



*The “EMERGING”
Energy Conservation Company*

... Answer to the continued need for “Energy-Conservation”

COMPREHENSIVE SOLUTIONS FOR

FUEL-SAVING BURNERS & COMBUSTION EQUIPMENT

(1) IIP-ENCON 'FILM' BURNERS (Save : 5–15%)

- Winner of President's award for SAVING FUEL
- Designed and developed by IIP & PCRA
- Useful for a wide range of industrial applications
- Multi-fuel usage

(2) HIGH VELOCITY BURNERS (Save : 15–30%)

- Ideal for Non-Ferrous Melting Furnaces
- Tundish & Launder Pre Heating

(3) GAS BURNERS (Save : 5–15%)

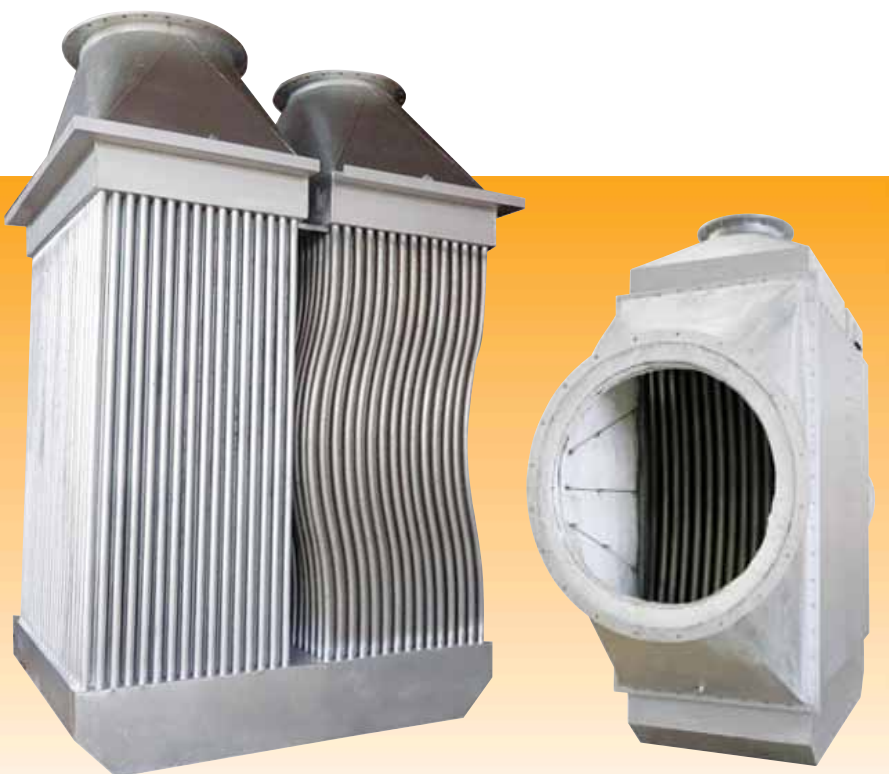
- Developed by I.I.P. - ENCON at Encon's R & D Centre
A project sponsored by Ministry of Science and Technology and Gas Authority of India Limited (GAIL)
- We design Burners for Gases with Calorific Value as low as 780 kCal/Nm³

(4) COKE OVEN GAS BURNERS

- Designed to burn exhaust gases from Coke Oven Gas Batteries

(5) PILOT BURNERS

- We design Pilot Burners which can be energized by different gases
- We design Burners for Gases with Calorific Value as low as 1800 kCal/Nm³



WASTE HEAT RECOVERY RECUPERATORS

(Save : 10–15%)

- Special Alloy Finned Tubes
- Preheat Temperature 450 - 510° C
- Expected Life - 7 to 10 years
- Service Duty up to 550° C
- Flue Gas Temperature of 950° C
- Savings in Fuel Consumption of 10-15%

INDUSTRIAL HEATING APPLICATIONS

INDUSTRIAL FURNACES

(Save : 5–15%)

