

MK GROUP OF COMPANIES

M.K. REFRIGERATION PVT LTD
 MK REFIGENARATION SUPPLIES
 MK CONSULTANCY
 MK ENGINEERING
 MBK BUILDERS AND DEVELOPERS



Penta Compound, Indra Nagar Road, Kothi,, Ahmednagar.
 M. K. Ind. Estate, 222 N. H. Narayandoh, Tal. & Dist. Ahmednagar.



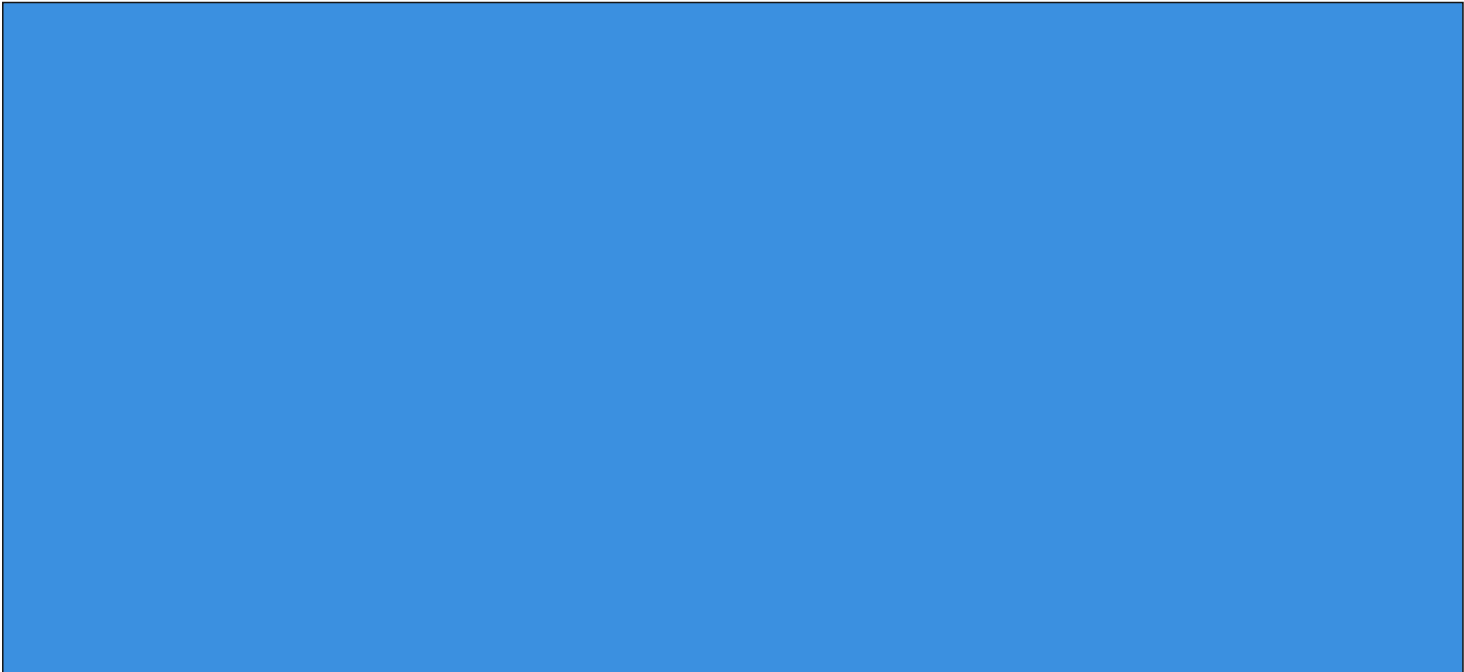
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Director's Desk
Our team is managed and guided by our expert mentor **Mr. Mubin Bashir Khan**, who has achieved excellent exposure of **30 years in Refrigeration Engineering/ Food Processing and Agro Business services** by providing complete client satisfaction. Further he has wide experience in the field of food processing, dairies & allied industries which generates huge employment.

OUR TEAM
Our team of experts and professional engineers that include refrigeration, mechanical, civil engineers and other professional engineers & workers who are gaining experience from past many years in the field of Refrigeration engineering. In order to provide **excellent quality service** we do complete planning and designing of project related task that is prepared after completely understanding of the client's requirement. Each and every division of our organization is managed and controlled by our team of experts who have wide expertise in their respective domain.



Established in Ahmednagar, (Maharashtra) India in the year 1997, we "S-TECH REFRIGERATION," are engaged in providing various kinds of refrigeration system & Engineering services that caters to Food processing, retail spaces, dairies, cold storages, Horticulture Services, Designing & Fabrication of various process equipment's . These are offered as per the requirement of our esteemed clients.
Our core strength lies in the refrigeration

NEW Expansion
We are starting 5 new ventures in order to cater huge demand and promote make in India, to generate employment.

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System. Our Basic Strength

Turnkey project design and consultancy services for Integrated Cold Chain Projects & Food Processing Projects.
Cold Chain projects for fruits, vegetables, meat, fish, poultry, dairy and pharmaceuticals production, Industrial Refrigeration projects and Air Conditioning projects.
Plants with the **latest 'Green' concepts** to achieve **eco-friendly construction, energy efficient** thermal insulation, refrigeration systems & electrical systems with **new-age control systems**; keeping the existing and available conditions into perspective.
Integration of various services in the project design to achieve **economy in construction & operation.**

Application of Cold Chain Projects -

- Integrated Cold Chain Projects with Refrigerated Transport Facilities.
- Frozen Food Stores with Pre-cooling units or Blast freezers, IQF, Plate Freezers.
- Palletized and Convertible Frozen Stores and Cold Stores.
- Integrated Pack Houses with Processing, Pre-cooling units and Cold Rooms.
- Controlled Atmosphere Storage (CA Stores).
- Multipurpose and Bulk Cold Stores.
- Ripening Chambers.
- APEDA approved pack houses for export quality produce.
- Primary processing center, Distribution centers and Irradiation facilities.
- Specialized fruits, vegetables, fish and meat processing centers.
- Slaughter house and meat processing and freezing complexes.
- Ice plants and Industrial Refrigeration Systems for Dairies, Breweries, Chemical plants.
- AC Projects.
- Air Conditioning Systems for Hospitals, Tissue Culture Labs, Snow Parks, Cold Chain Facilities.
- Industrial Refrigeration Systems.
- Heat Recovery Systems.

