

ENGINEERING A BETTER FUTURE

# WELCOME TO ARKREF



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CASES**



# Arkref Introduction

Since 1989

Shandong Shenzhou Refrigeration Equipment Co., Ltd. was established in 1989 and is a professional company focusing on environmentally friendly cold chain equipment.

Product

It is a system solution service provider integrating refrigeration equipment research and development, design, production, sales, installation and commissioning services. It also provides customers with a variety of environmentally friendly and energy-saving cooling and heating system solutions that meet user needs.



# ARKREF INTERNATIONAL GROUP



## Mission

Committed to innovation and application in refrigeration technology  
Pursuing material and spiritual happiness for all employees  
Striving to create a better life for humanity

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## Vision

Become a leading global cold chain equipment service provider .

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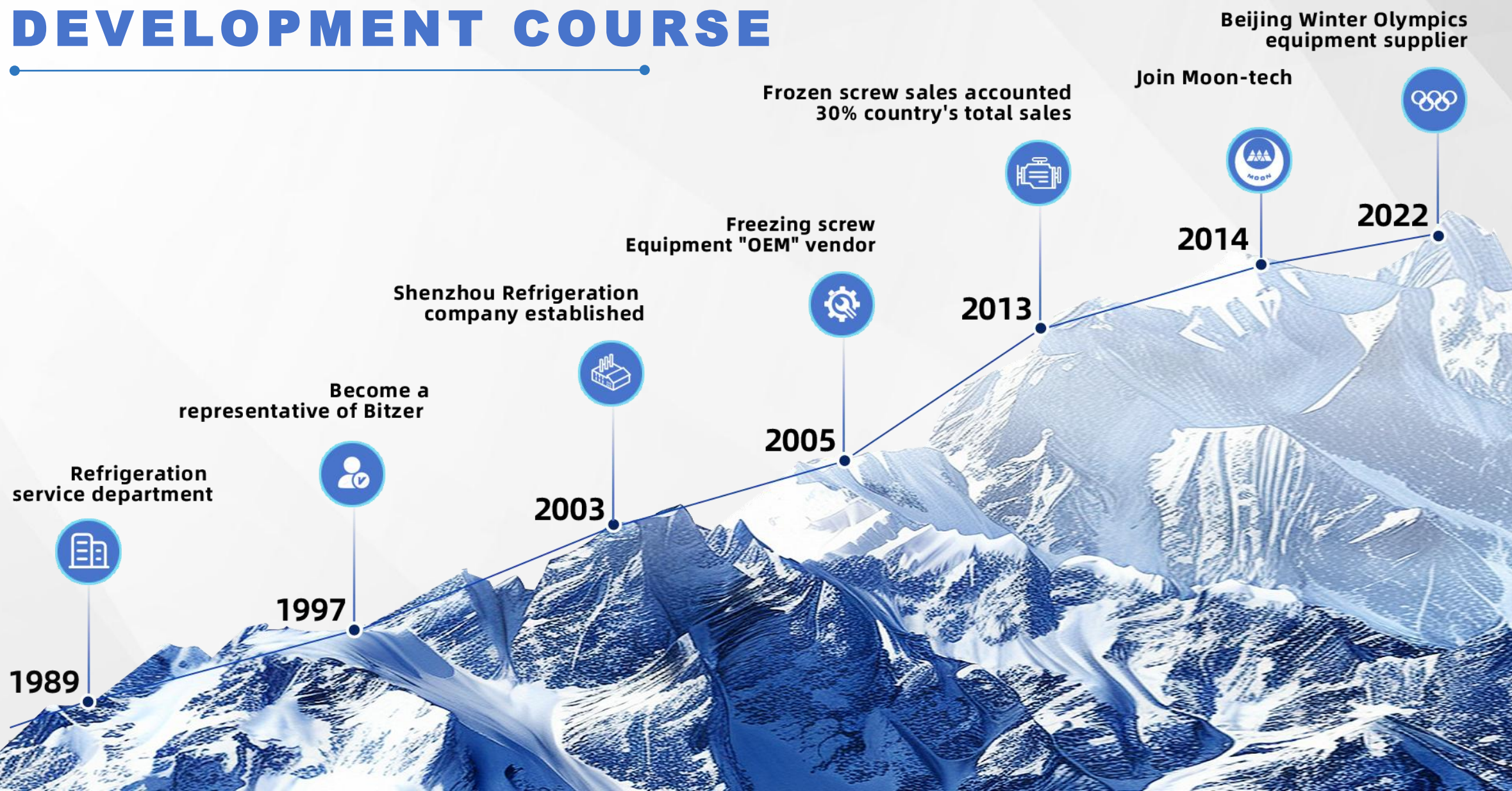
## Value

Communication and Collaboration, Innovation and Practice, Integrity and Accountability, Achieving Others to Fulfill Oneself

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# DEVELOPMENT COURSE





Adhering to  
technology-driven  
innovation, it has a  
top R&D team in the  
industry