(1) BILLET REHEATING FURNACES

- Fuel consumption guaranteed is as low as 33 ltrs/ton of steel heated
- Scale/burning losses less than 1% in Oil firing applications and 0.5% in Gas firing applications
- We provide **OXY FUEL** system for Billet Reheating Furnace

(2) BOGIE HEARTH/HEAT TREATMENT FURNACES

- Bogie Hearth and other type of Heat Treatment Furnaces for Tempering, Annealing etc. with excellent energy efficiency
- We provide **OXY FUEL** system for Heat Treatment Furnaces

(3) ALUMINIUM MELTING FURNACES

- Major break through using ceramic fibre lining and mono-block pressure jet burners
- Saving 95% in electrical energy
- Saving 30% in oil consumption
- We provide **OXY FUEL** systems for Aluminium Re-melting Furnaces



RAD HEAT GAS HEATING ELEMENTS

(Save : 25–75%)

- Winner of “Best Technology Award” by NSIC
- Winner of “Excellence in Technology Award” by CII
- Retrofit Electrical/Thermic Fluid/Hot Air/Steam Heated Applications.
- Short payback period
- Compatible to CE safety standards
- Low maintenance – Fit it and forget it



HOT AIR GENERATORS

(Save : 20–75%)

- These can be energized by LPG/CNG/HSD/HFO/Electricity
- We also manufacture Hot Air Generators energized by Gas Heating Elements



PRODUCTS FOR STEEL MELT

TUNDISH (PRE-HEATERS/DRYERS)

(Save : 20–60%)

We design, develop & manufacture Tundish heating systems for various applications

- Short and high momentum flame length achieved through HIGH VELOCITY BURNER
- Faster and Uniform Heating
- CERAMIC FIBRE is used for the lining of the system, the minimum life of the lining is One Year
- These systems can be energized by LDO/LPG/ HFO/COKE OVEN GAS/ OXY FUEL

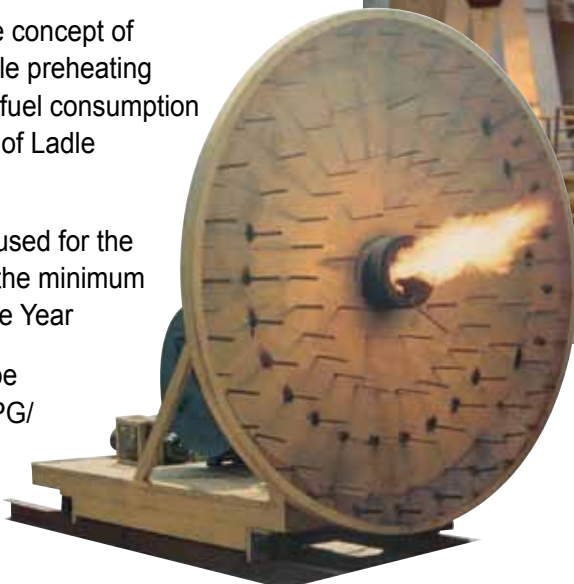


LADLE (PRE-HEATERS/DRYERS)

(Save : 20–60%)

We design, develop & manufacture Ladle heating systems for various applications

- Long & lazy flame leads to uniform heating across the Ladle length eliminating chances of any cold zone in the Ladle
- Pioneered the unique concept of RECUPERATIVE ladle preheating system to guarantee fuel consumption as low as 1.2 ltrs/ton of Ladle capacity heated
- CERAMIC FIBRE is used for the lining of the system, the minimum life of the lining is One Year
- These systems can be energized by LDO/LPG/ HFO/COKE OVEN GAS/OXY FUEL



SHOPS (SMS) BY ENCON

LAUNDRER (PRE-HEATERS/DRYERS)

(Save : 20–60%)

- We design, develop & manufacture launder heating systems for various applications
- The systems are tailor-made as per the requirement of the plant
- Short and high momentum flame length achieved through HIGH VELOCITY BURNER
- Faster and Uniform Heating
- CERAMIC FIBRE is used for the lining of the system, the minimum life of the lining is One Year
- These systems can be energized by LDO/LPG/HFO/ COKE OVEN GAS/OXY FUEL