We use high quality raw material throughout our service in every field as we are one of the renowned quality centric organization and quality is our prior aim. We procure the raw material from quality driven organization that is checked at our quality inspection unit as to provide unique quality service to our esteemed clients.

Our team of experts and professional engineers are gaining experience from past many years in the field of refrigeration engineering. Further our team is managed and guided by our expert mentor Mr. Mubin Bashir khan who has achieved excellent exposure in refrigeration engineering services by providing complete client satisfaction. We use latest and high performance machinery & equipment's in our services. We provide these services in various parts of the country and make a permanent relationship with our esteemed clients.

LIST OF PROJECTS

Cold Chain

- 1) Multi commodity Cold Storage
- 2) Control Atmosphere Cold Storage
- 3) Negative Temperature Cold Storage
- 4) Fruit Repining Chamber
- 5) Blast Freezer
- 6) Individual Freezer (IQF)

Frozen Food Processing Production Line

- 1) Green Peas, Mix Vege, Sweet Corn
- 2) French Fries
- 3) Fruit Cubes & Pulps
- 4) Frozen Chicken, Meat & Fish
- 5) Frozen Parathas & Other Products

Milk & Milk Products

- 1) Ice-Cream Plant, Kulfi, Popsicles
- 2) Milk Processing Pouch Packing
- 3) Curd/Dahi, Butter Milk, Lassi
- 4) Paneer, Peda & Flavoured Milk
- 5) Canned Sweets

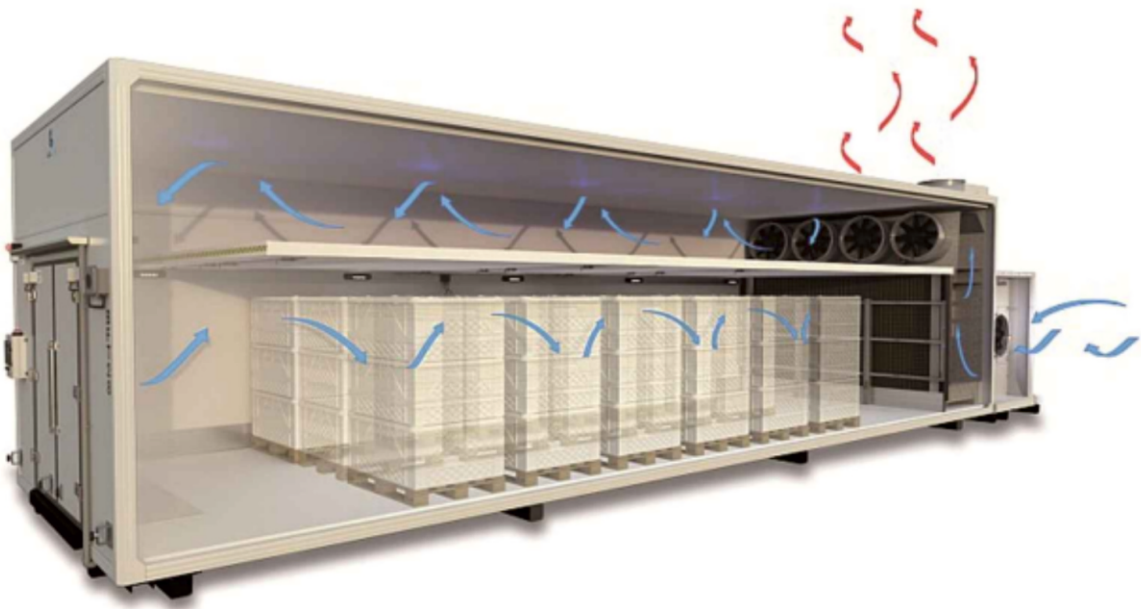
Food Processing

- 1) Namkeen 35 Products
- 2) Vegetable De-hydertion (Powder)
- 3) Fruit Pulps Canned Packing
- 4) Fruit Juices
- 5) Ready to Cook & Raedy to Eat Products



Cold Room

We aim to change the world of food by saving homeowners money and reducing food loss or waste so that more people will have access to fresh, healthy food on their tables.