Has accumulated  
rich experience in  
refrigeration  
equipment R&D

## Our team

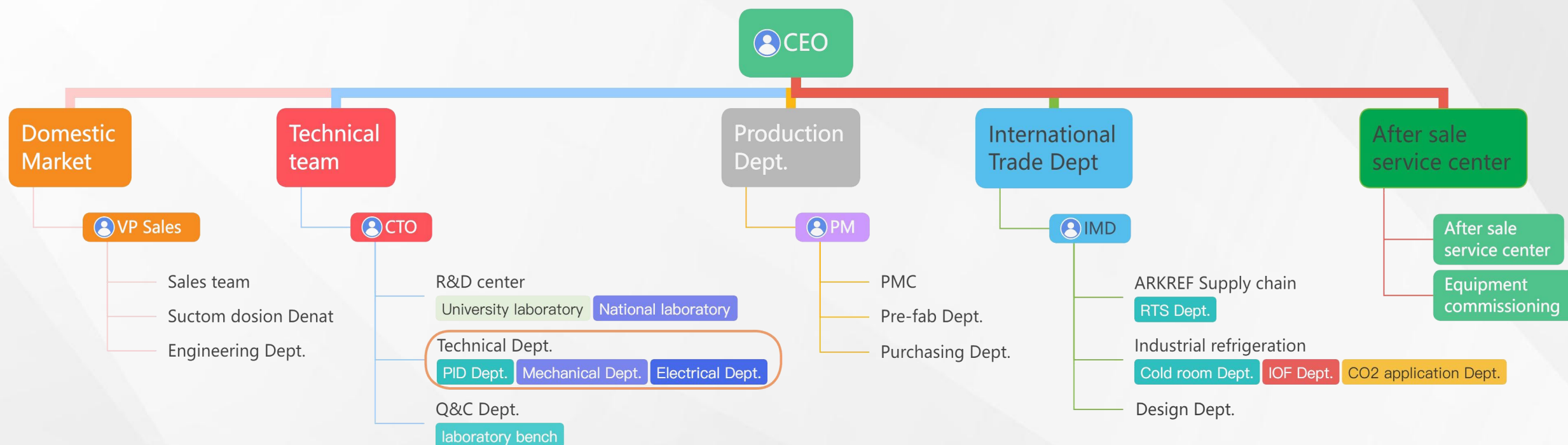
**42** Core R&D technical personnel

**56** National Registered Engineer

**83** Production and manufacturing personnel.

**31** Person sales team

# CORPORATE ORGANIZATIONAL STRUCTURE



# OUR STRENGTH

- **Vertically Integrated Production Base**

End-To-End In-House Manufacturing Ecosystem  
Iso-Certified System Solutions Production Lines

- **Global Implementation Expertise**

Proven Deployments Across 150+ Countries/Regions  
Cross-Industry Applications: Energy | Infrastructure | Industrial Automation

- **National Strategic Partner**

Officially Endorsed Supplier For Beijing 2022 Winter Olympics  
Government-Backed Quality Assurance Program

- **Industrial-Grade Production Capacity**

Scalable Output: 15m+ Unit Annual Throughput  
Precision Manufacturing With  $\leq 0.01\%$  Defect Rate

- **Vertically Integrated Production Base**

End-To-End In-House Manufacturing Ecosystem  
Iso-Certified System Solutions Production Lines

# ENTERPRISE HONOR

## Advanced R&D Consortium

**Strategic alliances with Tier-1 research institutions**

- Peking University (Clean Energy Lab)
- Shandong University (Industrial AI Center)

## CarbonTech Leadership

Pioneered industrial-scale CO<sub>2</sub> energy conversion systems

Holder of **12 patents** in carbon utilization technologies

Optimized Professional Version:

Integrated Manufacturing & Global Capabilities

## Global Implementation Expertise

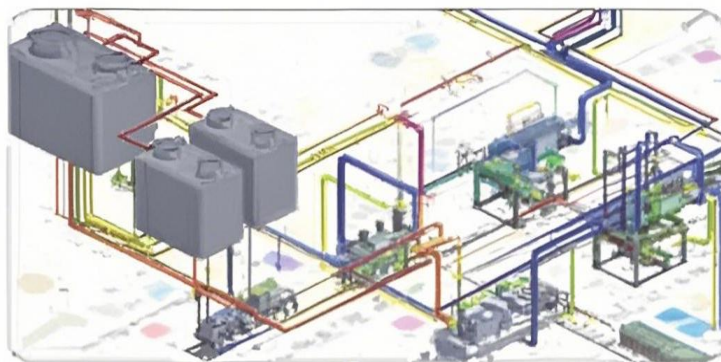
Proven deployments across **150+** countries/regions

Cross-industry applications: Energy | Infrastructure | Industrial Automation



# DESIGN DEVELOPMENT

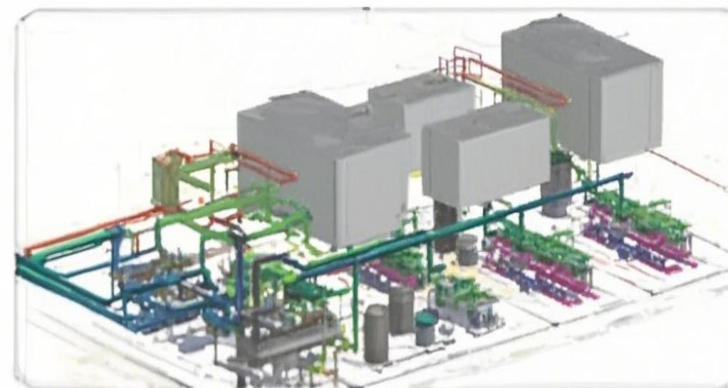
## BIM precision design



Using BIM digital modeling, the on-site installation work is completed in the factory



