



STAR COOLERS & CONDENSERS

- ▶ FOOD & BEVERAGE PROCESSING / PRESERVATION
- ▶ INDUSTRIAL REFRIGERATION
- ▶ PROCESS COOLING



we take the heat  you keep the cool

ABOUT COMPANY

Star Coolers & Condensers Pvt. Ltd. [SCCPL] established in Year 2000, is an INDO – BRITISH Joint Venture Company with Parent company as C & C Holdings.

SCCPL is spread over 3 large factories covering 1,20,000 sq. ft. in Jalgaon, Maharashtra. The wide product range includes Air Cooling Units , Blast Freezers, IQF's, Precooling units, Plate Freezers, Evaporative Condensers, Air Cooled Condensers which are popularly used in Food and Beverage Industry and RHVAC Applications.

SCCPL Parent company in the UK pioneered SS tube & Al fin coil technology which is now in widespread use world over. The company's vast experience has sharpen the technological edge resulting in product innovation and leadership in India with over 40,000 installations with high repeat customer index.

SCCPL is proud and happy to be associated with industry stalwarts, leading F & B & Process Industries, RHVAC Contractors, renowned System Integrators, Consultants and Start-up's providing technology with standard & Customised product range demonstrating Quality and efficiency resulting in Lowest Cost of Ownership to our Customers.

Star Coolers leadership & wide experience has resulted in successful expansion of product lines such as Dry, Wet & Adiabatic coolers, Remote Radiators, Closed Circuit Cooling Towers, Hybrid coolers catering to wide applications in Process & Manufacturing Industries.

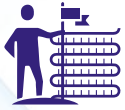


STAR COILS

...at the heart of Tube-fin Heat Exchangers

...scores high on Technology, Efficiency and Low Total Cost of Ownership

- ★ **Refrigerant :**
NH3 (Ammonia), HFC (R404a, R134a, R22, R407C, R507, latest blends), Chill water, Glycol.
- ★ **Coil Tubes :**
Stainless Steel (SS) for NH3, Copper for HFC's
- ★ **Fins :**
Plain Al Fins, Blue (Hydrophilic) Coated Al fins, Blue Epoxy Coated Al Fins, Polyester Coated Fins, Plain Copper Fins, Tin Coated Copper Fins, SS Fins (available with 5/8" OD tubes)
- ★ **Fin Spacing :**
2, 3, 4, 6, 10, 12 FPI, Variable fin spacing



**World Pioneers
in SS Tube-Al
Fin Coils**



**High Efficiency
-Triangular Pitch
Cooling
Coil Design**



**High Efficiency
-Triangular Pitch
Condensing
Coil Design**



**Advanced
Automated
Orbital Welding**



**Efficient &
Energy Saving**

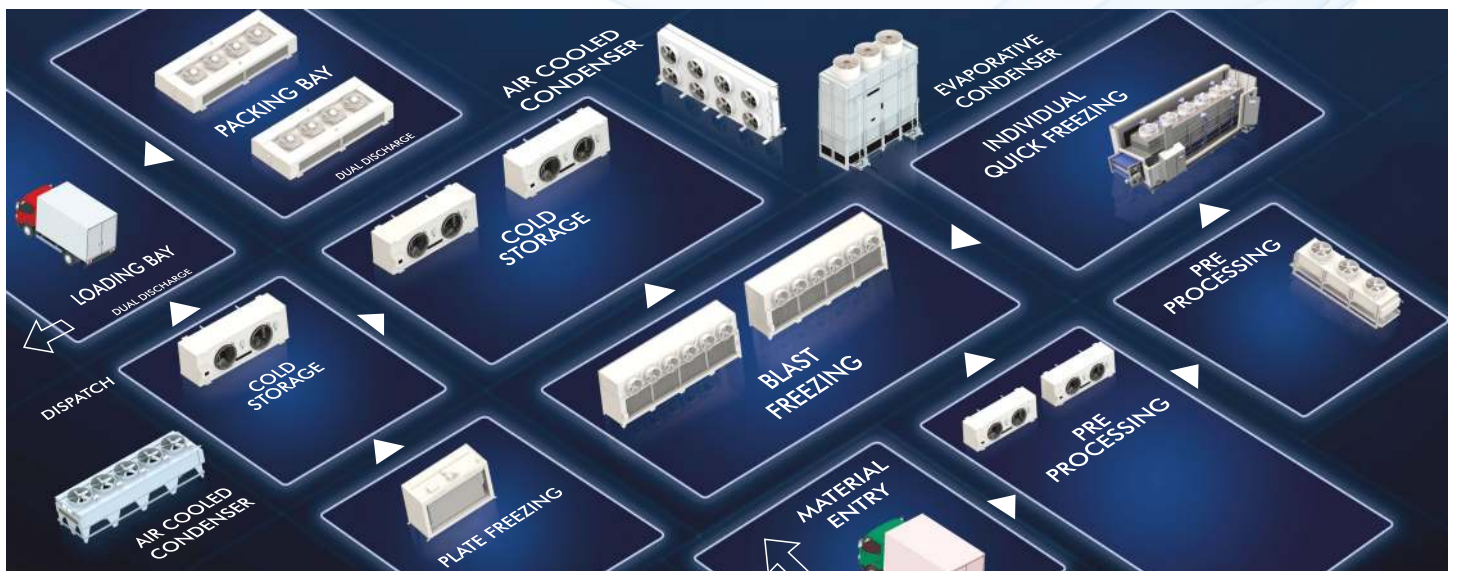
Star Coolers & Condensers parent company in UK were pioneers in SS tube and Al fin technology revolutionizing use of SS tube for Ammonia Air Coolers & Condensers.

