

Air Cooling Unit

SS/AL Series

SS Series - SS Tube with Aluminium Fins

AL Series - Aluminium Tube with Aluminium Fins



Metro has traditional values: Durability, Reliability & Energy Saving

ABOUT COMPANY

Metro Refrigeration Industries is one of the Leading Manufacturer & exporter of refrigeration compressors and complete refrigeration machinery for fruits and vegetables cold storage, dairy, Ice cream, breweries, beverages, ice plants, meat processing, seafood processing, and process refrigeration, which includes pharmaceuticals, chemicals & water chillers and other industrial application since 1986.

Metro has excellent infrastructure equipped with latest CNC machinery and advanced testing facilities. The complete manufacturing process is carried in house with highest level of precision and workmanship. Utilizing latest technology, the company assure superior quality products that are high in performance, durable, dependable and economical.

Refrigeration coils manufactured under stringent quality control norms and tested on a variety of parameters such as metallurgy, dimensions, accuracy and structural integrity. The process ensures high quality products that provide best value for the money with a long life performance.

We also undertake Turnkey projects to provide complete solution by designing, developing and installation of refrigeration plants. The complete projects is carried under the supervision of well trained and qualified technical personals with relevant work-experience and in-depth knowledge.

Our endeavor is to achieve complete customer satisfaction by building a mutually beneficial relationship with all clients by providing best quality of products and technical network support.

Metro air cooling unit are available in SS series and AL series of energy saving air cooling units in various capacities ranging from 5 kw to 250 kw. Coil capacity is based on sensible heat removal, medium frosted coil condition. Temperature difference is the temperature of the air entering the coil and the coil evaporating temperature.

SS/AL SERIES

SS Series : SS 304L Tube with Aluminum Fins.

AL Series : Aluminum Tube with Aluminum Fins.

SS Series : Metro SS 304L Tube with Aluminum Fins Unit are power saving Air Cooling units being manufactured by Metro in different capacities. These units are highly efficient, economical, lightweight, compact design and provided aluminum spiral fins coils for maximum cooling efficiency. These units are specially designed for ceiling/wall mounting arrangement for easy installation with temperature requirement of above & below 0°C upto -45°C.

Features :

1. G.I. Powder Coated/SS sheet casing with removable side covers, and drain pan.
2. Cooling coil (ammonia) made from 20mm OD tubes staggered in the direction of air flow, fluid expansion of tube (5000 psig) which will ensure positive bonding between tubes and fins. All coils are pneumatic tested at a pressure of 30 kg/cm² psig under water.
3. Fans are multiblade, lightweight in PAG material.
4. Fan motors with IP 55 enclosures with anti freeze grease & 'F' Class insulation.
5. Water spray headers with spray nozzles/hot gas connections for defrosting.
6. Accumulator is supplied alongwith the coil (optional).
7. Choice of ceiling suspended/floor mounted, arrangement.
8. Choice of forced/induced draught system.

Beneficial Accessories :

- Insulated drain pan.
- Hot gas defrosting arrangement.
- Stainless steel drain pan and side panels (optional).
- Accumulator with built-in-mechanical float valve (optional).



Power saving



High Heat Exchange Ability



Horizontal Cold air blast



Easy to install



Ammonia Gas Saving



Leak Proof



Space Saving



No Vibration



Smooth Operation



Easy clean ability

METRO AIR COOLING UNIT

Metro Ammonia & Brine - ACU - Metro air cooling units have been particularly designed for cold storage industry storing potatoes, apples, fruits and vegetables in India. These air-cooling units maintain the precise control of temperature as well as relative "Humidity" for product freshness.

Metro Cooling Coils - Metro Cooling Units are available with stainless steel, Aluminum tubes and aluminum fin cooling coils. These ACU are being produced in our most modern plant of international standard. The selection, construction of ACU is on CAD/CAM system which is unique feature of the technology.

The sine-wave & plate aluminum fins are being produced on our CNC machine. Tube-to-fin contact is excellent though our modern tube expansion equipment, which ultimately makes the high-efficiency heat-transfe, coils. The coils are factory tested at 300 PSIG (20 kg/sq.cm) pneumatic test pressure under water.

