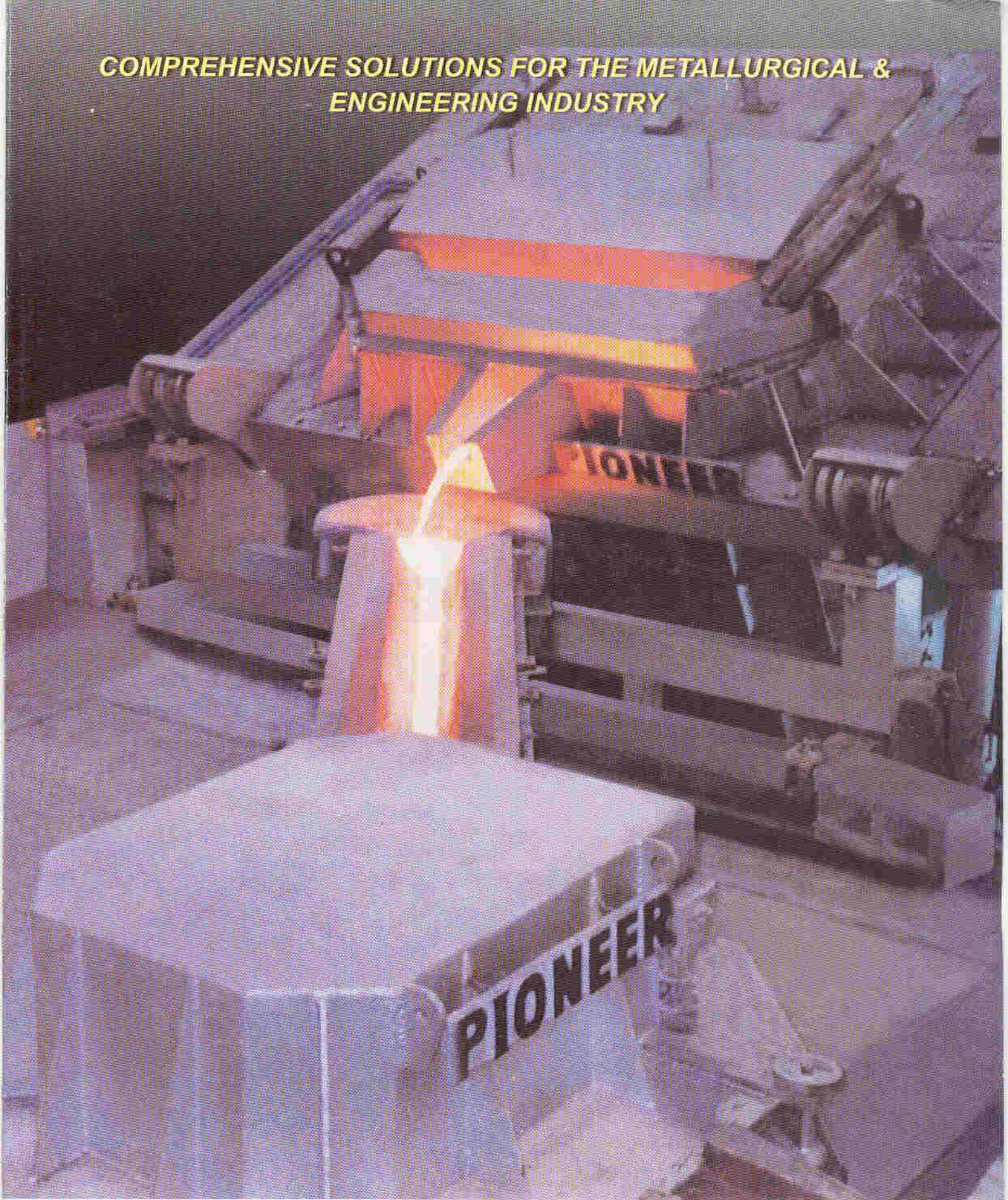


**COMPREHENSIVE SOLUTIONS FOR THE METALLURGICAL &  
ENGINEERING INDUSTRY**



**Pioneer**



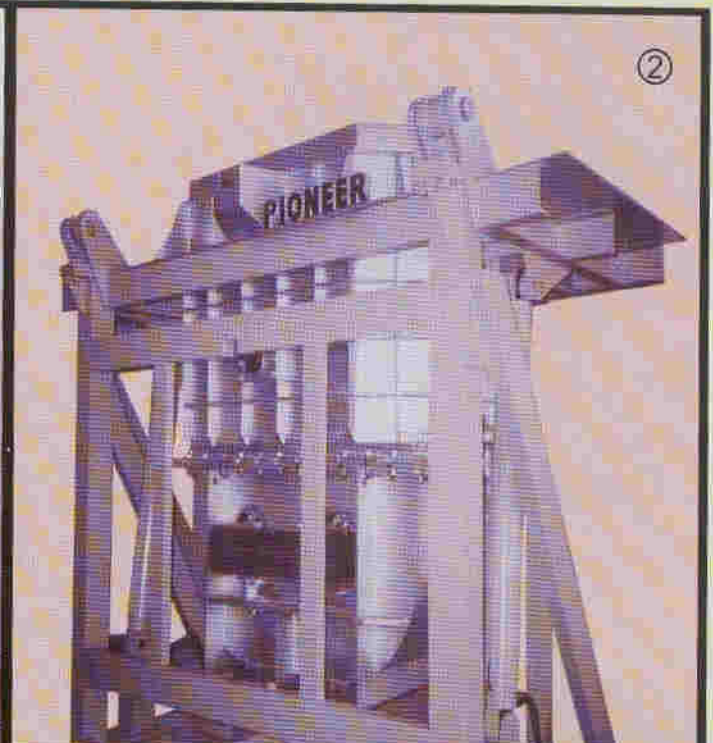


**1. Coreless Induction Furnace**

## **Coreless Induction Furnaces For Melting & Holding Ferrous & Non Ferrous Metals.**

Capacity : 300 kgs to 20,000 kgs.

- Better homogeneity and temperature uniformity of molten metal.
- Ideal solution for alloying requirements.
- Reduced metal loss.
- Ideal solution for light metal scrap recycling units.
- Rugged design withstands most severe foundry conditions.
- Easy maintenance.
- Microprocessor based control systems with Man Machine Interface (MMI).
- Desired levels of automation.



**2. Channel Type Induction Furnace**

## **Channel Type Induction Melting & Holding Furnaces Ferrous & Non Ferrous Metals.**

Capacity : 100 kgs to 20,000 kgs.

