

Modular Cold Rooms



One for every industry.

Blue Star presents Modular Cold Rooms. Focused on your precise cold storage needs, this is the widest range of Cold Rooms from India's largest airconditioning and commercial refrigeration company.

Blue Star's Cold Storage Division offers custom designed Modular Cold Rooms of all sizes, with pre-fabricated panels. These are manufactured to international standards, incorporating the best technologies for their refrigeration units. Giving you the unbeatable advantages of efficiency, reliability, hygiene and durability.

Testimony to this is the fact that over 10,000 Blue Star Modular Cold Room installations serve cold storage needs in industries as varied as horticulture, floriculture, sericulture, hospitality, pharmaceuticals, biotechnology, dairy and food processing. So if your business needs a Cold Room, Blue Star will provide you with the perfect solution.

Complete Domain Knowledge

Blue Star's Cold Room experts have extensive and intensive domain knowledge of your industry. This helps them design and deliver efficient and reliable Cold Room solutions for your precise requirement.



Pharmaceutical Plants and Biotechnology based Industries

Pharmaceuticals is a precision business. Complex serums and vaccines need stringent temperature and hygiene control. Precisely why advanced safety features, immediate alarms and necessary accessories are fitted into our Cold Rooms.

Also, different temperature zones are needed for various pharmaceutical applications. Blue Star understands this, and factors them in, right from the planning stage.

Another unique requirement of pharmaceutical and biotechnology based industries is FDA approval. Which is why we ensure that our Cold Rooms meet FDA norms in design, installation and maintenance. Ensuring that you have detailed documentation that is in line with FDA norms.



Hospitals and Research Labs

Hospitals and research labs use Cold Rooms to store blood samples, diagnostic kits, life-saving drugs and serum samples. Blue Star understands each need and offers temperature zones to suit all of them. Besides, bacterial growth can cause a serious problem in hospitals, especially in corners where panels meet. To combat this, Blue Star uses unique single-piece corner panels that are easy to clean, stunt bacterial growth and ensure hygiene.



Hotels and Restaurants / Fast Food Joints

Hotels and restaurants have unique challenges such as heavy usage and constant opening and closing of the Cold Room. Blue Star ensures that the refrigeration circuits in these Cold Rooms are designed to maintain low temperatures even in such conditions. Doors, handles and hinges of Blue Star Cold Rooms are reliable and heavy-duty, ensuring long life even in constant open-and-shut situations. Besides this, food-grade sealants ensure that food is not contaminated. Accessories such as view windows, kick plates, ramps and auto-door close mechanisms help maintain control over contents and thus maintain food quality.



Dairy and Ice-cream Sector

The Dairy and Ice-cream sector relies completely on maintaining accurate temperatures. Blue Star understands this critical need and designs reliable Cold Rooms with multiple units to ensure a level of temperature uniformity. Apart from these, Blue Star has specially designed Cold Rooms for ice-cream factories that quickly pull down core temperatures to enable ice-cream hardening. Also, there are Cold Rooms for storage at distribution points, optimally designed to maintain low temperatures while consuming low power.



Horticulture and Floriculture Segment

Cold Rooms for the horticulture and floriculture industry also need to be designed for specific temperature and humidity levels to ensure freshness of the product. Thus high humidity evaporators are an essential part of most of these Cold Rooms. Also when flowers are stored, it is essential to control the airflow so that the flower petals are not disturbed. Cold Rooms for these applications are designed to ensure that airflow speed is low and directed away from the product, avoiding turbulence even while maintaining desired conditions.



Seafood Industry

Blue Star Cold Rooms for the seafood industry are designed to conform to marine product export norms. Since the seafood industry stores different types of seafood and at different stages of production, cooling requirements vary. Fresh catch is stored in Chill Rooms that must quickly pull down temperature while processed foods require cold storage maintenance conditions.



Supermarket / Convenience Stores

With competition from so many supermarkets and convenience stores, only the quality of your goods can set you apart. It is impossible for a retailer to predict his daily volume of sales and stock goods accordingly. Nor can he procure them on a daily basis. A Cold Room can be attached to the showroom to store fruits, vegetables or any other perishable items. This helps avoid wastage by optimum use of the purchase. Also the same Cold Room can be used to store different products with the same perishable storage band like milk and milk products. These Cold Rooms by Blue Star come in various sizes to suit various requirements.

