



**PRECONS**

## INDUSTRIAL FURNACES



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## BELL ANNEALING FURNACES – ELECTRIC / GAS



### APPLICATIONS:

Steel Plants, Fastener Industries, Auto components, Manufacturer of Bearings, Bicycle Parts, Roller Chains, Forged components, Wire Processing Units- Commercial Heat Treaters.



### SALIENT FEATURES:

- Trusted and dependable name with over 5 decades of experience.
- Best Quality output at economical installation and operating cost.
- Excellent temperature uniformity.
- Decarb control through unique Hydro-carbon liquid purging/Vacuumization systems.
- Electric and Fuel fired options are available.
- Auto Operation through PLC and SCADA.
- Available in 6T/7T/10T/15T/18T/30T and Higher capacities or request.
- Furnaces complying with CQI-9 requirements.
- Application: -Spheroidized & RC Annealing of wire rod coils/ Strips/Auto components.

“Quality is not an act, it is a habit.”



# CONTINUOUS HARDENING AND TEMPERING FURNACES



## APPLICATIONS:

For Manufacturers of Fasteners, Screws, Nails, Auto components, Bearings, Bicycle Parts, Roller Chains, Forged components, Commercial Heat Treaters.



## SALIENT FEATURES:

- Trusted and dependable name with over 5 decades of experience.
- Well suited for through hardening/case Hardening and tempering of fasteners and other cold forged auto components.
- Consisting of auto feeder, prewash, hardening, oil quenching, post wash, tempering and Thermal blackening.
- Methanol & LPG atmosphere.
- PLC based SCADA control system.
- Oxyprobe carbon potential system.
- Furnaces complying with CQI-9 requirements.
- India's largest manufacturer of continuous line furnaces.
- Energy efficient and Sturdy design
- Standard available model's 225 – 250 kgs/hr., 450-500 kgs/hr., 1000 kgs/hr. and 1200 kgs/hr.

“Quality isn't expensive, it's priceless.”

## BELL TYPE BAR ANNEALING FURNACES



### APPLICATIONS:

Steel Plants, Fastener Industries, Automobiles, Manufacturers of Bicycle Parts, Bearing Industries, Roller Chains, Forged components, Wire Processing Units – Commercial Heat Treaters.



- Trusted and dependable name with over 5 decades of experience.
- Best Quality output at economical installation and operating cost.
- Excellent temperature uniformity.
- Decarb control through N<sub>2</sub> Purging.
- Electric and Fuel fired options are available.
- Auto Operation through PLC and SCADA.
- Available in 10T/20T/25T/30T/40T and Higher capacities on request.
- Furnaces complying with AMS 2750 latest Standard & CQI- 9 requirements.
- Application: - Spheroidized annealing & RC Annealing of wire rod coils/Auto components.



## DROP BOTTOM QUENCH FURNACES

### APPLICATIONS:

Aluminium Sheets /Plates, Aluminium Components of Aerospace, Defence and Aeronautical, Automobile, Bicycle Parts, Forged components.

### SALIENT FEATURES:

- Trusted and dependable name with over 5 decades of experience
- Affordable solution for demanding automotive and aerospace application.
- India's first furnaces company to have NADCAP compliant technology
- Furnaces complying with AMS 2750 latest standard.
- Process: - Solutionizing, Annealing, Ageing.
- Quench delay time within 5 to 15 seconds depending on application
- Batch capacity up to 20MT Electrically heated
- Well adapted for aluminium solution treatment for aerospace application
- Complete Auto Operation through PLC and SCADA.



“All our customers are partners in our mission.”



