 3650                |                      | 9700                             |                              |                                  | 3150 | 0   |
| MTN1000-2650          | 16280                |                     |                      | 13580                            |                              |                                  |      |     |
| MTN1200-2650          | 18220                |                     |                      | 15520                            |                              |                                  |      |     |
| MTN1500-2650          | 23070                |                     |                      | 20370                            |                              |                                  |      |     |
| MTN1000-3030          | 14340                | 4000                |                      | 11640                            |                              |                                  | 3500 | 0   |
| MTN1200-3030          | 16280                |                     |                      | 13580                            |                              |                                  |      |     |
| MTN1500-3030          | 20160                |                     |                      | 17460                            |                              |                                  |      |     |
| MTN2000-3030          | 25980                |                     |                      | 23280                            |                              |                                  |      |     |
| MTN1200-3200          | 15310                | 4200                |                      | 12610                            |                              |                                  | 3700 | 0   |
| MTN1500-3200          | 19190                |                     |                      | 16490                            |                              |                                  |      |     |
| MTN2000-3200          | 24040                |                     |                      | 21340                            |                              |                                  |      |     |
| MTN2500-3200          | 28890                |                     |                      | 26190                            |                              |                                  |      |     |

注：带 \* 为双网带速冻装置。

Note: The freezers with \* are mesh belt freezers.

## 管口明细 Interface details

单位 unit: mm

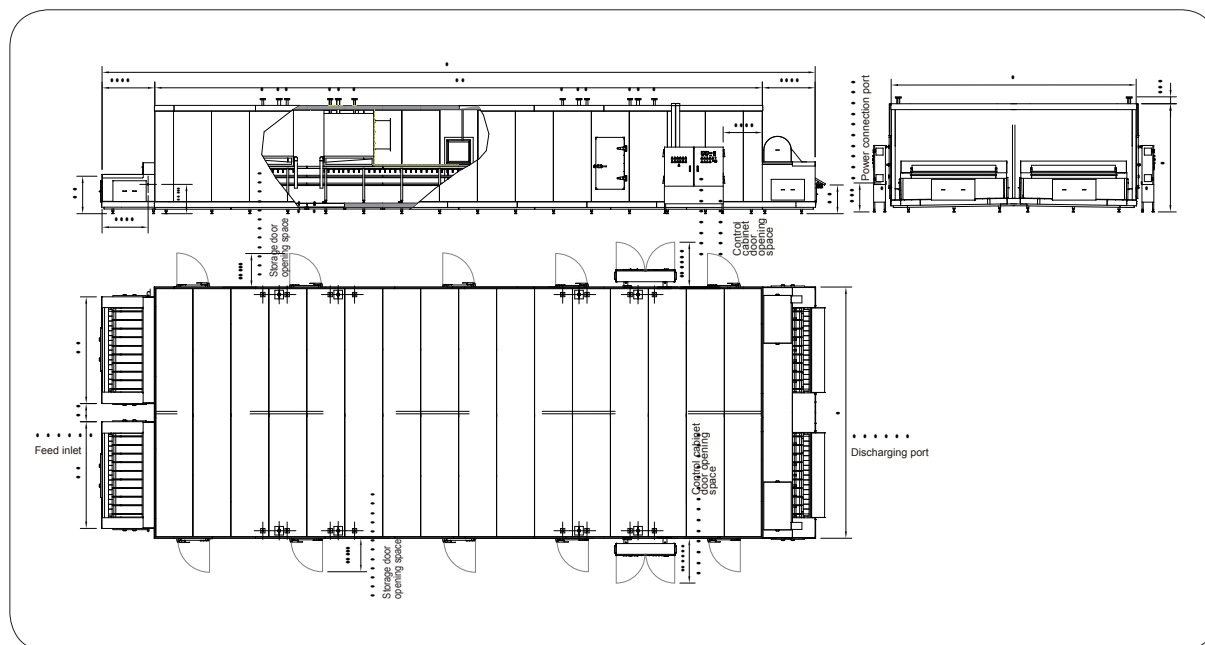
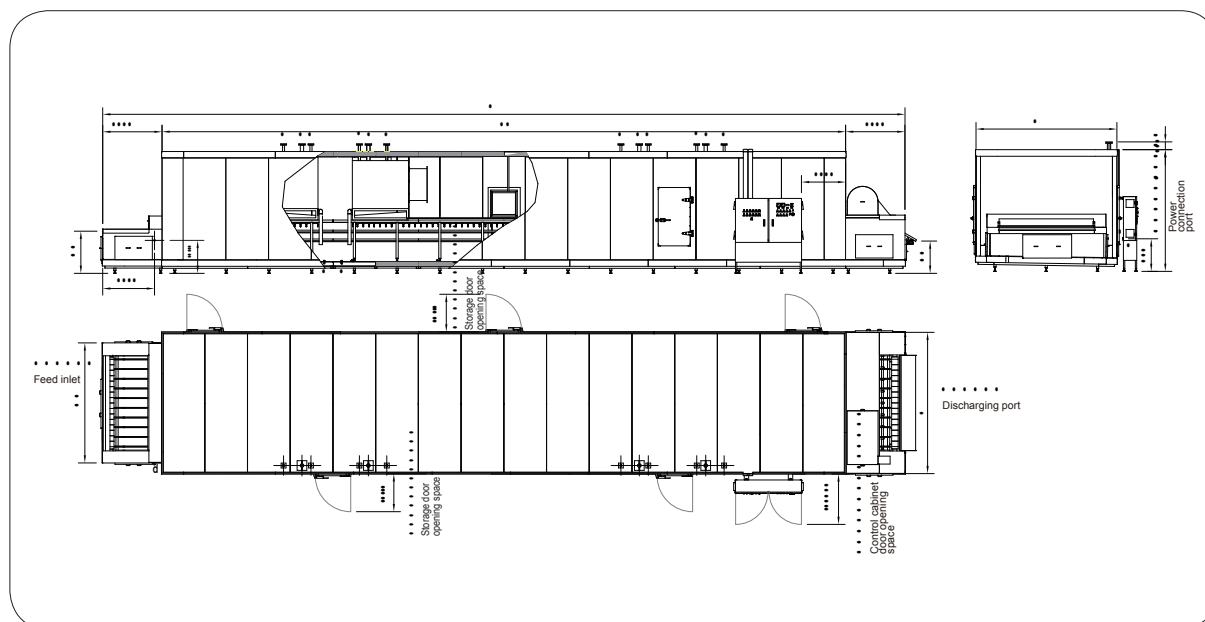
| 产品型号<br>Product model | a 供液口<br>a. Liquid feed interface | b 回气口<br>b. Air return interface | c 冲霜水口<br>c. Defrosting water interface | d 清洗水口<br>d. Cleaning water interface | e 库体排污口<br>e. Storage body sewage outlet | f 电控接线口<br>f. Electrical control connecting port |
|-----------------------|-----------------------------------|----------------------------------|-----------------------------------------|---------------------------------------|------------------------------------------|--------------------------------------------------|
| MTN250-1220           | 2*DN32                            | 2*DN50                           | 2*R1 1/2                                | R3/4                                  | 4*Φ75                                    | Φ40                                              |
| MTN500-1220           | 4*DN32                            | 4*DN50                           | 4*R1 1/2                                |                                       | 6*Φ75                                    |                                                  |
| MTN500-1530           | 4*DN32                            | 4*DN50                           | 4*R1 1/2                                |                                       | 6*Φ75                                    |                                                  |
| MTN750-1530           | 4*DN40                            | 4*DN65                           | 4*R1 1/2                                |                                       | 6*Φ75                                    |                                                  |
| *MTN1000-1530         | 8*DN32                            | 8*DN50                           | 8*R1 1/2                                | 2*R3/4                                | 12*Φ75                                   | 2*Φ40                                            |
| MTN500-2030           | 2*DN40                            | 2*DN65                           | 2*R1 1/2                                | R3/4                                  | 7*Φ75                                    | Φ40                                              |
| MTN750-2030           | 4*DN40                            | 4*DN65                           | 4*R1 1/2                                |                                       | 6*Φ75                                    |                                                  |
| MTN1000-2030          | 4*DN40                            | 4*DN65                           | 4*R1 1/2                                |                                       | 6*Φ75                                    |                                                  |
| *MTN1500-2030         | 8*DN40                            | 8*DN65                           | 8*R1 1/2                                | 2*R3/4                                | 12*Φ75                                   | 2*Φ40                                            |
| *MTN2000-2030         | 8*DN40                            | 8*DN65                           | 8*R1 1/2                                |                                       | 12*Φ75                                   |                                                  |
| MTN500-2200           | 2*DN40                            | 2*DN65                           | 2*R1 1/2                                | R3/4                                  | 7*Φ75                                    | Φ40                                              |
| MTN750-2200           | 4*DN40                            | 4*DN65                           | 4*R1 1/2                                |                                       | 6*Φ75                                    |                                                  |
| MTN1000-2200          | 4*DN40                            | 4*DN65                           | 4*R1 1/2                                |                                       | 6*Φ75                                    |                                                  |
| MTN1200-2200          | 4*DN40                            | 4*DN65                           | 4*R1 1/2                                |                                       | 6*Φ75                                    |                                                  |
| MTN1500-2200          | 6*DN40                            | 6*DN65                           | 6*R1 1/2                                |                                       | 8*Φ75                                    |                                                  |
| *MTN1500-2200         | 8*DN40                            | 8*DN65                           | 8*R1 1/2                                | 2*R3/4                                | 12*Φ75                                   | 2*Φ40                                            |
| *MTN2000-2200         | 8*DN40                            | 8*DN65                           | 8*R1 1/2                                |                                       | 12*Φ75                                   |                                                  |
| MTN750-2650           | 2*DN40                            | 2*DN65                           | 2*R1 1/2                                | R3/4                                  | 7*Φ75                                    | Φ40                                              |
| MTN1000-2650          | 4*DN40                            | 4*DN65                           | 4*R1 1/2                                |                                       | 6*Φ75                                    |                                                  |
| MTN1200-2650          | 4*DN40                            | 4*DN65                           | 4*R1 1/2                                |                                       | 6*Φ75                                    |                                                  |
| MTN1500-2650          | 6*DN40                            | 6*DN65                           | 6*R1 1/2                                |                                       | 8*Φ75                                    |                                                  |
| MTN1000-3030          | 4*DN40                            | 4*DN65                           | 4*R1 1/2                                |                                       | 6*Φ75                                    |                                                  |
| MTN1200-3030          | 4*DN40                            | 4*DN65                           | 4*R1 1/2                                |                                       | 6*Φ75                                    |                                                  |
| MTN1500-3030          | 4*DN40                            | 4*DN65                           | 4*R1 1/2                                |                                       | 6*Φ75                                    |                                                  |
| MTN2000-3030          | 6*DN50                            | 6*DN80                           | 6*R1 1/2                                |                                       | 8*Φ75                                    |                                                  |
| MTN1200-3200          | 4*DN40                            | 4*DN65                           | 4*R1 1/2                                |                                       | 6*Φ75                                    |                                                  |
| MTN1500-3200          | 4*DN50                            | 4*DN80                           | 4*R1 1/2                                |                                       | 6*Φ75                                    |                                                  |
| MTN2000-3200          | 6*DN50                            | 6*DN80                           | 6*R1 1/2                                |                                       | 8*Φ75                                    |                                                  |
| MTN2500-3200          | 8*DN50                            | 8*DN80                           | 8*R1 1/2                                |                                       | 10*Φ75                                   |                                                  |