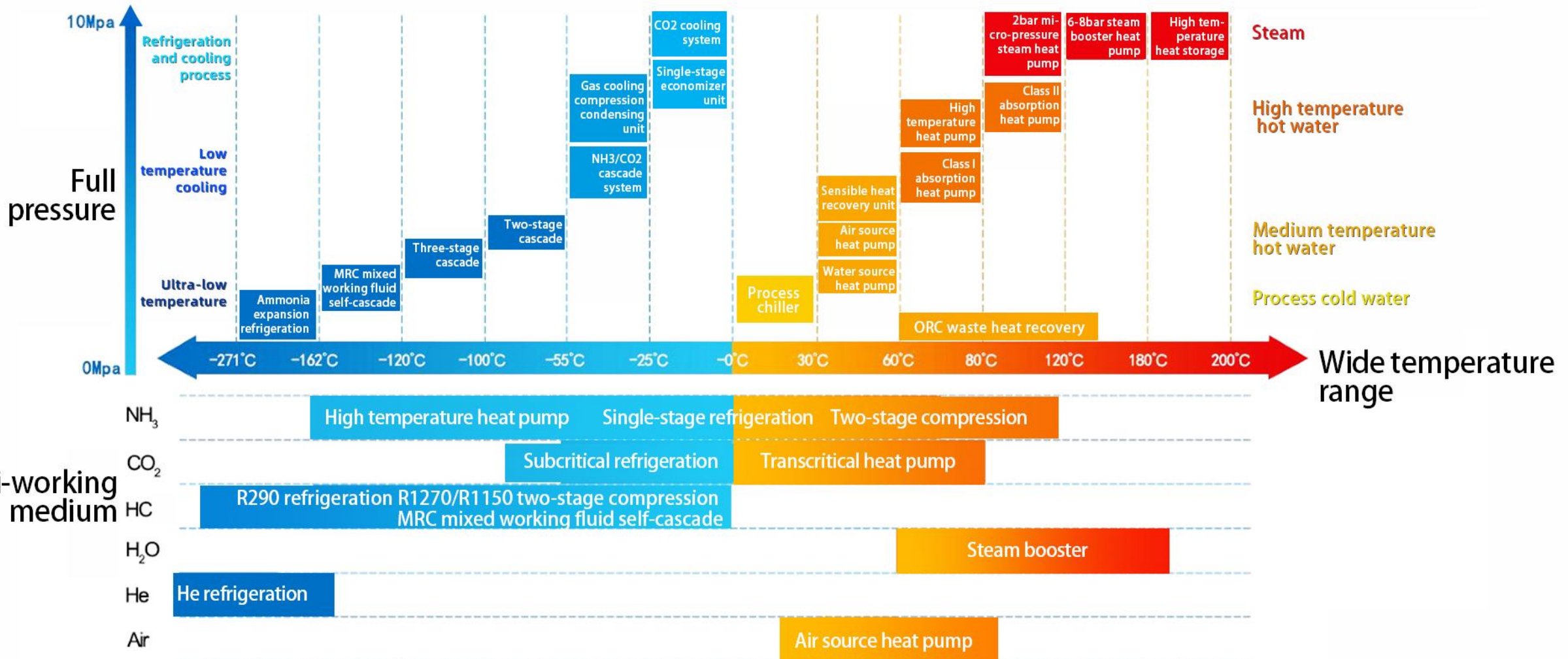
## DESIGN DEVELOPMENT



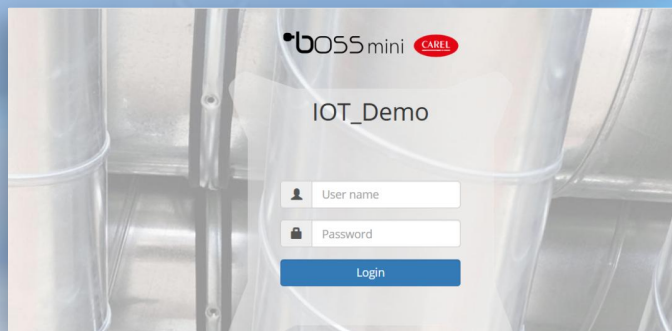
Ensure convenient / efficient construction  
reduce waste of resources

# WIDE TEMPERATURE RANGE

high pressure - hot and cold



# REMOTE DATA MANAGEMENT



| 设备名称              | 社区                 | 报警                              | 报警时间             | 报警内容                      | 报警状态            |
|-------------------|--------------------|---------------------------------|------------------|---------------------------|-----------------|
| RED optimise demo | Demo plant - Carel | -                               | 2025/05/14 15:30 | Synchronization issue     | 014 15h 23m 27s |
| RED optimise demo | Demo plant - Carel | -                               | 2025/05/14 15:30 | Synchronization issue     | 014 15h 23m 27s |
| RED optimise demo | Demo plant - Carel | MPStore_demo: 10                | 2025/05/13 11:07 | Alarm bus temperature 1   | 024 10h 54m 29s |
| RED optimise demo | Chillventa 2024    | -                               | 2025/05/13 10:00 | Outgoing life test failed | 024 10h 54m 15s |
| RED optimise demo | Demo plant - Carel | MPStore v4.8 (3007) Modbus - 17 | 2025/05/13 10:02 | OFFLINE                   | 024 10h 51m 59s |
| RED optimise demo | Demo plant - Carel | MPStore v4.8 (3007) Modbus - 16 | 2025/05/13 10:02 | OFFLINE                   | 024 10h 51m 59s |
| RED optimise demo | Demo plant - Carel | MPStore v4.8 (3007) Modbus - 15 | 2025/05/13 10:02 | OFFLINE                   | 024 10h 51m 59s |
| RED optimise demo | Demo plant - Carel | MPStore v4.8 (3007) Modbus - 14 | 2025/05/13 10:02 | OFFLINE                   | 024 10h 51m 59s |

| 项目                         | 社区                |
|----------------------------|-------------------|
| Chillventa 2024            | RED optimise demo |
| Demo plant - Carel         | RED optimise demo |
| Plant Poland - Warsaw      | RED optimise demo |
| Plant Australia - Perth    | RED optimise demo |
| Plant Australia - Sydney   | RED optimise demo |
| Plant Austria - Vienna     | RED optimise demo |
| Plant Brazil - Brasilia    | RED optimise demo |
| Plant Denmark - Copenhagen | RED optimise demo |
| Plant England - London     | RED optimise demo |

- Data statistics
- Equipment distribution
- Cold Storage Analysis
- Electricity consumption analysis

# LETTERS PATENT

42 PATENTS APPLIED TOTAL

- > 12 Invention patent
- > 29 New type patent
- > 1 Design patent



# ENTERPRISE QUALIFICATION



30+ Years Cooperation

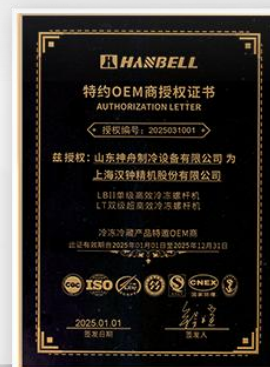


20+ Years Cooperation

CE

ISO 9001

ISO 14001



# MAIN BUSINESS



# SALES SCOPE

**2024——Operates in nearly 150 countries around the world!**



# AFTER-SALE SERVICE



## Serve

**No worries 24 hours a day!**

One-to-one butler service, according to customer's service needs



## Efficient

provide timely services ensure efficient and safe operation unit equipment



## Install

ARKREF specializes in the installation of various types of refrigeration equipment and complete refrigeration systems.