## OTHER RANGES OF FURNACES AND FEATURES

### COMPOSITE CURING OVENS:



- Trusted and dependable name with over 5 decades of experience.
- Affordable solution for Aerospace and Automotive industries in the field of composite curing.
- Aerospace and Automotive industries are using composite material to help their products lighter, stronger and faster.
- Lower installation and operating cost.
- Various capacities and sizes of box type and trolley type designs are available.
- Curing ovens are complying with AMS-2750-Class 1 standard & NADCAP.
- Complete Auto Operation through PLC and SCADA.
- Ovens are provided with vacuum ports and vacuum measurement ports with necessary instruments to ensure the products are cured under desired vacuum also.

### AGEING OVENS:

- For Aerospace, Automotive, transportation industries in the Field of ageing application.
- Ageing ovens are used to increase the yield and tensile strength of aluminium parts.
- Aluminium/Aluminium alloys are slowly heated and soaked at low temperature to Increase the strength.
- Excellent temperature uniformity as per AMS 2750-Class 1 standard & complying with NADCAP.
- Complete auto operation through PLC & SCADA.
- Low installation & operation cost.



### MOVING TYPE ANNEALING CUM AGEING FURNACE:



- Stationary base with moving type furnaces
- Batch capacity: Depends upon customer requirement
- Annealing and ageing of aluminium alloys
- Charge material – aluminium wires, Bobbin and drums.
- Maximum Temperature up to 600°C.
- Cost effective
- Optimum space utilization
- Optimum operating cost
- Easy mechanised loading of bobbins for second and third tier.

### TRANSFORMER CORE ANNEALING FURNACES:

- Batch capacity as per customer requirements.
- Specially designed for annealing CRGO silicon core.
- Bogie hearth construction for easy loading/unloading.
- Maximum temperature up to 800°C.
- Nitrogen atmosphere for scale free annealing
- Optimum Nitrogen gas consumption



“Customer satisfaction is our motto and is priceless.”

# LARGE CAPACITY GAS FIRED RE-HEATING & HEAT TREATMENT FURNACES

## GAS FIRED RE-HEATING FURNACES



### SALIENT FEATURES:

- Reheating furnaces are used to heat the steel stock (billet, blooms and slabs)
- Type of furnaces: Box type furnaces/ Bogie type furnaces  
Features:
  - Batch capacity up to 150 tonnes
  - Max temperatures up to 1300°C
  - Energy efficient combustion system
  - Less scale loss
  - Better temperature uniformity
  - Multipurpose application like hardening, tempering, normalizing etc.
  - Auto operation through PLC & SCADA.

## BOGIE HEARTH HEAT TREATMENT FURNACES

### SALIENT FEATURES:

- Batch capacity up to 300 MT
- Maximum temperature up to 1150°C
- Gas fired options
- Better combustion efficiency
- Auto operation through PLC & SCADA.
- Close temperature control accuracy
- Suitable for annealing, normalising, tempering & stress relieving of heavy engineering components like boiler parts, steel rolls, forged & cast parts etc.
- Meeting IBR requirement for the heat treatment of high pressure Boiler parts.



## ROTARY FURNACES



### SALIENT FEATURES OF ROTARY FURNACES

- Pre-sintering of ferrites
- Calcination, reduction, stabilization and reoxidation of Minerals, iron ores, controlled oxidation, drying and hydro fluorination etc.,
- Drying of alumina oxide powder
- Capacity up to 750 Kgs/hr.
- Horizontal draw out type furnaces for easy maintenance
- Maximum temperature up to 1100°C
- Atmosphere control with mechanical seal design
- Electric/fuel fired option
- Scrubber system for exhaust gas cleaning

“Customer's perception is our reality.”



# OUR PRODUCTS AT A GLANCE

## INDUSTRIAL FURNACES

- Electric & Gas fired Bell type spherodized annealing furnaces
- Continuous hardening and tempering furnace line
- Bell type bar annealing furnaces.
- Electric & Gas fired Bogie hearth furnaces.
- Drop bottom quench furnace for solution annealing of aluminum alloy.
- Pit furnaces.
- Continuous Roller hearth furnaces
- Rotary tube furnaces
- Gas fired Reheating & heat treatment furnaces.
- Box and bogie type aluminum homogenizing furnace.
- Thermal Stability furnaces.
- Modular Furnaces.

