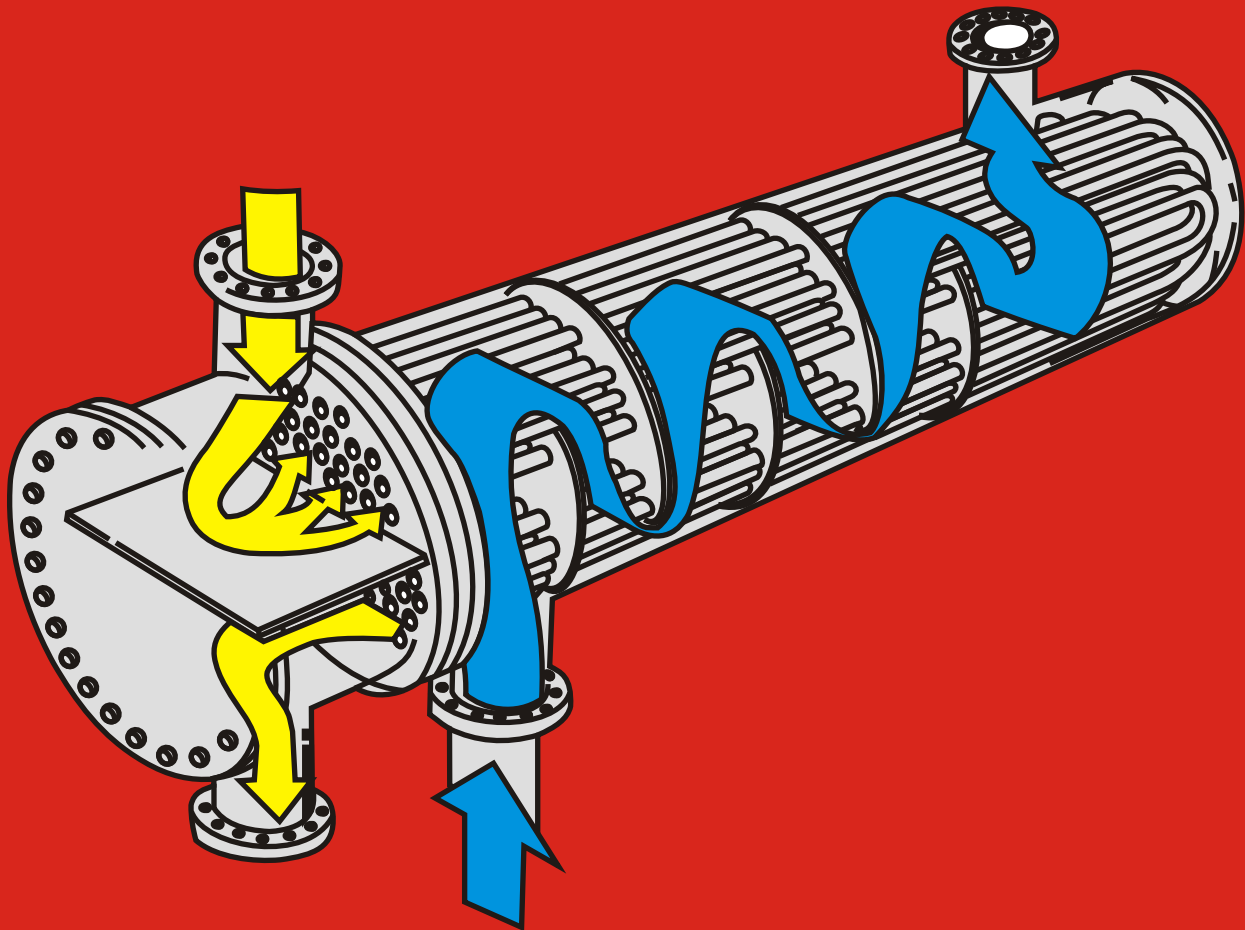


**kinam**TM
The heat exchanger specialist



- XTube[®] Corrugated Tube Heat Exchanger in technical collaboration with XLE, Spain
- Shell & Tube Heat Exchangers, Pressure Vessels & Allied Process Equipments

An ISO 9001:2008 Certified Company

- Supplied over 2600 Heat Exchangers • Over 30 years of Experience
- Higher Thermal Efficiency • Lower Fabrication Cost • Committed Delivery

181 m² Condenser
Supplied to Desmet Ballestra



309 m² Heat Exchanger
Exported to Aditya Birla Chemicals (Thailand) Ltd.