Besides these, Blue Star Cold Rooms are used in industries catering to wines, seeds, eggs, cut flowers and spices. They are even used for larger cold storage facilities like Pack Houses and perishable cargo complexes. It is of little wonder then that all the industries that need Cold Rooms come to the expert.

Built for Specific Needs

Blue Star's leadership in the Cold Room market comes from a careful study of your specific needs coupled with in-depth knowledge of your industry. Before a Cold Room configuration is suggested, Blue Star experts sit with you and analyse your needs. The designs that the experts suggest take the following factors into consideration:

- What product(s) will be stored in the Cold Room?
- What are the volumes you will need to store?
- How long will products be stored before transport?
- How is the material flow planned?
- What are your processing volumes?
- What is the incoming temperature of the product?
- How quickly must the temperature be pulled down?
- How critical is redundancy in your business?
- What are your stacking and storing patterns?
- How heavy or light will the Cold Room usage be?

Along with these, Blue Star's own experience in cold storage applications will determine the exact design and configuration of Cold Rooms for your industry. Besides this, advanced heat load calculations using internationally acclaimed software assist Blue Star's engineers in planning and designing your Cold Room. Which is why Blue Star Cold Rooms always perform as per industry expectations.

Wide Range of Refrigeration Units

Depending on the application, different temperature zones need to be maintained: low (-23°C to -5°C), medium (-5°C to +2°C), and high (+2°C to +15°C). Consequently, there is a need for a wide range of refrigeration systems.

Blue Star offers a wide variety of both evaporating and condensing units. It includes both air-cooled and water-cooled low temperature condensers, with technology from the world leaders Danfoss and Bitzer.



Evaporating units

Blue Star's evaporating units are compact, slim and sleek, so they occupy minimum space ensuring maximum storage space. Other features include:

- Stainless steel body and excellent corrosion resistance
- Inner grooved copper tubes for superior heat transfer
- In-built defrost heaters for low-temperature units
- External rotor driven fans with low noise levels
- Removable side panels for easy service



Condensing units

These units are characterised by high-efficiency heat transfer and low power consumption. Other features include:

- Sleek design
- UV and corrosion resistance
- Inner grooved copper tubes and slit aluminium fins for superior heat transfer
- Energy efficient compressors
- In-built safety and control devices
- Weather proof canopy





Microprocessor controller

Blue Star's refrigeration units come with intelligent microprocessor-powered controllers. These BMS-compatible* controllers offer user friendly features like:

- Remote monitoring facility*
- Display of all operating functions and parameters
- Total control
- Communication of all faults and alarms

*Optional feature

Power panel

Every refrigeration unit comes with ready-to-use power panels that make electrical connections simple, safe, fast and long-lasting. These power panels also feature:

- Powder-coated weather proof housing
- Protection against common electrical failures
- Interlock of safety features

World-class PUF Panels

The efficiency, hygiene and life of a Cold Room depend on the panels and accessories that make up the structure.

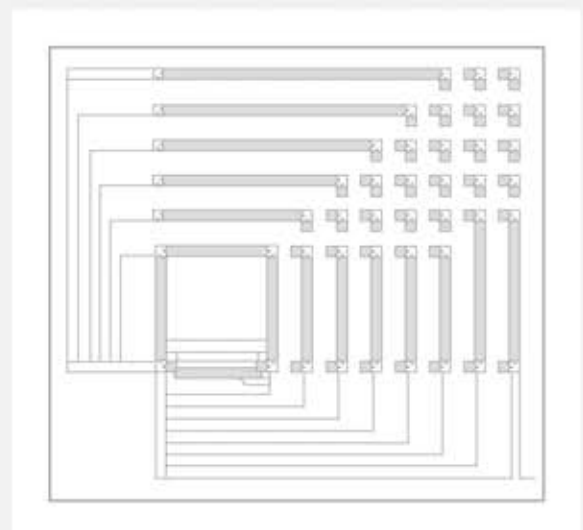
Blue Star's Cold Rooms are constructed using pre-fabricated PUF panels designed specifically to ensure high-efficiency insulation.

Modular in nature, these tongue-and-groove panels (in a range of thicknesses and dimensions) are designed to interlock with ease on the site to form Cold Rooms of any size and for any application. Each part of the Cold Room – walls, ceiling, floor, doors and corners – have special panels designed to ensure perfect fit.