# Part 02



## COMPANY PRODUCT INTRODUCTION

Product Introduction

Product classification

# PRODUCT INTRODUCTION

## | Condensing Unit



- Air cooler
- Water cooler

# OUR ACCESSORY PARTNER



# SCREW PARALLEL UNIT

| High temperature screw parallel unit



| Low temperature screw parallel unit



## APPLICATION

- Air Conditioning /Refrigeration /Food Processing / Pharmaceuticals/
- Chemical Industry:Process Cooling / Ship: Marine Air Conditioning

## QUICK-FREEZING UNIT

Two-stage compressor equipped with frequency converter

The average frozen **1 ton** of goods saving more than **30%** of electricity



### APPLICATION

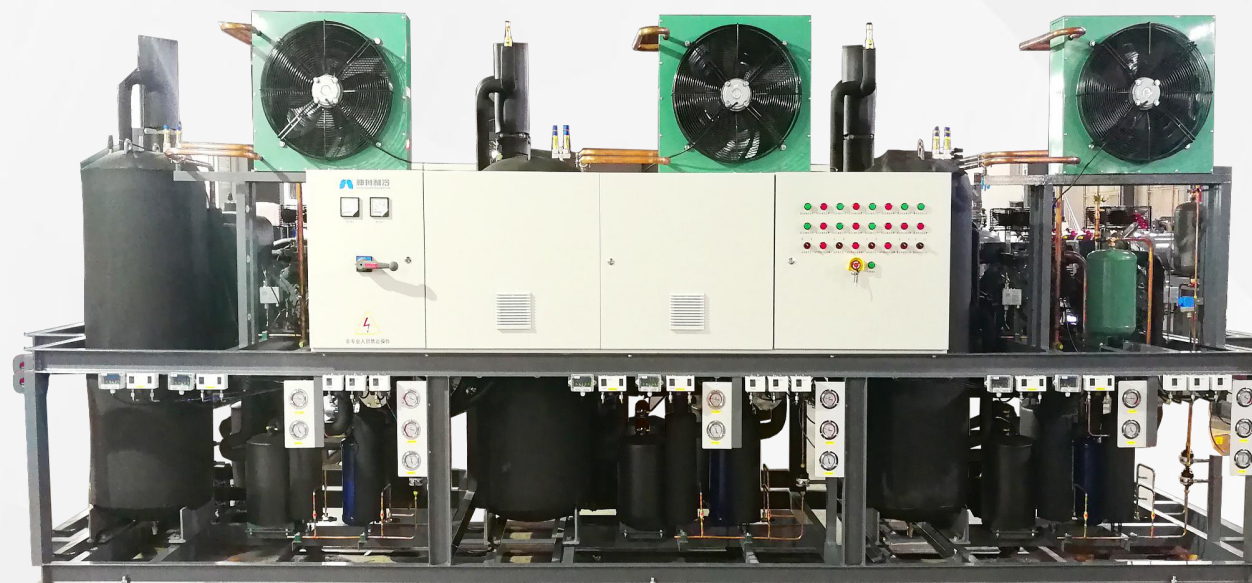
- Quick-freezing tunnels,
- quick-freezing warehouses
- Low temperature environment  
experimental chamber

# CRYOGENIC CASCADE UNIT

Can be combined with different refrigerants / refrigeration methods  
requirements (-50°C ~ -85°C)

## APPLICATION

- Cryogenic cascade unit
- Used In Refrigeration
- Food Processing
- Pharmaceutical Chemical Industry
- Metal Processing
- Electronics
- Ships



