



THE HEAT EXCHANGER SPECIALIST



Introducing



The most efficient condenser

www.kinam.in

Since
1981

8500+
Installations

Innovative
Heat Transfer Technology

Specialist in Heat Exchanger made from
Exotic Materials



About us

Kirit Mehta, Jigar Mehta & Mehul Mehta

Kinam Engineering Industries, a family owned business established in 1981 has built its reputation on the cornerstones of high quality products, customer satisfaction & superior service.

Fostered over by years of experience in both manufacturing and thermal designing of Heat Exchangers, Kinam has become one of the leading manufacturers of Shell & Tube Heat Exchangers (STHE) & Corrugated Tube Heat Exchangers (CTHE).

Kinam has marked its presence across the globe by catering to its clientele in various countries, with industries ranging from Chemical, Petrochemical, Fertilizers, Refineries, Pharmaceutical, Biotech, Oil, Paper, Steel, Cosmetics & Textile.

With extensive research and proven results, Kinam has developed the next generation heat exchanger "**KICC**". These exchangers are most efficient when it comes to condensing applications.

Innovative designs, new technological advancements, best in class manufacturing facilities and workmanship has enabled Kinam to deliver successfully 8500+ installations gaining trust of 400+ clients.

Kinam with its remarkable achievements continues to grow & be the leader in the heat transfer industry.

**Quality, Performance
&
Committed delivery**
- a tradition at Kinam



Mission

To be the preferred brand of choice, across the globe in the heat transfer industry by providing trusted solutions with the highest-quality & cost-effective engineering.

Vision

To be the world's renowned & leading engineering firm by revolutionizing the heat transfer industry with consistent research & innovation.

Our Facility

Infrastructure



3 fabrication units
Total area under crane - 56000 sq. ft

Team strength - 150+ personnel

Heat Transfer area range - 1m² to 4000m²

Maximum weight handled per equipment- 100 tons

Design



Thermal design
HTRI



Mechanical design

CademPVD

PV Elite

Construction drawing

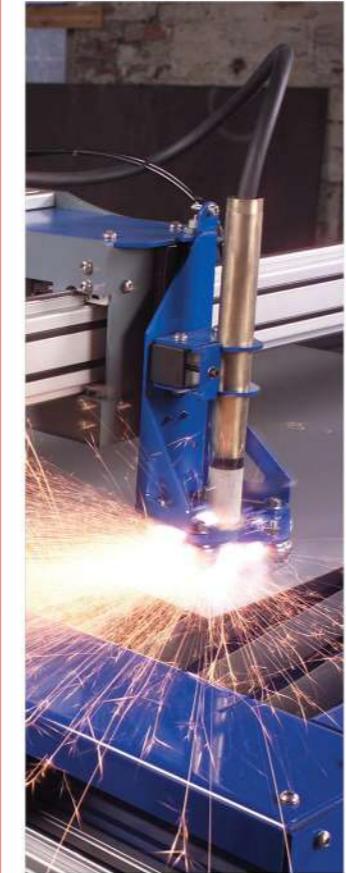
AutoCAD

GstarCAD

Proprietary Software



Cutting



CNC cutting upto 30 mm thick
Plasma cutting upto 100 mm thick

Rolling



Maximum width 2.5 meter
Maximum thickness 30 mm thick

Drilling



Tube-sheet drilling upto 400 mm thick & 4 meter diameter

Dished End



Dished End forming upto 3 meter diameter and 25 mm thick

Welding



GTAW
SAW
Orbital Welding

Clean Room



1000 sq. ft Clean room for welding of Titanium

Testing



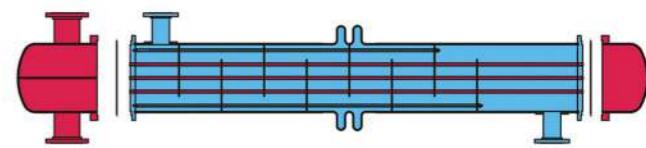
Hydraulic and Pneumatic testing
Vacuum testing
Helium leak Testing
Penetrant flow testing
Radiographic testing
Ultrasonic testing
PMI testing

Materials handled - Austenitic Stainless Steel (All 300 series) / Carbon Steel / Alloy Steel / Hastelloy* / Inconel* / Monel* / Nickel 200 / Cu-Ni Alloys / Titanium / Tantalum / Duplex / Super Duplex

Construction Codes - ASME Boiler & Pressure Vessel Code / TEMA / EN 13445 & AD 2000 with PED & CE marking
Certification - ISO 9001:2015, ISO 3834-2, ISO 14001, ISO 45001, U Stamp*