Fans & Motors - Cooling units are equipped with direct drive axial flow fans import from Germany. The motors used are totally enclosed for protection against dust/moisture.

Casing (Galvanized steel sheets) - Casing of our air-cooling units is of die-formed, heavy gauge galvanized steel sheets. The sheet metal is being processed on our most modern CNC Amada machines. The casing is powder coated for protection against moisture, rust and has very long life.

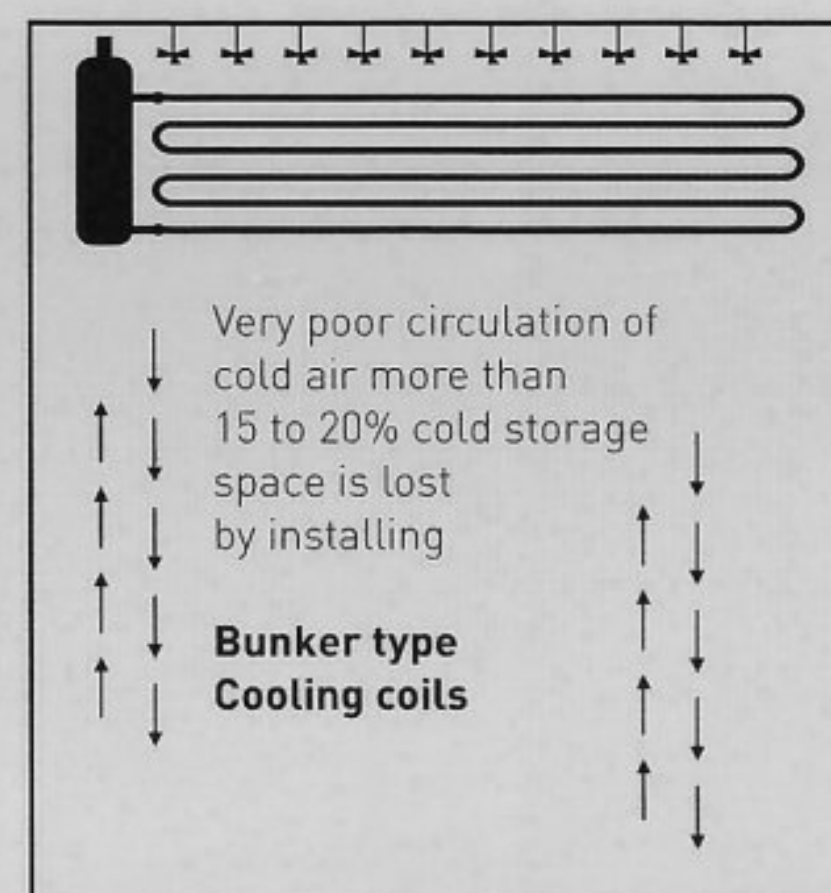
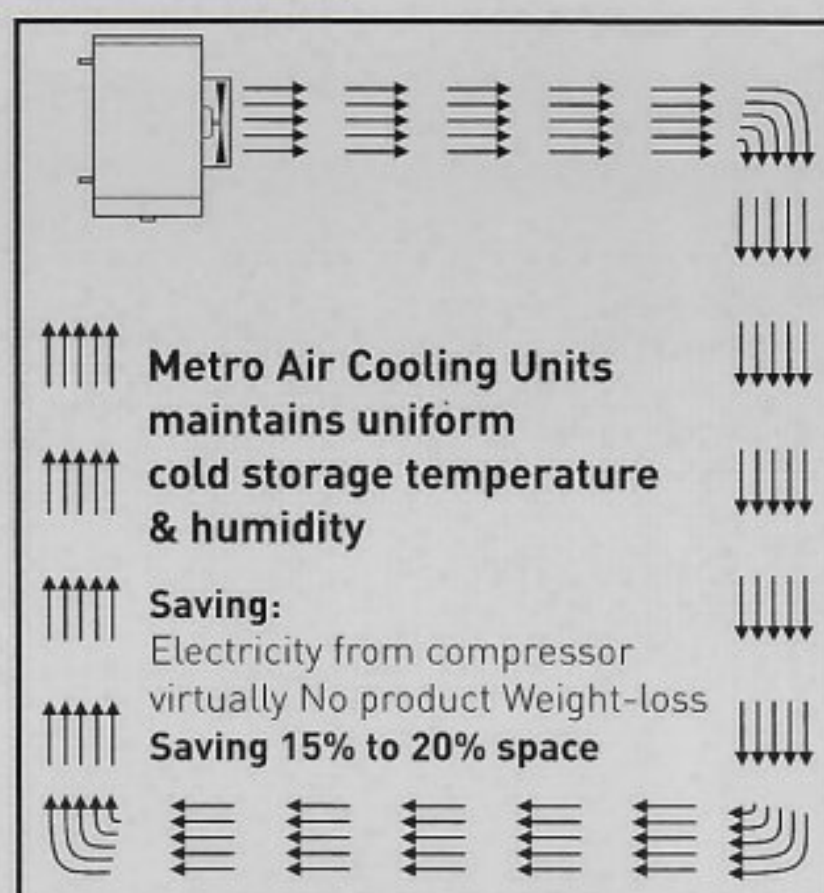
Mounting & Electric Connections : Metro ACU are complete with foot mounting legs, which can be used for wall, ceiling or floor for multi-floor application. The internal electric wiring is complete up to electric junction box.