The corner panel ensures that the Cold Room has a 90° corner which provides stability to the Cold Room. The foamed-in design eliminates thermal loss and avoids bacteria breeding.

These Modular Cold Rooms are not just easy to assemble on the site. They are also easy to disassemble and can be moved when required, or even enlarged or split into multiple rooms later as per the need.



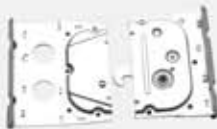
Panel Details

Thickness mm		Maximum width mm	Maximum length meters
60		1168	6
80		1168	6
100		1168	6
120		1168	6

Options and accessories



Flush-fit doors: Aesthetic, efficient, heavy-duty flush-fit doors with thermal break perimeter to avoid thermal conductivity, which otherwise leads to ice formation.



Cam lock: Posi-lock locking assemblies that provide perfect alignment of walls, ceiling, floor, corners and door frames.



Hardware: Heavy duty cast alloy handles and hinges with attractive brushed chrome finish.



Heated air vent: Tri-action heated air vent to eliminate pressure and vacuum variations inside the walk-in Cold Room.



Interior and exterior ramps: Ramps allow easy movement of material without causing damage to floor.



Sweep gasket: Airtight, heavy-duty sealing gasket below the door remains flexible at any temperature.



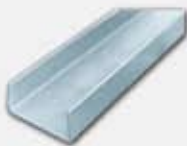
Posi-seal closure: Cushions the closing movement making opening and closing noiseless and ensures that the door is firmly shut.



View port: For viewing the inside without opening the door, to check if the door swing-path is clear.



Floor panel: Useful to provide the result of an insulated regular floor and also to form a stable base for walls and partitions.



Floor screeds: In case of floorless Cold Room, floor screeds are used to construct the Cold Room.

Perfect
Installations

Without carefully executed installations, the efficiency and reliability of a Cold Room can be compromised. Just why you need installation experts with the following qualities:

- Experience and knowledge in installation techniques
- Constant exposure to technical training and latest methods
- Guided by rigorous installation standards in materials used and processes followed

These are some examples of the checks that Blue Star's installation engineers carry out to ensure the perfection of installations:

- The location of the evaporator within the Cold Room for uniform cooling and air distribution
- Level flooring (0-0 level) to avoid misalignment of walls
- Proper selection of copper parts and pipe sizes
- Minimising bends and unduly long runs
- Specialised techniques such as double-side vacuum in low-temperature units to avoid moisture problems

No wonder every Blue Star Cold Room installation actually delivers what the design promised.

After Sales Support

You can expect the same Blue Star quality in the after-sales support and services as in its products. Once you install a Blue Star product, you can expect an officer or a dealer representative at hand, no matter where you are. The Modular Cold Rooms division, like its other divisions, has technicians specially trained in Cold Room maintenance stationed at 17 destinations across India. And dealers in over 150 different locations. In addition to this, Blue Star ensures availability of genuine parts at all times to avoid down time due to lack of spares.

Prestigious Clients

Blue Star is the leading supplier of Modular Cold Rooms in the country. Almost all the important brands and corporates that need walk-in cold storages have Blue Star Cold Rooms installed at their facilities. Check out the following representative list of our prestigious customers from various industries that use Blue Star Cold Rooms in varied applications.

Pharmaceuticals

Cipla
Ranbaxy
Novartis
Sun Pharma
Orchid Chemicals & Pharmaceuticals
Serum Institute
Gland Pharma
Dr. Reddy's Lab
Wockhardt

Hotels

Taj Group of Hotels
Oberoi
ITC Group of Hotels
Grand Hyatt
Club Mahindra
Radisson

Hospitals

Bombay Hospital
Breach Candy Hospital
Apollo Hospital
Ramachandra Medical College
Defence and Railway Hospitals

Research Labs

Hindustan Aeronautics
Indian Institute of Science
Indian Institute of Technology, Chennai
Madras University
Tata Advance Material

Canteens and Kitchens

Wipro
Mangalore Refinery Petrochemicals
Infosys
Satyam
BHEL
TISCO
Tata Consultancy Services

Fast Foods

KFC
McDonalds
Pizza Corner
Pizza Hut
Subway
Reimanns Fine Food
Dominos

Dairy and Ice-cream

Hindustan Unilever (Kwality Walls)
Amul
Vadilal
Baskin Robbins
Dairy Rich



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