Product Range

Shell & Tube Heat Exchanger
Fixed Tubesheet Type



710 m² Tail Gas Heater
Fertilizer Company, Maharashtra, India

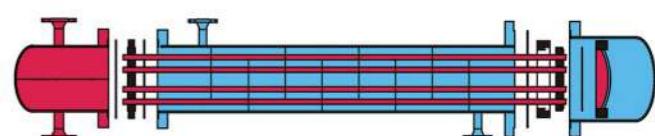
1458m² Depropanizer Condenser

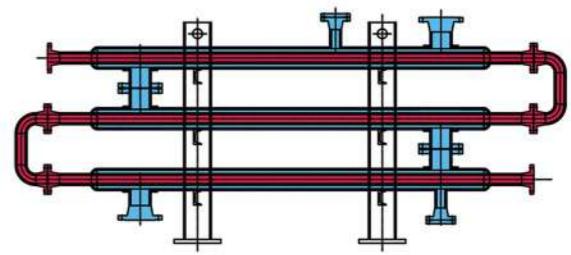
Floating head bundle of 4032 Nos. tubes, Weight: 55 Tonnes

Phenol Plant, Gujarat, India



Floating Head Type





Double Pipe Type

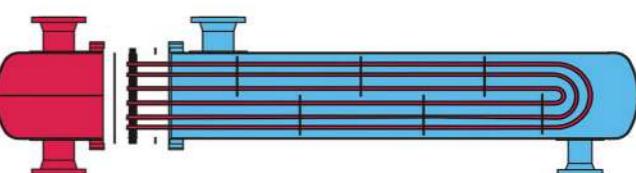


Sludge Heater For Non-Newtonian Fluid
Sewage Treatment Plant, Punjab, India



919 m² Propylene Feed Column Condenser
1280 numbers of U-Tubes. Weight: 46 Tonnes
Cumene Plant, Gujarat, India

