



# Products

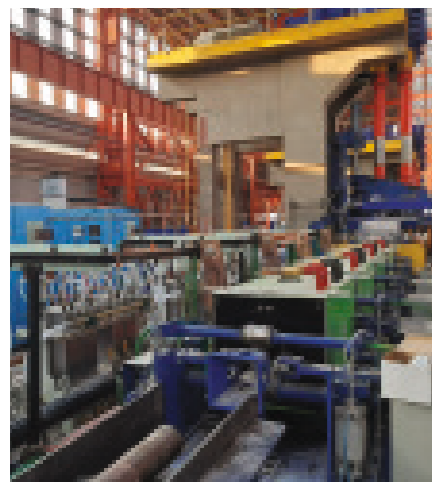
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# CYPRIUM INDUCTION

## Induction Online Billet Heaters

Hot charging of Square and Rectangular Billets directly from CCM and reheating them on line through Induction Route is becoming a necessity. Billet temperature can be increased by Induction Heating and Soaking and gives the following advantages:

- ◆ Temperature rise by 300-350°C generates ideal rolling temperature between 1150-1200°C
- ◆ Surface to core temperature goes almost uniform.
- ◆ Large space saving design as induction heater is placed near rolling Mill and coils are placed on line of Billet movement.
- ◆ Shop floor smoke and pollution is eliminated as large Oil Fired/ Coal Gas Reheating furnace is not required.
- ◆ Billet sections heated are square billets and rectangular slabs between length 1.8M to 12M
- ◆ Reduces wear and tear and breakdown of Rolling mills billets are constantly fed at uniform and correct temperature.
- ◆ Billet speed through coil and temperature are easily maintained through PLC Automation and VFD.



## Induction Hardening & Heat Treating Equipment

Our Induction Hardening Machines cover the following range:

Output Power-25KW through 500KW Frequency-

- ◆ 1 kHz-10 kHz-Medium Frequency
- ◆ 30 kHz-100 kHz-High Frequency
- ◆ 100 kHz-400 kHz-Radio Frequency

Machine types - Vertical Scan hardening, Horizontal scan hardening, Lift & Rotate, Rotary indexing with pick & place systems integrated Controls - Allen Bradley, Siemens, Mitsubishi CNC/PLC systems with energy monitoring, quench monitoring and temperature feedback systems Accessories De-Mineralized water recirculating type cooling systems, quench media re-cooling and recirculating systems, Inductors, Quench rings and various kinds of work holding fixtures.

## Induction Melting and Holding Furnaces (5 Kg to 80Ton)

Furnaces (5 Kg to 80Ton)  
Our Induction Melting and Holding Furnaces offer the following:

- ◆ Rugged construction
- ◆ Easy maintainability
- ◆ Most efficient energy consumption in its class
- ◆ High power factor
- ◆ Optional accessories such as Protective Net Guards, Closed Capture Fume Hoods, Stationary
- ◆ Fume Suctions Rings with Swiveling Lid, Quick Lining Removal Mechanism, pneumatically operand remote furnace change-over isolation switches, Load Cell Arrangement etc.



## Ladle Refining Furnace (12 Ton to 100 Ton)

Objectives of LRF are:

- ◆ Removal of Oxygen (Deoxidation)
- ◆ Removal of Hydrogen (Degassing)
- ◆ Reducing sulfur concentrations as low as 0.002% (Desulfurization)
- ◆ Removal of undesirable non metallic elements (Micro-cleanliness)
- ◆ Changing the composition of remaining impurities to improve the micro structure (homogeneity) of the steel (Inclusion morphology)
- ◆ Increasing toughness, ductility, transverse properties, mechanical properties and also for temperature rise (Superheating)



## Induction Billet Heater for Forging (100 KW - 8000 KW)

Induction Mass Heating technology is used in the following Metal Working Processes:

- ◆ Forging
- ◆ Extrusion
- ◆ Rolling
- ◆ Annealing
- ◆ Bar Heating
- ◆ On Line Heating
- ◆ Cathode Drying

## Arc Furnace (5 Ton to 30Ton)

- ◆ Used for Steelmaking.
- ◆ Used in Metallurgical Sector due to its diverse melting application which helps to produce Steel as desired chemical composition.
- ◆ The EAF effectively melts all type of Scrap irrespective of chemical composition or size and also melts Direct Reduced Iron (D.R.I) Sponge Iron.



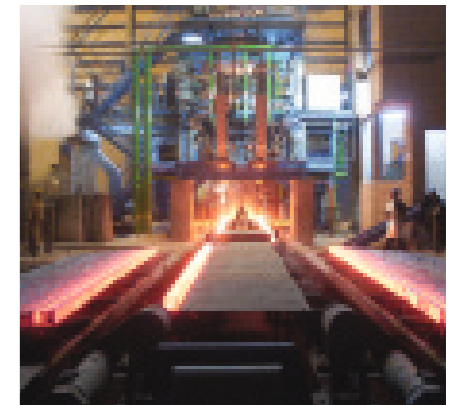
## Transformers

- ◆ Power and Distribution transformers (3 MVA to 60 MVA up to 132 kV class)
- ◆ Inverter Duty Transformer (2.5 MVA to 20 MVA up to 33 kV class)
- ◆ Converter Duty Transformer (1 MVA to 30 MVA up to 33 kV)
- ◆ Electric Arc Furnace & LRF Transformers (1 MVA to 20 MVA up to 33 kV)

## Continuous Casting Machine

Product Range:

- ◆ 4/7 Meter Radius, 2 or 3 Strand
- ◆ 6/11 Meter Radius, 2 or 3 Strand
- ◆ Direct hot charging to rolling mill



## Static Frequency Convertor

Our Induction Melting and Holding Furnaces offer the following:

- ◆ 6/12/24/48 Pulse Options
- ◆ Power sharing options: twin/multiple
- ◆ Range available 5kW-20MW
- ◆ Frequency 0.2 kHz to 200kHz