



COLD STORAGE PRODUCT CATALOG

One-Stop Cold Storage Production and Solution
Provider



15+ Years

Factory manufacturing experience in cold storage solutions.

2,000,000 m²

Annual capacity for polyurethane energy-saving panels.

50+ Countries

Products supplied to customers worldwide.



Polyurethane Cold Room Panels | Cold Room Doors | Refrigeration Equipment | Accessories

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COMPANY PROFILE

A reliable cold storage partner for food processing, logistics, retail, agriculture and industrial refrigeration projects.

Henan Element New Materials Co., Ltd. is a professional manufacturer and one-stop supplier of cold storage products and solutions. Located in Zhengzhou, Henan Province, China, Element focuses on the R&D, manufacturing, sales, technical consulting, import and export of energy-efficient insulated panels, cold room systems and supporting refrigeration products.

With more than 15 years of development, our product range covers polyurethane cold room panels, cam-lock cold room panels, cold room doors, refrigeration glass doors, air coolers, refrigeration equipment and cold storage accessories. We support customers from early project planning and product selection through production, packaging and export delivery.

Element has introduced an advanced continuous production line for polyurethane energy-saving panels, with an annual production capacity of up to 2 million square meters. Our products have been supplied to more than 50 countries and are widely used in cold rooms, freezer rooms, blast freezers, food factories, supermarkets, warehouses and logistics centers.

One-Stop Supply

Panels, doors, refrigeration equipment and accessories can be supplied together to simplify procurement.

Energy Saving

High-performance insulation helps reduce heat loss and long-term operating cost.

Project Support

Panel thickness, door type and refrigeration matching can be recommended according to temperature and application.

Custom Options

Thickness, length, surface texture, steel thickness, color and door size can be customized.

