



ThermiCraft Industries

CRAFTING YOUR THERMAL NEEDS

INDUSTRIAL OVEN | INDUSTRIAL FURNACE | FOOD DRYER | HEATING EQUIPMENTS



INDUSTRIAL OVEN

An industrial oven is a robust and versatile piece of equipment used in various industries for heating, drying, curing, or baking processes. These ovens are designed to handle high temperatures and heavy-duty operations, making them ideal for commercial and industrial applications.

We specialize in manufacturing industrial ovens in customized sizes to meet the unique requirements of our clients. Our team of experienced engineers and technicians work closely with customers to understand their specific needs and provide tailored solutions.

With our expertise in customized oven manufacturing, we cater to a wide range of industries, including automotive, aerospace, electronics, food processing, pharmaceuticals, and more. Whether you require an oven for curing, drying, heat treatment, or any other specific application, we can tailor our solutions to meet your precise requirements.

Standard Features

- Customizable sizing options to suit specific needs
- Precise temperature control systems for accurate heat regulation
- Even heat distribution throughout the oven chamber for consistent results
- Safety features, such as insulation and ventilation systems, to ensure a secure working environment
- User-friendly controls and interfaces for ease of operation
- Efficient energy usage to minimize costs and environmental impact

Installation

- Shipped completely assembled or as customer preferred.
- Set in place and hook up power supply.
- Professional training and guidance on oven operation and maintenance

Engineering Expertise

- Skilled engineering team
- Tailoring solutions to specific needs
- Collaborative approach with clients
- Extensive knowledge and experience
- Focus on innovation and cutting-edge technologies
- Continuous improvement

Temperature Range

Industrial ovens are insulated enclosures or tunnels that operate at temperatures from slightly above ambient to 500°C.

Air Circulation

- Balanced airflow distribution to ensure even heating throughout the oven chamber
- Selection of appropriate fan types and configurations to optimize air movement and reduce energy consumption

Heating Medium

- Electric heating elements
- Gas burners or combustion systems
- Infrared heating systems

Insulation

- 3" to 8" thick, High Grade Ceramic Wool.
- Fire-resistant insulation to enhance safety
- Compliance with relevant insulation standards and regulations.
- Focus on providing optimal thermal insulation for temperature control and energy efficiency

Hot Air Oven

A hot air oven, also known as a forced convection oven or a dry heat sterilizer, is a versatile laboratory equipment designed for heating, drying, and sterilizing various materials and samples. It utilizes the circulation of heated air to achieve uniform heating throughout the chamber, ensuring consistent results. Hot air ovens are widely used in research laboratories, medical facilities, pharmaceuticals, and food industries due to their reliable and controlled heating capabilities.

Temperature Range:

- Room Temperature to 500°C (Optional)

Features:

- Precise Temperature Control
- Forced Convection
- Wide Temperature Range
- Safety Features
- Customize Design

Applications:

- Drying and Sterilization
- Thermal Testing
- Sample Preparation
- Pharmaceutical Applications



Electrode Baking Oven

A welding rod baking oven is a specialized type of industrial oven designed to dry and remove moisture from welding electrodes or rods. Moisture can affect the quality and performance of welding rods, so drying them before use is crucial to ensure consistent welding results. Welding rod baking ovens come in various sizes, depending on the production needs of the industry. They are commonly used in industries such as construction, shipbuilding, and metal fabrication. With precise temperature control and uniform heating, welding rod baking ovens are an essential tool for achieving high-quality welding results.

Temperature Range:

- Room Temperature to 500°C (Optional)

Applications:

- Welding Industry
- Maintenance and Repair
- Construction
- Shipbuilding
- Metal Fabrication, Etc.



Features:

- Temperature Control
- Uniform Heating
- Drying Capacity
- Safety Measures
- Portability
- Customize Design

Drying Oven

A drying oven is a specialized piece of equipment used to remove moisture or solvents from materials through controlled heating. Drying ovens offer a controlled environment with consistent temperature and airflow, ensuring efficient and effective drying. They are designed to accommodate different sizes and quantities of materials, providing flexibility in the drying process. Drying ovens may include safety features such as temperature sensors and ventilation systems to maintain a safe working environment.

