MANUFACTURING FACILITY

















VALUABLE CUSTOMER

























































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ABOUT US



KARMYOGI COOLING INDUSTRIES has evolved into a multifaceted engineering organisation offering world-class products, services and solutions spanning several segments. We have been serving chemical industries, food processing & preserving industries, dairy industry, industrial AC plants, oil & gas industries, pharmaceutical industries, utility sector as well as hotels, hospitals, multiplexes, corporate offices and shopping malls.

We provide comprehensive services to our clients, starting from manufacturing and ranging upto supply, installation and commissioning of central AC plants, heating & cooling coils, shell & tube type heat exchangers, oil coolers, AHUs, fan coil units, air filters, air washers, chilling plants and conditioning units. Our products are manufactured under the supervision of experts, employing state of the art technologies and machineries using best quality raw materials. We are able to provide effective solutions that meet the special needs and requirements of our clients within minimum time, with best quality of products and services.

Our professionals are well experienced in their domains and they are working hard to meet the goal of the company. They are the key of our success in the market. In addition to this, transparent manner of dealing with our clients makes us their first choice.

VISION:

To be the world leader in heat management by providing high quality products with the best service support and be the most admired company which works as a catalyst in heat transfer solutions.

MISSION:

- To continuously improve the quality standards of our products, delivery and services that we offer to our clients and strive for client's delight.
- To deliver the products of sustainable excellence for exceeding client's expectations.
- To produce quality workmanship through attention to detail and innovative solutions.

WHYUS:

Our design team has been introducing indigenous, innovative & customized solutions in power, petroleum, petrochemical & pharmacy, cement, FMCG, chemical, steel and shipping industries. We understand the pulse of heat transfer equipments. Our products and its development processes are tailor made to meet the industry's requirements. We offer the entire product to our clients in both standard and customized option with any shape, size and services as per various specifications. Our on-time delivery and services along with easy payment modes help us in attaining the maximum satisfaction of our clients.



COILS



WE MANUFACTURING:

Chilled water coil for Air Handing Unit: -

Chilled water coils are tube fin heat exchangers consisting of 2 to 12 rows of imported round seamless tubes. Usually that passes through sheets of formed fins (corrugated or plate type), bonded through tube expansion (1500-1800 PSI). The expansion of the tubes provides a permanent metal to metal bond with fins for efficient heat transfer. Fin collars are fully drawn to provide accurate control of fin spacing and maximum contact with tubes. Fins are available 6 to 14 FPI with seamless die formed collars. Our chilled water coils come with various tubes & fins materials option like copper, cupro-nickel, aluminum and stainless steel to match the performance requirements and level of corrosion resistance needed for different application.

Condenser Coils:

Condenser coil is available in a wide range, depending on the specifications of the system and the overall output volume. The refrigerant condenser coils are suitable for use in a wide variety of HVAC air conditioning (condensing) and heat recovery applications. We allow the user to vary coil circuiting (feeds and passes), fin spacing, Shape of coils like L-type, C-type, O-type and materials of construction to design the coil for any refrigerant and set of operating conditions.

Evaporator Coils:

DX Evaporator coils are designed to be use in an air side application for cooling, heating, dehumidifying. With wide array of distributors, we're able to provide proper reduction of pressure and temperature to optimize coil performance. Our evaporator coils offer various circuiting capability to design and produce custom evaporator coil as well as OEM replacement Evaporator coil.

Split AC's Cooling Coils:

Our clients can avail from us an exclusive Cooling Coil for wall mounted split AC which is constructed by the heavy gauge copper tube have 7mm OD and aluminum fins. These are available in various models and are offered with specific features such as high efficiency airflow structure, multi airflow, minimum noise, optimum performance and innovative designs.

Steam Coils:

Our engineers have experience of solving steam coil requirement with great satisfaction of our clients. Proper drainage, trapping and piping are essential for long coil life. We will gladly assist you with such problems and can fabricate specially designed coils for unusual applications or for the replacement of any existing coil.

Laundry and dry-cleaning Coils:

Our laundry and dry-cleaning coil are top in the industry. We have a large inventory of replacement coils for laundry and dry-cleaning equipment. Most of our laundry and dry-cleaning coils are ready to be shipped immediately. We can provide exact fit replacement coils or duplicate custom coils.





Thermal Coils:

Our organization is amongst the renowned manufacturer and exporter of high quality range of Thermal Coils. These industrial heating coils are widely demanded as reliable part of boilers, hydraulic equipment's, thermal products and many others. Our industrial Thermal Coils are able to provide excellent heating capacity for efficient heating functionality. These industrial Thermal Coils are made from annealed copper tubes.