- Most efficient furnace for melting, super heating, duplexing or holding of cast iron, aluminum, copper and their alloys.
- Specific designs available for vertical as well as horizontal continuous castings.
- High thermal conversion ratios.
- Lowest energy consumption.
- High levels of automation with MMI.

## **Channel Type Twin Chamber Induction Melting Cum Holding Furnaces For Non Ferrous Metals.**

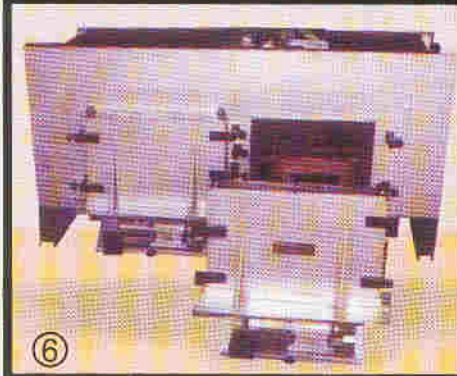
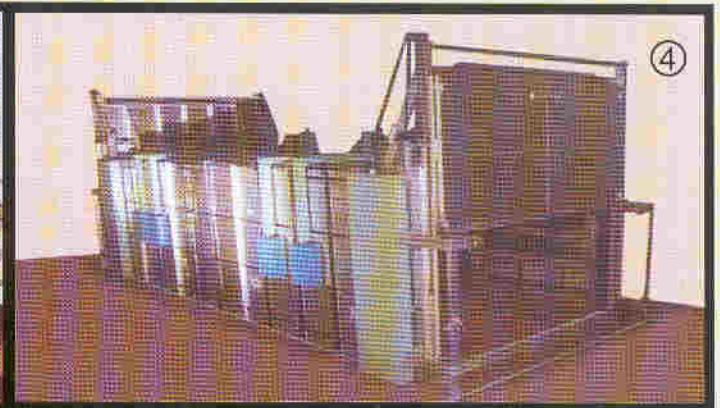
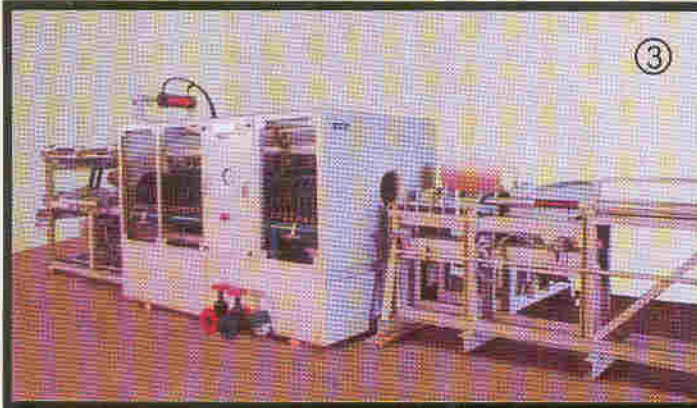
As an extension to the above furnace, this twin chamber melting cum holding furnace has been especially designed for aluminium, brass, and copper foundries which does away with the need for separate melting and holding furnaces.