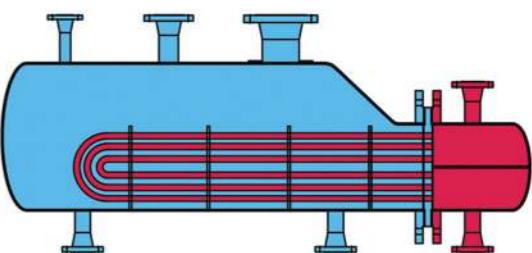
U-Tube Type

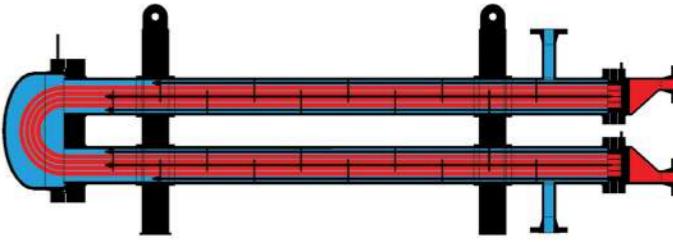


Column Kettle Reboiler
Rubber Chemical plant, Gujarat, India



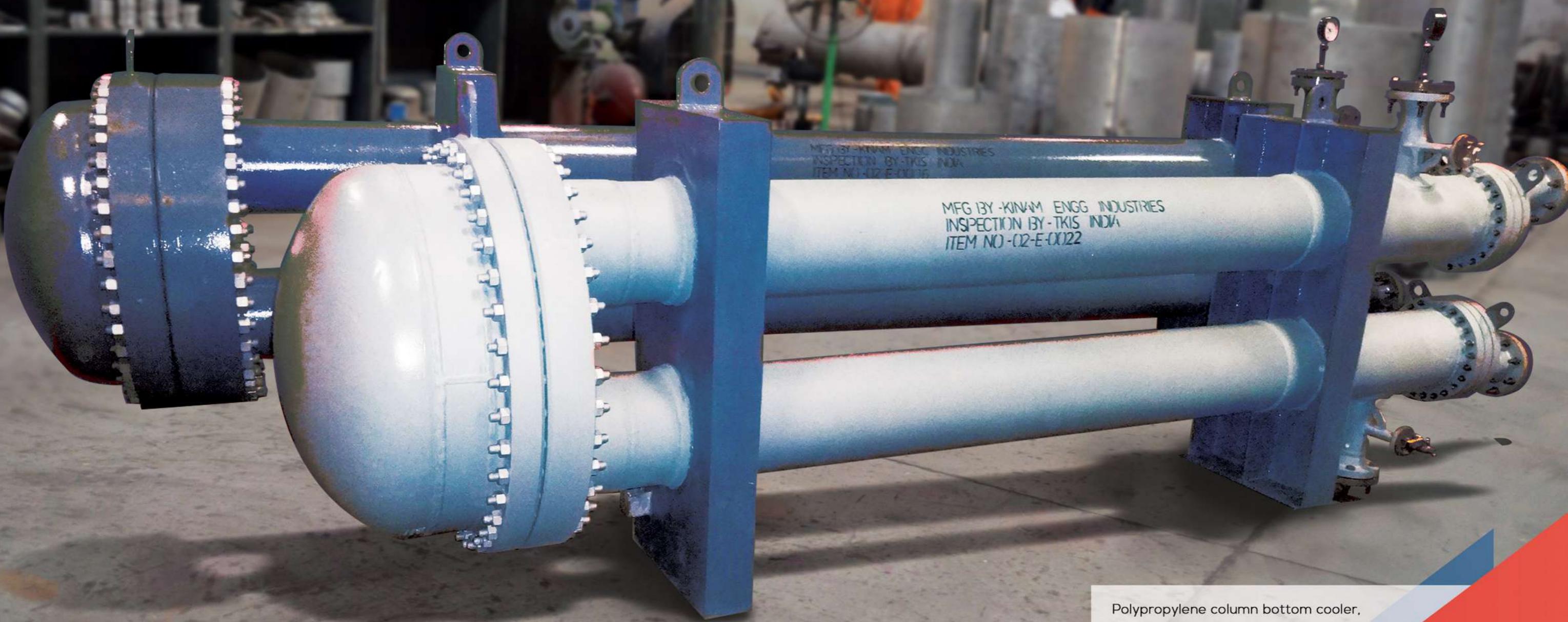
Kettle Type





Hair Pin (Removable Type)

These Exchangers are suited for the process conditions with temperature cross, high temperature differentials, cyclic operation, high tubeside pressure & mitigate FIV



Polypropylene column bottom cooler,
Cumene Plant, Gujarat, India

The most efficient condenser

KICC Technology

Corrugations are produced by indenting the tube along the length in a helical pattern with the use of a special purpose machine designed for corrugation of the tube without thinning of wall or development of stresses in the tube.

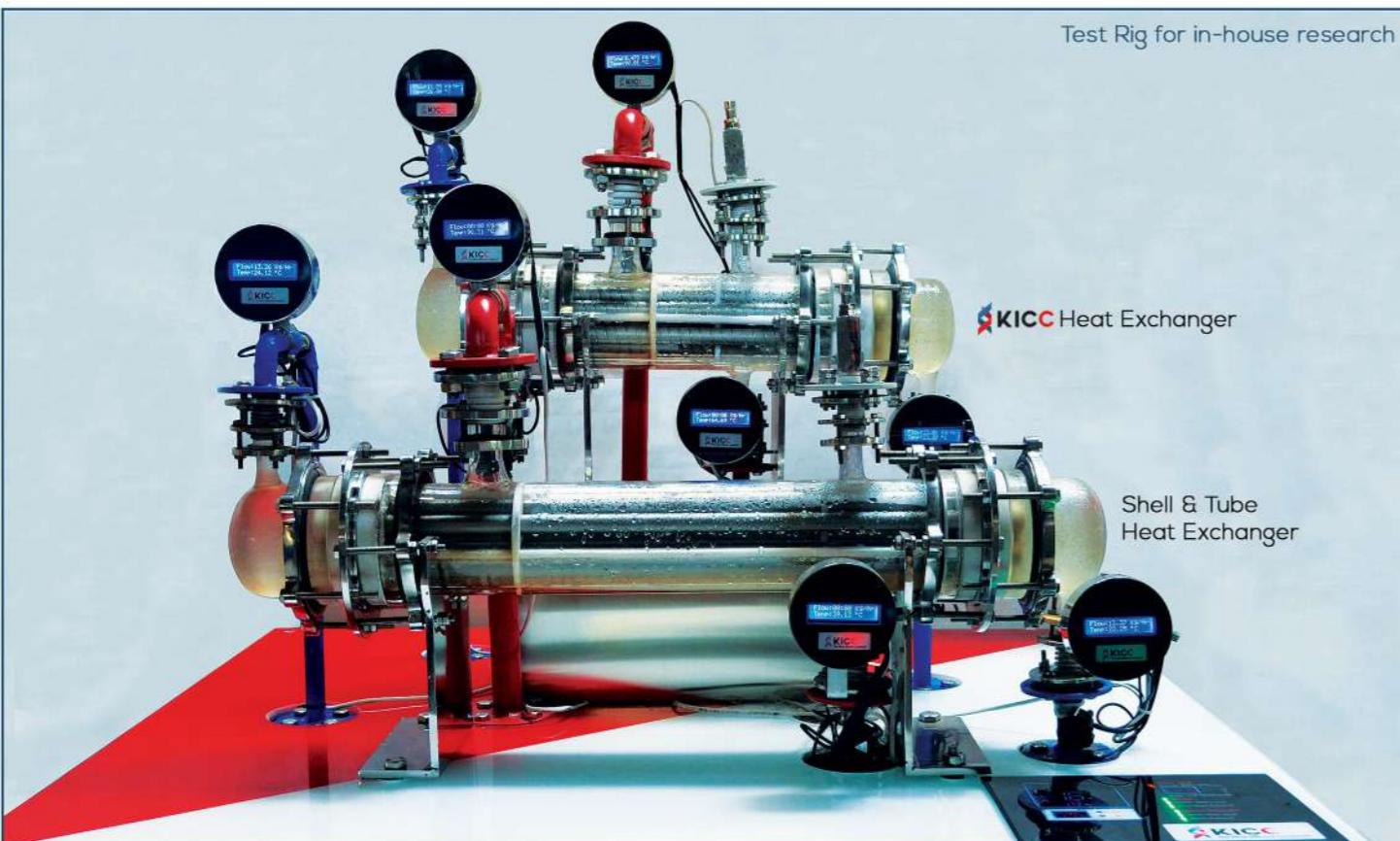
The helical pattern of the corrugations and the optimal depth of the indentation causes a two regime flow in the tube side fluid, spiral at core and eddies at the periphery creating turbulence even at a lower velocity of fluid resulting in higher Heat Transfer Coefficient.