Mini Cold Room

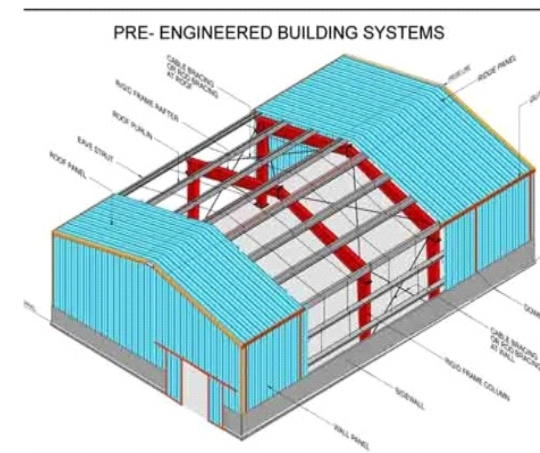
ML Series Condenser



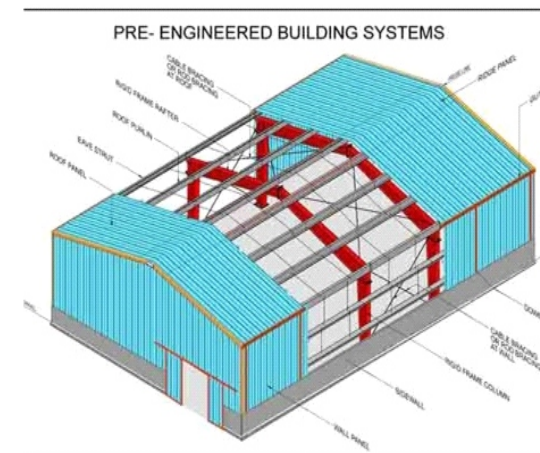
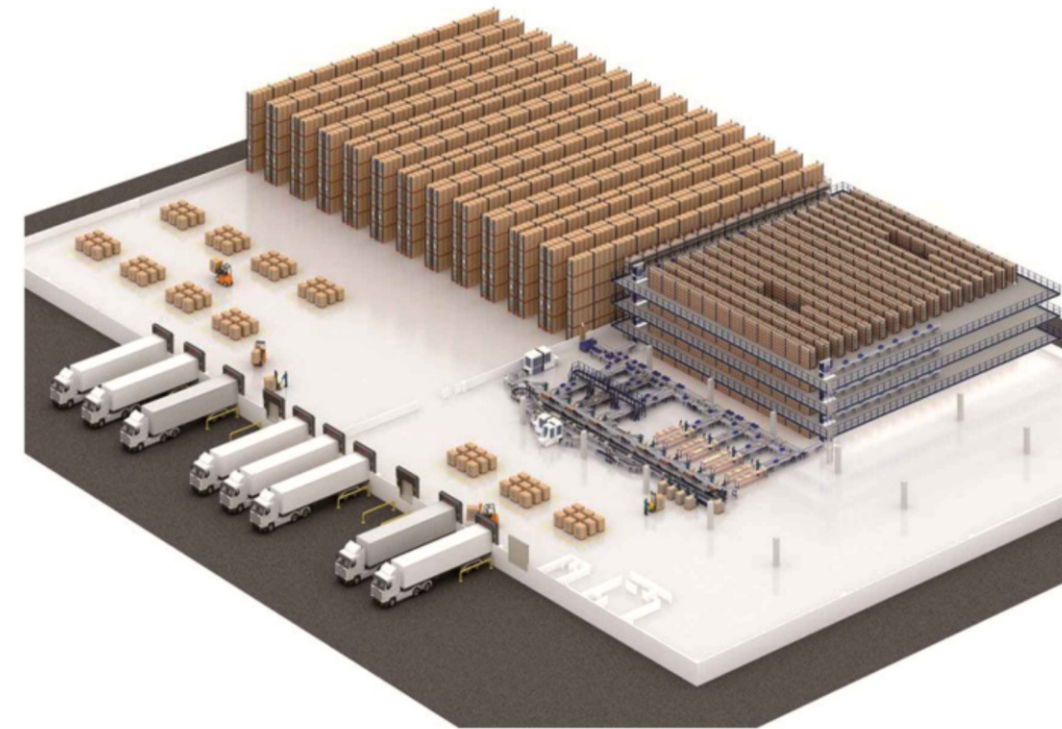
WD Series Compact Air Cooler



Medium Cold Storage



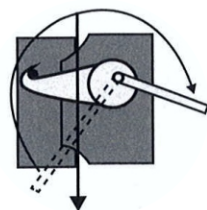
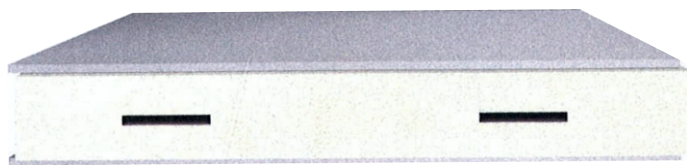
Large Cold Storage



Puff Panel Details

PUR COLD STORAGE PANEL

LIONCROWN'S PUR cold storage panels are crofted utilizing PUR core material and are custom-manufactured in various sizes through mold-based production techniques. Locking devices are integrated and placed around the core panel during the manufacturing process, facilitating straightforward assembly. These panels can achieve a maximum length of 8 meters, making them particularly suitable for small-scale and non-standard engineering projects. LIONCROWN utilizes imported foaming equipment boasting a thermal conductivity of 0.026/W(m·K) and a fire resistance rating of up to B2, guaranteeing exceptional product quality and performance.



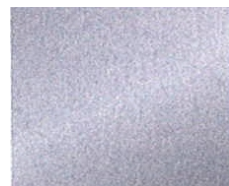
Color



Surface

Color pre-coated steel protel Al-Mg Mn sheet/
Stainless steel plate Galvanized sheet.