Jacket Type Coils:

Jacket Type Coil is drainable and easily cleaned by simply removing a single cover plate at each end of the coil. Our engineers have experienced of solving the issues which is create due to scale forming inside the tubes with great satisfaction of the clients by made the jacket type end cover openable coils. This exposes every tube, making it possible to clean each tube, from either end of the coil. These coils are used where periodic mechanical cleaning of the inside of the tubes is required because the unusual presence of sediment or scale - forming chemicals in the water.

Stainless Steel Cooling/Steam Coils (SS Coils):

Our company is one of the most reliable and trusted companies in the line of work of manufacturing & exporting of the stainless steel cooling/Steam coils. These SS coils are one of the most reliable and efficient quality products which we are providing our clients on a much wider extent in the market. These are designed and fabricated using high grade anti corrosive steel, which will withstand the corrosion and eliminate the leakage from tube to fins and enhance the life of entire coils in different application. These SS are highly demand in the market due to their top grad quality. Our applications expertise will assist to design & produce custom coil as well as OEM replacement by SS Coils that will meet all dimension and performance criterion of the original coil with better pre-long life.

Custom Coils:

When standard heat exchangers can't meet your heat transfer needs, we provide custom design services to develop solutions that are efficient and affordable. Our engineering team provides expert design, analysis, and verification for custom solutions. Our engineers perform advanced thermal analysis using throughout the prototype process. Our team of experienced thermal engineers and designers choose the various material option as well as design criteria to create heat exchangers specific as our clients' needs. We are also providing our Clients with an exact dimensional replacement of their existing coil, maintaining all the specification of existing one. We specialize in customising exact dimensional replacement coils.

Cassette Coils:

We are engaged in offering Cassette Coils that are made from copper pipes aluminum fins. With rich industrial experience, we have constructed these coils that have high functional life. Available in cost effective prices, these coils are very useful in for residential OEM air conditioners, diary industries, Shopping Mall or one off made to fit and custom commercial coils.

Brine Coils:

When an application calls for low temperature cooling and the air side or liquid side temperature is at or below freezing, there is the potential for the coil to freeze, brine solutions are an option. We have become admired among our clients by offering a wide range of Brine Coils. These are constructed using newest technology from the high quality materials as per the set quality norms.

Booster Coils:

Booster coils are used for zone heating or individual room heating where small hot water or steam coils are required. Our reheat booster coils are designed for air heating application using hot water. We provide a variety of casing, configuration including fully flanged, slip and drive or end plates only.

Hot Water Coils:

We offer wide ranges of hot water coils are suitable for use in a wide variety of HVAC air heating applications. Leveraging on our knowledge, we manufacture Hot Water Coils for our patrons. These are ideal for use with hot water, glycol solutions and steam. These Metal Coils have thick tube walls, strong brazed joints and continuous circuit tubes with return bends. The manifold pipe headers of these coils are made of steel or non-ferrous material.

MATERIALS OF CONSTRUCTION

Fin Material:

Coils are constructed with plate and zig –zag types fin, die-formed Aluminum, Copper, Cupronickel and Stainless Still (S.S.) with self spacing collars. Standard aluminum material thickness shall be 0.10 mm to 0.30 mm

Copper Tube Material:

Machine bends Copper tubing and return bends are manufactured with seamless copper conforming to ASTM B75 and ASTM B251. Tubes are mechanically expanded to form an interference fit with fin collars. Tube wall thickness between 0.27 mm to 0.70 mm can be used depending upon the customer's specification. Tube OD available are ¼", 3/8", ½", 5/8" in sizes.

Manifold

All manifolds are constructed from seamless copper conforming to ASTM B75.

Brazing

All brazed joints utilize high temperature filler metals. Manifold connections are brazed with filler metal containing at least 5 to 8 % silver.

Tube Sheet/Casing Material:

Casing and tube sheets are usually manufactured from 16 gauge galvanized steel of 180 to 220 GSM meeting ASTMA527 standards Thickness from 1.0 mm to 3.0 mm can also be used.

COILS



PRODUCT SPECIFICATION

The significant advantage offered by the versatility of the our product portfolio is the variety and the flexibility it can offer with regard to fin patterns, types of fin surfaces, coil length and height, the number of rows, fin spacing, fin thickness and the type of tubes.