KICC is the end-result of:

Kinam's ongoing research and development.
In-depth analysis of corrugation profiles and flow dynamics.
Constant testing for various condensing applications.

What is New?

New and improved corrugation profile for condensers resulting in even higher heat transfer coefficient.
Compact and economical design, hence higher savings.
Manufacturability in all exotic materials like Hastelloy, Titanium, Tantalum and Super Duplex Steels etc.



One of the test results of our extensive research had the following outcome:

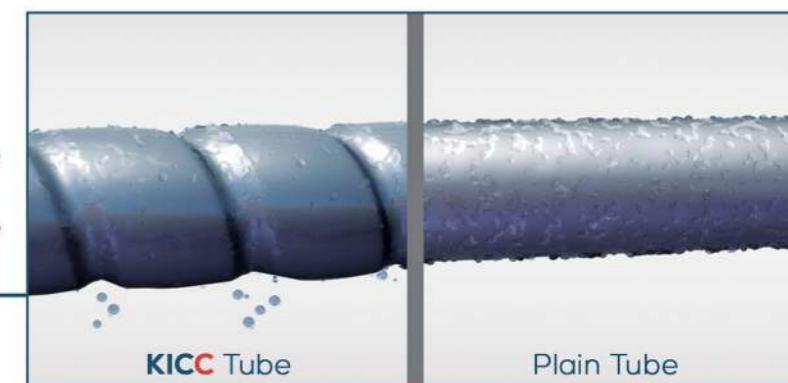
Condenser Type	Shell side flow rates		Shell side Temp		Cooling Water temp		Tube length	No. of tubes	Heat Transfer Coefficient Kcal/h-m ² -C
	Steam In	Condensate Out	Steam In	Condensate Out	In	Out			
STHE	13	12.2	98.75°C	97.9°C	23°C	33°C	570mm	7	423.8
KICC	13.2	12.5	98.75°C	96.75°C	23°C	32.6°C	300mm	7	1.9 Times x 423.8

Why KICC?



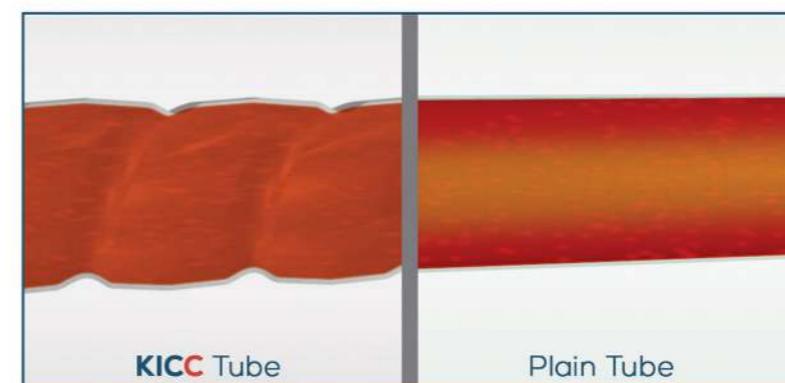
KICC Tube

Turbulent flow inside the corrugated tubes due to its helical indentation enables a more effective mixing & agitation resulting in a high heat transfer coefficient.