About us

Kinam, established in 1981, is one of the leading designers & manufacturers of Heat Exchangers, Pressure Vessels & allied custom built process equipments.

Specializing mainly in Heat Exchangers, Kinam has supplied over **2600** various types of Heat Exchangers to clients ranging from Chemical, Petrochemical, Fertilizers, Refineries, Power plants, Pharmaceutical, Biotech, Cosmetics & Textile Industries.

Kinam has two well equipped manufacturing units - One located at Kurla, (Central Mumbai) & another at Dapode (Mumbai - Nashik Highway) which is 10kms from Thane.

The manufacturing unit is approved by major consultants & the equipments undergo third party inspection from various TPI agencies /consultants like UHDE (India) Pvt. Ltd, Kvaerner Powergas (I) Ltd, Jacobs H & G Pvt. Ltd, Shroff & Associates, Dalal MottMacdonald Ltd, Chemtex Engineering Pvt. Ltd., TUV, Toyo Engg (I) Ltd, Chempro Inspection Pvt Ltd, Bureau Veritas, LRIS, SGS, etc.

Kinam has exported Heat Exchangers & allied equipments to Thailand, Malaysia, USA, Egypt, Bangladesh, Nepal, etc.

Apart from the high standards of design, engineering & fabrication, exemplary quality management & full technical documentation belong to every unit delivered by Kinam.

Product Range:

- Shell & Tube Heat Exchanger
 - Fixed Tube Sheet
 - Floating Head
 - U Tube
 - Kettle Reboiler
 - Hair Pin / Double Pipe
- **XTube**[®] Corrugated Tube Heat Exchanger
 - B Type
 - Pharmagrade
 - Monotube
 - Exotic
 - Foodgrade
- Pressure Vessels & Columns
- Exotic Metal Fabrication
- Sample Cooler & Closed Sampling System
- HyClean - Hygenic Cleaning System

Materials we handle:-

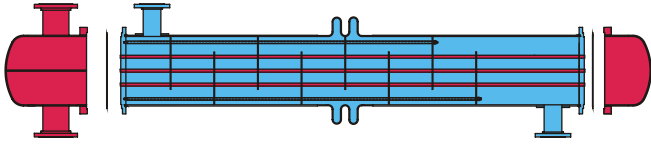
- Austenitic Stainless steel like (SS304L, SS316L, SS321, SS904L etc.)
- Carbon steel / LTCS
- Alloy steel
- Hastelloy
- Inconel
- Monel
- Cu-Ni Alloys
- Titanium
- Duplex & Super Duplex Steel

Standards we follow :-

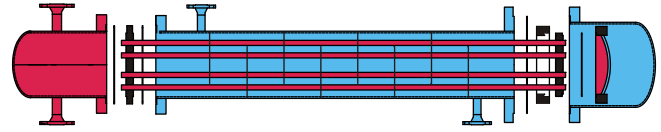
- ASME
- TEMA Cl. R/C/B
- Admark Blaetter
- DIN
- BS
- IS
- API
- NACE