# CO<sub>2</sub> TRANSCRITICAL UNIT

Booster CO<sub>2</sub> refrigeration unit / Maximum COP refrigeration unit

**-50℃ ~ +20℃** wide temperature area, **40℃ ~ 100℃** hot water

## APPLICATION

- Ice and snow
- Supermarket
- Food processing

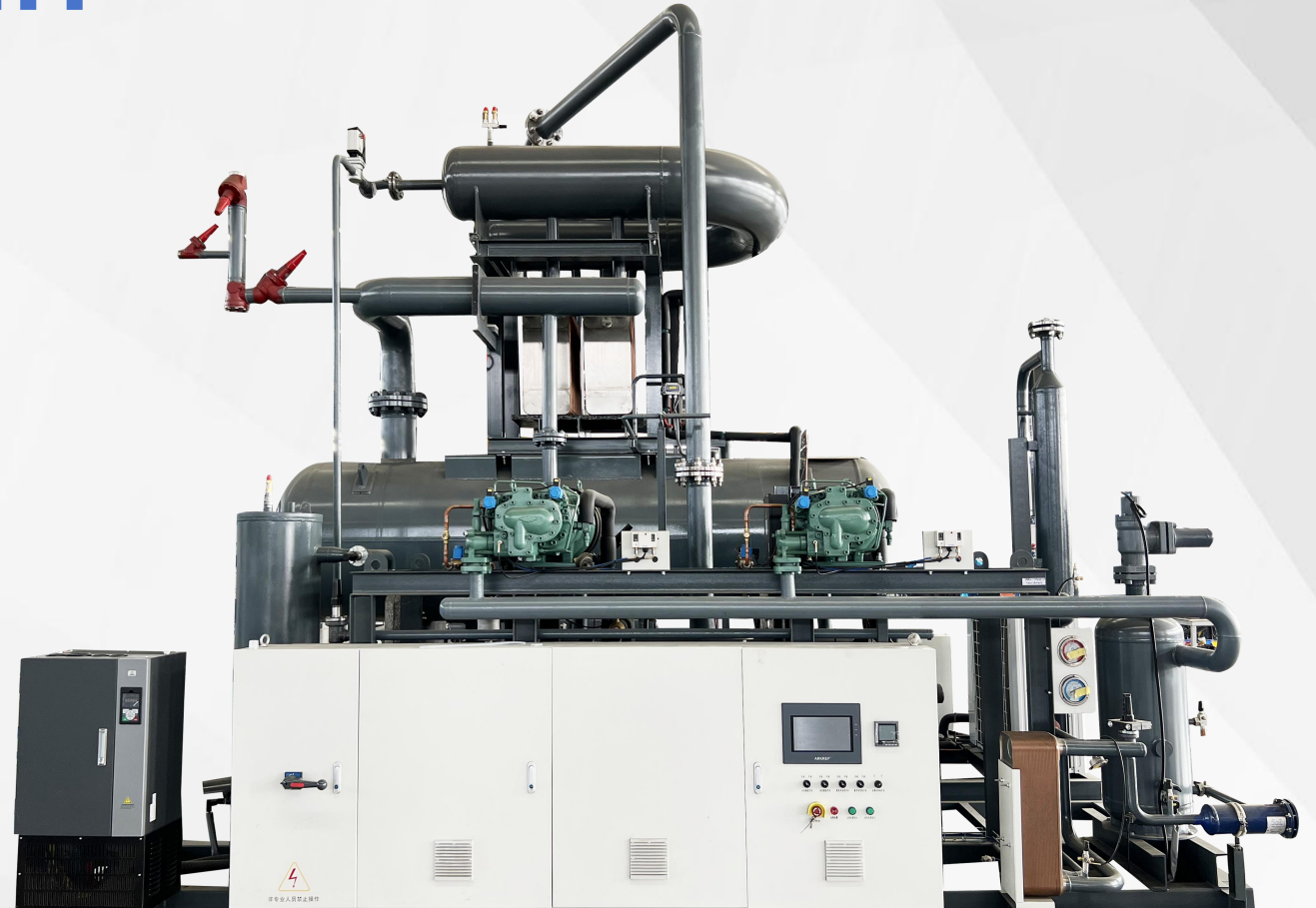


## R507+CO<sub>2</sub> SECONDAR UNIT

Full liquid evaporation reduces freon conflict.  
oil-free operation, safe and reliable.

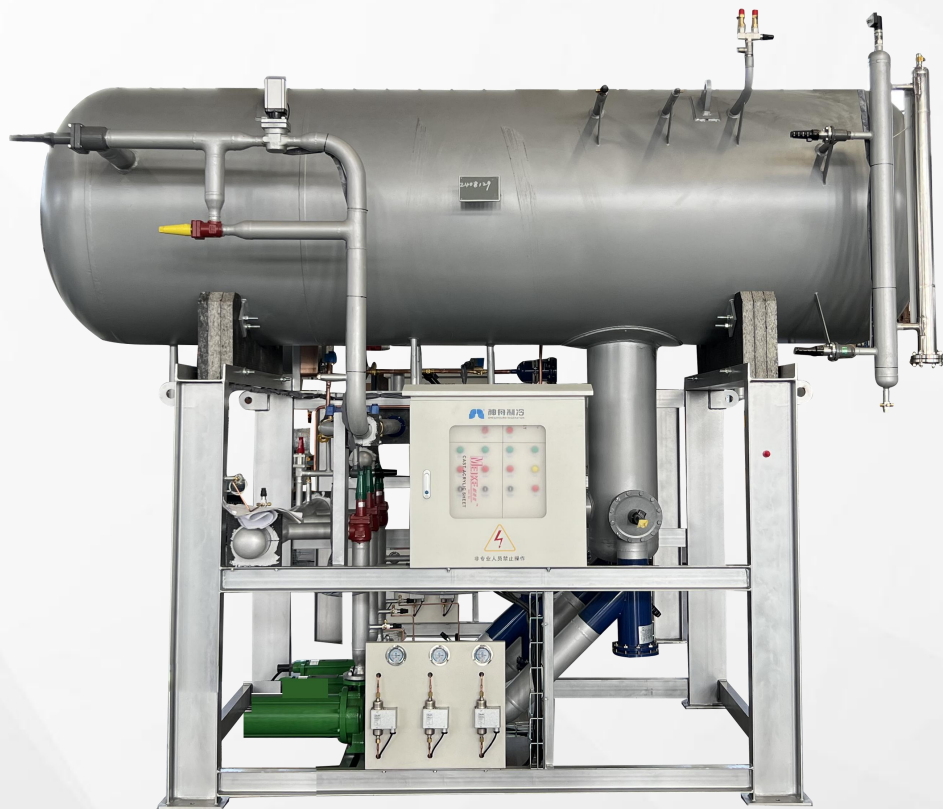
### APPLICATION

- Freezing And Refrigeration
- Food Processing
- Cold Chain Logisticsshipping
- Industry
- Ice And Snow



## DRUM PUMP UNIT

can supply liquid over a long distance, and the efficiency of flooded liquid supply is about **30%** higher than that of direct liquid supply!



### APPLICATION

- medicine, logistics, chemical industry, food, metallurgical industry
- mostly used for long-distance liquid supply and other places.

# MOBILE REFRIGERATION STATION

Unrestricted by on-site conditions, plug play, flexible and versatile.



## APPLICATION

- **Cold chain logistics**  
New cold chain logistics cold storage,  
especially large-scale, modular copy cold storage
- **Ice and snow making**  
ice, skating rink, ski resort, medicine, chemical industry  
other direct refrigeration / low temperature refrigerant projects
- **Food processing**  
Quick freezing system for food processing enterprises
- **Reconstruction of old warehouse**  
If there is no space in the equipment room, the equipment room  
can be placed in the open outside or on the top of the equipment room

## WATER CHILLERS

### Options available:

dry type / full liquid type / falling film type / siphon type and so on.

All these are types of evaporators.

Can provide medium-low temperature cold water

Coolant ranging from **-45°C to 15°C**

Energy-saving

Efficient

small in size



# HIGH TEMPERATURE HEAT PUMP UNIT

Ultra-high temperature heat pump unit:

Applicable inlet water temperature 20 ~ 45°C, outlet water temperature 60 ~ 80°C

Applicable inlet temperature 45 ~ 85°C, outlet temperature 85 ~ 120°C.