KICC Tube

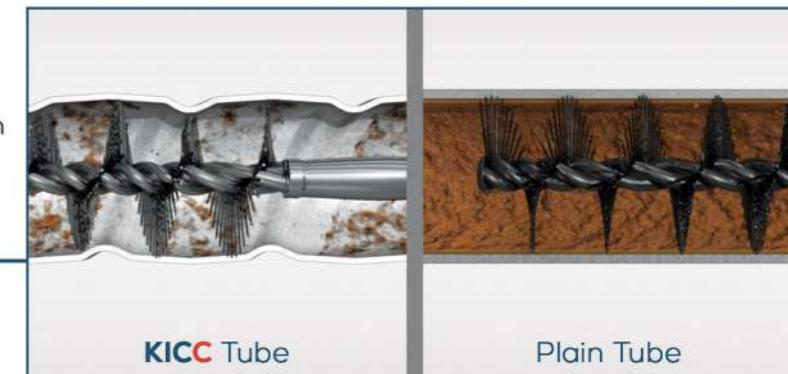
Plain Tube



KICC Tube

Plain Tube

Even temperature distribution due to flow pattern, since new layers come in contact with the tube boundary.



KICC Tube

Plain Tube

Higher periphery turbulence does not allow the suspended solid particle in the tubes to settle, thus giving it a self-cleaning effect which results in reduced fouling that ensure longer running time. Easier to clean due to intermittent scaling as compared to Plain tube.

KICC combines best advantages of PHE and STHE

	Shell & Tube Heat Exchanger	Plate Heat Exchanger	KICC Tube Heat Exchanger
Heat Transfer Coefficient	Low -	High +	High +
Size	Huge -	Compact +	Compact +
Temperature Distribution	Non Uniform -	Uniform +	Uniform +
Fouling	High -	Low +	Low +
High Pressure Application	Yes +	No -	Yes +
High Temperature Application	Yes +	No -	Yes +
Maintenance Cost	Low +	High -	Low +

KIC Series:

