

Turnkey Commercial Cold Storage & Walk-In Rooms

Engineered for mission-critical thermal preservation. High-performance modular cold rooms designed to store dairy, pharmaceuticals, fruits, vegetables, fresh meat, seafood, and perishable foodstuffs with guaranteed temperature uniformity and minimal energy consumption.



Prefabricated Polyurethane (PUF) Thermal Enclosure

Complete modular cold room assembly featuring cam-lock tongue-and-groove joints, hermetically sealed walk-in access door with interior emergency safety escape release, ergonomic front-mounted microcomputer control box right beside the entrance, and dedicated outdoor condensing unit with dual temperature capabilities.

+2°C to +8°C

Chiller Room Range

-18°C to -25°C

Freezer Room Range

Up to 40%

Thermal Loss Reduction

100% Turnkey

Design to Commissioning

Dual Temperature Configurations

Medium Temp Chiller Room

+2°C to +8°C

Prevents spoilage while maintaining natural moisture levels, color, and nutritional freshness without freezing cellular structures.

Typical Storage: Fresh fruits, vegetables, milk, cheese, beverages, vaccines, floral items, and clinical pharmaceuticals.

Low Temp Deep Freezer Room

-18°C to -25°C

Rapid core freezing and continuous deep cold holding to stop bacterial proliferation and prevent enzymatic degradation.

Typical Storage: Poultry, beef, pork, processed meats, frozen seafood, ice cream, packaged frozen goods, and plasma.

PRESERVATION SPECTRUM

Key Technical Capabilities & Performance

Custom Sized to Room Volume

High-Density PUF Insulated Panels

40–42 kg/m³ CFC-free high-pressure injected polyurethane panels with cam-lock tongue-and-groove joints for airtight thermal seals.

Heavy-Duty Walk-In Insulated Door

Equipped with heated perimeter gasket to avoid freezing, built-in view window, sturdy hinges, and inside glow-in-dark safety release handle.

Digital Microcomputer Controller

Precise temperature monitoring with high/low alarms, automatic defrost cycle timing, and intuitive digital LCD/LED display.

Custom Structural Sizing & Shelving

Modular dimensions tailored precisely to room footprint, ceiling height constraints, pallet bays, and heavy-duty SS rack systems.

Technical & Operational Matrix

VALIDATED STANDARDS

Parameter	Chiller Room Specification	Freezer Room Specification
Operating Temperature	+2°C to +8°C (Adjustable)	-18°C to -25°C (Deep Freeze)
Recommended PUF Thickness	60 mm / 80 mm / 100 mm	120 mm / 150 mm
Panel Facing Material	Pre-painted GI Sheet (PPGI) / SS304	Pre-painted GI Sheet (PPGI) / SS304
Refrigeration Condenser Unit	High-Efficiency Air-Cooled Scroll / Rotary	Semi-Hermetic / Scroll Low-Temp Condensing
Evaporator / Air Cooler	Ceiling-Suspended Low-Velocity Blower	Heavy-Duty Defrost Air Cooler (Electric/Hot Gas)
Energy Efficiency Impact	Reduces air exchange thermal losses by up to 40%, lowering compressor electrical load	
Target Deployment Venues	Cold storage facilities, supermarkets, hotels, restaurants, dairy plants, pharma hubs & food processing	

Included Dynamic Air Solutions Turnkey Services

✓ Site Survey & Sizing

✓ Heat Load Calculation

✓ Professional Installation

✓ Testing & Commissioning

✓ 1-Year AMC Warranty



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