Installation (Air Cooling Units) : The Installation of Metro air cooling unit has been made most simplified. It only needs electric connection and fluid line connections after mounting. The maintenance cost of Metro ACU's air-cooling unit is almost negligible.

METRO COILS V/S BUNKER COILS

For the last more than 40 years the cold storage industry were using Bunker Coils in the potato cold storages and the owners were not aware of the modern-technology in the world.

It took us almost more than 10 years to educate, teach the end-users/cold storage owners the advantages and benefits of our Metro Ammonia Air Cooling Units. Brief information is mentioned though the sketch to understand the wastage of cold room space (18 to 20%) Please refer to Metro Refrigeration detailed catalog of the ACU-advantages.



Why you should buy Metro Air Cooling Units ?

Saving is as good as Earning : Once the cold storage has been established the major expenditure is on electricity and maintenance cost. These costs savings can be explored by surveying the market to understand the available plant, machinery and by meeting the existing owners of the cold storage industry.

Metro Refrigeration - Experience in cold storage industry : More than 4 decades since 1986 Metro Refrigeration Industries have very vast, rich experience of cold storage plant and machinery in India as well as across the world. We have installed thousands of ACU's as new installation & also for replacement of cold storages across pan India as well as more than 30 major countries like Australia, UAE, Turkey, Jorden, Egypt, Iran, Iraq, Dubai, Katar, Oman, Yamen, Kenya, Tanzania, Nigeria, Thailand, Yuganda, Sudan, Sri Lanka & Nepal etc.

Metro Commitment of Excellence : We earnestly share our more than 40 years rich experience with existing and new owners to take care of their cost before and after set up of their cold storages. For your consideration, reference we mention below some of the important notes to understand the cost saving reasons in cold storages.

- | | | |
|-----------------------------------|---|---|
| • Save Cold Storages Space | - | through Metro Compact Design of Metro - ACU. |
| • Save Electricity | - | through Compressor Motors - with Metro - ACU. |
| • Save Product weight-loss | - | with high-efficiency Metro Cooling System. |
| • Save Ammonia Gas | - | through Metro - Aluminum Fin Coils. |
| • Save Energy Bills | - | through Metro - Insulated panel Buildings. |
| • Unique Air Circulation | - | with High-efficiency Aerodynamic Metro - Fans. |

METRO REFRIGERATION



Metro Refrigeration Industries is pioneers in SS tube and Aluminum Fin technology revolutionizing use of SS /AL tube for Ammonia Air Coolers Since 1986.