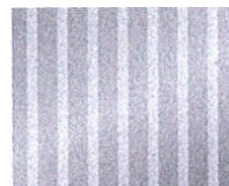
Selectable Surface Effects



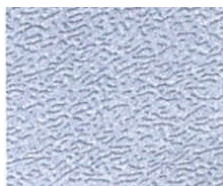
Flot



Square wave

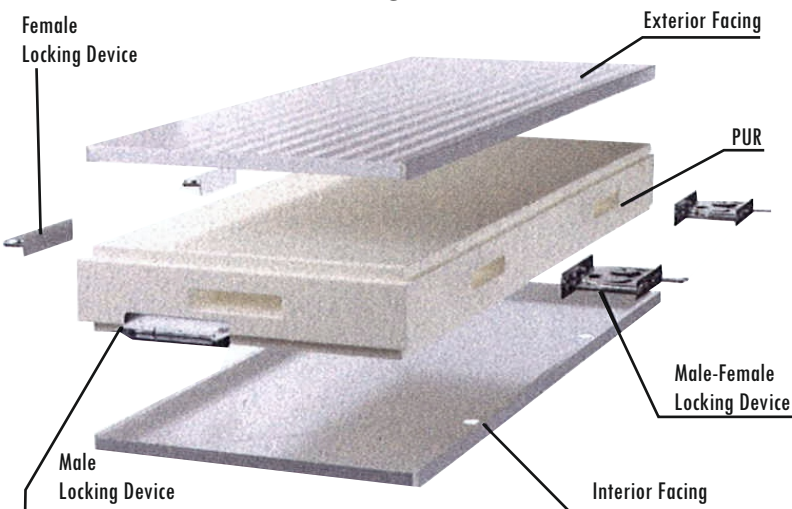


Ripplet



Embossed

Breakdown Drawing

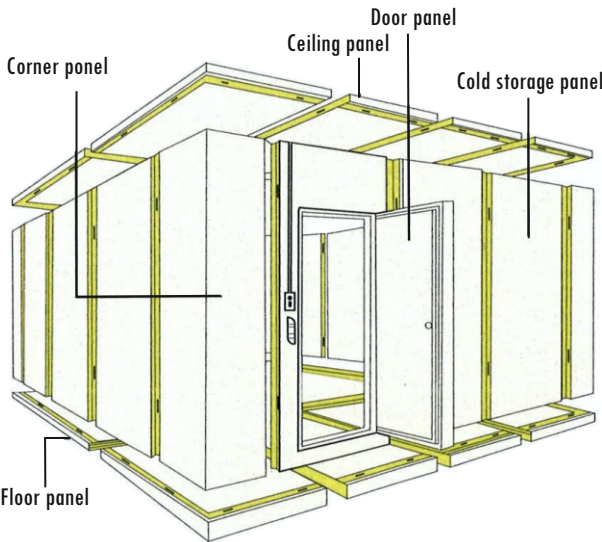


Disassembly Diagram of Cold Storage

Ideal for a wide range of cold storage sizes and shapes, particularly in situations with on-site modifications or space limitations.

Offer customizable panel sizes to accommodate personalized installations.

The installation is simpler, requiring no complex machinery. Additionally, it demands lower levels of worker skill and allows for easier disassembly and reinstallation.



Puff Doors Details



PUR COLD STORAGE DOOR

LIONCROWN's cold storage doors, boasting exceptional insulation and sealing capabilities, maintain consistent temperatures within cold storage facilities. Crafted from high-strength materials such as aluminum alloy, steel plate, and premium-quality polyurethane, these doors are offered in a range of styles including single, double, sliding, hinged and other configurations. Additionally, all types are available with manual or electric controls, providing both ease of operation and enhanced safety.



Manual sliding door



Manual sliding door (double-door)



Automatic sliding door



Automatic sliding door (double-door)



Semi-embedded manual hinged door



Semi-embedded manual hinged door (double-door)



Fully embedded manual hinged door (double-door)



Air-conditioned sliding door

Insulation

Sealing

Aesthetic

Durability

Item	Technical Requirement
Temperature Allowance	-35℃ ~ +160℃
Thickness Range	75 / 100 / 120 / 150 / 200 mm
Facer Material	Stainless steel or color pre-coated steel
Core Material	Polyurethane
Sealing Material	TPE rubber or silicone
Door Frame Material	Aluminum alloy (anodized and anti-corrosion treated) some models include plastic materials
Heating Method	Both the door frame and the door leaf have heating wires totaling 2 sets of heating wires, with a power of 25-75W (configured according to the operating temperature).
Safety Devices	Emergency escape lock (Allows individuals unlock the door inside and escape).
Optional Configuration	Anti-fog tempered glass window (optional)
Power supply	220V/50HZ (for heating wires)

Cooling Unit



Condensing Unit



- 1. LFLA, LC series
- 2. DF, DA, DC series
- 3. JF, JA, JC series
- 4. KF, KB series
- 5. SF, SB series
- 6. Double V type series
- 7. Ceiling type downdraft series
- 8. Stacked evaporator
- 9. High location series
- 10. Floor-standing series
- 11. Quick freezing evaporator
- 12. Ultra-low temperature series

- 1. LF, LA, LC 高温冷凝系列
- 2. DF, DA, DC 低温冷凝系列
- 3. JF, JA, JC 速冻系列
- 4. KF, KB 空调系列
- 5. SF, SB 双出风系列
- 6. 双V型冷风机
- 7. 吊顶式下吹风冷风机
- 8. 堆积式蒸发器
- 9. 高库位冷风机
- 10. 落地式冷风机
- 11. 速冻蒸发器
- 12. 超低温冷风机



Fluidized Bed Freezer with Plastic Belt

The freezer utilizes pulsation and air pressure to float products on a plastic belt, achieving individual quick freezing (IQF) while effectively preventing sticking. The plastic belt's excellent non-stick properties, smooth surface, and easy cleaning make it ideal for high-sugar, high-moisture fruits and soft, delicate products like diced strawberries, mangoes, raspberries, and avocados.