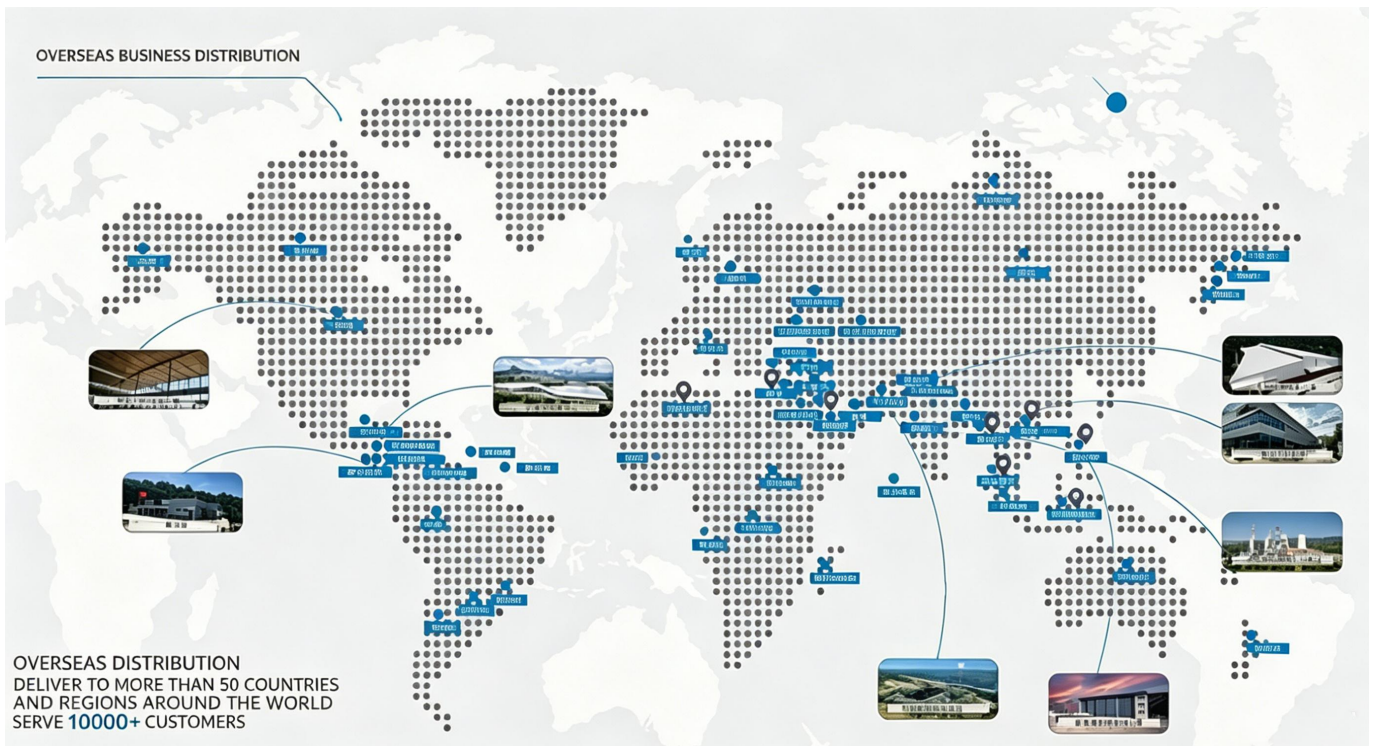
Export Experience

Professional packaging, documentation and shipping coordination for international projects.

Stable Quality

Factory-controlled production and inspection help ensure reliable project delivery.

Cold storage products supplied to customers in more than 50 countries.

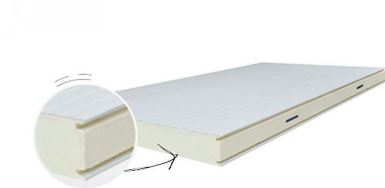


PRODUCT RANGE

Integrated cold storage products for complete cold room projects.



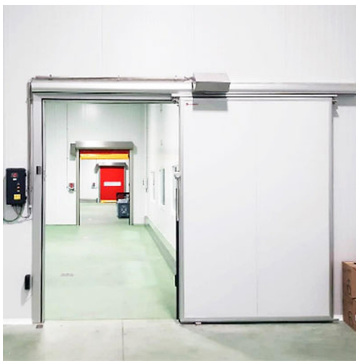
PU / PIR Sandwich Panel



Cam-Lock PU Panel



Air Cooler / Evaporator



Cold Storage Doors



Walk In Cooler Glass Door



Cold Room System

Performance Indicators of PU Sandwich Panels

Item	Picture reference	Density kg/m ³	Nominal λ W/(m·K)	Panel Thick(mm)	R Value m ² · K/W	U Value W/(m ² .K)
PU Sandwich Panel		38-42	0.024	50	2.23	0.45
				75	3.28	0.31
				100	4.32	0.23
				150	6.4	0.16
				200	8.48	0.12
				250	11.02	0.19

Note: The heat transfer coefficient has been adjusted by calculation; it is applicable to most projects in China but excludes regions characterized by hot summers and warm winters.

PU / PIR SANDWICH PANEL

High-performance insulated panels for cold rooms, freezer rooms, warehouses and food processing facilities.



Why polyurethane panels are widely used for cold storage

- Excellent thermal insulation and low thermal conductivity.
- Strong PPGI steel facing for durable room enclosure.
- Multiple thickness options to match chiller, freezer and blast freezer applications.
- Clean surface, easy maintenance and suitable for food-related environments.
- Customized length, color and surface texture available for project needs.

Item	Specification
Product	PU SANDWICH PANEL
Facing Material	Pre-painted galvanized steel (PPGI), stainless steel or other options upon request
Steel Thickness	0.4-0.7 mm optional
Panel Thickness	40 / 50 / 75 / 100 / 120 / 150 / 200 / 250 mm
PU Density	42 kg/m ³ (± 2 kg/m ³)
Effective Width	400-1120 mm for wall panels, depending on panel type
Length	Up to 11.85 m for 40 HQ container loading, or customized
Thermal Conductivity	≤0.024 W/(m·K)
Fire Rating	B1 / B2 options available, depending on panel type and project requirement
Surface Texture	Flat, embossed, micro-ribbed or wide-ribbed
Application	Cold room, freezer room, food factory, warehouse, workshop and clean storage area

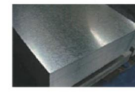


CAM-LOCK PU PANEL

Quick-installation insulated panel system with secure joint connection.



