

Cold chain  
Cooling Specialists

## Organization Overview and Capability



ProMacc

Breaking Cold Storage Refrigeration Obstacles

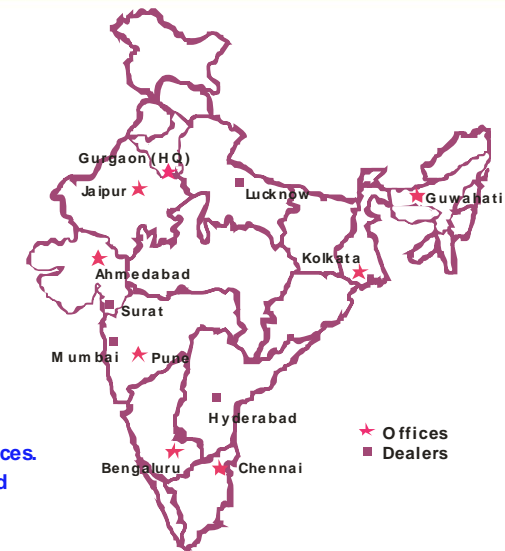
- ▶ Organization Overview
- ▶ Our Solution & Service Offerings
- ▶ Product Snapshot
- ▶ Segment Wise Solution
- ▶ Case Study and Key Projects Undertaken
- ▶ Our Customer and Partners
- ▶ Our Organization Chart and Team
- ▶ Key Differentiator

# Our Organization

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## Company Profile:

- Refrigeration is one of the fastest growing Indian company in the field of cold chain products and solutions.
- We provide cold storage solutions for all types of facilities including Multi Produce, Palletized, Pre-Cooling Rooms, Control Environment Storage, Banana Ripening facility, Potato cold storage, modular cold rooms and Ice cream & dairy products.
- Headquartered in Gurgaon, India – Refrigeration has grown rapidly since its incorporation in 2012. We have been servicing clients in India and across the globe.



## PAN India and Global Presence

Sales and Service Networks across India with 8 regional head offices.  
Rapidly expanding in other parts of the country and the world



## What We Do:

- We have deep expertise in end to end execution of cold chain facilities.
- Our professional experience lies in all areas of cold chain operations – such as design, supply, installation & commissioning, operations.
- Our capability is based on our collective knowledge and technology partnerships with leading international cold chain product suppliers, solution providers.

# Our Vision & Mission

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## Vision:

- To become leaders in cold chain refrigeration by providing highest quality of service and technologically advanced solutions to our Customers

## Mission:

- We at Arctic Refrigeration are committed to deliver the best in class, end to end solutions for cold chain refrigeration. Our Passion is to transform and build 'Green Cold chain' networks, making it more efficient for both our customers and the community.