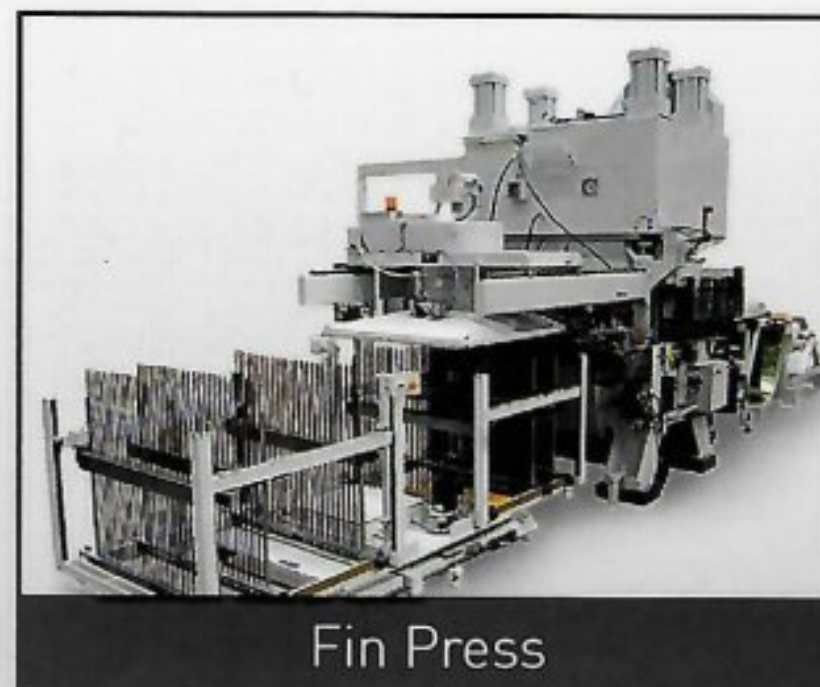
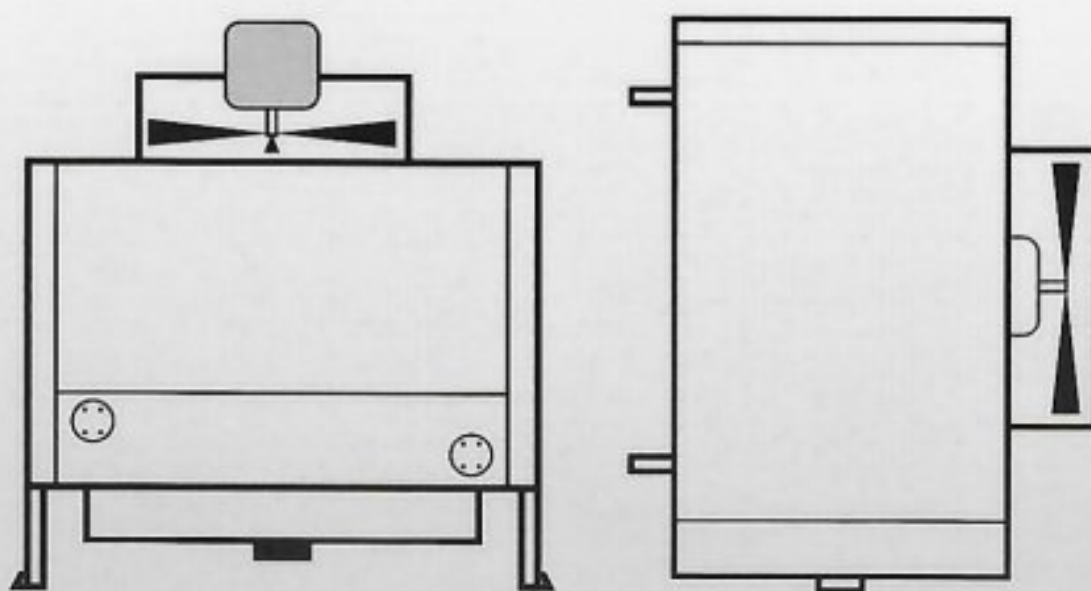
The triangular pitch tube-fin coil designs are high thermal coefficient designs ensuring maximum air contact with the tubes. The design achieves faster cooling, reducing working time of compressor. The coil design, circuitry, quality of tubes and fins adds to the performance.