Panel material



PPGI/Color steel



Stainless steel



Embossed stainless steel



Embossed aluminum



Non-slip aluminum



Salinization steel

Cam-lock PU panels are designed for modular cold room construction. The built-in locking structure helps panels connect tightly during installation, reducing assembly time and improving the overall sealing performance of the cold room enclosure.

Element products are designed for chiller rooms, freezer rooms, blast freezers and temperature-controlled storage facilities. The system can be configured according to project temperature, room size, product load, door opening frequency and local installation conditions.

Item	Specification	
Chiller Room	Typical temperature: -5°C to +5°C.	70 mm or 100 mm panel is commonly selected, depending on room temperature and climate conditions.
Freezer Room	Typical temperature: -15°C to -25°C.	150 mm panel is commonly selected for stable low-temperature storage.
Blast Freezer	Typical temperature: -30°C to -40°C.	200 mm panel is commonly selected for high insulation demand and fast freezing applications.

Fast Installation

Cam-lock connection improves installation efficiency on site.

Reliable Sealing

Tight panel joints help reduce cold air leakage.

Flexible Layout

Suitable for small walk-in rooms and larger modular cold storage projects.



COLD STORAGE DOORS

A complete door range for cold rooms, freezer rooms, logistics areas and food processing plants.



Hinged Door



Sliding Door



Industrial Lifting Door



Double Manual Door



Rolling Fast Door



Walk-In Cooler Glass Door

Element cold storage doors are selected according to room temperature, opening size, traffic frequency and operating environment. A professional door design helps improve temperature stability, reduce energy loss and support safer daily operation.

Item	Specification
Hinged Door	Commonly used for small and medium cold rooms, walk-in coolers and service rooms.
Sliding Door	Suitable for larger cold rooms, forklift access and frequent material transfer.
Industrial Lifting Door	Suitable for logistics passages, loading areas and industrial applications.
Rolling Insulated Door	Designed for fast access areas where opening speed and insulation are both important.
Walk-In Cooler Glass Door	Used for display cold rooms, retail storage and supermarket applications.

REFRIGERATION GLASS DOOR

Display solutions for supermarkets, convenience stores, beverage rooms and commercial refrigeration areas.



Clear product display with reliable temperature control

- Suitable for walk-in coolers, display cold rooms and retail refrigeration projects.
- Helps customers view products while reducing unnecessary door opening.
- Can be matched with cold room panels and refrigeration equipment for complete projects.
- Available with customized dimensions and configurations according to project layout.



The product features an electrically heated, temperature-controlled glass door. The viewing area consists of temperature-controlled, gas-filled insulated glass, ensuring excellent light transmission and distortion-free clarity for a sharp, realistic view of the contents, while also significantly enhancing thermal insulation.

It is designed with an integrated handle and a narrow-profile frame that maximizes the visible area and facilitates easy access; a 90-degree limit stop made of 304 stainless steel is included to simplify the restocking process.

The door frame is constructed from aluminum alloy, offering an attractive appearance, high load-bearing capacity, and a lightweight build.

Additionally, electric heating technology is employed to prevent condensation on the frame caused by temperature differences between the interior and exterior.

Typical cold storage applications include vegetables, fruits, seafood, meat, frozen food and retail display.

REFRIGERATION EQUIPMENT



Dual-Fan Air Cooler



Multi-Fan Air Cooler



Ceiling-Mounted Air Cooler



V-type piston compressor unit



Integrated scroll unit



U-shaped box-type scroll unit

Air coolers are matched according to cold room temperature, storage volume, product load and cooling demand. Correct equipment selection helps maintain stable temperature and improves system efficiency.