The triangular pitch tube-fin coil designs are high thermal coefficient designs ensuring maximum air contact with the tubes. The design achieves faster cooling, reducing working time of compressor. The coil design, circuitry, quality of tubes and fins adds to the performance.

The triangular pitch coil ensures improved heat rejection due to excellent water and air contact with the tubes. The design ensures enough access for periodic cleaning of entire coil maintaining it's efficiency.

The SS tube fusion welding is done with specialised automated welding machines resulting in uniform welding quality.

Power and water saving technologies with high K-coefficient Coil Designs



we take the heat  you keep the cool

STAR ACU (AIR COOLING UNITS)

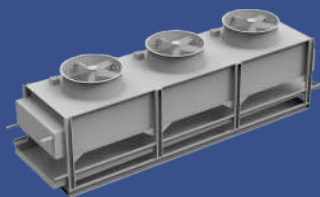
STAR BF (BLAST FREEZER)



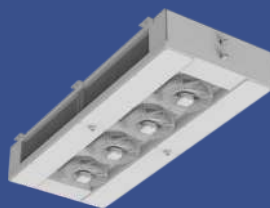
Star Coolers & Condensers Pvt Ltd
AN INDO BRITISH JOINT VENTURE



Single Discharge



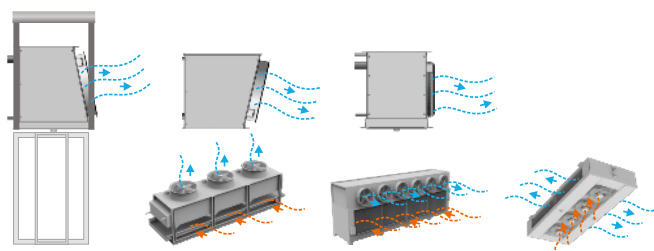
Floor Mounted



Dual Discharge



Blast Freezer



★ Casing :

PCGI / SS 304, Rattle free operation - Sheet formation frame with rivetted assemblies with access through bolted panels. All hardware in SS 304

★ Motor :

Motor & bearing suitable to operate at all cold rooms temp. requirement, Motor Protection IP 55, Premium efficiency IE-3

★ Drain Tray :

Heavy gauge GI sheet / SS (optional), Single / Double Skinned to avoid condensation & water splashing with adequate slope

★ Axial Fans :

High velocity, Draw through, Induced draft, Directly coupled to motor, Dynamically balanced, Polyamide fiberglass reinforced material, Resiliently mounted and Effectively guarded, Designed for quiet operation.

★ Removable Hi-Quality AC Fans :

Blade angle can be changed to change air volumes. Entire fan / Single blade can be replaced and no need to change the entire Fan-motor assembly hence user friendly on serviceability aspect. Easy to stock fan as a spare. EC Fan option available.

★ Removable & Replaceable Motor :

High Efficiency IE-3 Class Direct driven Motor Compatible to VFD, Easy to stock and easy to change hence user friendly on serviceability aspect.