KICC series for condensing applications

KICH series for heating and cooling applications

KICF series for food processing and pasteurization applications

KICH series Heat Exchanger for an Edible oil application



KICC Condenser for solvent recovery for a Pharmaceutical company

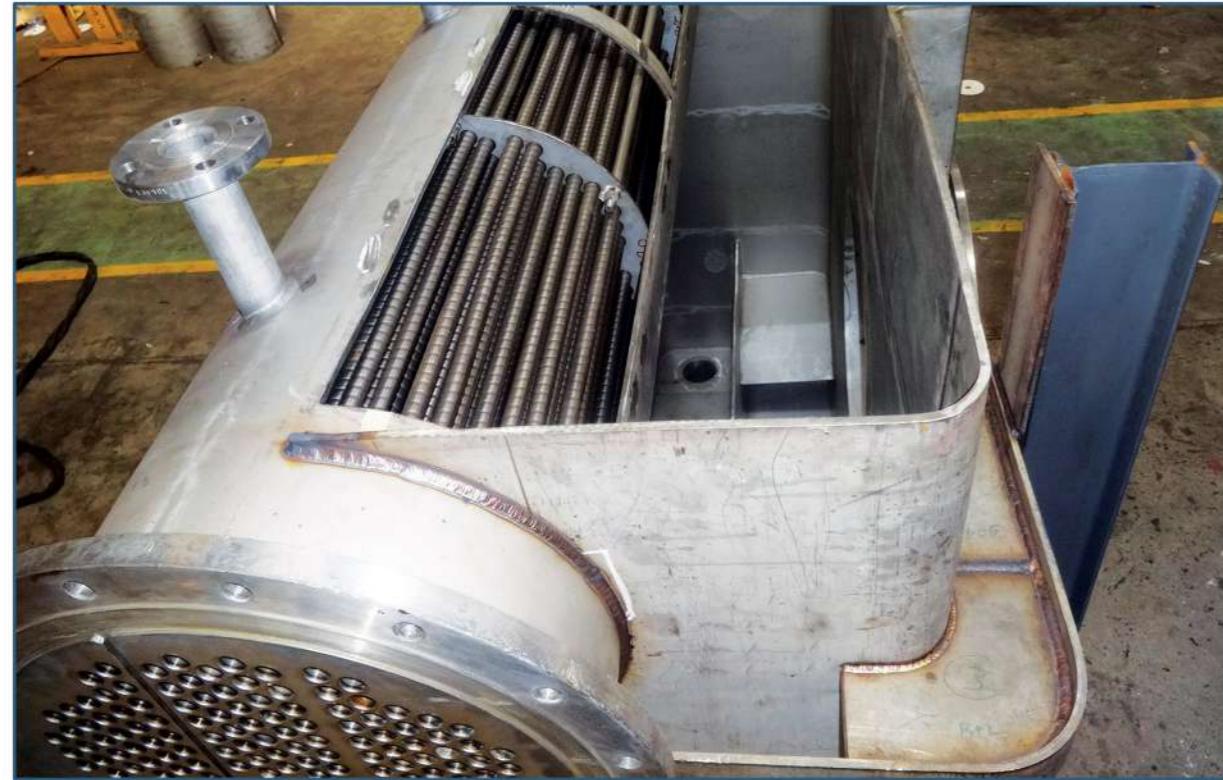


KICF series Heat Exchanger supplied to a food processing plant

Specialist in Heat Exchanger made from Exotic materials

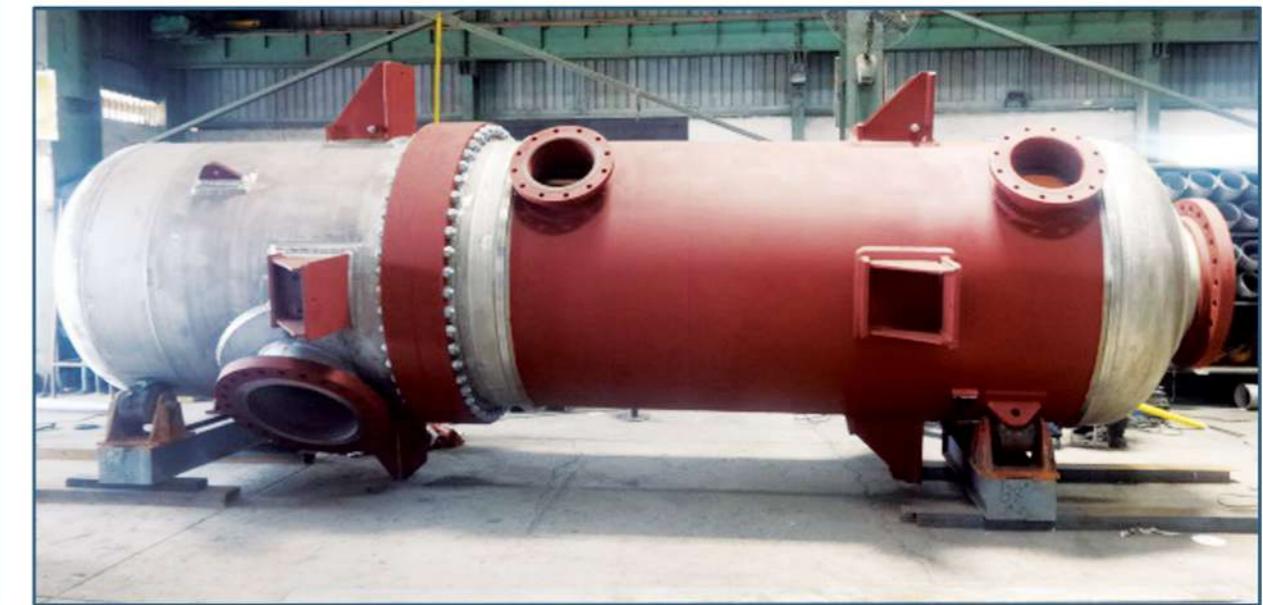
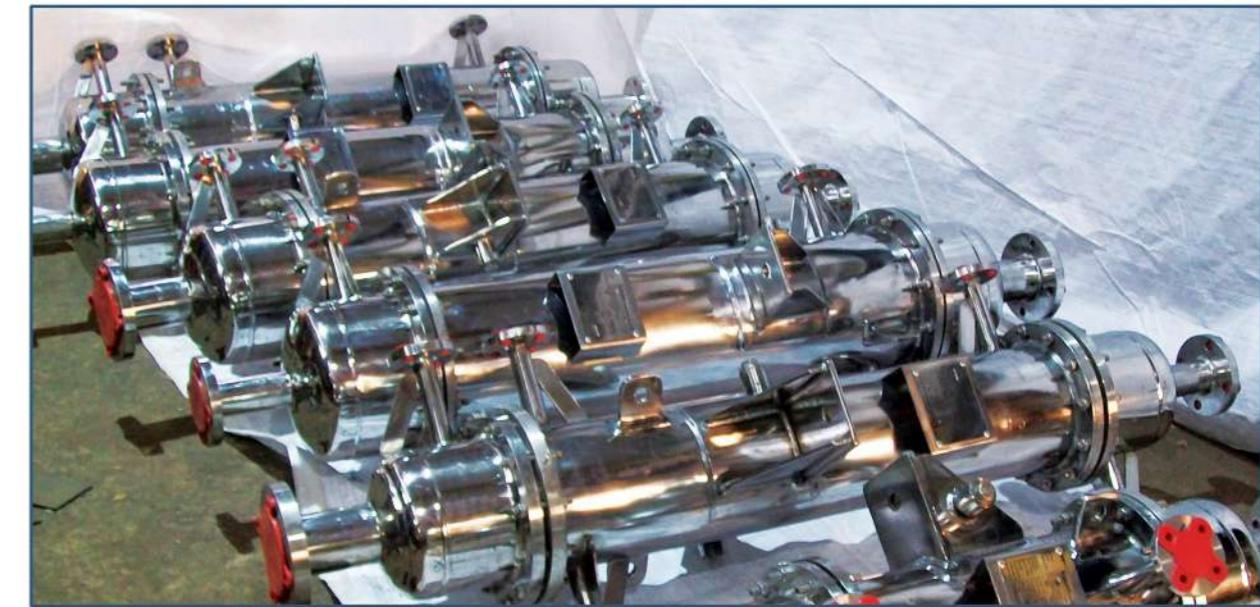
Materials handled: Hastelloy* / Inconel* / Monel* / Titanium / Tantalum / Nickel 200 / Duplex /
Super Duplex / Cu-Ni alloys