Stable Cooling

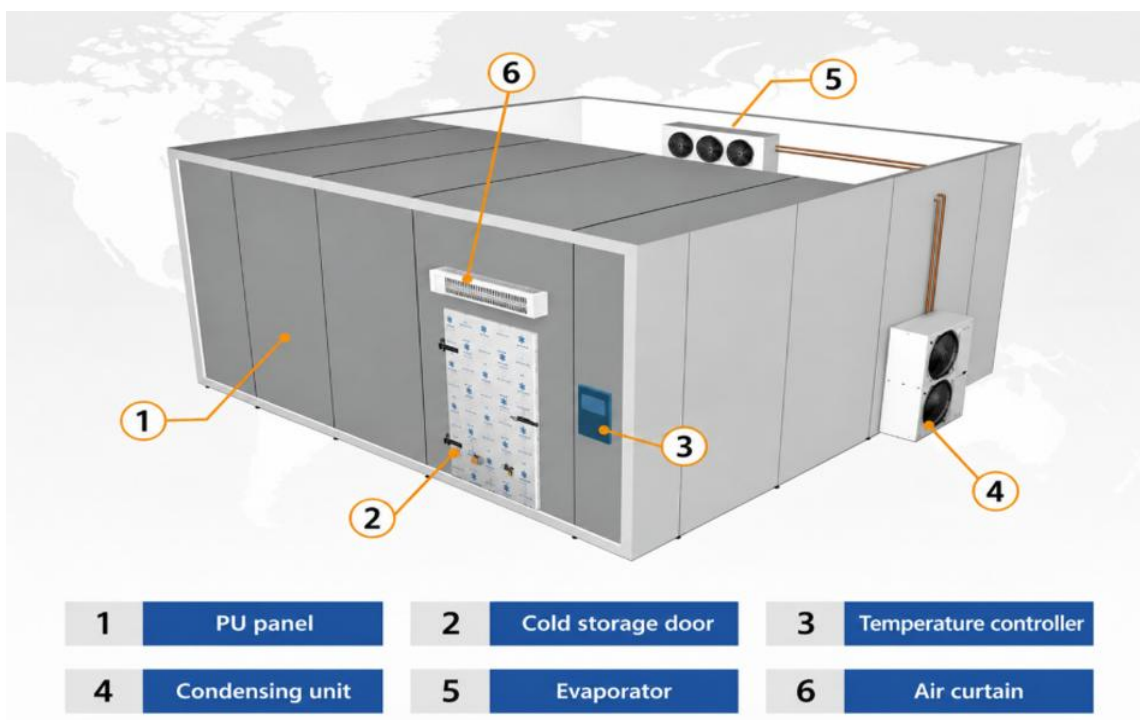
Designed to support uniform temperature distribution.

System Matching

Can be selected together with cold room panels and doors.

Application Range

Suitable for food storage, processing rooms, logistics and commercial refrigeration.



Cold storage accessories

Complete cold storage accessories and project supply for easier installation and long-term operation.

To support full cold room construction, Element can supply related accessories such as sealing materials, aluminum profiles, floor insulation, pressure balance windows, door hardware, lighting, curtains, valves, copper fittings and installation components according to the project requirement.



Panel Accessories

Profiles, corner pieces, sealants and installation materials.

Project Packaging

Export packaging and loading arrangement for international shipment.

Door Accessories

Handles, hinges, tracks, locks, gaskets and safety release devices.

Technical Communication

Product selection support before production and delivery.

Refrigeration Accessories

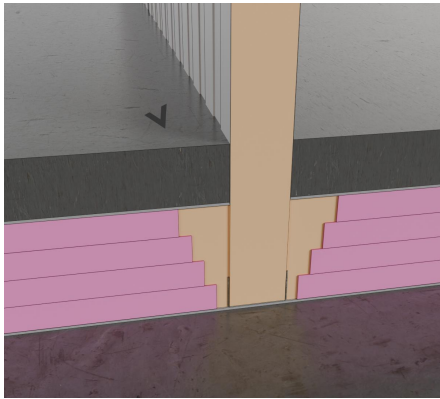
Valves, copper fittings, insulation materials and supporting components.