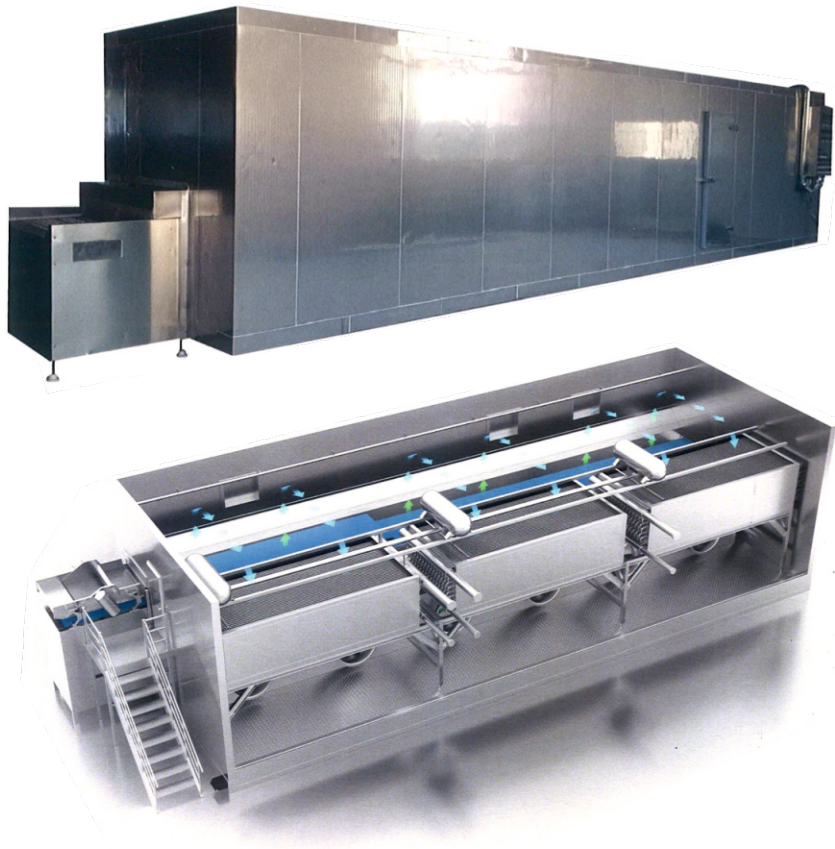
Optional mesh belt structure:

Single-Stage: For small-scale freezing.
Two-Stage: Suitable for medium-scale production, adaptable to various food types.
Four-Stage: Provides precise fluidization for specialized products.

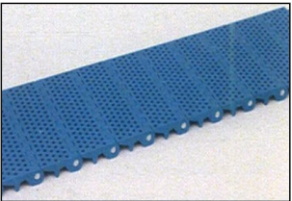
Freezing Capacity:
Processes 500-5000 kg of products per hour.

Optional Equipment:
Pre-processing equipment, such as vegetable washers, blanchers, coolers, and conveyors, can be added to optimize production efficiency.

Technical Parameters						
Item	Freezing Capacity (kg/h)	Infeed Temp.	Cabinet Temp.	Outfeed Temp.	Freezing Time	Refrigerant
Model						
FBF-500	500	+10°C	≤-35°C	≤-18°C	10-15 Min Adjustable	Freon Ammonia CO2 ---
FBF-1000	1000					
FBF-1500	1500					
FBF-2000	2000					
FBF-3000	3000					
FBF-5000	5000					

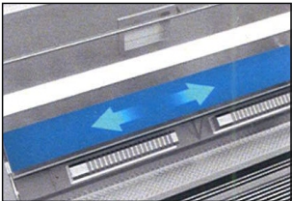


Plastic Belt



A modular, perforated plastic belt made of blue acetal material, specifically designed for fluidized bed freezers.

Agitation



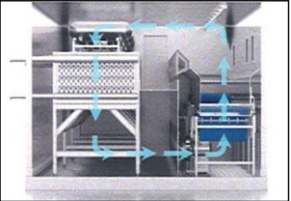
The back and forth motion of the first conveyor effectively separates long or sticky products during the critical crust-freezing stage, ensuring precise handling of delicate or challenging products.

Inspection Window



Allows monitoring of the fluidization process and internal freezer components without entering the machine.

Pulsation



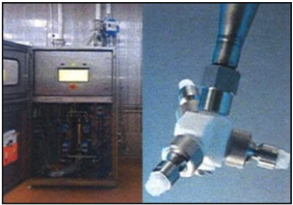
By adjusting air pressure and frequency, pulsation gently separates products during the critical crust-freezing stage, preventing sticking and clumping.

ADF Defrost System



Systematically and continuously removes frost from evaporators using compressed air, extending continuous Tunnel operation to 22 hours.

CIP Cleaning System



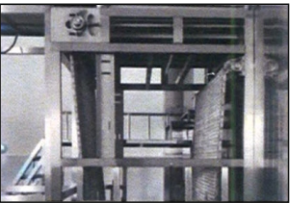
Installed above the conveyor inside the freezer, it offers water or chemical cleaning options for the belt, ensuring internal cleanliness and hygiene.

Sequential Defrost



For production requiring continuous operation for several days or defrosting only once a week, this system provides safe and reliable support using hot gas of glycol systems.

