

# KAMAL ENCON

Making Process Industries Energy Efficient.

Engineering Excellence, Uncompromising Quality, and Absolute  
Safety.



Energy Efficiency Solutions for Process Industries



# GLOBAL FOOTPRINT

## Trusted Worldwide

Headquartered in India with representative offices in the USA, Brazil, Korea, Indonesia, and Taiwan.

Serving over 20+ countries including major process industries in the Middle East, Europe, Asia, and the Americas.

### Key Facts:

- 350+ Highly skilled employees
- Strong financial strength
- ISO 9001, 14001 & 45001 Certified
- American Petroleum Institute (API) Member



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# SAFETY FOR EVERYONE

Kamal is committed to continual improvement in the Health, Safety, and Welfare of all its employees and the community at large. We maintain zero-compromise policies to ensure operational excellence.

- ▶ **Safe Working Conditions:** Upkeep of our installations, equipment, processes, and operations to the highest global standards.
- ▶ **Employee Empowerment:** Enhancing awareness, skill, and competence to effectively involve all personnel in our safety mission.
- ▶ **Strict Compliance:** Adherence to all applicable Statutory and Regulatory Requirements globally.



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# STATE-OF-THE-ART INFRASTRUCTURE



## Casting & Machining

Advanced in-house casting facility in Yamunanagar, delivering precision components for extreme environments.



## Fabrication & Assembly

Fully shop-assembled modular construction in Delhi NCR, ensuring rapid deployment and minimum site work.



## Enameling & Testing

State-of-the-art high-temperature furnaces and rigorous material testing labs for advanced coatings.

# COMPREHENSIVE PRODUCT RANGE



## Air Pre-Heaters

Industry-leading heat recovery systems including Cast Tube, Plate, Glass Tube, Steam, and our advanced Enamelled Air Pre-Heaters designed for maximum energy efficiency.



## Industrial Dampers

Over 30 years of proven design experience. Manufacturing a complete range of Diverters, Guillotines, and Butterfly Dampers suitable for extreme temperatures and corrosive conditions.



## Column Trays & Internals

Custom engineering of trays and liquid distributors for distillation processes.

# ADVANCED HEAT RECOVERY TECH

## Cast & Plate APH

**Cast Iron:** Superior leak tightness via machined mating surfaces and ceramic gaskets. Negligible leakage rates (< 0.1%). Over 350 units supplied globally.

**Plate Type:** Compact, lightweight, and economical. Ideal for clean fuels with flexible flow configurations (Cross, Counter, Dual Split). Validated by precise flow studies.

## Glass & Enamelled APH

**Glass Tube:** Cost-effective low-temperature heat recovery from sulfur-bearing flue gases. Completely resistant to acid dew point corrosion.

**Enamelled Metallic:** Kamal's proprietary R&D. Remarkable resistance against low-temp corrosion and thermal shock. Eliminates breakage risks associated with glass, 100% indigenous design.



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# UNCOMPROMISING QUALITY

**<0.1%**

Maximum Leakage Rate APH

## Rigorous Global Standards

Every product undergoes extensive testing before dispatch. Our Plate APH achieves spectacular real-world leakage results of 0.000218% against an allowable 0.05%.

### Testing Protocols Include:

- ▶ Boiling Sulfuric Acid Test (ISO 28706-2)
- ▶ Holiday Testing for defects (ISO 8289)
- ▶ Thermal Shock Resistance (BS 1344)
- ▶ High-Pressure Pneumatic Testing



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# ABSOLUTE PERFORMANCE GUARANTEES

Kamal Encon stands behind the engineering and manufacturing of every unit delivered. We provide binding, absolute guarantees to ensure client confidence and operational stability.

- ▶ **Thermal Performance:** Minimum guaranteed heat duty and maximum corresponding flue gas outlet temperatures.
- ▶ **Hydraulics:** Flue gas and air side pressure drops strictly constrained to specified design values.
- ▶ **Material Protection:** Minimum Tube Metal Temperature maintained at any point of the cold-end section.
- ▶ **Integrity:** Comprehensive mechanical design and workmanship warranties.



Item: Plate Air Preheater  
Client : ITT, SpA, Italy  
Project:HAOR, Socar Refinery, Azerbaijan

September 10, 2018



workmanship warranties.

**KAMAL**

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# ESTEEMED GLOBAL CLIENTELE

Global EPC Partners	Major Refineries & End Users	Global Locations
Technip (Global)	Exxon Mobil	Singapore, USA
CB&I - Lummus	Shell Refinery	Singapore, Netherlands
Toyo Engineering	Lukoil & JSC Ryazan	Russia
Foster Wheeler	Diamond Green Diesel (Valero)	USA
Larsen & Toubro	Dangote Refinery	Nigeria
Tecnicas Reunidas	Reliance / Indian Oil	India



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# CLIENT VERIFICATION



**"Kamal has achieved a Performance Level Rating of 5, termed 'Excellent', in our Global Audit Rating. We always recommend and propose Kamal as a potential manufacturer to our global client end-users."**

**Technip Global Audit & Engineering**

# WHY CHOOSE KAMAL?



World-Class Infrastructure In-house execution from casting to final testing ensures absolute quality control.



Highly Skilled Workforce 100% regular (in-house) dedicated workforce executing to global standards.



Assured Deliveries Good track record of ensuring delivery milestones for global Projects.



Innovative R&D Pioneers of indigenous Enamelled Air Pre-Heaters, offering superior durability.



Financial Stability Strong *fundamentals*, allowing us to offer highly competitive pricing.



Proven Trust Unwavering client faith evidenced by rapid global growth



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# Let's Connect

Ready to optimize your energy efficiency?



[www.kamalencon.com](http://www.kamalencon.com)



niaz@kamalencon.com