STAR ACU Refrigeration Capacity per unit	Slimline Commercial Series: 1 kW to 40 kW Industrial Air Cooling Units: 10 kW to 100 kW Customised / Special unit as required
STAR BF Refrigeration Capacity per unit	Customised design based on Product & Freezing Room Orientation
Refrigerant Capacity	NH3 (Ammonia) HFC (R404a, R134a, R22, R407C, R507, latest blends)
Coil Tubes	Stainless Steel (SS) for Ammonia 5/8" Copper tube for HFC's
Fins	Plain Al Fins, Optional (Blue Hydrophilic Coated Al fins, Blue Epoxy Coated Al Fins, Polyester Coated Fins, Plain Copper Fins, Tin Coated Copper Fins, SS Fins) (Available with 5/8" OD tubes)
Fin Spacing	2, 3, 4, 6 FPI (fins per inch) "Variable fin spacing"
Defrost Arrangement	Selection of Electric, Hot Gas, Water as suitable
Fan Speed	Application Specific, 2 Speed, Variable
Mountings	Ceiling, Wall, Stand, Floor
Air flow	Forced draft / Draw through, Single discharge, Dual discharge (2 speed), bottom throw

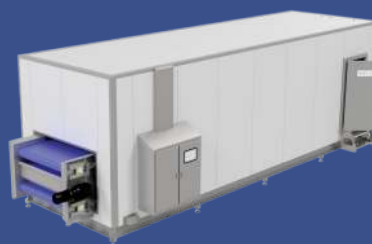


STAR IQF (INDIVIDUAL QUICK FREEZER)

STAR PF (PLATE FREEZER)



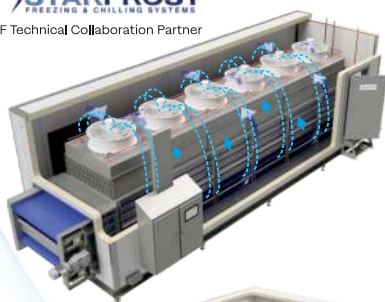
Plate Freezer



IQF - Individual Quick Freezer



IQF Technical Collaboration Partner

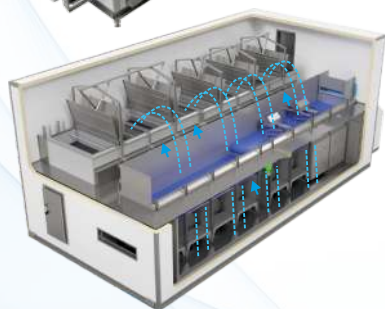


★ VELOCITY & HYBRID : SINGLE OR MULTI BELT TUNNEL FREEZER

The Star IQF Impingement Freezer features high velocity airflow technology in a single belt tunnel in variety of width's to suit process/space limitations while achieving desired capacity.

Velocity Features : Dual direction Air Delivery enabling fastest freeze process , SS belt, Variable Design Options, Modular and packaged Units, factory built for easy-quick installations.

Hybrid Features : Multiple level conveyer belts with fast and efficient cooling, variable speed belts OR on Cascade principle, Full access low maintenance SS design, Star triangle pitch coils for rapid freezing resulting in lowest power, Adjustable Air speed suitable as per product.



★ TURBO : IQF FLUIDISED TUNNEL FREEZER

The Star Turbo is a twin belt fluidized bed tunnel freezer. The Turbo with twin belt system allows effective individual quick freezing of large quantity of loose products. Even wet, sticky and delicate food items normally considered as difficult to freeze are carefully handled and effectively processed.

Features: Hygienic design with internal access, Controlled automated system with vibratory infeed conveyor, Continuous separation and fluidization of product particles, Initial turbocrest freezing zone for fast surface conditioning and then transfer to final deep freezing, Adjustable airflow and conveyer belt speed, Automated Frost removal system, Sequential defrost system.

Turbo Fluidised Tunnel Freezer	1,000 kg/hr to 5,000 kg/hr
Velocity and Hybrid Tunnel Freezer	500 kg/hr to 1,000 kg/hr Single or Multi-belt Tunnel Freezer
Refrigerant	NH3 (Ammonia), HFC (R404a, R134a, R22, R407C, R507, latest blends)
Coil Tubes	Stainless Steel (SS) for Ammonia 5/8 " Copper tube for HFC's
Fins	Plain Al Fins, Optional (Blue Hydrophilic Coated Al fins, Blue Epoxy Coated Al Fins, Polyester Coated Fins, Plain Copper Fins, Tin Coated Copper Fins, SS Fins) (Available with 5/8" OD tubes)
Fin Spacing	Variable fin spacing
Defrost Arrangement	Selection of Hot Gas, Water as suitable
Fan Speed	Application specific

★ **Star PF (Plate Freezer) :** Star Plate Freezer are Robust, trouble free, hygienic design and construction. The product to be frozen is first placed in heavy duty freezing trays and then in the plate freezer horizontal plates to be frozen due to dual side contact. The horizontal freezer plates wide opening range fits various tray sizes ensuring rapid freezing due to its direct contact method of freezing. The full SS construction ensures continuous and reliable freezing in wide capacity range.