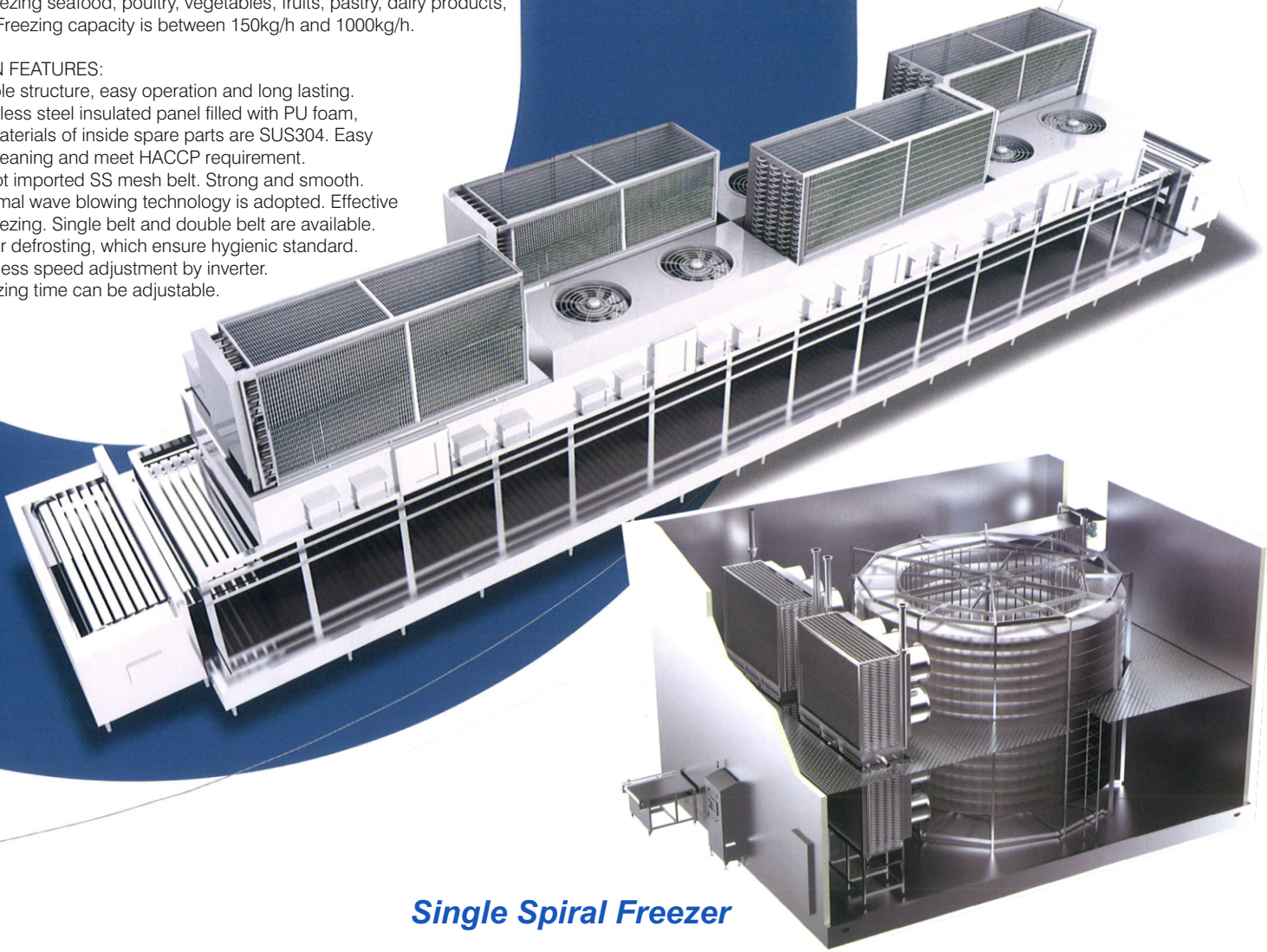
Infeed Conveyors



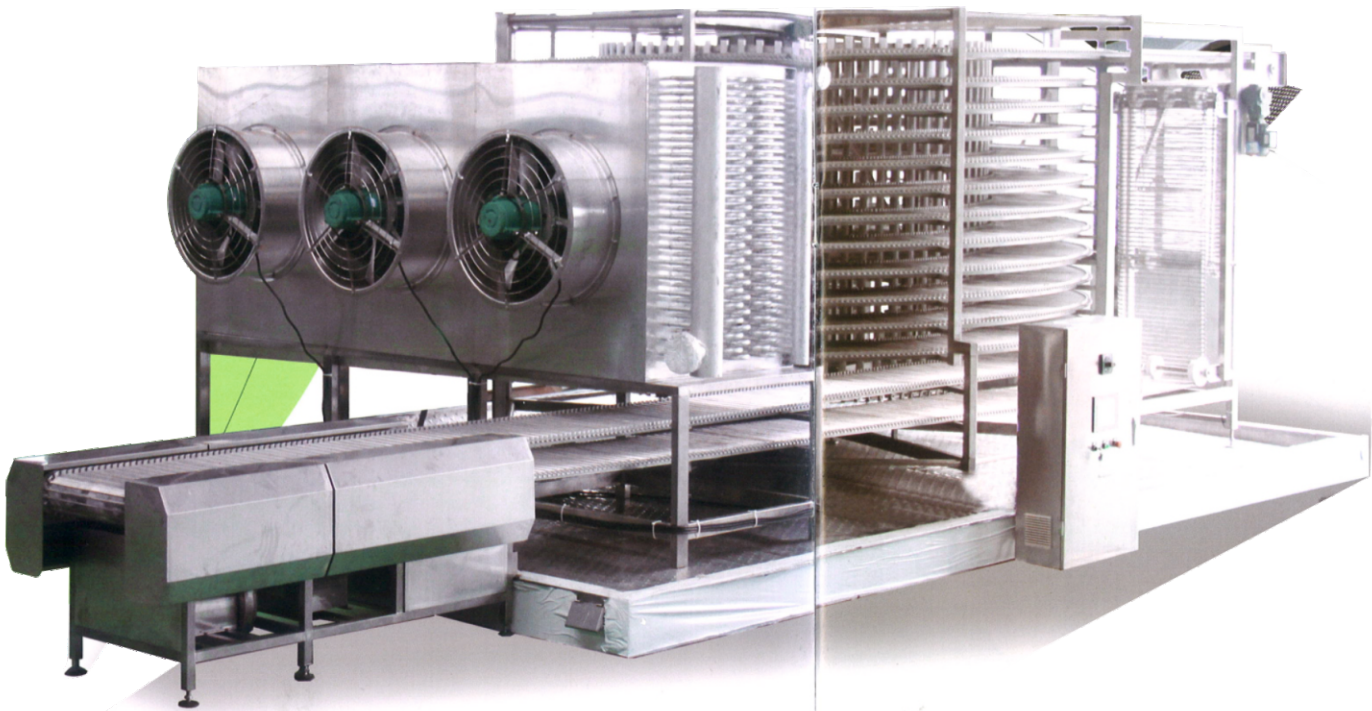
1. Conveyor Belt: Gentle handling of soft products.
2. Vibratory Conveyor: Ensures even distribution.
3. Vibratory Conveyor with Devestering Function: Ensures uniform distribution while partially removing surface water from products.

