



For Peas, Corn, Cut fruits and Vegetables

Capacities Available : 250 kg/ Hr, 400 Kg/ Hr, 750 kg/ Hr, 1200Kg/ Hr, 2200 kg/ Hr based on peas

- Stainless steel product belting.
- High efficiency aluminum coils or MS Hot dip galvanized coils.
- High efficiency airfoil fans.
- Factory assembled modules. No site assembly of components.
- Aluminum and stainless steel constructed.
- Easy access to sanitation and maintenance.
- Safe, trouble-free operation.

General :

The **STARCORE REFRIGERATION LTD. FLUID BED FREEZER** is completely factory assembled. The conveyor belting is made of stainless steel woven wire material. The conveyor supports is constructed with aluminum lined, low friction, food grade, plastic wear strips designed for minimum belt wear. The refrigeration coils are constructed from aluminum, designed for maximum heat-transfer efficiency and operation intervals.

The low temperature air is delivered from high-efficiency plug fans directly driven by high efficiency motors. The special feature of Starcore Refrigeration Ltd. IQF is that no water is used for defrost. Defrost is enabled through a special hot gas defrost mechanism and simultaneously (only for 1200 / 2200 kg/ hr) high pressure Air defroster which pulses the air through the length and breadth of the coil .

The freezer enclosure is constructed with 6-inch thick high-efficiency urethane. The enclosure skin is Pre Coated GI (or Stainless Steel SS304 available on request). Large access doors are located for coil, conveyor and motor inspection & maintenance.

Conveyor :

Conveyor section consists of following parts: Conveyor Mesh Belting: All 304 stainless steel 72-24-16 balanced woven mesh with. 30711 cross rods for support and carried by 2080 zinc plated side chains.

Conveyor Belt Supports :

The mesh belt supports are made of combination of roller bed and aluminum flat bar protected by wear strips. Supports are spaced to assure even wear on the belting.

Conveyor Product Guard :

Product guard is constructed with all 20 ga. 304-2B STAINLESS STEEL materials and low friction wears strips at the contacting point to the mesh belt.

Conveyor Drives :

The IQF has two belts (Only in case of 1200/2400 kg/hr models). Both belts are driven with a common motor electrically actuated through a gear console in conjugation with a Variable Frequency drive.

Defrost System :

The coil defrost system is a special feature of Starcore Refrigeration Ltd. IQF which allows it to run interrupted for 14 hours without defrost *. A special and a unique defrost mechanism combining Hot gas defrost and high Pressure pulse operated air defrost (Only available in 1200/ 2200 kg/ hr) is provided to remove hard and loose ice formation on the coil surface.

No water defrosting is allowed inside the IQF, as suspended water in air is the main reason for coil choke. An Air Compressor compressing air at 7Kg/sqm is required at 700 cfm to be installed by the client and connecting it to our Air Defroster.

Refrigeration Evaporator :

The freezing is provided by all aluminum variable fin plate fin coil to assure even frost built through out the inside of coil surface, for maximum production time intervals. The coils are over sized to handle maximum frost built up and efficient freezing capacity. The coil has 1/2" O.D. tubing with .06 51-wall thickness 3003 alloys, the fins thick 1145H19 alloy. (NOTE: Galvanized steel coil can be also provided as option).

Centrifugal Fans :

The freezing air is provided by all aluminum heavy-duty centrifugal fan directly driven. Our fan is selected for high efficiency and constant air delivery, to assure proper airflow at all time. The propeller blades are airfoil and self-draining and are made specially for freezing applications.

Freezer Enclosure :

The freezer can be placed directly on the production plant, ready to be piped with refrigeration. Freezer enclosure is made of RAL 9002 Pre Coated Sheet (SS 304 available on request), Enclosure insulation is 6" thick density foam urethane at 42 kg/ cum for maximum efficiency.

ICE Breaker :

The icebreaker is provided to remove any product and ice built up on the precool belt during operation. Heavy ice and product built up on belt will penalize the freezer performance.

Electrical Control Panel :

Electrical control panel is mounted on the outside wall of the enclosure, all externally pre wired for easy installation. The control panel is equipped with switches, motor starters that are all fused to protect each motor.

Shaker Spreader :

Important for good IQF. Product, assures even distribution of product across the freezer belt plus dampening some of the uneven surge of product during production.

Products	Capacities in Kg/ hr			
	400	750	1200	2200
Cauliflower Florets	200	375	600	1100
Corn Kernels	400	750	1200	2200
Carrots Diced	280	500	850	1450
Beans	350	650	960	1800
Peas	400	750	1200	2200
Potato Fries	280	500	850	1450



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