注：带 \* 为双网带速冻装置

Note: The freezers with \* are dual mesh belt freezers.

## 外形图

### Outside drawing



注：冻结装置底板均设水漏，标准单网带水漏由进料口看均在右侧，双网带在两侧。

Note: the base plate of each freezer is fitted with a water drain; the water drain of all standard single mesh belt freezers is on the right side as seen from the feeding port, and that of all standard dual mesh belt freezers is on the two sides.



## MEN 系列高效隧道（网带式）速冻装置（中国大陆生产基地制造产品）

### MEN series high-efficiency tunnel (mesh belt) freezers (Products manufactured by Chinese mainland base)

### 性能参数

#### Performance parameter

| 产品型号<br>Product model                                             | MEN500       | MEN750       | MEN1000      |
|-------------------------------------------------------------------|--------------|--------------|--------------|
| 订货代号<br>Order code number                                         | 018635010000 | 018635030001 | 018635040000 |
| 公称冻结能力<br>Nominal freezing capacity (kg/h)                        | 500          | 750          | 1000         |
| 网带有效宽度<br>Effective width of wire belt (mm)                       | 1450         |              |              |
| 通货高度<br>Cargo-through height (mm)                                 | 50~90        |              |              |
| 进 / 出料心部温度<br>Inlet & outlet material core temperature (°C)       | +15/-18      |              |              |
| 冻结温度<br>Freezing temperature °C                                   | -42          |              |              |
| 冲霜水量<br>Defrosting water quantity (m <sup>3</sup> /time)          | 10           | 15           | 20           |
| 名义工况耗冷量<br>Cold consumption under nominal working conditions (kW) | 100          | 145          | 190          |
| 装机功率<br>Installed capacity (kW)                                   | 35           | 46           | 63           |
| 净重<br>Net weight(t)                                               | 11           | 14           | 17           |
| 运行重量<br>Operating weight (t)                                      | 12.1         | 15.4         | 18.7         |