Tunnel freezer is a simple structure, highly efficient freezing equipment. It can be divided into stainless steel belt tunnel freezer and mesh belt tunnel freezer. Mesh belt tunnel freezer is effective in freezing seafood, poultry, vegetables, fruits, pastry, dairy products, etc. Freezing capacity is between 150kg/h and 1000kg/h.

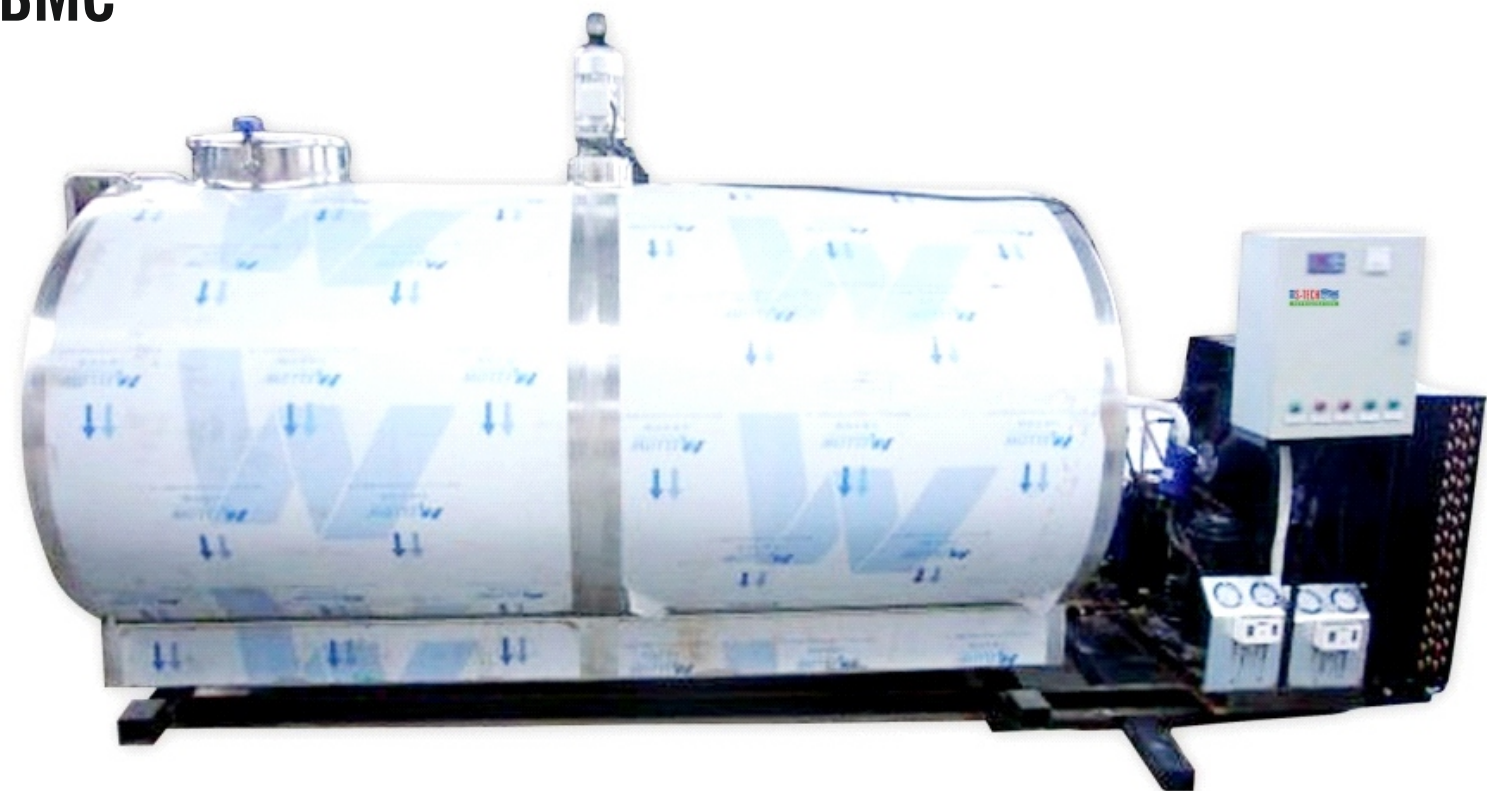
MAIN FEATURES:
Simple structure, easy operation and long lasting.
Stainless steel insulated panel filled with PU foam.
All materials of inside spare parts are SUS304. Easy for cleaning and meet HACCP requirement.
Adopt imported SS mesh belt. Strong and smooth.
Thermal wave blowing technology is adopted. Effective in freezing. Single belt and double belt are available.
Water defrosting, which ensures hygienic standard.
Stepless speed adjustment by inverter.
Freezing time can be adjustable.



Single Spiral Freezer



Single Drum Spiral Freezer



Usage: Cooling tank for milk is mainly used in prising and storing fresh milk or other fresh liquid (milk, soft drink and wine etc.) cooling, so as to refrigerat and retain freshness, prevent bacterial breed, the milk collection device and vacuum tank uses stainless steel and is made by advanced foraign technology. they feature stable vacuum performance and pleasent appearance.cooler tank are used at the mobil milking machine to make the client's product more competitive.

- Capacity: 500-10000L, other special capacity available upon request.

Agitator: Cooling Tanks for milk built with agitator Manual or automatic available.

Display: With control panel and digital could be display.

Insulating: With thickness 60-80mm polyuethane foam to keep thermal insulation.
- Material: Double walled stainless steel, resistance to high temperature and corrosion resistance.