## APPLICATION

- Heat recovery in urban sewage treatment stations and heating of boiler water
- Sludge drying, hot water for mechanical cleaning

# PRODUCT INTRODUCTION



- New efficient LG series screw refrigeration compressor  
(Multiple national patents)



- Single machine two-stage screw refrigeration  
compressor (evaporation temperature can reach -55 °C)

 **Part 03**

## PROJECT CASES

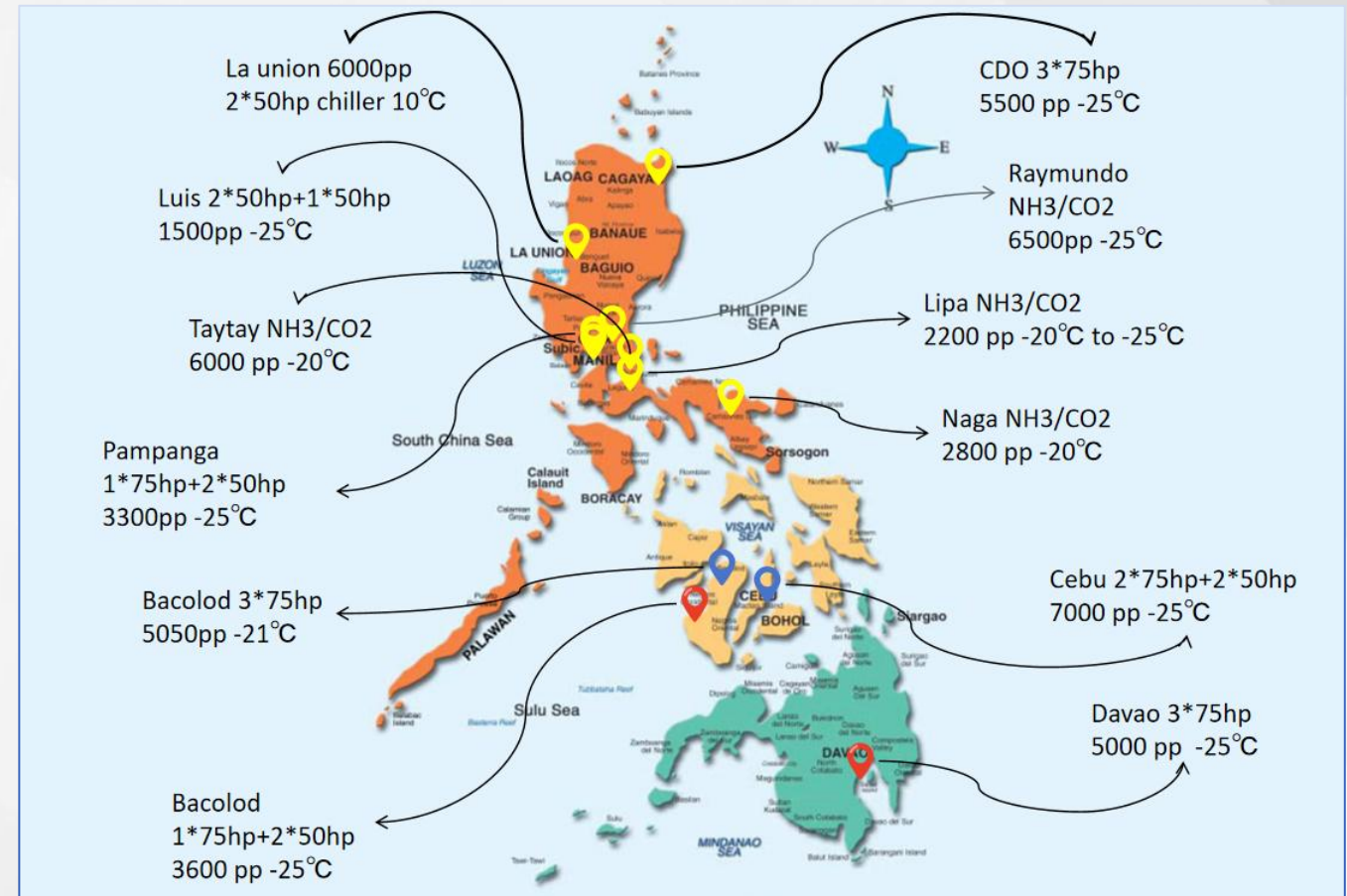
In no particular order





## About Phillipine market

- We have delivery whole set refrigeration equipments for many logistic Cold room .
- Following are some of our Phillipine projects list and pictures for reference.