注:

- 1 公称冻结能力按无头虾计， $\phi 15 \times 80\text{mm}$ ，16 ~ 20 个 / 磅，含水量 75%，布料密度  $4.1\text{kg/m}^2$ ；
- 2 名义工况耗冷量按蒸发温度  $-47^\circ\text{C}$  工况计。实际使用冻结温度与表中不同时，请按实际使用工况配置系统设备。
- 3 适用于制冷剂为 R717、R22、R404A、R507C、R134a 等多种制冷剂或载冷剂。
- 4 以蒸发器供液方式为泵供液计。

Note:

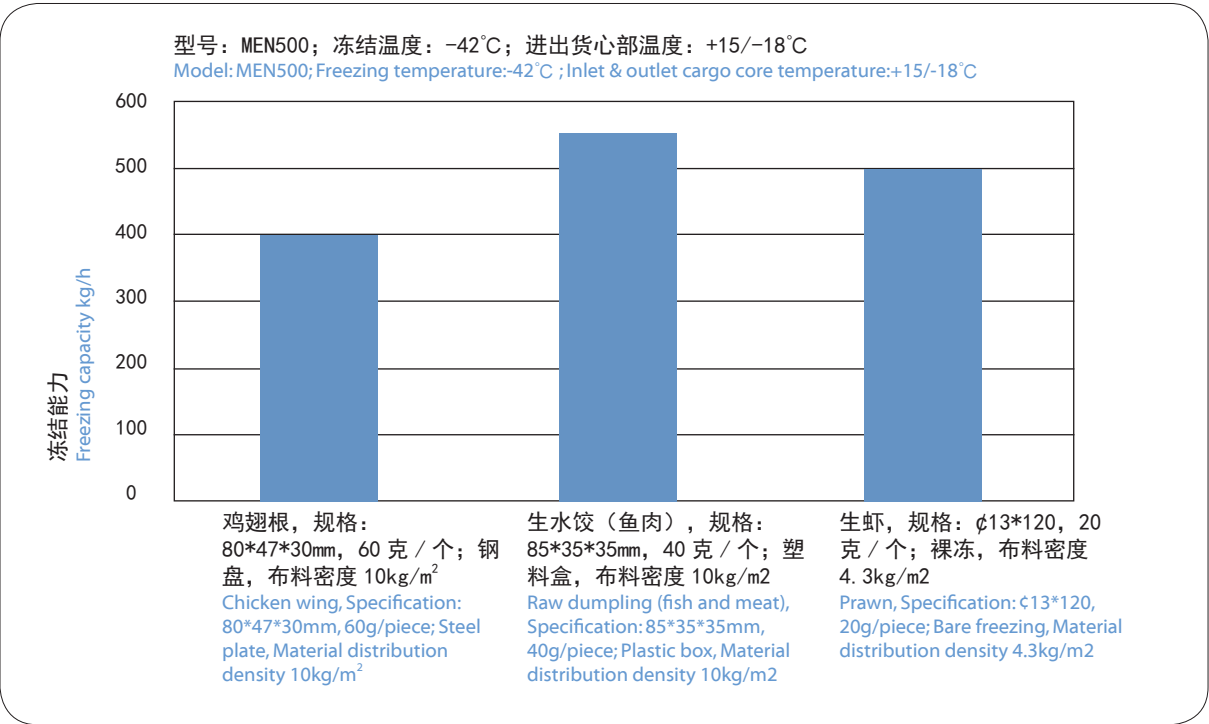
1. The nominal freezing capacity is designed as per headless shrimp, with the specification of  $\phi 15 \times 80\text{mm}$  and 16~20 pieces/lb, the water content of 75% and the material distribution density of  $4.1\text{kg/m}^2$ ;
- 2 The cold consumption under nominal working conditions is calculated as per the operating condition at  $-47^\circ\text{C}$  vaporization temperature. When the actual freezing temperature is different from the value in the table, please configure the system equipment according to actual operating conditions.
- 3 Applicable to multiple refrigerants or secondary refrigerants such as R717, R22, R404A, R507C, R134a, etc.
- 4 The evaporator feeding mode is used as the pump feeding mode.

## 冻结能力比较

### Freezing capacity comparison

同一型号产品，针对不同食品或在不同的使用环境下的冻结能力是不同的，以 MEN500 为例，在 -42℃冻结温度下部分冻品产量可参考下图：

The freezing capacity of the products of the same model is different for different foods or in different application environments. Taking MEN500 as an example, refer to the following figure for the output of part frozen products at -42℃ freezing temperature:



## 结构参数

### Structural parameters

单位 unit: mm

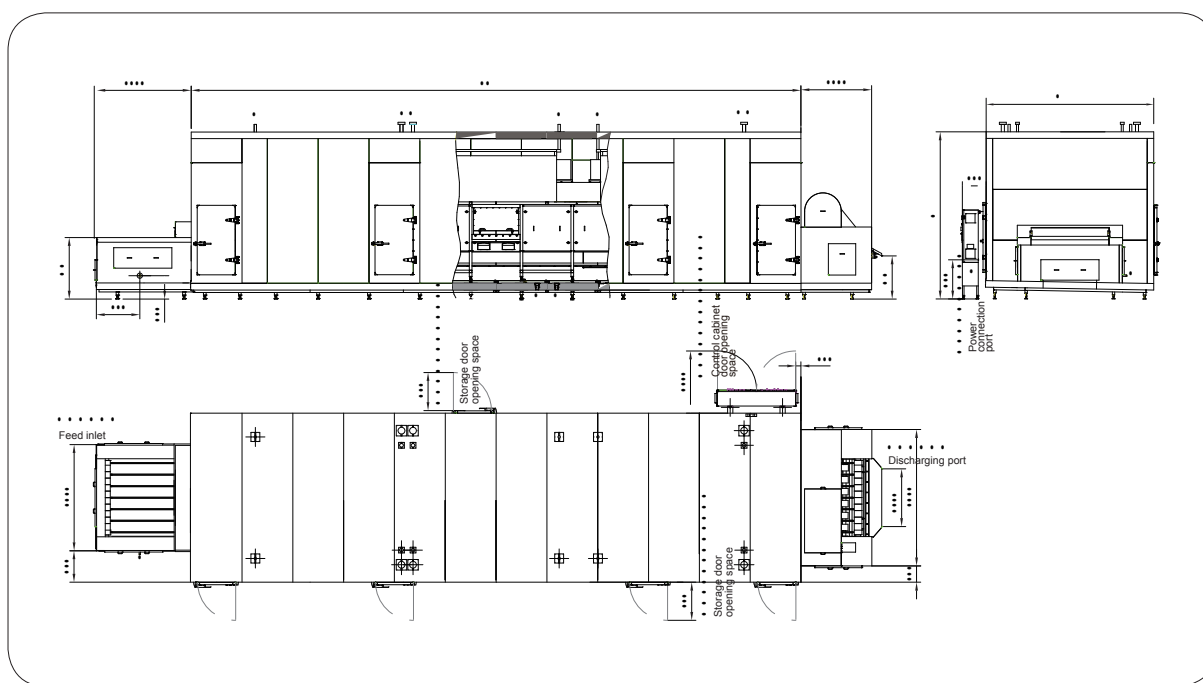
| 产品型号<br>Product model | 总长<br>Total length L | 总宽<br>Total width W | 总高<br>Total height H | 库体长<br>Storage body length L1 | 入料高度<br>Feeding height H1 | 出料高度<br>Discharging height H2 |
|-----------------------|----------------------|---------------------|----------------------|-------------------------------|---------------------------|-------------------------------|
| MEN500                | 14790                | 3200                | 3185                 | 11640                         | 1100                      | 760                           |
| MEN750                | 19640                |                     |                      | 16490                         |                           |                               |
| MEN1000               | 24490                |                     |                      | 21340                         |                           |                               |