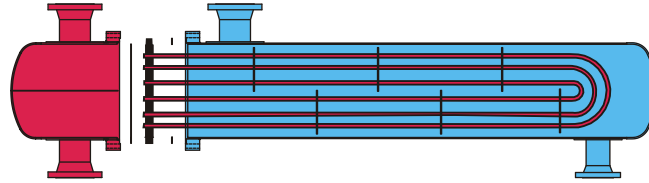
Fixed Tube Sheet



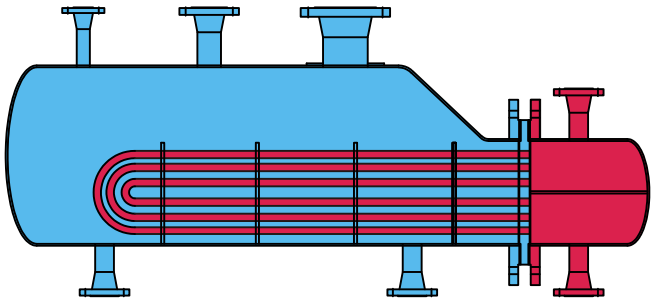
Floating Head



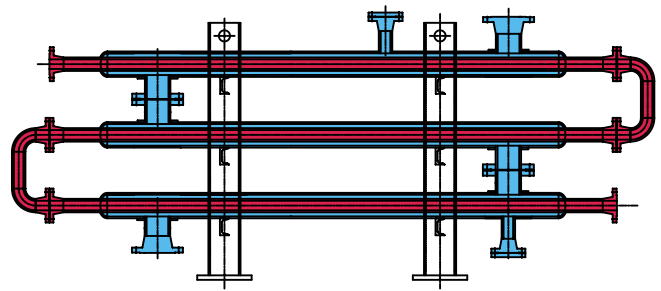
'U' Tube



Kettle Reboilers



Hair Pin / Double Pipe



Maximum Manufacturing Capacity for Heat Exchanger:

Description	Max. capacity
Shell Dia	3000 mm
Tubesheet Thk	200 mm
Overall Length	18 mtr.
Pressure	225 Kg/cm ²
Weight	40 Ton
Heat Transfer Area Range	1m ² to 1000m ²

Standardized Heat Exchanger for Shorter Delivery Period

- Available from 1m² to 50m².
- Shorter delivery period of 4 to 6 weeks.
- Ideal for Pilot Plants or small size projects in Chemical & Pharmaceutical Industry.
- Available in both options - Plain Tube & Corrugated Tube.
- No of Tube side pass Option - 1, 2 & 4 pass.
- GMP & Non-GMP Model.
- Standard MOC - SS 304L, SS 316L & CS. It can be offered in exotic material also.
- Can be customized according to client's specifications.
- Available with inspection under Reputed Third Party Agency.

XTube® range of Corrugated Tube Heat Exchanger

In Technical Collaboration with
XLG Garpey Ingenieria SL., Spain.

Advantages:

- Higher Heat Transfer Co-efficient
- Heat Transfer Area Reduced by 30 - 50%
- Compact Size
- Cost reduction by 25 - 50%
- Reduced Fouling

XTube® B TYPE



- These are fixed shell & tube type heat exchanger having multiple corrugated tubes.
- Application in Chemical industry, Petrochemical industry, Refineries, Paints, Oil, Soaps & Various industrial applications.
- Removable 'U' Bundle design is also possible.

XTube® PHARMAGRADE



- Designed for use in pharmaceutical or biotech applications.
- All contact parts have a surface roughness $Ra < 0.4 \mu m$.
- Manufactured as per GMP standards.

XTube® MONOTUBE



- These are corrugated tube heat exchanger formed by two concentric tubes.
- The fluid to be treated is normally passed through the corrugated inner tube and the service fluid, providing the source of cooling or heating, passes through the annulus formed by the two tubes.

XTube® EXOTIC



- These are multitube CTHE made from exotic materials like Titanium, Hastelloy, Monel, Inconel & even Duplex steels.
- Welding done in special dedicated closed clean room area.
- Offers significant savings compared to plain tube heat exchanger or plate heat exchanger.