# LOGISTICS COLD STORAGE



**Location: Philippines**

**Area: 200000m<sup>2</sup>**

**Time: 2023**



# MEAT COLD STORAGE



**Location: Philippines**

**Area: 600m<sup>2</sup>**

**Time: October 2023**



## CHEESE COLD ROOM



**Location: Russia**

**Area: 1700m<sup>2</sup>**

**Time: September 2023**



# SLAUGHTERHOUSE



**Location: Chile**

**Area: 588m<sup>2</sup>**

**Time: June 2022**



# FROZEN TUNNEL PROJECT



**Location: Mexico**

**Freezing capacity: 500kg/h**

**Time: August 2022**



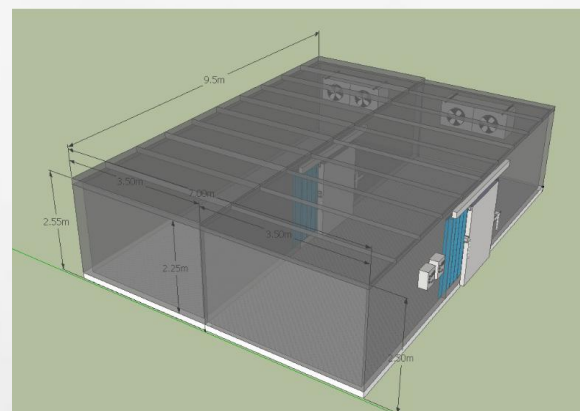
# SUPERMARKET COLD STORAGE



**Location: Port Moresby**

**Area: 18m<sup>2</sup>**

**Time: March 2025**



# FRUIT COLD STORAGE FACILITY

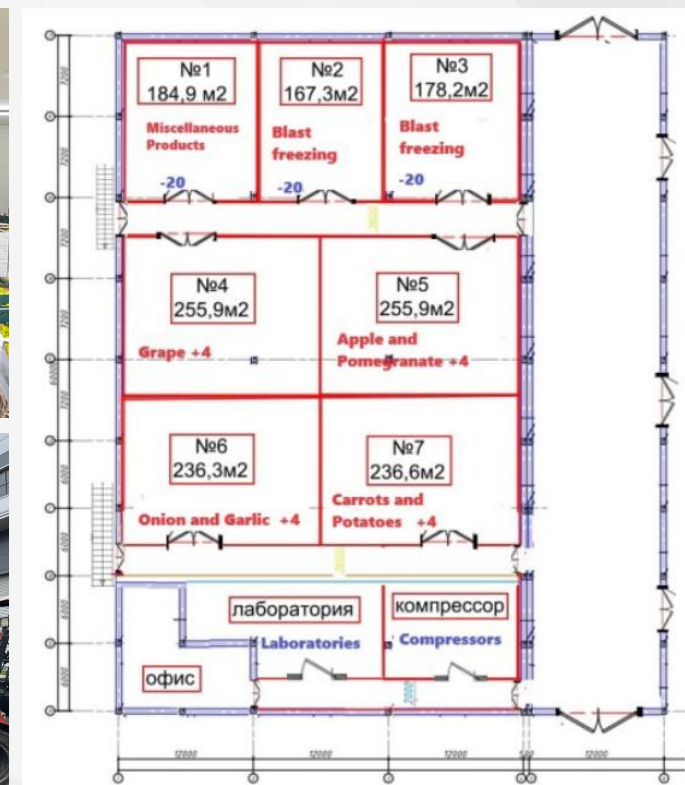


**Location: Uzbekistan**

**Area: 1505m<sup>2</sup>**

**Temperature: -20°C~4°C**

**Time: under construction**



# FRUIT COLD STORAGE FACILITY

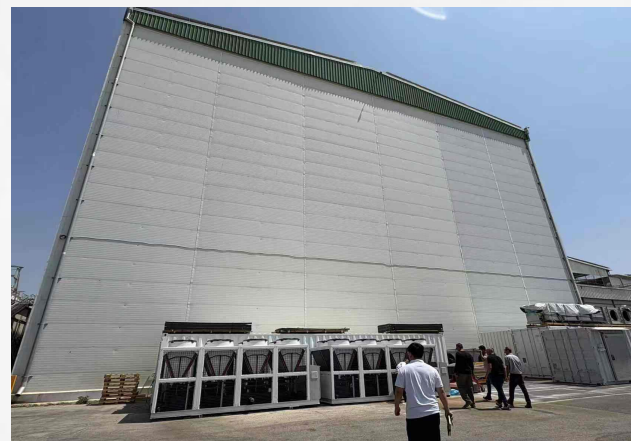


**Location : Israel**

**Unit model : SPBL344 + 112YA**

**Temperature : -18°C**

**Time: November 2024**



## ICE CREAM COLD ROOM

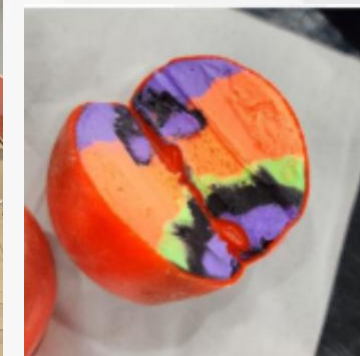


**Location : Saudi Arabia**

**Freezing quantity : 50kg/h**

**Shipment temperature :-25°C**

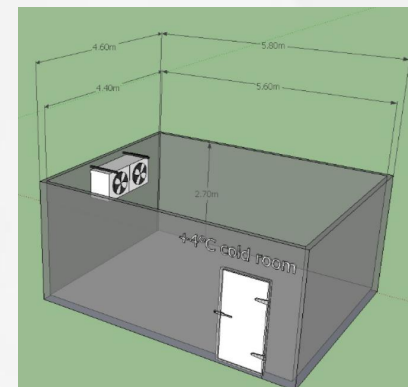
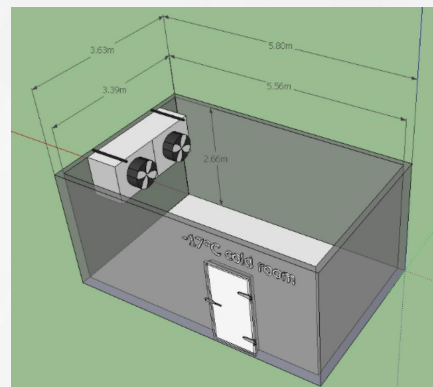
**Time: December 2024**