## 管口明细 Interface details

单位 unit: mm

| 产品型号<br>Product model | a 供液口<br>a. Liquid feed interface | b 回气口<br>b. Air return interface | c 冲霜水口<br>c. Defrosting water interface | d 清洗水口<br>d. Cleaning water interface | e 库体排污口<br>e. Storage body sewage outlet | f 电控接线口<br>f. Electrical control connecting port |
|-----------------------|-----------------------------------|----------------------------------|-----------------------------------------|---------------------------------------|------------------------------------------|--------------------------------------------------|
| MEN500                | 6*DN32                            | 6*DN50                           | 6*R1 1/2                                | R3/4                                  | 7*Φ 75                                   | Φ 40                                             |
| MEN750                | 8*DN32                            | 8*DN50                           | 8*R1 1/2                                |                                       | 9*Φ 75                                   |                                                  |
| MEN1000               | 12*DN32                           | 12*DN50                          | 12*R1 1/2                               |                                       | 11*Φ 75                                  |                                                  |

## 外形图 Outside drawing



注：冻结装置底板均设水漏，标准产品水漏由进料口看均在右侧。

Note: the base plate of each freezer is fitted with a water drain; the water drain of all standard products is on the right side as seen from the feeding port.

以下产品为烟台冰轮越南公司生产，技术参数有所不同，订货时请注意。  
 The following products are manufactured by Yantai Moon (Viet Nam) Co. and the technical parameters might be different. Please pay attention to it when you place the order.

MES 系列高效隧道（板带式）速冻装置（越南生产基地制造产品）  
 MES series high-efficiency tunnel (plate belt) freezers (Products manufactured by vietnam production base)

性能参数  
 Performance parameter

| 产品型号<br>Product model                                                  | MES500  | MES600 | MES750 |
|------------------------------------------------------------------------|---------|--------|--------|
| 公称冻结能力 (kg/h)<br>Nominal freezing capacity (kg/h)                      | 500     | 600    | 750    |
| 板带有效宽度 (mm)<br>Effective width of plate belt (mm)                      | 1450    |        |        |
| 通货高度 (mm)<br>Cargo-through height (mm)                                 | 50~90   |        |        |
| 进 / 出料心部温度 (°C)<br>Inlet & outlet material core temperature (°C)       | +10/-18 |        |        |
| 冻结温度 (°C)<br>Freezing temperature (°C)                                 | -42     |        |        |
| 冲霜水量 (m³/次)<br>Defrosting water quantity (m³/time)                     | 10      | 12     | 14     |
| 名义工况耗冷量 (kW)<br>Cold consumption under nominal working conditions (kW) | 100     | 115    | 145    |
| 装机功率 (kW)<br>Installed capacity (kW)                                   | 36      | 42     | 51     |
| 净重 (t)<br>Net weight(t)                                                | 12      | 13.5   | 15     |
| 运行重量 (t)<br>Operating weight (t)                                       | 13.2    | 14     | 16.5   |

- 注：
- 公称冻结能力按罗非鱼片计，规格 200\*100\*20mm、120g/片；含水量 75%，布料密度 7.5kg/m²；
  - 名义工况耗冷量按蒸发温度 -47℃ 工况计。实际使用冻结温度与表中不同时，请按实际使用工况配置系统设备。
  - 适用于制冷剂为 R717、R744、R22、R404A、R507C、R134a 等多种制冷剂或载冷剂。
  - 以蒸发器供液方式为泵供液计。

Note:

- The nominal freezing capacity is designed as per Tilapia slices, with the specification of 200\*100\*20mm and 120g/slice, the water content of 75% and the material distribution density of 7.5kg/m²;
- The cold consumption under nominal working conditions is calculated as per the operating condition at -47℃ vaporization temperature. When the actual freezing temperature is different from the value in the table, please configure the system equipment according to actual operating conditions.
- Applicable to multiple refrigerants or secondary refrigerants such as R717, R744, R22, R404A, R507C, R134a, etc.
- The evaporator feeding mode is used as the pump feeding mode.