## Our Service Commitment

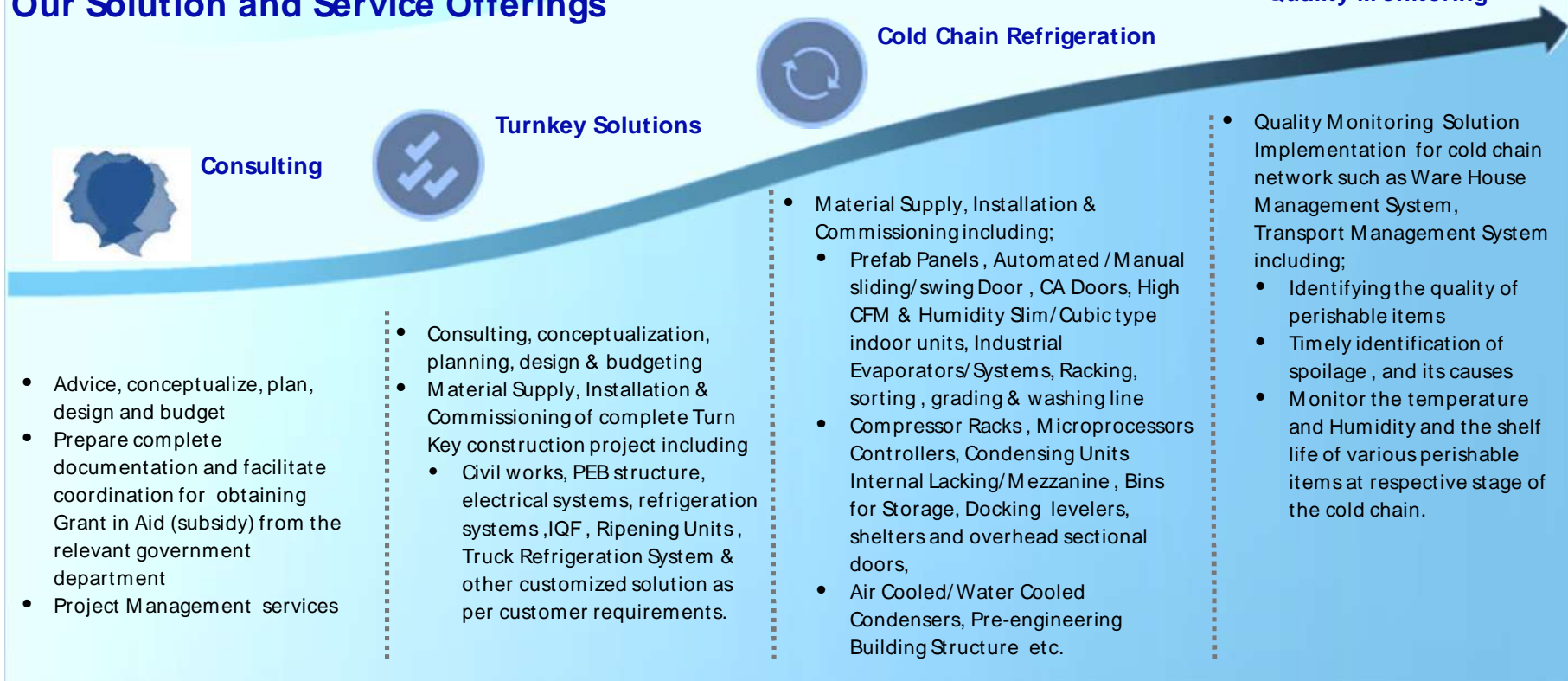
- As a team, our collective goal is to build lasting relationships with our customers. Our sales and service team acts as an ambassador of Arctic Refrigeration, taking complete ownership from inception to completion of the project.
- We take pride in serving our customers 24 X 7. Our people demonstrate highest level of professional excellence and continuously innovate to build robust refrigeration solutions for our customers.
- Our leadership is committed to keep a culture of service excellence which is benchmarked with International standards.

# Why we are your “One Stop Shop”

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We provides “End to End Integrated Cold Chain Solution”, undertake Cold Storage Facility Projects such as Turnkey Construction , Cold Chain Refrigeration Systems, Consulting , and Quality Monitoring solution for various application and segments

## Our Solution and Service Offerings



# Product Snapshot...(1/2)

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We provide complete range of refrigeration products for cold storage facility including;



## Industrial Evaporators

- High CFM, High Air Throw
- Fan Dia 300mm to 800mm.
- Works in range of 20° C to -40° C
- Low Power Consumption
- External Rotor Fans



## Condensing Units

- Suitable for High Ambient
- Quick Pull down
- Low Power consumption
- Hermetic, Semi Hermetic, Scroll, Screw Compressor Condensing Unit.
- Low noise



## Compressor Rack System

- Air / Water Cooled condenser
- All controls fitted
- Electrical control board with PLC Controller



## Dual Discharge Evaporators

- High Efficiency, High Air Throw
- Low Power Consumption
- Suitable for ripening/ processing areas



## Ripening Systems

- Air tight Chambers with specially designed doors
- Intelligent gas control systems for high quality out put fruits
- Options for Web based monitoring and controlling of Temperature, Humidity, Ethylene and CO2



## IQF

- Individual Quick Freeze
- Energy Saving, Cost Effective
- Maximize product yield
- Full freezing combined in one unit
- Specialized in fruits & vegetables

## Product Snapshot...(2/2)

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We provide complete range of refrigeration products for cold storage facility including;



### Refrigerated Display Cabinet

- Saves freshness & keeps natural
- Display Meat, Dairy product and daily products
- Reliable & Easy to use.
- Stainless Steel body for longer life



### Doors

- PUF Insulated door having thickness 60mm to 150mm
- Cladding Sheet both sides S.S304/PCGI Sheet
- Hinged/ Sliding/ Hatch/ Automated vertical Sliding Door.