STAR PF (PLATE FREEZERS)	250 to 2,400 kg per batch
Refrigerant	NH3 (Ammonia) HFC (R404a, R134a, R22, R407C, R507, latest blends)
Casing	Galvanised Powder Coated, Stainless Steel (optional), Puff Panel
Plates	Horizontal Aluminium Plates
Defrost Arrangement	Hot Gas

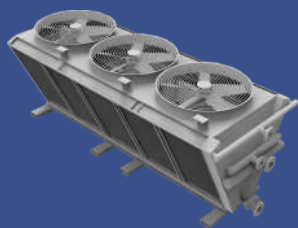
STAR EC (EVAPORATIVE CONDENSER)

STAR AC/AAC (AIR COOLED/

ADIABATIC AIR COOLED CONDENSER)



Evaporative Condenser



V-type Air Cooled Condenser



Horizontal Air Cooled Condenser

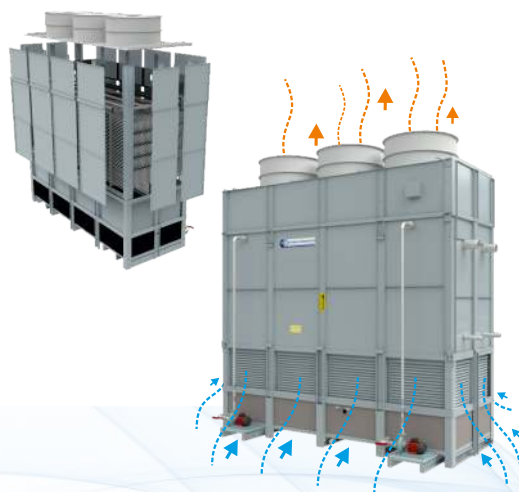


Horizontal Air Cooled Condenser (Parallel)

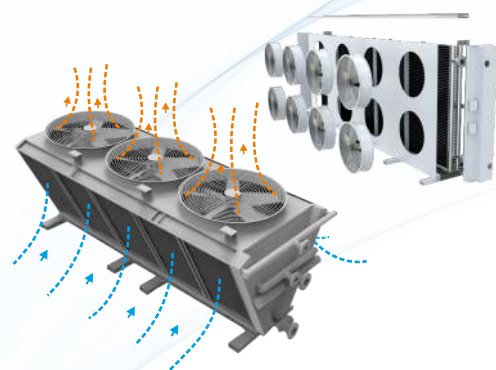
★ STAR EC (EVAPORATIVE CONDENSER)

In Evaporative Condenser water pumped from condenser reservoir is sprayed from top on the coil to wet the coil tubes to enable condensation at lower than air temperature.

The high pressure-high temperature refrigerant vapor to be condensed is circulated inside the coil tubes. The coil is continuously wetted on the outside by spraying water by a recirculating water system. Air is pulled over the coil causing some of the water evaporation and removes heat from the vapour in the coil resulting in condensation.



STAR EC Capacity per unit	100 to 2,000 kW
Refrigerant	NH3 (Ammonia) HFC (R404a, R134a, R22, R407C, R507, latest blends)
Coil Tubes	Stainless Steel (SS)
Casing	Galvanized Powder Coated, Stainless Steel (optional)
Fan Speed	Application Specific, 2 Speed, Variable

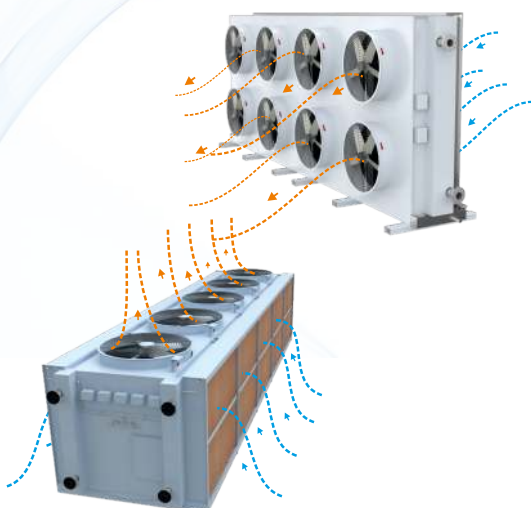


★ STAR AC/AAC (AIR COOLED/ADIABATIC AIR COOLED CONDENSER)