## 结构参数 Structural parameters

单位 unit: mm

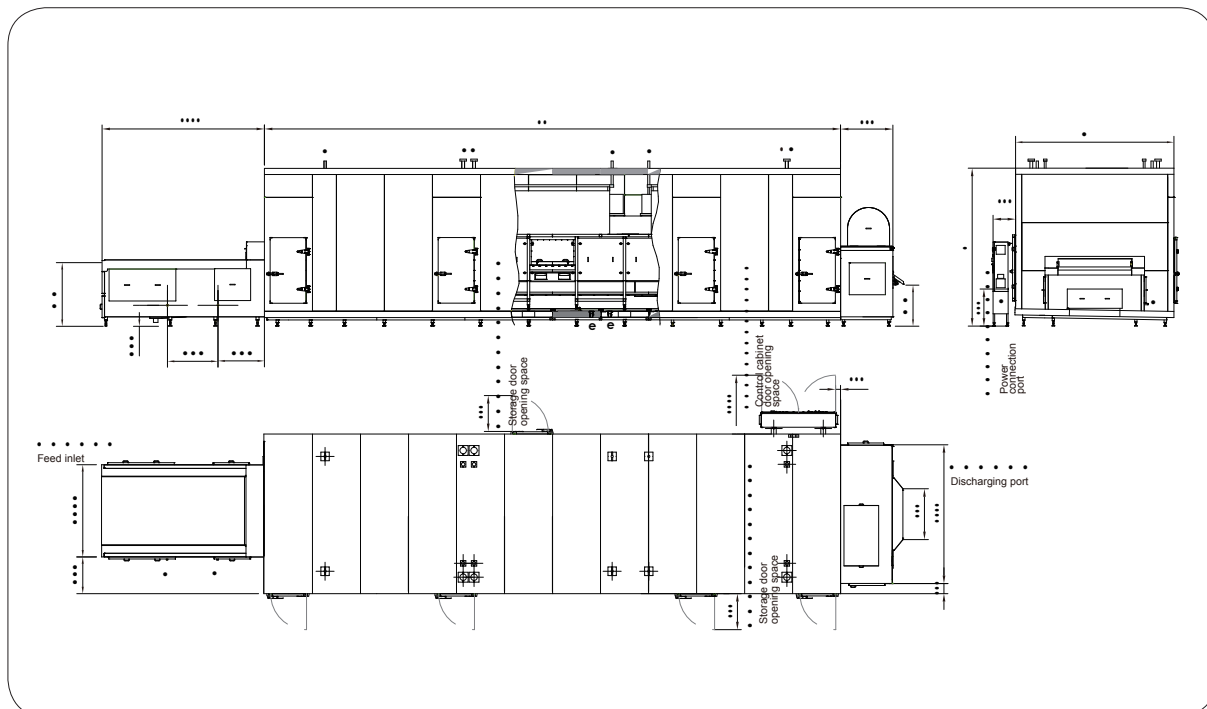
| 型号<br>Model | 总长<br>Total length L | 总宽<br>Total width W | 总高<br>Total height H | 库体长<br>Storage body length L1 | 入料高度<br>Feeding height H1 | 出料高度<br>Discharging height H2 |
|-------------|----------------------|---------------------|----------------------|-------------------------------|---------------------------|-------------------------------|
| MES500      | 15665                | 3200                | 3200                 | 12085                         | 1090                      | 720                           |
| MES600      | 17895                |                     |                      | 14325                         |                           |                               |
| MES750      | 20135                |                     |                      | 17685                         |                           |                               |

## 管口明细 Interface details

单位 unit: mm

| 产品型号<br>Product model | a 供液口<br>a. Liquid feed interface | b 回气口<br>b. Air return interface | c 冲霜水口<br>c. Defrosting water interface | d 清洗水口<br>d. Cleaning water interface | e 库体排污口<br>e. Storage body sewage outlet | f 电控接线口<br>f. Electrical control connecting port |
|-----------------------|-----------------------------------|----------------------------------|-----------------------------------------|---------------------------------------|------------------------------------------|--------------------------------------------------|
| MES500                | 6*DN32                            | 6*DN50                           | 6*R1 1/2                                | R3/4                                  | 5*Φ75                                    | Φ40                                              |
| MES600                | 6*DN32                            | 6*DN50                           | 6*R1 1/2                                |                                       | 5*Φ75                                    |                                                  |
| MES750                | 8*DN32                            | 8*DN50                           | 8*R1 1/2                                |                                       | 7*Φ75                                    |                                                  |

## 外形图 Outside drawing



MTN 系列隧道式（网带）速冻装置（越南生产基地制造产品）  
MTN series tunnel (mesh belt) freezers (Products manufactured by Vietnam  
Production Base)

性能参数  
Performance parameter

|                                                                |             |             |             |             |              |             |
|----------------------------------------------------------------|-------------|-------------|-------------|-------------|--------------|-------------|
| 产品型号<br>Product model                                          | MTN250-1220 | MTN500-1220 | MTN500-1530 | MTN750-1530 | MTN1000-1530 | MTN500-2200 |
| 公称冻结能力<br>Nominal freezing capacity (kg/h)                     | 250         | 500         | 500         | 750         | 1000         | 500         |
| 网带有效宽度<br>Effective width of wire belt (mm)                    | 1180        |             | 1490        |             | 2*1490       | 2160        |
| 通货高度<br>Cargo-through height (mm)                              | 100         |             |             |             |              |             |
| 进 / 出料心部温度<br>Inlet & outlet material core temperature (℃ )    | +15/-18     |             |             |             |              |             |
| 冻结温度<br>Freezing temperature(℃ )                               | -40         |             |             |             |              |             |
| 冲霜水量<br>Defrosting water quantity (m3/time)                    | 4           | 8           | 8           | 12          | 16           | 8           |
| 名义工况耗冷量 Cold consumption under nominal working conditions (kW) | 45          | 80          | 80          | 110         | 160          | 80          |
| 装机功率<br>Installed capacity (kW)                                | 6.3         | 10.65       | 10.65       | 13.85       | 21.3         | 10.51       |
| 净重<br>Net weight(t)                                            | 4           | 6.5         | 6.5         | 8           | 11           | 6.5         |
| 运行重量<br>Operating weight (t)                                   | 4.4         | 7.2         | 7.2         | 8.8         | 12.1         | 7.2         |

- 注：
- 公称冻结能力按生水饺计，规格 20g/ 个，布料密度 10kg/m<sup>2</sup>，裸冻；
  - 名义工况耗冷量按蒸发温度 -45℃工况计。实际使用冻结温度与表中不同时，请按实际使用工况配置系统设备。
  - 适用于制冷剂为 R717、R22、R744、R404A、R507C、R134a 等多种制冷剂或载冷剂。
  - 以蒸发器供液方式为泵供液计。

- Note:
- The nominal freezing capacity is designed as per raw dumplings, with the specification of 20g/piece and the material distribution density of 10kg/m<sup>2</sup>; the bare freezing mode is used;
  - The cold consumption under nominal working conditions is calculated as per the operating condition at -45℃ vaporization temperature. When the actual freezing temperature is different from the value in the table, please configure the system equipment according to actual operating conditions.
  - Applicable to multiple refrigerants or secondary refrigerants such as R717, R744, R22, R404A, R507C, R134a, etc.
  - The evaporator feeding mode is used as the pump feeding mode.