Titanium Tube Bundle for chlorine recuperator (With PP baffles)



Titanium Corrugated Tube Heat Exchanger for De-salination Pilot Plant

C-22 Condenser with Corrugated Tubes



C-276 Reboiler

Specialist in Heat Exchanger made from Exotic materials

Materials handled: Hastelloy* / Inconel* / Monel* / Titanium / Tantalum / Nickel 200 / Duplex /
Super Duplex / Cu-Ni alloys

Inconel 600 Heat Exchanger



Duplex Heat Exchanger with Titanium Tubes



Monel 400 Heat Exchanger



Super Duplex Heat Exchanger

Recent Exports...



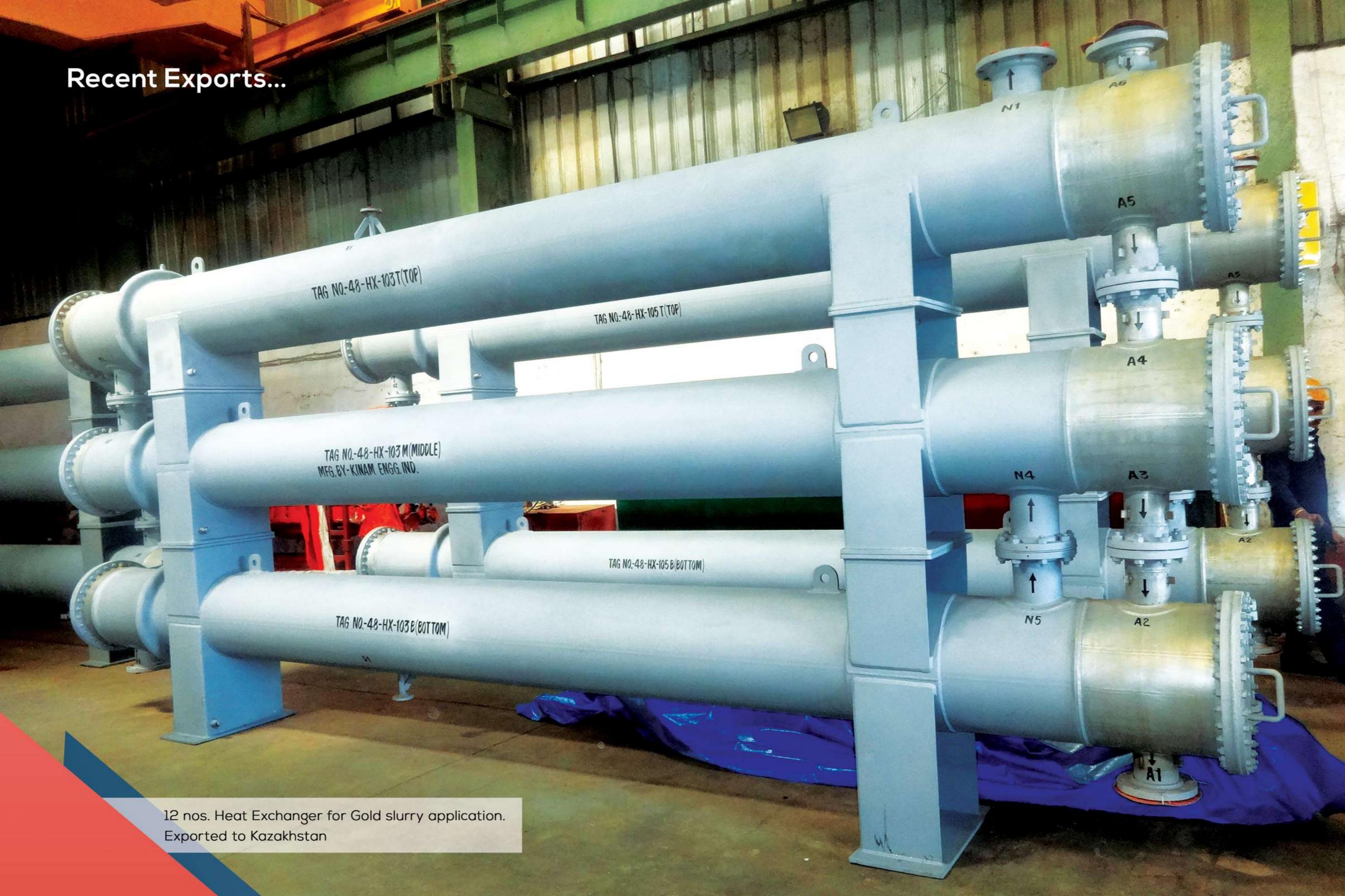
Falling Film Evaporator exported to Malaysia [DOSH Compliant]