In Air Cooled Condensers the ambient air passes over the condenser coil to cool & condense the refrigerant. In Adiabatic Assisted Air Cooled Condenser the air passes over Adiabatic Pads (water wet pads) to cool and condense the refrigerant.

Adiabatic Pads (Cooling pads) are made of cellulose corrugated paper glued in an opposite sequence which generates air passage inside the pads ensuring better air contact. The Adiabatic pads receive controlled amount of water from the top frame and flows down by gravity. The Adiabatic pads have high ability in absorbing water and are chemically treated for longer life.

In Ammonia Refrigeration the STAR Adiabatic Air Cooled Condenser in SS tube/Al fin combination is a proven solution and is need of the hour in growing water scarce situation.



STAR AC / AAC Capacity per unit	50 to 1,000 kW
Refrigerant	NH3 (Ammonia) HFC (R404a, R134a, R22, R407C, R507, latest blends)
Fins	10,12 FPI (Fins per inch)
Casing	Galvanized Powder Coated, Stainless Steel (optional)
Fan Speed	Application Specific, 2 Speed, Variable
Adiabatic	Cellulose
Air Flow Types	Flatbed, Horizontal, Parallel, V-type

DESIGN & MANUFACTURING CAPABILITY

Star Coolers & Condensers Pvt. Ltd. (SCCPL) in house designing and manufacturing set up is spread across 1,20,000 sq. ft. in three factories & warehouse. The factory is ISO 9001:2015 Certified & has modern and world class machinery set up for Sheet metal designing & manufacturing, Coil designing & manufacturing, Assembly and final Testing.

IN-HOUSE HEAT LOAD ASSESSMENT >> PRODUCT DESIGNING >> CUSTOMISATION

Product performance in Refrigeration applications depends on proper designing, manufacturing and an excellent build quality. SCCPL In house designing & manufacturing set up is in full control of all the key processes with stage wise inspection confirming the designed performance.

PRODUCT DESIGN DIGITAL OUTPUT >> CNC MACHINES INPUT >> MFG DEVELOPMENT

As the need be, Star Engineers verify and assist on process heat load to arrive at exact product or based on customer/contractor/consultant specification input. The product is selected through standard product selection range to choose from or customized new product design.

IN-HOUSE MANUFACTURING >>: SHEET METAL >> COIL >> ASSEMBLY >> STAGewise INSPECTION

Once the design is ready Manufacturing starts with sheet Metal & Cooling coils development which is all done through Automatic Machine with stage wise inspection and final testing.

FINAL INSPECTION >> TESTING >> READY FOR DISPATCH



★ **Product Enquiry**

INDO BRITISH JOINT VENTURE

- ★ INDIA
- ★ 4 Regions
- ★ 25+ Sales & Service Engineers

40,000+

Installations in India & Overseas



The Sales & Service Engineers covering North, East, West, South regions are located at Jalgaon, Pune, Indore, Ahmedabad, Delhi, Agra, Kolkata, Ranchi, Bhubaneshwar, Chennai, Bangalore, Hyderabad, Vizag

Overseas projects in Middle East, Africa, South East Asia exported from India by Contractors / System Integrators are equipped with Star Coolers & Condensers product besides direct exports from the company.

★ **Factory & Registered office:**

H-18/13 (Unit 2), MIDC Jalgaon - 425003, Maharashtra, INDIA.

☎ +91-257-2272779 | +91-257-2272795

✉ sales@starcooler.co.in

🌐 www.starcooler.co.in

★ **Marketing Head Office:**

Yahavi Bunglow, 12-C, 2nd floor, Shree Ganesh Krupa Co-op. Soc. Paramhans nagar, Off paud Road, Kothrud, Pune - 411038, Maharashtra, INDIA. +91-20-25395550

As we are constantly endeavouring to improve our product / equipment , we reserve the right to make changes from time to time hence the product details and images may differ than presented in this brochure. For latest product information pl get in touch with Marketing HO or concerned branches / sales contact.