## 性能参数

### Performance parameter

| 产品型号<br>Product model                                          | MTN750-2200 | MTN1000-2200 | MTN1500-2200 | MTN1500-2200 | MTN2000-2200 |
|----------------------------------------------------------------|-------------|--------------|--------------|--------------|--------------|
| 公称冻结能力<br>Nominal freezing capacity (kg/h)                     | 750         | 1000         | 1500         | 1500         | 2000         |
| 网带有效宽度<br>Effective width of wire belt (mm)                    | 2160        |              |              | 2*2160       |              |
| 通货高度<br>Cargo-through height (mm)                              | 100         |              |              |              |              |
| 进 / 出料心部温度<br>Inlet & outlet material core temperature (°C )   | +15/-18     |              |              |              |              |
| 冻结温度<br>Freezing temperature(°C )                              | -40         |              |              |              |              |
| 冲霜水量<br>Defrosting water quantity (m3/time)                    | 12          | 16           | 24           | 24           | 32           |
| 名义工况耗冷量 Cold consumption under nominal working conditions (kW) | 110         | 150          | 220          | 230          | 300          |
| 装机功率<br>Installed capacity (kW)                                | 13.85       | 19.45        | 25.85        | 27.7         | 38.9         |
| 净重<br>Net weight(t)                                            | 8           | 10.5         | 14           | 15           | 20           |
| 运行重量<br>Operating weight (t)                                   | 8.8         | 11.6         | 15.4         | 16.5         | 22           |

注:

1. 公称冻结能力按生水饺计, 规格 20g/个, 布料密度 10kg/m<sup>2</sup>, 裸冻;
2. 名义工况耗冷量按蒸发温度 -45°C 工况计。实际使用冻结温度与表中不同时, 请按实际使用工况配置系统设备。
3. 适用于制冷剂为 R717、R22、R744、R404A、R507C、R134a 等多种制冷剂或载冷剂。
4. 以蒸发器供液方式为泵供液计。

Note:

1. The nominal freezing capacity is designed as per raw dumplings, with the specification of 20g/piece and the material distribution density of 10kg/m<sup>2</sup>; the bare freezing mode is used;
- 2 The cold consumption under nominal working conditions is calculated as per the operating condition at -45°C vaporization temperature. When the actual freezing temperature is different from the value in the table, please configure the system equipment according to actual operating conditions.
- 3 Applicable to multiple refrigerants or secondary refrigerants such as R717, R744, R22, R404A, R507C, R134a, etc.
- 4 The evaporator feeding mode is used as the pump feeding mode.

# 结构参数 Structural parameters

单位 unit:mm

| 产品型号<br>Product model | 总长<br>Total length L | 总宽<br>Total width W | 总高<br>Total height H | 库体长<br>Storage body length L1 | 入料高度<br>Feeding height H1 | 出料高度<br>Discharging height H2 | W1   | W2 |
|-----------------------|----------------------|---------------------|----------------------|-------------------------------|---------------------------|-------------------------------|------|----|
| MTN250-1220           | 10305                | 2350                | 2810                 | 7605                          | 985                       | 745                           | 1800 | 0  |
| MTN500-1220           | 17025                |                     |                      | 14325                         |                           |                               |      |    |
| MTN500-1530           | 14785                | 2660                |                      | 12085                         |                           |                               | 2000 |    |
| MTN750-1530           | 20385                |                     |                      | 17685                         |                           |                               |      |    |
| *MTN1000-1530         | 14785                | 5120                |                      | 12085                         |                           |                               | 2700 | 0  |
| MTN500-2200           | 11425                | 3330                |                      | 8725                          |                           |                               |      |    |
| MTN750-2200           | 14785                |                     |                      | 12085                         |                           |                               |      |    |
| MTN1000-2200          | 18145                |                     |                      | 15445                         |                           |                               |      |    |
| MTN1500-2200          | 25985                |                     |                      | 23285                         |                           |                               |      |    |
| *MTN1500-2200         | 14785                | 6460                |                      | 12085                         |                           |                               |      |    |
| *MTN2000-2200         | 18145                |                     |                      | 15445                         |                           |                               |      |    |

注：带 \* 为双网带速冻装置。  
 Note:The freezers with \* are mesh belt freezers.

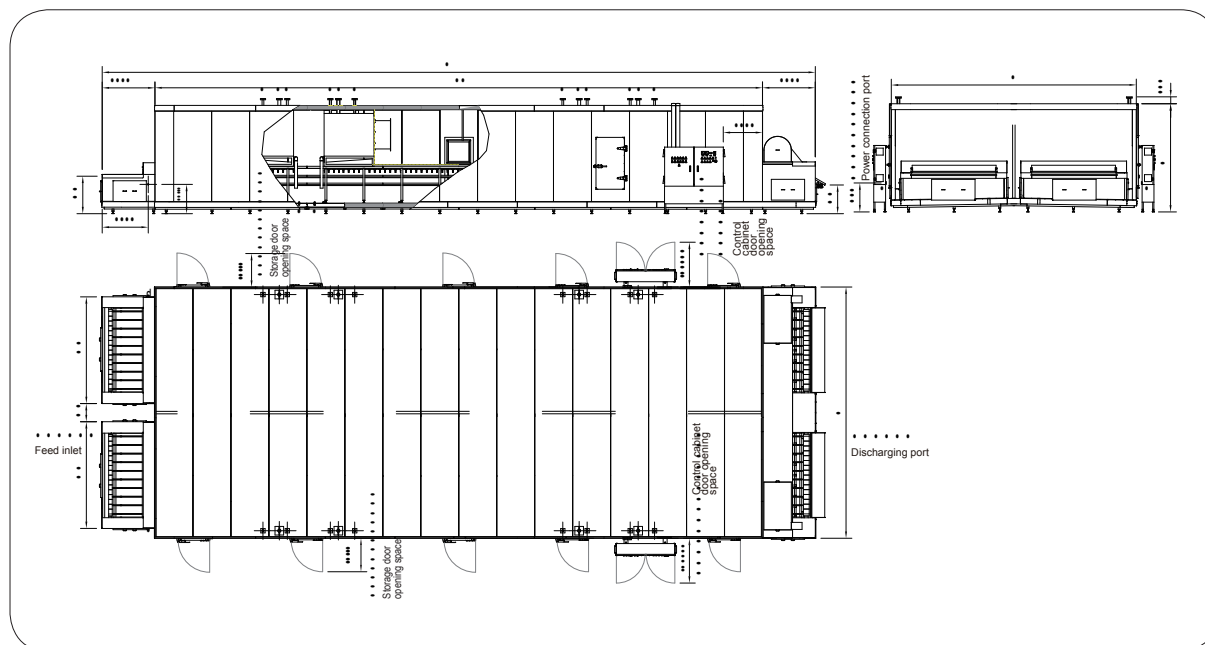
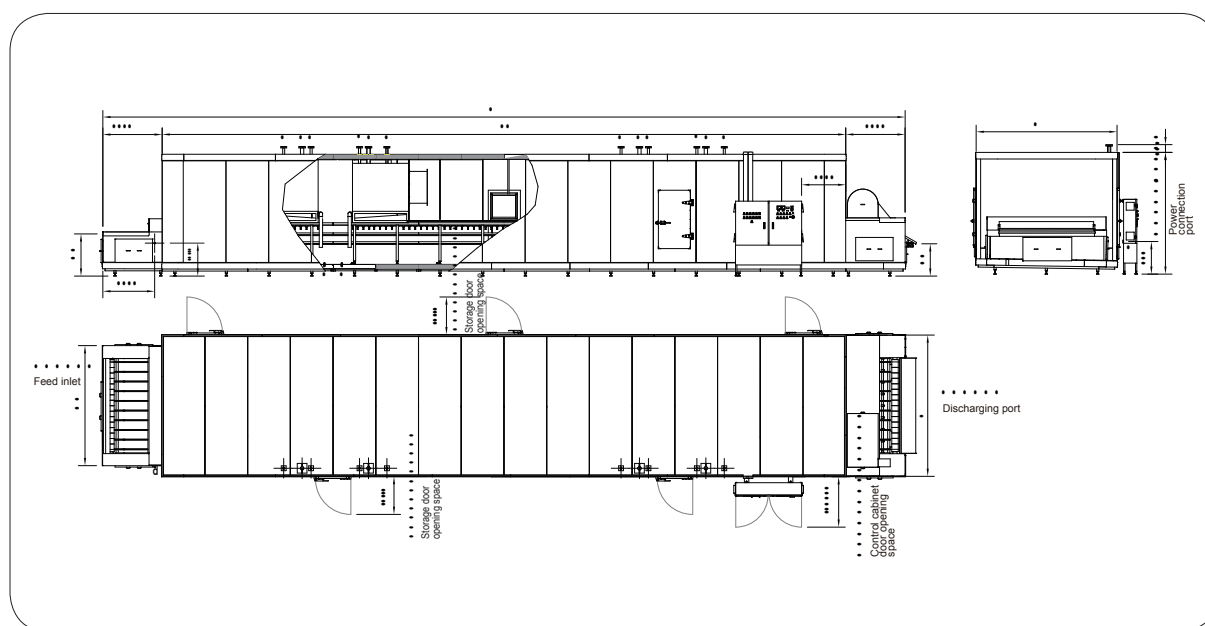
# 管口明细 Interface details