Power saving technologies with high efficient coil designs.



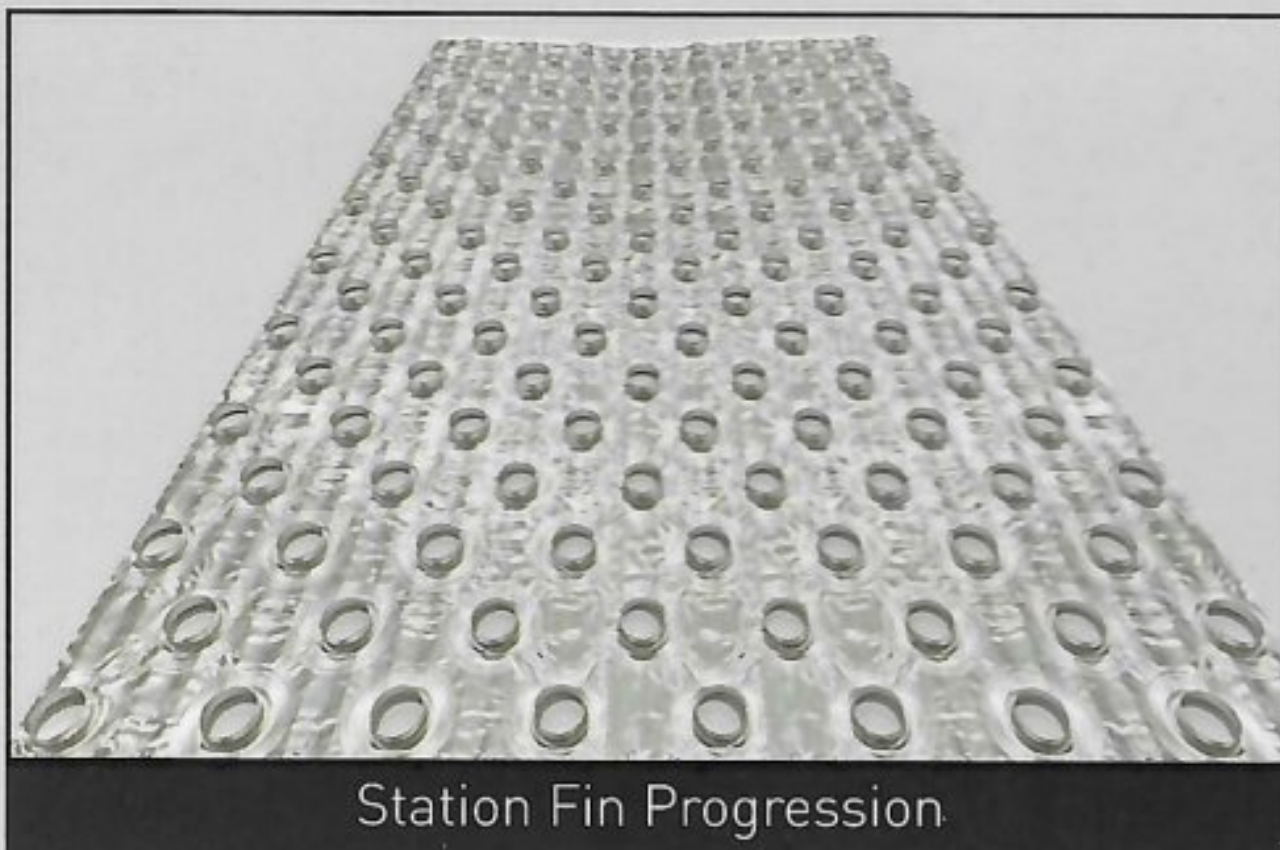
Metro uses the most advanced technology like Fusion welding involves joining intense heat to unite two or more individual pieces. Fusion welding, as opposed to soldering, melts the base metal and could need a filler material to create a junction. The metal component becomes molten when exposed to high heat. As it cools, these components come together to produce a weld bead. The end product is always more durable than the starting material.