Recent Exports...

Pre-heater 2200m²
Operating Temperature - 900°C
MOC - Stainless Steel 310
Weight - 56 tonnes
Exported to Copper mine at Zambia



Recent Exports...



12 nos. Heat Exchanger for Gold slurry application.
Exported to Kazakhstan

Our Esteemed Clientele

Chemicals



BASF
We create chemistry

Atul
touching lives...

VINATI ORGANICS LIMITED



NAVIN FLUORINE INTERNATIONAL LIMITED

Bostik

Gulbrandsen

INDOFIL INDUSTRIES LIMITED

SRF

deccan
Fine Chemicals (India) Pvt. Ltd.

DEEPAK NITRITE

“ Kinam has supplied us Titanium Heat Exchangers for Chlorine Recuperator and we are satisfied with their overall performance. Their Welding quality and finish in Titanium is remarkable and recommendable.

Mr. Nimai Panigrahi, GM Projects.
Grasim Industries Limited, Aditya Birla Group.

Reliance Industries Limited

ADITYA BIRLA UTKAL ALUMINA

Deepak Fertilizers and Petrochemicals Corp Ltd

HALDIA PETROCHEMICALS LTD

इंडियनऑयल
IndianOil

ISPL

Lubrizol

SPL SUPREME PETROCHEM LTD

“ Kinam has been our essential partner, manufacturing Hastalloy & Inconel 600 Heat Exchangers for our critical process applications .Kinam has always displayed consistent performance in quality & timely delivery.

Mr. Roshan Adhikari, GM Corporate Planning,
Navin Fluorine International Limited

GUJARAT STATE FERTILIZERS & CHEMICALS LTD.

Coromandel FUTURE POSITIVE

UPL

RCF G.N.F.C.

MCF Mangalore Chemicals & Fertilizers Limited

GSP

Pharmaceuticals

Cipla

LUPIN

Glenmark
A new way for a new world

SANDOZ

Indoco
INDOCO REMEDIES LIMITED

Piramal

Alembic
Wishing you good health. Forever

HETERO

CENTRIENT Pharmaceuticals

JUBILANT AGRI & CONSUMER PRODUCTS

“ Kinam has been supplying Corrugated Tube Heat Hxchanger since last 7 years to our various plants at Dabhosa, Mandideep, Ankleshwar, Tarapur and Visakhapatnam. We recommend corrugated tube heat exchangers over the traditional shell and tube heat exchangers looking at the performance for our solvent recovery applications.

Mr. Prabhat Jain, Sr. Manager Projects,
Lupin Limited

Paints, Steel, Paper, Oil & others

Cadbury

Bombay Dyeing

Firmenich

asianpaints

vvf
CENTURY PULP & PAPER

TATA STEEL

Pidilite

“ Kinam is a reliable manufacturer of plain and corrugated tube heat exchangers. Their focus and specialisation in heat exchanger products has helped to deliver quality, competitive price and performance.

Mr. ArunWaghmare, VP - Technology and Projects,
Pidilite Industries

EPC

thyssenkrupp

AkerSolutions™

JACOBS

Technip

BLACK & VEATCH

Shroff
ENGINEERING CONSULTANTS

M MOTT MACDONALD

Fertilizer



Since 1981

Our clientele across the globe



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Navi Mumbai - 400703, India.

Unit II & III:
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Unit nos.1,2&3 Mankoli Naka,
Dapode, Bhiwandi-421302,
Thane, Maharashtra, India.