单位 unit:mm

| 产品型号<br>Product model | a 供液口<br>a. Liquid feed interface | b 回气口<br>b. Air return interface | c 冲霜水口<br>c. Defrosting water interface | d 清洗水口<br>d. Cleaning water interface | e 库体排污口<br>e. Storage body sewage outlet | f 电控接线口<br>f. Electrical control connecting port |
|-----------------------|-----------------------------------|----------------------------------|-----------------------------------------|---------------------------------------|------------------------------------------|--------------------------------------------------|
| MTN250-1220           | 2*DN32                            | 2*DN50                           | 2*R1 1/2                                | R3/4                                  | 4*Φ75                                    | Φ40                                              |
| MTN500-1220           | 4*DN32                            | 4*DN50                           | 4*R1 1/2                                |                                       | 6*Φ75                                    |                                                  |
| MTN500-1530           | 4*DN32                            | 4*DN50                           | 4*R1 1/2                                |                                       | 6*Φ75                                    |                                                  |
| MTN750-1530           | 4*DN40                            | 4*DN65                           | 4*R1 1/2                                |                                       |                                          |                                                  |
| *MTN1000-1530         | 8*DN32                            | 8*DN50                           | 8*R1 1/2                                | 2*R3/4                                | 12*Φ75                                   | 2*Φ40                                            |
| MTN500-2200           | 2*DN40                            | 2*DN65                           | 2*R1 1/2                                | R3/4                                  | 7*Φ75                                    | Φ40                                              |
| MTN750-2200           | 4*DN40                            | 4*DN65                           | 4*R1 1/2                                |                                       | 6*Φ75                                    |                                                  |
| MTN1000-2200          | 4*DN40                            | 4*DN65                           | 4*R1 1/2                                |                                       | 6*Φ75                                    |                                                  |
| MTN1500-2200          | 6*DN40                            | 6*DN65                           | 6*R1 1/2                                |                                       | 8*Φ75                                    |                                                  |
| *MTN1500-2200         | 8*DN40                            | 8*DN65                           | 8*R1 1/2                                | 2*R3/4                                | 12*Φ75                                   | 2*Φ40                                            |
| *MTN2000-2200         | 8*DN40                            | 8*DN65                           | 8*R1 1/2                                |                                       | 12*Φ75                                   |                                                  |

注：带 \* 为双网带速冻装置  
 Note:The freezers with \* are dual mesh belt freezers.

## 外形图 Outside drawing



注：冻结装置底板均设水漏，标准单网带水漏由进料口看均在右侧，双网带在两侧。

Note: the base plate of each freezer is fitted with a water drain; the water drain of all standard single mesh belt freezers is on the right side as seen from the feeding port, and that of all standard dual mesh belt freezers is on the two sides.

MEN 系列高效隧道（网带式）速冻装置（越南生产基地制造产品）  
MEN series high-efficiency tunnel (mesh belt) freezers (Products manufactured by Vietnam Production Base)

性能参数  
Performance parameter

| 产品型号<br>Product model                                             | MEN500  | MEN600 | MEN750 | MEN1000 |
|-------------------------------------------------------------------|---------|--------|--------|---------|
| 公称冻结能力<br>Nominal freezing capacity (kg/h)                        | 500     | 600    | 750    | 1000    |
| 网带有效宽度<br>Effective width of wire belt (mm)                       | 1450    |        |        |         |
| 通货高度<br>Cargo-through height (mm)                                 | 50~90   |        |        |         |
| 进 / 出料心部温度<br>Inlet & outlet material core temperature (°C )      | +15/-18 |        |        |         |
| 冻结温度<br>Freezing temperature °C                                   | -42     |        |        |         |
| 冲霜水量<br>Defrosting water quantity (m³/time)                       | 10      | 12     | 15     | 19      |
| 名义工况耗冷量<br>Cold consumption under nominal working conditions (kW) | 100     | 120    | 145    | 190     |
| 装机功率<br>Installed capacity (kW)                                   | 35      | 41     | 48     | 63      |
| 净重<br>Net weight(t)                                               | 11      | 12.5   | 14     | 17      |
| 运行重量<br>Operating weight (t)                                      | 12.1    | 13.7   | 15.4   | 18.7    |

- 注：
- 1 公称冻结能力按无头虾计，φ 15\*80mm，16 ~ 20 个 / 磅，含水量 75%，布料密度 4.1kg/m²；
  - 2. 名义工况耗冷量按蒸发温度 -47°C 工况计。实际使用冻结温度与表中不同时，请按实际使用工况配置系统设备。
  - 3. 适用于制冷剂为 R717、R744、R22、R404A、R507C、R134a 等多种制冷剂或载冷剂。
  - 4. 以蒸发器供液方式为泵供液计。

Note:

- 1. The nominal freezing capacity is designed as per headless shrimp, with the specification of φ 15\*80mm and 16~20 pieces/lb, the water content of 75% and the material distribution density of 4.1kg/m²;
- 2 The cold consumption under nominal working conditions is calculated as per the operating condition at -47°C vaporization temperature. When the actual freezing temperature is different from the value in the table, please configure the system equipment according to actual operating conditions.
- 3 Applicable to multiple refrigerants or secondary refrigerants such as R717, R744, R22, R404A, R507C, R134a, etc.
- 4 The evaporator feeding mode is used as the pump feeding mode.