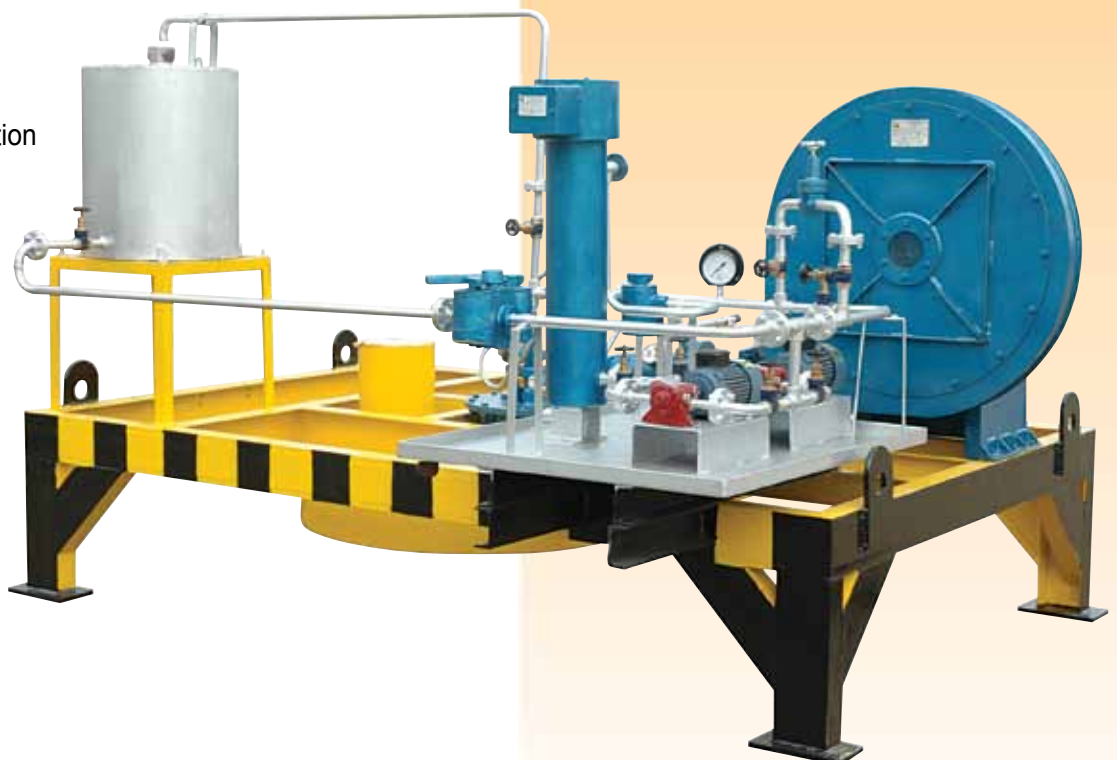


RAYCON SYSTEMS

This system is used to heat fresh patch-up lining in Induction Furnace with the help of High Velocity Burners

This system has cut the “down time” of the furnace by 30 minutes and retrofitted 650 units of heating load to a cheaper source of energy for a 7 ton Induction Furnace

Payback period for these systems are less than One Year



INNOVATIVE HEATING

OVENS

We design, develop & manufacture Ovens for various industrial applications

ENCON has designed, engineered, manufactured and erected the country's **TALLEST** oven energized by Gas Heating Elements; the ovens are **9 meters tall** and are installed at **M/s. AREVA, Bangalore**

We have also designed, engineered, manufactured and erected the country's **LONGEST HYBRID** oven powered by Solar Energy and Gas Heating Elements, The oven is **160 ft long** and is installed at **M/s. Divya Yog Pharmacy, Haridwar**

Apart from the above, we are providing ovens to the **TRANSFORMER, PHARMACEUTICAL, WHITE GOODS, ELECTRIC, FOUNDRY, POWDER COATING AND AUTOMOBILE INDUSTRY**