### Panels

- Design Flexibility
- 12m high single panel
- 60mm to 150mm thick insulated PUF panels
- High Water & Vapor Barrier
- Easy erection & Low Maintenance
- Excellent cam lock Panel joining



### Docking Systems

- Improved space utilization
- Preventive maintenance is easy and fast; securing functionality and avoiding downtime
- Designed to absorb all impact forces in optimal way.



### Controllers

- Programmable Logic Controller
- User Friendly Interface
- Pre programmed
- Ready to use



### Packing & Grading Line

- A complete Packing, Grading & Sorting line
- Reduces time and save manual power
- Reduces error
- Digitally scans sizes for sorting

We provide cold room solutions to various segments that require temperature & humidity control for preservation including;

## Ice Cream & Milk Products



- Rack type refrigeration for varied load consumption
- Customised for swift temperature pull down needs
- Dairy graded construction, Eco friendly and CFC free

## Banana Ripening



- Air tight Chambers with specially designed doors
- High CFM indoor units which are specialized in high humidity
- Options for Web based monitoring and controlling of Temperature, Humidity, Ethylene and CO2
- Manual/ Semi automatic/ Automatic ripening systems.

## Pharma



- Pharma grade construction, CFC free construction of PUF Panels
- Refrigeration Units, Thermal efficient material, Chutes to ensure cargo is not exposed,
- Customised Water chillers Packages

## Sea Food & Fisheries



- CFC free PUF panels food grade
- Blast freezers
- Pre Cooling chambers
- Cold Storage facilities.



## Warehousing & Logistics



- Double deep or drive in racking for logistics, warehouse, High CFM units, compressor rack systems to manage variable loads.

## Pack House & Multi Purpose



- Pre cooling, packing grading Lines,
- Washing area, cold stores for various products for pack house & multipurpose cold storage.

## Meat Processing



- High efficiency refrigeration units, Low power consumption
- Food grade panel
- Blast freezers
- Pre Cooling chambers & Cold Storage facilities

## Floriculture



- Reducing respiration and internal breakdown by enzymes
- Reducing water loss and wilting slowing the growth of disease organisms
- Reducing the production of ethylene
- Providing "time" for proper handling, packaging and marketing.

## Hospitality



- Store Pre Cooked or Semi Cooked Food, Fruits, Vegetables, Meat, Poultry, Dairy, Seeds & even Garbage.
- Naturally they are designed to be safe & user friendly
- Good performer and energy efficient

## Agro Products



- Maintain Humidity
- Maintain Freshness
- Energy Efficient
- CFC free panels
- Less power consumption

## Blast freezers/IQF Facilities



- Best for sea foods.
- Peas/ corn processing
- Cut fruit & vegetable IQF

## Horticulture



- Atmosphere specialized
- Cold rooms providing natural atmosphere for cold rooms.
- Appropriate humidity for proper & healthy growth and preserving

## Ware House Management System

- Online booking and ordering with Payment Gateway
- Inventory Control & Pallet tracking
- Environment monitoring
- Product shelf-life estimation
- SMS updates to client at every stage
- Security Camera feed (depends on camera and bandwidth available)
- Pre-defined and custom Reports
- Future Updates
  - Voice directed picking
  - Supply & Demand Prediction

## Transport Management System

- Planning and optimizing of terrestrial transport rounds
- Real time transportation tracking
- Environment monitoring
  - Temperature, Humidity, pressure, ambient light
  - gas sensors if any
- Location and environment status by SMS (on request)
- Automatic SMS alert on temperature deviation from safe limits
- Reports
  - % of On Time Pick Up or Delivery Performance
  - Cost Per Metric - mile; km; Weight; Cube; Pallet
  - Productivity in monetary terms, e.g. cost per unit weight or shipping unit
  - Productivity in operational terms, e.g. shipping units/order or weight/load

# Case Study – Setting up an integrated Cold Chain

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**Customer -ColdStar Logistics** delivers customized solutions for cold storage and refrigerated transportation across India. One of India's young and fastest growing integrated cold chain logistics suppliers, ColdStar brings best-in-class technology, professional experience and on-ground execution skills for safe and efficient solutions in the food supply chain.

