



ENCON

*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 (Saves : 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 (Saves : 15-30%)

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

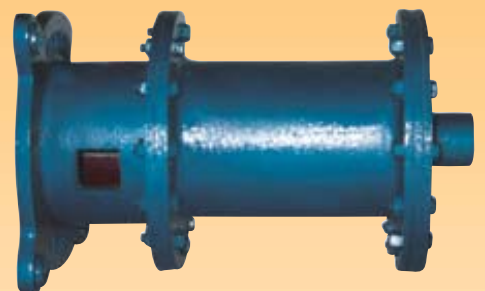
(3) GAS BURNERS (Saves : 5-15%)

- 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)

(4) COKE OVEN GAS BURNERS

- Designed to burn exhaust gases from Coke Oven Gas Batteries



WASTE HEAT RECOVERY RECUPERATORS

(Saves : 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

(Saves : 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

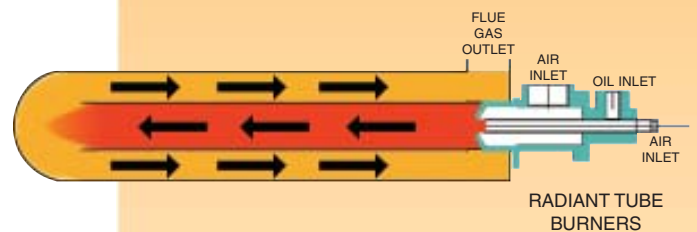
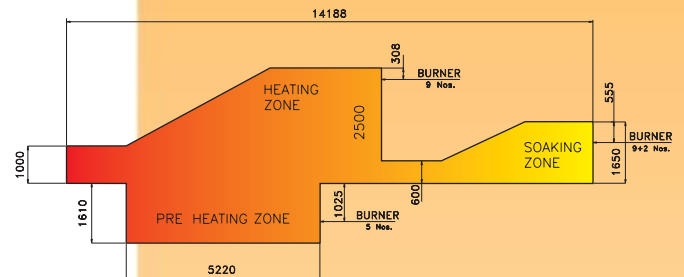


(2) BOGIE HEARTH/HEAT TREATMENT FURNACES

- 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

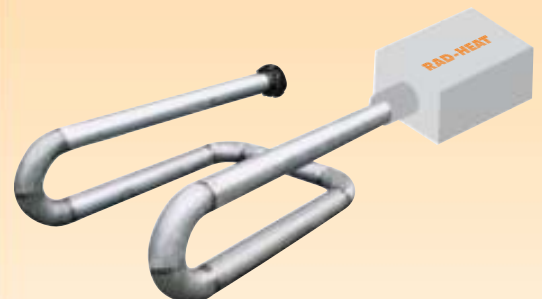
- Major break through using ceramic fibre lining and mono-block pressure jet burners
- Saving 95% in electrical energy
- Saving 30% in oil consumption
- We provide **OXY FUEL** systems for Aluminium Re-melting Furnaces



RAD-HEAT GAS HEATING ELEMENTS

(Saves : 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

(Saves : 20-75%)

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



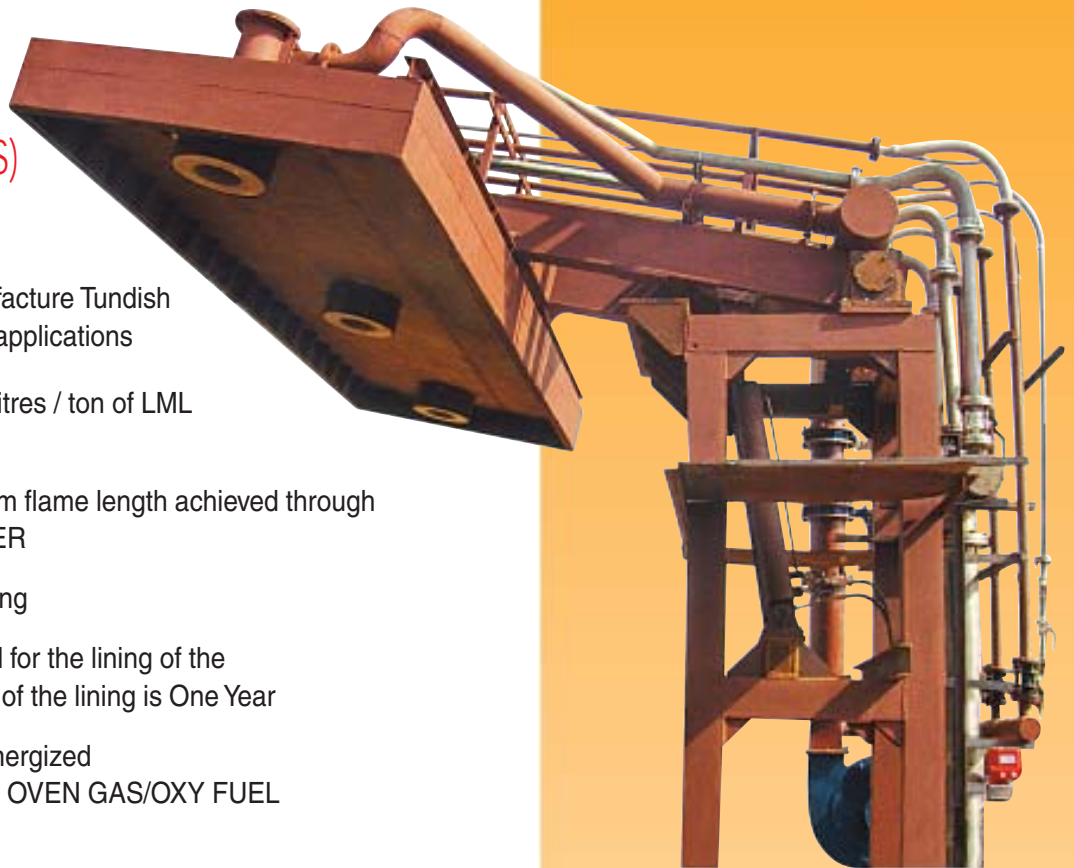
PRODUCTS FOR STEEL MELT

TUNDISH (PRE-HEATERS/DRYERS)