XTube® FOODGRADE



- Design for use in sanitary application in the Food & Dairy Industry.
- Triplet tube and Multitube configuration.
- All contact parts have surface roughness of $Ra < 0.8 \mu m$.
- Application includes process such as pasteurisation, high temperature sterilisation, thermal treatment for aseptic packaging etc.

Heat Exchangers supplied by us to various clients



155 m² Cooler
Client: Desmet Ballestra
(Exported to KLK, Malaysia)



SS 316/CS Condensers
Client: Glenmark Pharmaceutical Ltd.



130 m² Water Condenser
Client: Alok Industries



Hastelloy Condensers
Client: Strides Arcolab Ltd.



401 m² Economiser
Client: Alok Industries



Tube Bundle assembly in progress of 309 m²
Exported to Aditya Birla Chemicals (Thailand) Ltd.



Inconel 600 Condensers
Client: Navin Fluorine International Ltd.



CS/SS316 Condensers
Client: Nicholas Piramal India Ltd.



CS/SS316L Heat Exchangers
Client: Shreyas Intermediate Ltd.



400 m² Economiser
Exported to EcoOils Processors Sdn Bhd (Malaysia)



XTube® Corrugated Heat Exchanger



VCM Column Condenser 208 m²
Client: Finolex Industries



79 m² Condenser
Client: Desmet Ballestra



Corrugated Tube Heat Exchanger
Client: Calyx Pharmaceuticals



6 nos. Heat Exchangers in Stack
Exported to Aditya Birla Chemicals (Thailand) Ltd.



SS316L Heat Exchangers
Exported to Aditya Birla Chemicals (Thailand) Ltd.

Exotic Metal Fabrication

Apart from Heat Exchanger's, Kinam also supplies Various Customized fabricated parts, Piping items, Coils, Interconnecting parts made from exotic materials like:



Titanium	Hastealloy
Nickel	Duplex Steel
Monel	Super Duplex Steel
Inconel	Cu-Ni Alloys



Welding of exotic metals is done in a specially dedicated closed clean room area (which is Air Conditioned) to provide superior quality welding & avoid any kind of contamination.

Sample Cooler

Sample coolers are miniature heat exchangers designed to reduce high temperature liquid samples to safe, usable temperature for analysis.

They are designed to meet sampling requirement of today's highly efficient power plants.

These coolers are compact yet more effective in terms of heat extraction capacity.

Very close approach temperature with minimal cooling water requirement.

A complete single piece coil assures trouble free operations with no risk of failure of joints inside the shell.

Specification:-

Sample Coil:-

MOC: A 213 TP 316

Design pressure: 150kg/cm²

Design Temperature: Max 550°C

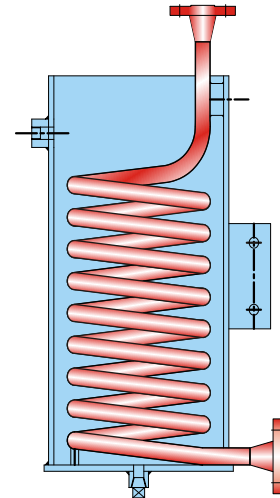
Tube size : 3/4" OD x 14 BWG

Shell :-

MOC: SA 106 GR.B, Galvanized

Design pressure: - ATM

Size : 12" NB Sch 40



Kinam has supplied various sample coolers to Reliance Industries, IOCL, GSFC, Aditya Birla Chemicals, etc.

Closed Sampling System

Kinam's closed sampling system provides petroleum refineries, chemical plants, and other processing facilities with a safe mean of drawing representative samples directly from process streams.

Designed to handle a wide variety of gases, toxic fluids, light and medium distillates, and high pressure liquids and gases, each closed sampling system is configured to match the operating parameters of individual applications.

Closed sampling apparatus can be used for collecting samples of final as well as intermediate products for laboratory analysis.

The main feature for the above system is that sample is collected in a closed sampling bottle without disturbing the running process.