# CATERING COLD ROOM



**Location : Azerbaijan**  
**Temperature : -20°C~4°C**  
**Time : under construction**



# MARINE PROJECT



**Location: France**

**Completion Time : April 2023**



## POLO INDUSTRY PARK



**Location : South Africa**

**Area : 20000m**

**Time : April 2010**



## IQF TUNNEL FREEZER



**Location : California**

**Frozen product: Shrimp**

**Productive capacity : 2tons/h shrimp freezer**

**Time : April 2019**



# IQF TUNNEL FREEZER



**Location : Bulgarian**

**Frozen product : Fruits and vegetables**

**Refrigeration unit : CO2 unit**

**Time : April 2019**



## IQF TUNNEL FREEZER



**Location : Costa Rica**

**Type : Frozen food factory project**

**Freezing capacity : 1100kg/h**

**Time : April 2018**



## COLD ROOM UNIT



**Location : Asmara**  
**Storage capacity : 5000T**  
**Time : 2018**



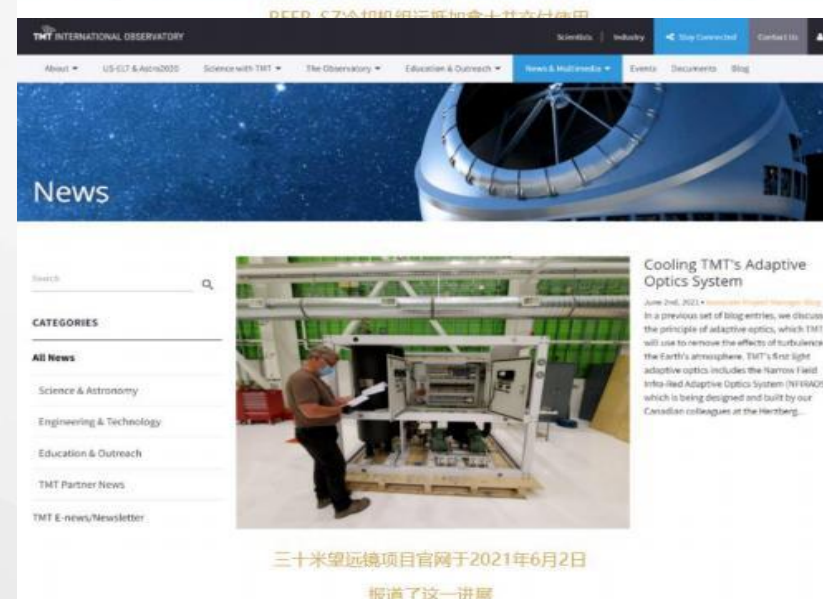
# LABORATORY PROJECT



**Location : Canada**

**Time : May 2021**

The Thirty Meter Telescope (TMT) adaptive optics system test cooling unit jointly developed by the Chinese Academy of Sciences and Shenzhou will arrive in Canada in May 2021, and will be delivered to the Herzberg Astronomy and Astrophysics of the National Research Council of TMT Canada. NRC).



# 2022 WINTER OLYMPICS VENUE



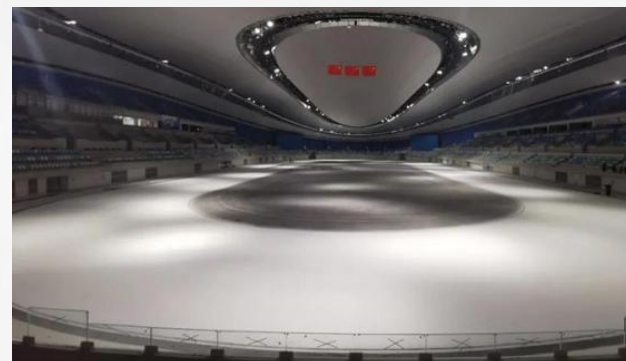
## National Speed Skating Stadium

It adopts a full ice surface design,  
with an ice surface area of 12,000 m<sup>2</sup>  
Transcritical CO<sub>2</sub> direct cooling ice-making system

**Location : Beijing,China**

**Area : 12000m<sup>2</sup>**

**Completion Time : 2021**



# 2022 WINTER OLYMPICS VENUE



National Stadium

Application of environmentally friendly refrigerant  
small temperature difference chiller

**Location : Beijing,China**

**Area : 12000m<sup>2</sup>**

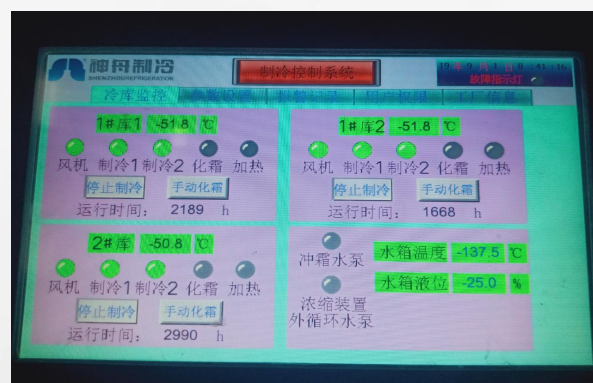
**Completion Time : 2021**



# TUNA COLD STORAGE FACILITY



Location: Zhoushan City  
Temperature: -60°C



# COLD CHAIN LOGISTICS

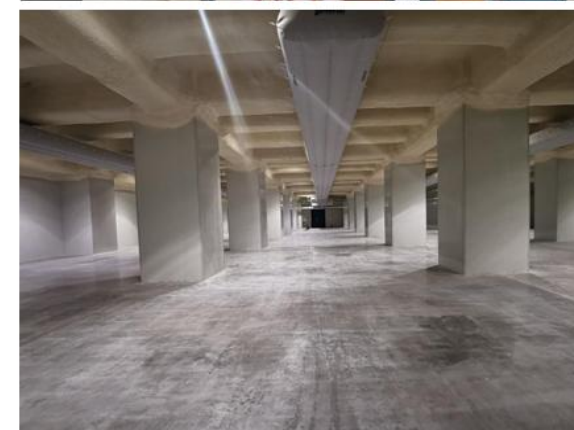


- Since 2018 we have successively undertaken cold chain logistics projects such as Shanghai Nanqiao, Shanghai Xinqiao, Suzhou Wangting, Xi 'an Wanwei, Wuhan Dongxihu, TianjinDongjiang Port, Jinan Wanhong, Qingdao Wanwei,
- With a total project area exceeding 250,000 square meters.



# COLD CHAIN LOGISTICS

- Beijing Tongzhou Port
- This project includes a 22-meter-high three-dimensional intelligent low-temperature cold storage, a high-temperature cold storage, and a low-temperature passageway platform, equipped with four refrigeration systems and BIM 3D design



## MEDICAL PROJECT

- Cryogenic cold storage project
- The total volume of the ultra-low temperature cold storage project for the COVID-19 vaccine at  $-70^{\circ}\text{C}$  in this project is 670 square meters, and it adopts the ultra-low temperature cascade refrigeration system independently developed by Shenzhou.



# LOOK FOR LONG-TERM PARTNERS

- › Exclusive agent
- › Project profit guarantee
- › The latest refrigeration equipment
- › Refrigeration design team
- › Free professional training
- › Support overseas installation guidance

# CONTACT US

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**WhatsApp contacts**





# THANKS

感谢您的观看

Thank you for watching