Compressor the milk tank adapt high-performance, low noise, stability.

Cleaning: Automatic clean and wash milk and other liquid, high efficient and convenient.

MODEL	ST-MC500	ST-MC1000	ST-MC2000	ST-MC3000	ST-MC5000	ST-MC6000	ST-MC8000	ST-MC10000
Capacity(L)	500	1000	2000	3000	5000	6000	8000	10000
Compressor Power(KW)	1.1	2.5	2.5	5	10	12	15	20
Agitator Power(W)	150	350	450	550	750	250x2	250x2	250x3
Agitator Speed(R/MIN)	33	33	33	33	33	33	33	33
Cooling Capacity(W)	5322	8845	15000	175000	33550	37300	53000	6800
Refrigerants®	2	22	22	22	22	22	22	22
Dimension (LxWxH)MM	1600*850*1700	2100*1550*1100	3340*1300*1200	3500*1500*1260	3500*2000*1550	3500*2100*1650	5000*2150*2150	5800*2000*1550
Weight (KG)	320	380	530	750	980	1150	1400	1500
Quotation (Rs.)								

Bulk Milk Cooler

BULK MILK COOLER Direct Expansion / Dry Ice Bank Type

Designed and Manufactured as per Indian high ambient temperature (42°c)
Complete body manufactured in AISI-304.
The bottom of the tank is specially designed with dimple evaporator which is highly efficient. It is made from AISI 304 stainless steel, using seam welding and automatic spot welding technique.
Dry Ice Barnk type to maintain longer cooling.
The inlet of BC thickness is 300 mm & the outlet thickness is 38 mm SS
Puff insulation CFC free density of 40 kg per cu. mtr. for efficient insulation.
Adjustable stainless steel ball feet.

Refrigeration System
The refrigeration system is designed to chilled the milk from 35 c to 4 c in Indian high ambient temperature.
Most reliable hermetic or scroll compressors (Condensing Unit)
Refregerant Eco-Freindly R-22.
Air cooled condenser with self lubricated fan.

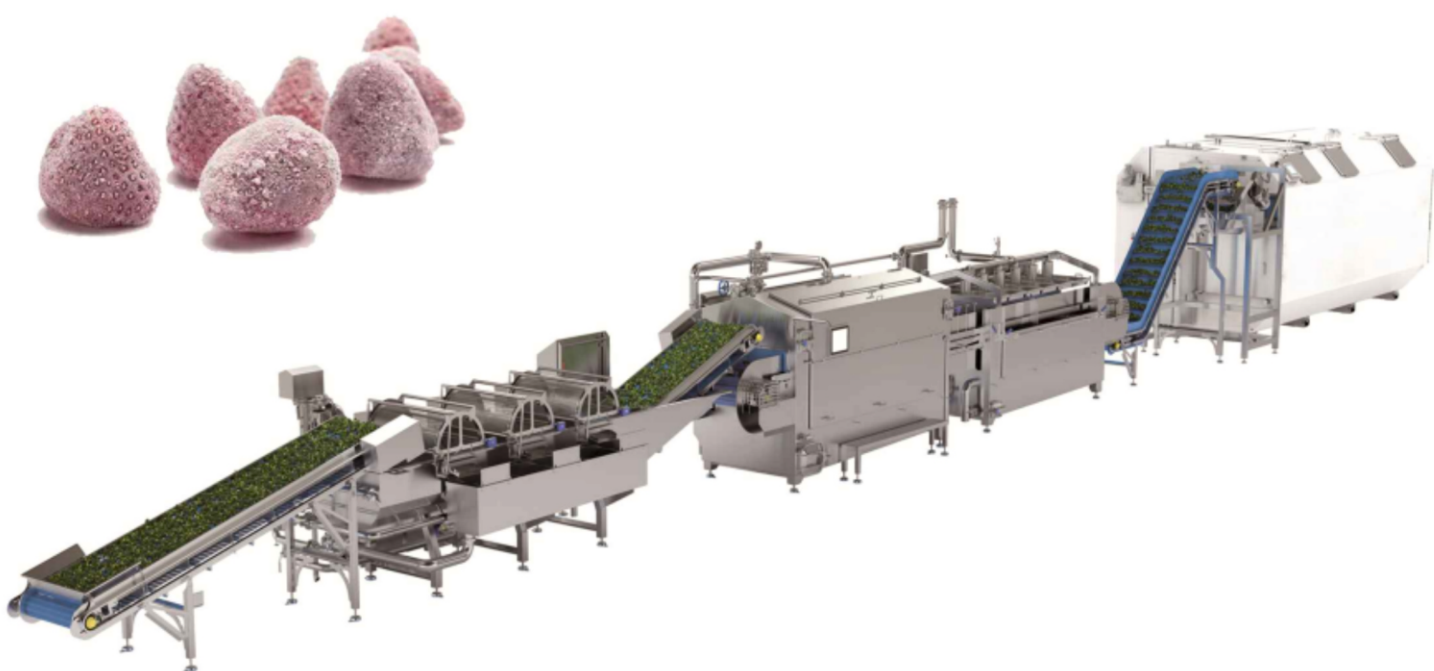
Agitator
It will maintain uniform milk temperature
Low speed (40 rpm) tight gear motor.
Agitator efficient at any filling level due to unique design of the blade. During cooling period.
Mini Milk Cooler



Mini Milk Cooler



Fruits & Vegetables Processing Plant



Process flow: raw materials → grading → cooling → cleaning → pretreatment → blanching → cooling & draining → quick freezing → packaging → freezing and storage.

Fruits & Vegetables Processing Plant

Processing products mainly include sweet corn, peas, broccoli, kidney beans, asparagus, green beans, edamame, Dutch beans, potatoes, carrots, mushrooms, taro, yellow peaches and berries.