## 结构参数 Structural parameters

单位 unit: mm

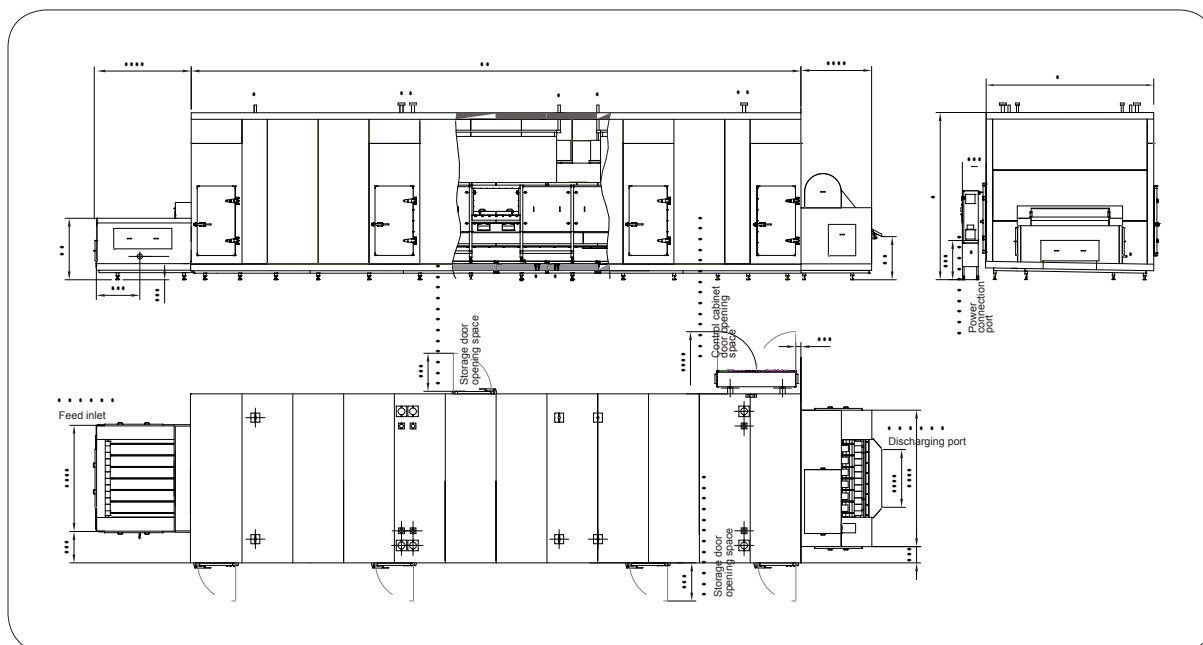
| 产品型号<br>Product model | 总长<br>Total length L | 总宽<br>Total width W | 总高<br>Total height H | 库体长<br>Storage body length L1 | 入料高度<br>Feeding height H1 | 出料高度<br>Discharging height H2 |
|-----------------------|----------------------|---------------------|----------------------|-------------------------------|---------------------------|-------------------------------|
| MEN500                | 15235                | 3200                | 3185                 | 12085                         | 1100                      | 760                           |
| MEN600                | 16355                |                     |                      | 13205                         |                           |                               |
| MEN750                | 19715                |                     |                      | 16565                         |                           |                               |
| MEN1000               | 24195                |                     |                      | 21045                         |                           |                               |

## 管口明细 Interface details

单位 unit: mm

| 产品型号<br>Product model | a 供液口<br>a. Liquid feed interface | b 回气口<br>b. Air return interface | c 冲霜水口<br>c. Defrosting water interface | d 清洗水口<br>d. Cleaning water interface | e 库体排污口<br>e. Storage body sewage outlet | f 电控接线口<br>f. Electrical control connecting port |
|-----------------------|-----------------------------------|----------------------------------|-----------------------------------------|---------------------------------------|------------------------------------------|--------------------------------------------------|
| MEN500                | 6*DN32                            | 6*DN50                           | 6*R1 1/2                                | R3/4                                  | 7*Φ75                                    | Φ40                                              |
| MEN600                | 6*DN32                            | 6*DN50                           | 6*R1 1/2                                |                                       | 7*Φ75                                    |                                                  |
| MEN750                | 8*DN32                            | 8*DN50                           | 8*R1 1/2                                |                                       | 9*Φ75                                    |                                                  |
| MEN1000               | 12*DN32                           | 12*DN50                          | 12*R1 1/2                               |                                       | 11*Φ75                                   |                                                  |

## 外形图 Outside drawing



注：冻结装置底板均设水漏，标准产品水漏由进料口看均在右侧。

Note: the base plate of each freezer is fitted with a water drain; the water drain of all standard products is on the right side as seen from the feeding port.

## 食品速冻系列产品

### Freezers

烟台冰轮股份有限公司生产的食品速冻设备包括隧道式速冻装置、螺旋式速冻装置、流态化速冻装置、平板速冻机、板式搁架冻结器等五大类产品，广泛应用于水产、肉类、水果、蔬菜以及调理食品的深加工。

Yantai Moon freezers include tunnel freezer, spiral freezer, fluidized freezer, contact freezer and shelf plate freezer, 5 categories in total, which are widely used in industries for aquatic produce, meat, fruits, vegetables and prepared foods processing.



板式搁架冻结器  
Shelf plate freezer



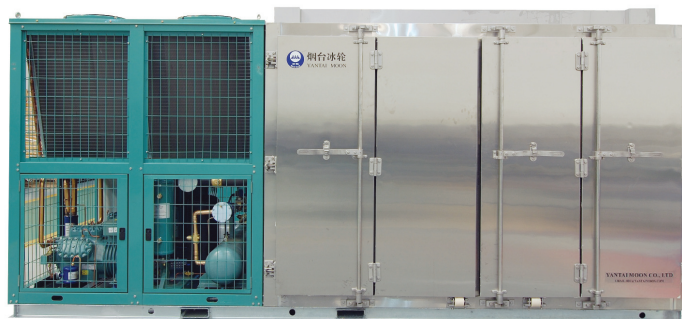
隧道式速冻装置  
Tunnel freezer



流态化速冻装置  
Fluidized freezer



螺旋式速冻装置  
Spiral freezer



平板速冻机  
Contact freezer

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