The above system can collect a Sample of Gas, Toxic Liquid or High Vapour pressure liquid for analysis without disturbing the process cycle.

The system is provided with a strainer to ensure elimination of unwanted foreign particles.

Pressure gauge indicates the pressure of sample collected.

The system is easy to operate with the help of quick coupling and flexible hose provided in the system.

Specifications:

- 1500 PSI Maximum design pressure.
- 150°F maximum temperature.
- 500cc sample cylinder.
- Material of construction : Type 304 or 316 stainless steel.
- All welded assembly except for pressure gauges, flexible hose & disconnects.
- 3/4 - inch RF flanged inlet, outlet & vent.



Pressure Vessels



Falling film evaporator & condenser mounted on reboiler
Client: Camphor & Allied Products Ltd.



ML Tank
Client: Glenmark Pharmaceutical Ltd.



Client: Nocil Ltd. (RCD division)



Client: VVF Ltd.



Client: DCW Ltd.



Client: Cadbury Ltd.

Kinam HyClean - Hygenic Cleaning System



HyClean is a low pressure foam cleaning equipment for cleaning & sanitisation of vertical & inaccessible areas in food, chemical, pharmaceutical & hotel industries.

The equipment generates foam which can adhere to irregular surfaces & provide better coverage than liquid cleaning chemicals. Foam enables a larger contact time & actively lifts up dirt & oil from surfaces until it is rinsed off.

HyClean dispenses a rich lather of foam at 10lts/min with a projection upto 20 feet

Applications:

- Food processing plants
- Bottling plants
- Pharmaceutical Cos.
- Bulk drug plants
- Chemical & Fertilizer plants
- Aviation
- Shipping
- Hotels
- Construction Equipment
- Machinery Degreasing
- Paint mfgs.
- General Cleaning



Some of our reputed customers...



desmet ballestra



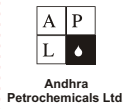
KCI
Kanjora Chemicals & Industries Limited



BASF
The Chemical Company



Finolex
Gets People Together.



Lubrizol



Firmenich

Cadbury



Our equipments have been inspected by following Engineering Consultants & Third Party Inspection Agencies:

 Uhde ThyssenKrupp	 Aker Solutions	 JE JACOBS	 Toyo Engineering India Ltd.	 Shroff Shroff & Associate (Engineers) Pvt. Ltd.
 Chemtex Global Engineering of India Ltd.	 Mott MacDonald Dalal Mott MacDonald Pvt. Ltd.	 CHEMPRO Chempro Inspection Pvt. Ltd.	 B. Mehtalia Consultants Pvt. Ltd.	 BLACK & VEATCH Building a world of difference USA
 Lloyd's Registrar of Industries & Shipping	 BUREAU VERITAS	 ISO 9001:2000 DNV REGISTERED FIRM	 TUV MANAGEMENT SERVICE ISO 9001	 SGS SGS India Pvt. Ltd.
 Technip	 JA Joshi & Associates	 IIB Industrial Inspection Bureau	 BAXCOUNSEL Baxcounsel Inspection Bureau Pvt. Ltd.	

**All logos & trademarks in this catalogue are registered & proprietary of their respective owners*

Zinc Bath Chiller
 Supplied to TATA Steel Ltd. (Wire Division - Tarapur)



Condensers

Reboilers

Heaters

Coolers

Vapourizers

Inter Coolers

Economisers

Chillers

After Coolers

Falling Film Evaporators



Kinam Engineering Industries

Office / Unit I: 1, 9 & 16 Parmar Indl Estate, Bail Bazar, Kuria (W), Mumbai - 400 070. India.

Tel.: + 91-22-2514 3872
+ 91-22-2514 1001
+ 91-22-6514 2472
+ 91-22-2512 8151

Fax : + 91-22-25142472
Email: kinam@kinam.in
sales@kinam.in
URL : www.kinam.in



www.kinam.in