## INDUSTRIAL OVENS

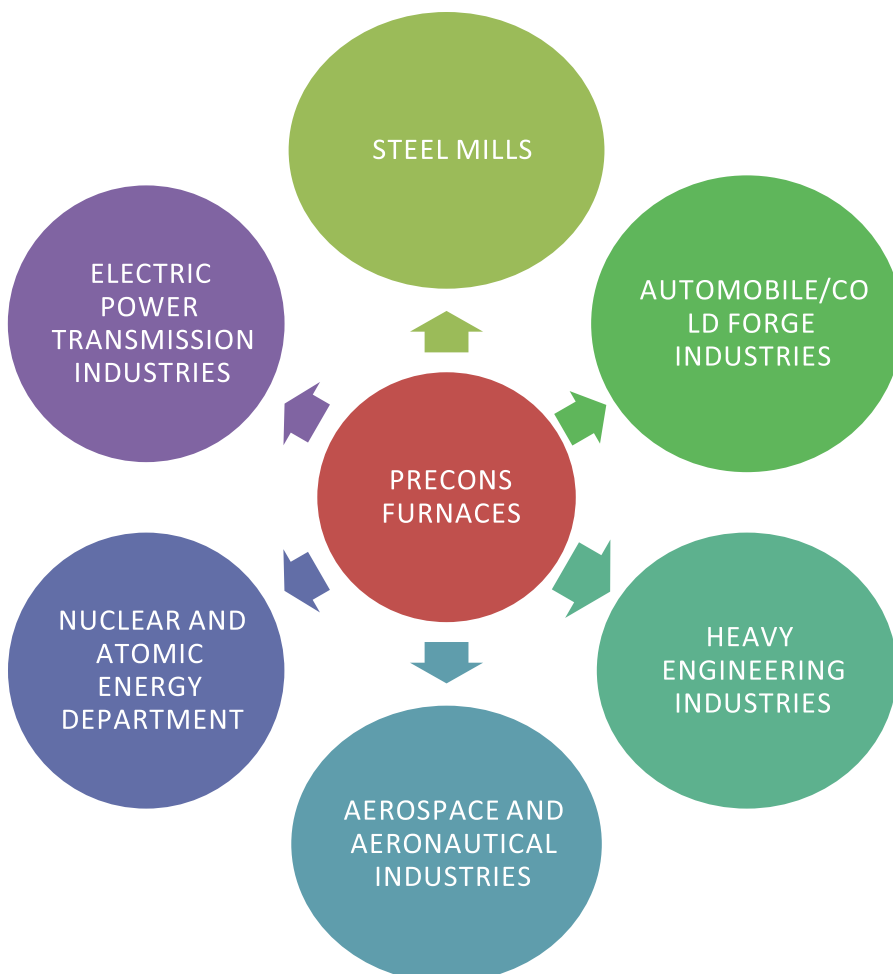
- Composite Curing Ovens.
- Ageing Ovens.
- Continuous mesh belt conveyor type Dacro coating Ovens.
- Continuous mesh belt conveyor type Hydrogen De- embrittlement ovens.

## SPECIAL EQUIPMENTS

- Autoclave machines
- Vacuum Chamber
- Billet Heating Furnaces
- Charging machine



## OUR PRODUCTS - INDUSTRY WISE SPREAD



“Perfection is not attainable. But if we chase perfection, we can catch excellence.”

## CUSTOMER SPREAD ACROSS INDIA



WESTERN INDIA



EASTERN INDIA



NORTHERN INDIA



SOUTHERN INDIA

## CUSTOMER SPREAD ACROSS GLOBE



## A FEW OF OUR MOST VALUED CLIENTS



# PRECISION CONTROLS

PRECONS



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### OUR GROUP COMPANIES

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OPULENT GREEN ENERGY PRIVATE LIMITED