These ovens are built according to **INTERNATIONAL STANDARDS**



Transformer Drying Oven



Pharmaceutical Oven



Core Drying Oven



Paint Baking Oven

SOLUTIONS BY ENCON

OXY-FUEL SYSTEMS

We are proud to introduce a World Patented Technology for Process Heating

The technology has been awarded the Innovative 'Star of Energy Efficiency' by Alliance to Save Energy

The benefits are :

- Increase in Production
- Decrease in Fuel Consumption
- Natural gas fuel reduction upto 73%
- Oil fuel usage reduction upto 68%

The improved Efficiency/Production is due to :

- Elimination of Airborne Nitrogen
- Increase in Radiant Heat Transfer
- Longer gas residence time

Reduction in Green House Gases :

- 69% reduction in CO
- 69% reduction in SOx
- 31% reduction in VOC's

OXY-FUEL technology has varied applications in Aluminium Re-melting, Steel Preheating Furnaces & Ladle Pre-Heaters



SAND DRYERS

(Save : 15–20%)

- Used for drying of Silica (Sand) in Casting Units
- Designed for Casting Units
- Can be Energized by different types of Conventional Fuels like LDO/LPG/HFO/COKE OVEN GAS/OXY FUEL



R&D CENTRE

“ENCON R&D Centre” was established in 1996 to develop Gas Based Combustion Technologies. We have developed **RAD HEAT** Gas Heating Elements, High Velocity Gas Burners, Lances etc. at this centre with more innovations being tested for benefiting the industries.

INSTITUTE OF COMBUSTION TECHNOLOGY

“ENCON” started this institute where crash courses are organised and training facilities are provided to Engineers from all industries. The course covers an **introduction to combustion systems and their proper installation, operation and maintenance.**

SOME OF OUR PRESTIGIOUS CUSTOMERS

- Aarti Steel Limited
- ABB Limited
- Areva T & D India Limited
- Bajaj Auto Limited
- Beekay Engineering Corporation
- B.H.E.L.
- Bhushan Steels Limited
- Bhillai Steel
- Cummins India Limited
- Danielli India Limited
- DCM Engineering Products
- Divya Yog Pharmacy
- Electrotherm (I) Limited
- Emirates Steel Co. LLC
- Escorts Limited
- Exide Industries Limited
- Godrej & Boyce Mfg. Co. Limited
- Hyderabad Inds. Limited
- Ispat Inds. Limited
- Jindal Strips Limited
- Jindal Stainless Limited
- JSW Steel Limited
- Kajaria Ceramics Limited
- L G Electronics Limited
- Lloyds Steel Industries Limited
- Mahavir Aluminium Limited
- Mahindra & Mahindra Limited
- Mukand Limited
- NALCO
- NMDC
- Orient Abrasives Limited
- Polycab
- RHI Clasil Limited
- SAIL
- Samtel Color Limited
- Shriram Pistons & Rings Limited
- Shah Alloys Limited
- Simplex Castings Limited
- Sterlite Industries (I) Limited
- Tata Motors Limited
- Tata Refractories Limited
- Tata Steel Limited
- UAL Industries Limited
- Usha Martin Industries Limited
- Visa Steel Limited
- Vizag Steel
- Welspun Corp. Limited



“Excellence in Technology”
Award - CII

EXPORTING TO

BANGLADESH, BOTSWANA, DUBAI, GHANA, INDONESIA, IRAN, IRAQ, JORDAN,
KENYA, NEPAL, SRI LANKA, UAE, UGANDA, U.K., ZAMBIA,



“Best Technology”
Award - NSIC



ENCON Thermal Engineers (P) Ltd.

Faridabad Office :

297, Sector - 21 B,
Faridabad - 121 001
Haryana (India)
Phone : +91 129 4041185, 4047847
Fax : +91 129 4044355
E-mail : sales@encon.co.in

Vadodara Office :

308, Race Course Towers,
Race Course Circle, Vadodara - 390 007
Gujarat (India)
Phone : +91 265 6620940, 3053042
Telefax : +91 265 2335161
E-mail : vadodara@encon.co.in



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D&B D-U-N-S® Number: 65-041-1333