After-Sales Support

Documentation and guidance for installation and maintenance communication.

Typical cold room components can be supplied as an integrated solution.

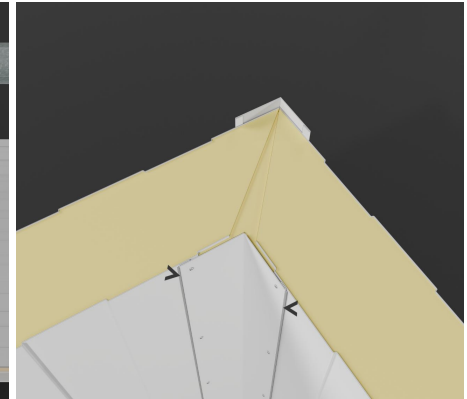
Cold storage installation



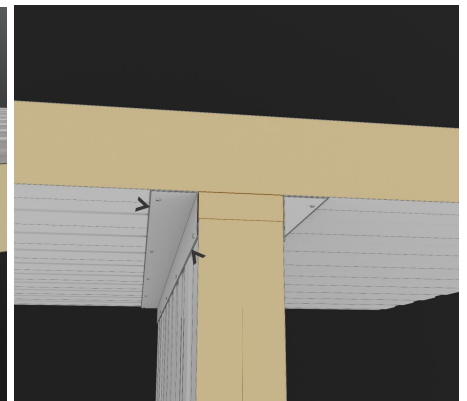
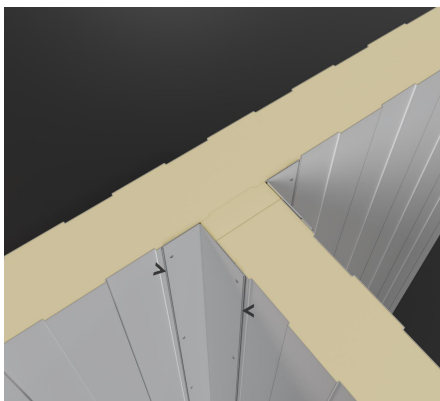
Floor pre-embedded insulation cotton



1.5M ceiling Span condition



45-degree chamfer at the corner



Steel plate cut at T-joint of partition wall .The T-joint has L-shaped edges sealed on both sides and secured with rivets.

Panel	Weight	Ceiling	Load (kN/m ²) / Allowable purlin spacing (mm)				
THK./mm	Kg/m ²	Span condition(m)	0.5	1	1.5	2	2.5
100	14.08	1.5	5900	4050	3150	2550	2150
120	14.88	1.5	6800	4700	3650	3000	2500
150	16.08	1.5	8050	5600	4400	3600	3050
180	17.28	1.5	9200	6500	5100	4200	3600
200	18.08	1.5	9900	7050	5550	4600	3950

- 1: Leave a gap at the L-shaped joint between the ceiling panel and the wall panel.
- 2: Seal the gap with in-situ foam.
- 3: Seal the joint using L-shaped trim profiles on both the interior and exterior sides, and secure with rivets.
- 4: Apply sealant to the contact surfaces between the L-shaped trim profiles and the wall/ceiling panels.

PROJECT REFERENCES

Cold storage solutions for food storage, retail display, logistics and industrial temperature-controlled facilities.

Element supports international customers with insulated enclosure products and refrigeration-related supply for different cold storage scenarios. Products can be configured according to room temperature, daily operation, installation site and project budget.



Cold storage door and insulated wall system for a temperature-controlled project.

Food Storage

Vegetables, fruits, seafood, meat, dairy products and frozen food.

Commercial Retail

Supermarkets, convenience stores and walk-in display coolers.

Cold Chain Logistics

Distribution warehouses, loading areas and temperature-controlled transit.





Build Better Cold Storage Projects with Element

From insulated panels and cold room doors to refrigeration equipment and accessories, Element provides integrated product supply and professional support for international cold storage projects.



Food processing



Fruits and vegetables



Cold Chain Logistics



Refrigeration of aquaculture commodities



Edible fungi

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