(Saves : 20-60%)

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

- Oil consumption - 3 to 4 litres / ton of LML (Liquid Metal Level)
- 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)

(Saves : 20-60%)

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

- Oil consumption - 3 litres / ton of LML (Liquid Metal Level)
- 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)

(Saves : 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

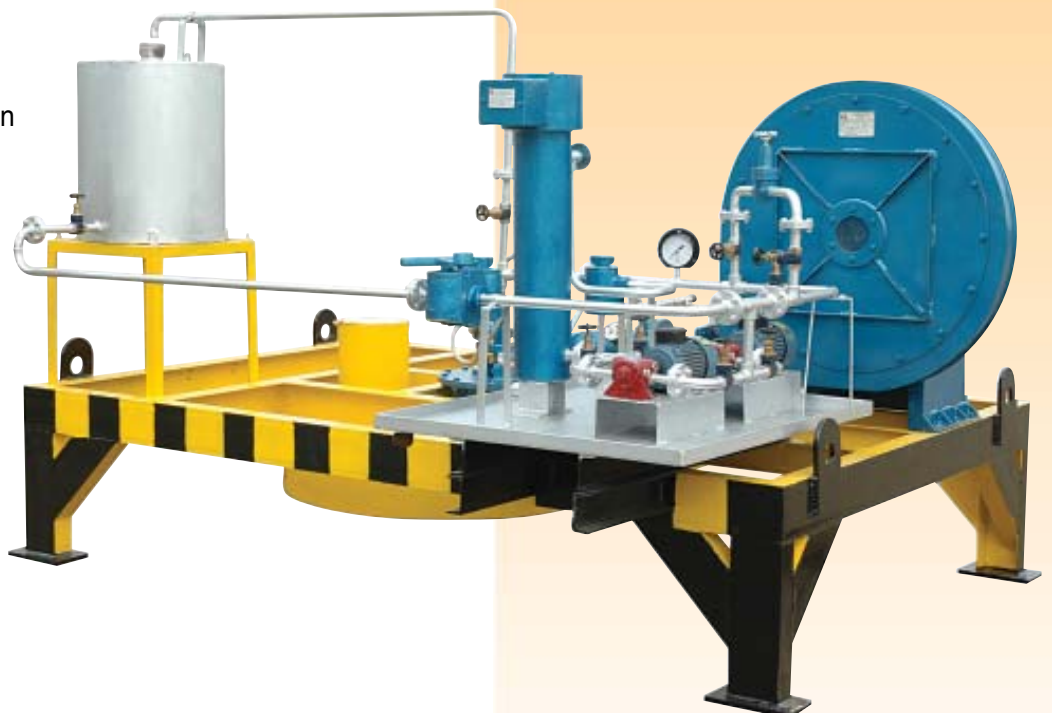


RAYCON SYSTEMS

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 **7.5 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**



SAND DRYERS

(Saves : 15-20%)

- Used for drying of Silica (Sand) in Casting Units
- Designed for Casting Units

SOLUTIONS BY ENCON

OXY-FUEL SYSTEMS

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

The technology was 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



COAL GASIFIER SYSTEMS

(Saves upto 50% of Fuel Cost)

We setup single and double stage coal gasification plants on turnkey basis. This includes retrofit & remodeling of the complete furnace and supply of combustion equipment

The approximate saving in energy cost on a 10 T/hr Billet Re-Heating Furnace is Rs. 300 to 400 / ton

There is no requirement for supplementary fuel oil firing in these systems



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
- Cummins India Limited
- Danielli India Limited
- Divya Yog Pharmacy
- Electrotherm (I) Limited
- Godrej & Boyce Mfg. Co. Limited
- Hyderabad Inds. Limited
- Ispat Inds. Limited
- Jindal Strips Limited
- Jindal Stainless Limited
- Kajaria Ceramics Limited
- L G Electronics Limited
- Lloyds Steel Industries Limited
- Mahavir Aluminium Limited
- Mukand Limited
- NALCO
- Orient Abrasives Limited
- Ramco Group of Industries
- RHI Clasil Limited
- Samtel Color Limited
- Shriram Pistons
- Shah Alloys Limited
- Simplex Castings Limited
- SISCOL
- Tata Motors Limited
- Tata Steels Limited
- Usha Martin Industries Limited
- Visa Steel Limited



“Excellence in Technology”
Award - CII (2003)

EXPORTING TO

BANGLADESH, BOTSWANA, DUBAI, GHANA, JORDAN, KENYA,
NEPAL, SRI LANKA, UGANDA, U.K., ZAMBIA



“Best Technology”
Award - NSIC (1999)



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