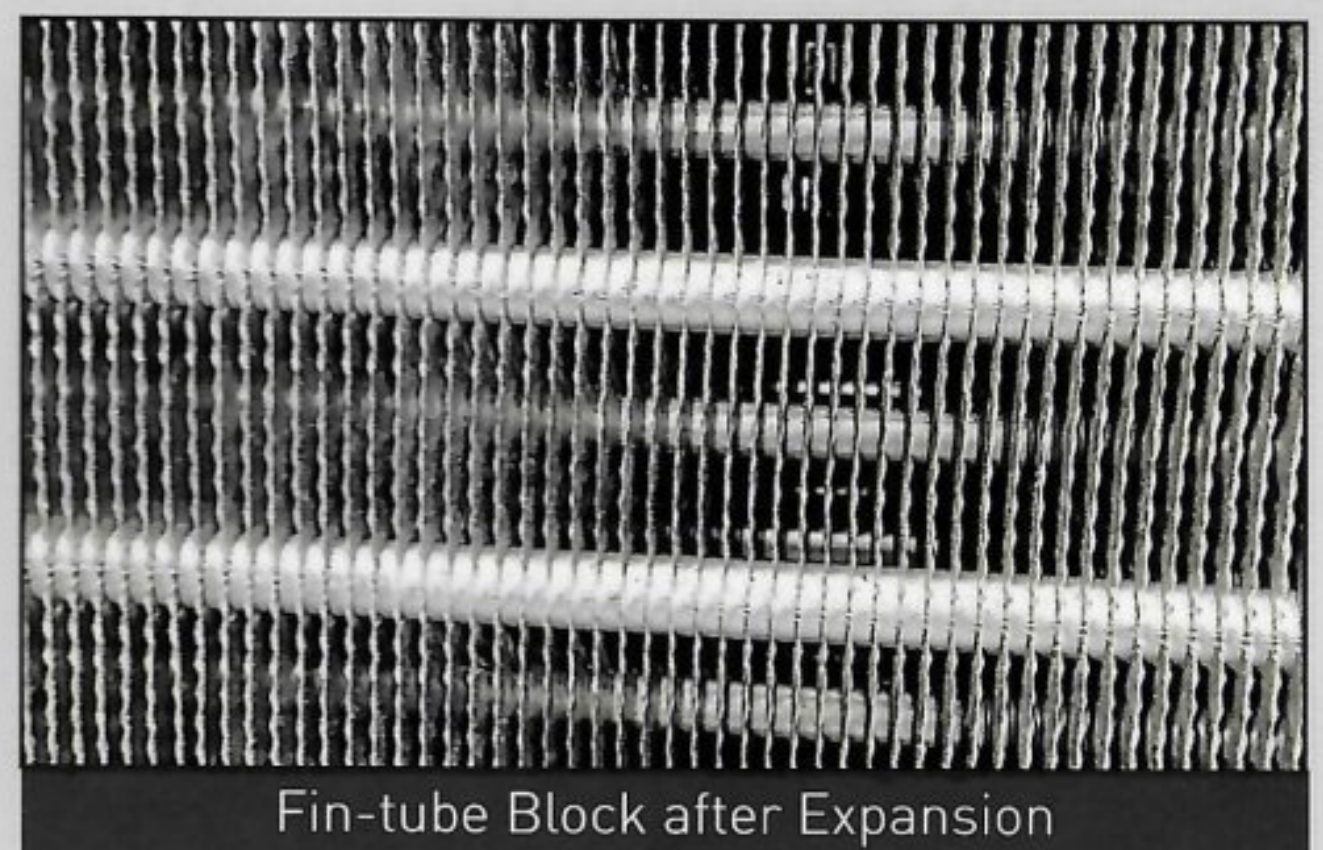
Fin Press



Amada AE2510NT



Station Fin Progression



Fin-tube Block after Expansion



Ammonia Cooling - Coil



High Efficiency Axial Flow Fan

Manufactured by:

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