Tube O.D.	Tube Type	Fin Geometry	Fin Surface	Fin Edge	FPI Range	Row
7 mm	Inner grooved	21 mm x 12.7 mm	Louvered Corrugated sinewave	straight	12 to 20	1 to 6
7 mm	Inner grooved	25 mm x 21.65 mm	Louvered Corrugated sinewave	zigzag	8 to 20	1 to 8
9.52 mm	Inner grooved Smooth	25.4 mm x 22 mm	Louvered Corrugated sinewave	zigzag	4 to 18	1 to 12
12.7 mm	Inner grooved Smooth	31.5 mm x 27.5 mm	Louvered Corrugated sinewave	zigzag	6 to 14 FPI	2 to 12
15.875 mm	Inner grooved Smooth	38.1 mm x 38.1 mm	Louvered Corrugated sinewave	zigzag	10 to 16 FPI	2 to 12

Coil Leak Testing:

All KYCI coils, whether they are for chilled water coil or DX systems, surpass all standard industries leak test specifications. Every coil must pass each step of the leak test procedure before it receives final approval and ships to client or installed. Using the test data, KYCI is also able to continually improve the manufacturing process to offer the best quality of coils or condensers are available for our clients.



Hydrotest Expansion

Bullet Expansion

Nitrogen Test





Cooling Coil & Heating Coil

SHELL & TUBE HEAT EXCHANGERS



Shell and Tube Type Heat Exchangers are a simple but effective type of heat exchangers consisting of a cylindrical shell which contains a bundle of tubes. In most applications the hot fluid flows over the outside of the tubes and the coolant flows through the tubes exchanging the heat between the thermally conductive materials used in the heat exchanger design. Our Shell & Tube type heat exchangers are widely used for liquid to liquid, liquid to gas and gas to gas applications.

Heat Exchangers in this category include:

- Condenser
- Evaporators

Heat exchanger size is calculated to achieve optimum flow regimes in relation to heat transfer, low fouling and scaling. Heat exchanger's materials are carefully selected so as to minimize erosion and wherever possible we try to use materials that are readily available in standard sizes for short lead times and compatibility with further orders and re-builds.

SHELL AND TUBE TYPE CONDENSER

Our shell & tube type condenser are manufactured and designed using the best technological solutions as per different applications area.

The tube is made of special high-performance Copper, Mild Steel (MS) and Stainless Steel (SS) both internally and externally grooved finned tube (as per requirement) for a low fouling factor with high heat transfer capacity. The offered product is precisely designed in compliance with ASME & TEMA codes.

SHELL AND TUBE TYPE EVAPORATORS (CHILLER)

The KARMYOGI COOLING INDUSTRIES's shell and tube type evaporators are very efficient and require minimum floor space and head space. These are easy to maintain, hence they are very widely used in medium to large capacity refrigeration systems.

We offer a premium range of shell and tube type chiller. This has wide applications for comfort / industrial A.C. plants, process water / other fluids chilling plants. These chillers are manufactured by using the latest technology and can withstand high pressure and temperature.

It is further classified into

SHELL AND TUBE TYPE

- a. DX /Dry chiller: Shell & Tube Direct Expansion Refrigeration Chillers are designed and fabricated under the direct supervision of a team of Engineers well experienced in the line of Heat Transfer Equipment. Every care is taken to ensure a long and trouble free service and the desired performance from the equipment.
- **b. Flooded chiller:** It is also a type of shell and tube chiller where the water runs through the tubes and the refrigerant flows over the outside of the tubes within a closed shell. Mainly in the flooded chiller approximately 50% to 75% of the tubes are immersed in liquid refrigerant and the space above provides an allowance for the vapor generated through evaporation of the liquid below. This type is more often used with screw or centrifugal type compressors.

TYPES:

- Fixed Tube Sheet tpes horizontal Chillers
- Removable "U" Tube type Chillers

MATERIAL OF CONSTRUCTION

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Heat Exchangers Category	Shell Material	Tube Material	Baffeles	Shell Side BSP	Tube Side BSP	Tube OD				
Condenser	MS, CS, SS304, SS316, SS316L	Copper, Cupronickel (70:30/90:10), SS304/ 316, SS316L, MS, Brass (Seamless, External/ Internal Grooved, Extruded, Spiral Wound Fin Tube), Carbon Steel.	MS / CS Brass / SS / PP	MS / CS / SS	MS / CS / SS	³ ⁄ ₄ ", ½", 5/8", 3/8"				
Evaporators (Chiller)	MS, CS, SS304, SS316, SS316L	Copper, Cupronickel (70:30/90:10), SS304/ 316, Brass (Seamless, External/ Internal Grooved, Extruded, Spiral Wound Fin Tube)	MS / CS Brass / SS / PP	MS / CS / SS	MS / CS / SS	³ ⁄ ₄ ", ½", 5/8", 3/8"				