**Business Challenges** - ColdStar needed to quickly plan , build & operate integrated cold chain facility to provide specialized refrigerated storages, warehousing, transportation, distribution and logistics services for fresh and frozen commodities with aims to be a pan-India player with planned footprints across key distribution hubs (cities).



## Overall solution provided by Arctic Refrigeration

**Project-** Setting up an Integrated cold chain project with infrastructure such as washing, grading, sorting, packing facility, cold storage, IOF, dry ware house, refer Vans & ripening chamber;

**Arctic** managed the entire implementation solution for integrated cold chain project. It included;

- Consulting, conceptualisation & planning of integrated cold chain solution
- Design, budgeting & preparation of detailed project report for complete Turn Key construction project including civil works, PEB structure, electrical systems, refrigeration systems , Pre Fab Panels, Panel Doors, Racking, Grading, Sorting, Packing , IQF, Truck Refrigeration Systems etc.
- Supply , Installation & Commissioning of IQF Line , Grading, Sorting, Packing, Ripening units and other refrigeration systems
- Supported in preparation of complete documentation & coordination for obtaining Grant In Aid (Subsidy) from concerned government department
- Project Management Services to ensure the products/systems adhered to the quality standards & were completed in the budgeted cost & time
- Operations & Maintenance Services

## Business Benefits & Project Outcomes

- Increased efficiency by 10~15 %
  - Reduced overall Cost by 15~20%
  - The following deliverables were completed in the budgeted cost & time while ensuring the products/system adhered to high quality standards
- ✓ Total 7000 MT capacity palletized cold storage.
  - ✓ Semi hermetic screw compressor rack systems.
  - ✓ 5 MT capacity blast freezer
  - ✓ 7 Docking stations.

# Some of the Key Projects Undertaken - India & Globally

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We have successfully delivered 500+ cold storage facility and turn Key projects in India and abroad across various segments such as Large Warehouses, Logistic Centers , Food Processing Units, Meat Processing Centres, Peas, Cone Processing Unit, IQF, P&G Lines, Ice Cream Units, Modular Cold Rooms, Large Fruit & Vegetables, Cold Storage Units and for many more applications.

Customers	Highlights
Shri Sdhi Vinayak,Udaipur	<ul style="list-style-type: none"> <li>2250 MT cold storage 3 chambers</li> <li>Water cooled</li> <li>Multi utility cold storage facility</li> </ul>
S.K.M Logistics, Himmatnagar	<ul style="list-style-type: none"> <li>7000MT facility for potato storage</li> <li>Multi Utility Cold storage facility</li> <li>Screw compressor rack system</li> </ul>
A.Q Brothers, Pune	<ul style="list-style-type: none"> <li>8 MT meat blast freezer</li> <li>Screw compressor water cooled</li> <li>Floor mounted blast</li> </ul>
Cold Rush Logistics, Indore	<ul style="list-style-type: none"> <li>2025MT cold storage 3 chambers each</li> <li>1 positive &amp; 2 negative temperature rooms</li> </ul>
Global Entrade, Guwahati	<ul style="list-style-type: none"> <li>Instant quick freeze</li> <li>5000MT palletized cold storage</li> <li>IQF Facility 2Ton/ Hr.</li> <li>Screw Compressor</li> <li>Floor Mounted evaporator</li> </ul>
Krishna Agro, Gurgaon	<ul style="list-style-type: none"> <li>Mushroom Facility</li> <li>Supply, Installation &amp; Commissioning of complete facility</li> <li>Humidity Controlled chambers</li> </ul>

Customers	Highlights
H.S.A.M.B, Haryana	<ul style="list-style-type: none"> <li>Cold Rooms , Pre-Cooling Chambers&amp; Ripening Chambers</li> <li>4 number of cold rooms</li> <li>2 pre- cooling chambers</li> <li>4 Ripening chambers</li> </ul>
A.B.M Multipurpose Cold Storage Pvt Ltd	<ul style="list-style-type: none"> <li>Multi Utility Cold Solution; Refrigeration systems , Pre Fab Panels, Panel Doors,</li> <li>8 Chambers of 2000 MT Capacity Refrigeration Systems for Chill Room Facility</li> <li>250 MT 8 Chambers</li> </ul>
Assam Industrial Infrastructure Development Corporation	<ul style="list-style-type: none"> <li>Cold Rooms, Ginger Washing Line &amp; Material Handling Equipment's</li> <li>Ginger washing- sorting line grading of capacity 2 Ton/Hour</li> <li>2 Cold rooms of positive temperature of capacity</li> <li>Refrigerated van of payload of 10MT</li> </ul>