- These furnaces are engineered to work with auto ladling machines as well as manual ladling in die casting units.
- Dosing furnaces with pressurised pouring facility with load cell.
- Special application furnaces for production of vertical continuous cast copper/brass/zinc rods.





# CONCEPT TO COMMISSIONING



- 3. Induction Billet Heater
- 4. Ageing Furnace
- 5. Homogenising Furnace
- 6. Die Pre-heating Furnace



## Induction / Gas Fired Billet Heaters

Pioneer offers state of art induction / gas fired billet heaters for aluminum and copper extrusion plants. Pioneer is the leader in this field, having a majority share of the induction billet heaters market in india.

- Very low axial & radial temperature difference.
- Uniform heating of the billets ensures better extruded products and longer die life.
- High level of automation helps achieve higher productivity.
- Compact design with loading and unloading conveyors.
- The unique flexi-system ensures accommodation of multiple billet lengths enabling variety of extrusion lengths.
- Rugged design ensures efficient working in extreme conditions.
- Unique temperature sensing system ensures that billets are maintained at the required temperature.
- Microprocessor based control system with MMI.

## Ageing Furnaces

Pioneer offers bogie type ageing furnaces for aluminium extruded sections / profiles, aluminium alloy conductors and castings.

- Special design of trolleys for optimum space utilisation.
- Lower energy consumption
- Temperature uniformity within close tolerance .
- Modular design provides future scope of increasing the size & capacity of the furnaces.

## Die pre-Heating Furnace

For heating the dies prior to fixing on extrusion press. The furnace is designed with top opening trunk type construction as well as drawer type construction for easy loading, unloading and selection of dies.

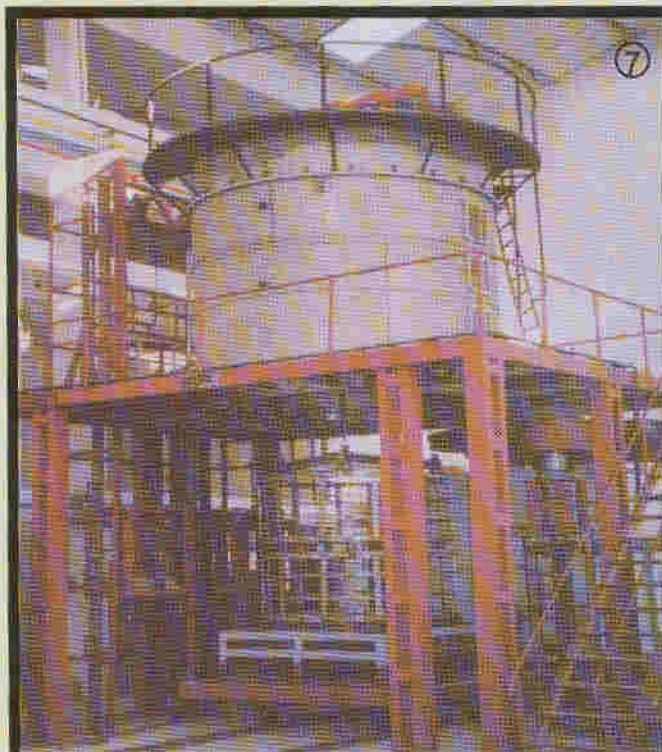
## Homogenising Furnaces

Specially designed for homogenising of aluminium logs / billets for better quality of extrusions & longer die life.

- Excellent thermal efficiency.
- Faster heating rate & temperature uniformity
- No cold spots.
- Special modular design of fans & heater batteries.

**MORE THAN 400 SATISFIED CUSTOMERS WORLDWIDE**





**7. Solutionising Furnace**



**8. Coil Annealing Furnace**

### Solutionising Furnaces

Pioneer in its efforts towards providing customized solutions to its customers, have specially designed drop bottom solution treatment furnaces for aluminium casting heat treatment shops, as well as AAAC conductor manufacturers.

- Excellent temperature uniformity throughout the chamber.
- A quench delay time of less than 10 seconds is achieved.
- Rugged design ensures trouble free service year after year.
- Provided with PLC & MMI for easy control of various parameters and functions.

### Stress Relieving / Hardening Furnaces

- Shaker Hearth Furnaces
- Pit Type Furnaces
- Bogie Hearth Furnaces
- Twin Chamber Furnaces
- Annealing Furnaces
- Chamber Furnaces
- Salt Bath Furnaces

These furnaces are mainly useful for hardening of tools and machine components, dies etc.

### Aluminium & Copper Extrusion Plants Along With Allied Equipment.

Pioneer is well experienced in the supply of equipments on a turnkey, as well as individual basis for copper and aluminium extrusion plants, including handling systems and auxiliary equipments. **Continuous casting plants** for brass and copper rods, **D.C. casting machines** for aluminium & copper, **Charging systems** for copper cathodes, **metal transfer launders** and **Billet cutting & Section cutting saws**.

### Anodizing & Electrocolouring plants & chemicals for aluminium extrusions.

### Special Purpose/Process Specific Furnaces

Pioneer has also tied-up with leading European manufacturers for manufacturing specialised furnaces like **Coil Annealing Furnaces**, **Sealed Quench Furnaces**, **Multi Purpose Chamber Furnaces**, **Vacuum Furnaces**, **Retort Furnaces** & **Industrial Waste Disposal Systems**.



### *Pioneer - A Profile*

Pioneer was incorporated as a partnership firm in 1972 and reconstituted as a Pvt. Ltd. Company in 1991. Today, Pioneer is a leading manufacturer of industrial furnaces for various applications in the field of melting, holding and heating with a wide customer base in India and abroad.

Pioneer has carved a niche for it self in providing customised and process specific solutions for extrusion plants, foundries and heat treatment plants. The Company's wide customer base and conformance to international standards bears a testimony of it's commitment towards providing superior quality products.

### *The Pioneer Team...*

Pioneer's strength and assets have always been it's trained, experienced and dedicated engineers and technical staff. This reflects in it's capability to design and supply plants and products to a customer's specific requirements. The team is multi skilled and gets involved in projects right from the enquiry stage to commissioning, ensuring well engineered, efficient systems, conducive to it's valued customers' specific needs. In fact, to achieve a common mission through standardisation, innovation and total customer satisfaction for product quality; continuing education and training of the entire work force is a priority at Pioneer.

### *The Mission...*

We, at Pioneer are committed to design, develop, supply and commission products and systems to suit the exacting needs of our customers. The products are and shall be designed and manufactured, in conformity with National & International standards, incorporating the innovations in system design as a pre-requisite for optimum solutions to customer needs.

### *Other International Connections...*

- Installations World-over.
- Technical collaboration with **INDUGA** GmbH, Germany (part of OTTO JUNKER Group of Companies) for manufacturing Channel Type Furnaces.
- Joint venture with an Australian company for special purpose machines and waste disposal systems.
- Joint business co-operation with leading European companies for special and specific equipments.



For Design, Manufacturing & Supply of Induction Melting and Electric Heat Treatment Furnaces and Auxiliary Equipments.



## Pioneer offers

*Turnkey melting, holding and heat treatment equipments for*

- **Non ferrous & ferrous foundries**
- **Aluminium & copper extrusion plants**
- **Copper rod, tube, strip manufacturing plants**
- **Automobile and associated industries**
- **Gear manufacturers**
- **Bearing manufacturers**
- **Tool making industry**
- **Heat treatment shops**



## PIONEER FURNACES PVT. LTD.

IN TECHNICAL COLLABORATION WITH

**INDUGA** Industrieöfen Und Giesserei Anlagen GmbH & Co.KG\*  
(part of OTTO JUNKER Group of Companies)

ROBERT-PERTHEL-STR. 64-66, D-50739, COLOGNE ( LONGERICH ), GERMANY

\* for channel type induction furnaces

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