Customers	Highlights
Sammer Agriculture, Kenya	<ul style="list-style-type: none"> <li>Cold room for preserving Dairy products ice-cream , yogurt storage Temperature - 25 Deg C</li> </ul>
Devyani International , Zambia, Africa	<ul style="list-style-type: none"> <li>Ice-cream Yogurt storage , capacity 100MT* 4, Temperature -25Deg C</li> </ul>
Varun Beverages (Pepsi), Sri-lanka	<ul style="list-style-type: none"> <li>Cold room in Pepsi Production plant for storing Pepsi raw material at different temperature for different products , Temperature -25Deg C</li> </ul>
CFS, Congo	<ul style="list-style-type: none"> <li>Capacity 2000MT, Temperature -25Deg C meat/ chicken processing cold storage facility</li> </ul>

# Our esteemed Customers across Various Segments

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**DS GROUP**



## Our Global Technology and Product Partners

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Collaboration with industry leaders provides our customers significant benefits



**MIV Italy** is specialized into manufacturing of all special doors required for cold room



**bicold** is an engineering company based in Italy & specialized in design and manufacturing of refrigeration units



**Techno block Italy** is one of the leading company in Italy specialized in making refrigeration systems for cold storage



**Pastorfrigor** based in Italy is leader in supplying supermarket multideck Cabinets.



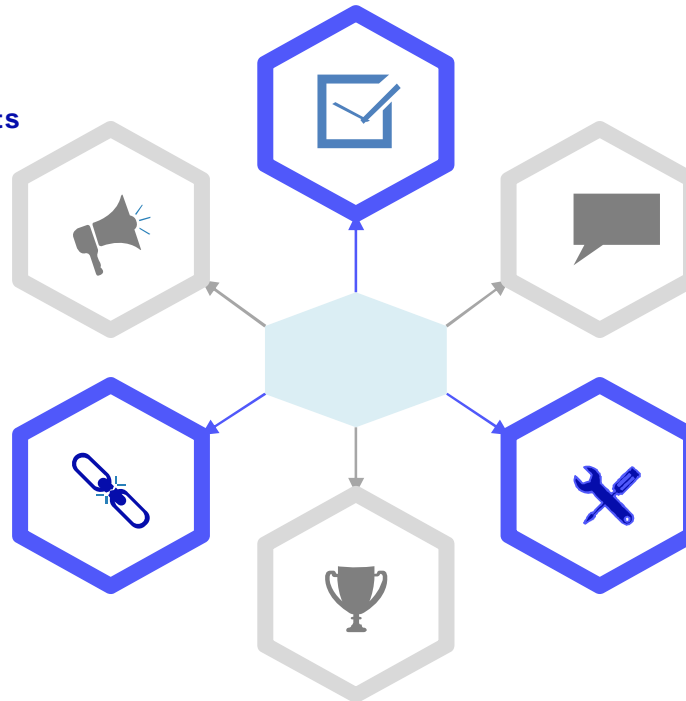
**Suchi Foams, India** panels are pre-designed as per International standard & under goes quality checks for insulation to assure high thermal stability.

# Key Differentiators – Why Arctic!

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End-end Solutions Company  
(Product+ Services+ Consulting)

High Quality Manufactured products



Strong Service Support Network  
across regions

Optimizing Project Total Cost Of  
Ownership

Adopting time tested technologies &  
techniques  
Utilizing skilled resources to effectively  
design & build highly efficient systems

Many years of experience, team  
collective knowledge and expertise  
in designing & delivering Cold Chain  
Solutions for facilities in India and  
Globally

Consulted, Designed and successfully Delivered large  
Turnkey Cold Chain Infrastructure Facility Projects



***Thank You***

**Breaking Cold Storage Refrigeration Obstacles**