Temperature Range:

- Room Temperature to 500°C (Optional)

Features:

- Temperature Control
- Uniform Airflow
- Adjustable Shelves
- Timer and Alarm System
- Safety Features
- Customize Design

Applications:

- Industrial Processes
- Laboratory and Scientific Research
- Food Processing
- Pharmaceutical Manufacturing
- Electronics and Components
- Textile and Paper Industries



Trolley Type Oven

A trolley type oven is a specialized type of oven that incorporates a trolley or tray system for loading and unloading materials or products. This type of oven is commonly used in industrial settings where large or heavy items need to be processed or heat-treated. The trolley type oven typically consists of a spacious chamber or enclosure with heating elements positioned strategically to ensure uniform heat distribution. These ovens are designed to accommodate a wide range of applications and can be customized to suit specific requirements. Temperature and timing controls are included to ensure precise heat treatment and optimize process efficiency.

Temperature Range:

- Room Temperature to 500°C (Optional)

Applications:

- Automotive Industry
- Aerospace Industry
- Manufacturing Processes
- Food Processing
- Heat Treatment of Components

Features:

- Trolley System
- Spacious Chamber
- Uniform Heat Distribution
- Temperature and Timing Controls
- Customizable Design

Curing Oven

A curing oven is a specialized type of oven used in various industries for the process of curing or hardening materials through controlled heating. This type of oven provides a controlled environment to promote chemical reactions, polymerization, or cross-linking of materials, resulting in enhanced strength, durability, or other desired properties. They play a crucial role in the manufacturing of products where curing is necessary, such as adhesives, paints, coatings, rubber, plastics, and composite materials.

Temperature Range:

- Room Temperature to 500°C (Optional)

Features:

- Precise Temperature Control
- Uniform Heat Distribution
- Time Control
- Ventilation and Exhaust Systems
- Customization Options
- Customize Design

Applications:

- Automotive Industry
- Aerospace Industry
- Electronics Manufacturing
- Coatings and Paints Industry
- Rubber and Plastic Manufacturing
- Composite Materials Production



Pre Heat Oven

A preheating oven is a specialized type of oven used to raise the temperature of materials or components to a desired level before further processing or application. This type of oven plays a crucial role in various industries where preheating is necessary to enhance the efficiency, quality, or effectiveness of subsequent manufacturing or processing steps. The temperature range of a preheating oven can vary depending on the specific application and industry requirements. However, preheating ovens generally operate within a range of approximately 50°C (122°F) to 400°C (752°F).

Temperature Range:

- Room Temperature to 500°C (Optional)

Features:

- Temperature Control
- Even Heat Distribution
- Rapid Heating
- Safety Measures
- Customization Options
- Customizable Design

Applications:

- Welding and Fabrication
- Heat Treatment
- Polymer Processing
- Food Industry
- Glass and Ceramics Manufacturing
- Die Casting

Conveyor Oven

A conveyor oven is a highly efficient and versatile heating solution that utilizes a conveyor belt system to transport products or materials through a heated chamber. These ovens are widely used in various industries for processes such as baking, curing, drying, and heat treating. They offer a continuous and automated operation, making them ideal for high-volume production environments. The temperature range of a conveyor oven can vary depending on the specific design and application requirements.



Temperature Range:

- conveyor ovens can achieve temperatures ranging from 50°C to 500°C

Features:

- Continuous operation
- Temperature control
- Adjustable belt speed
- Customizable design
- Efficient heating system
- Easy loading and unloading

Applications:

- Food industry
- Industrial manufacturing
- Automotive industry
- Textile industry
- Electronics industry

Charcoal Drying Oven



The Charcoal Briquettes Drying Oven is a specialized equipment designed for efficiently drying charcoal briquettes. It features precise temperature control, an air circulation system for uniform drying, and a durable construction. The oven is customizable in size, energy-efficient, and equipped with safety features. It finds applications in charcoal production, industrial manufacturing, export and distribution, as well as for barbecue and grilling purposes. It ensures optimal moisture reduction, high-quality briquettes, and is suitable for heating and energy generation applications.

Temperature Range:

- The temperature range for the Charcoal Briquettes Drying Oven typically falls between 100°C (212°F) and 200°C (392°F). (Optional)

Features:

- Precise Temperature Control
- Adjustable Timer
- Multiple Drying Racks
- Air Circulation System
- Compact and Space-saving Design
- Easy-to-clean Removable Trays
- Energy-efficient Operation

Applications:

- Drying Fruits and Vegetables
- Making Fruit Leather
- Preserving Herbs and Spices
- Dehydrating Meat and Fish
- Making Dried Tea Leaves
- Crafting Decorative Dried Flowers
- Preparing Dehydrated Snacks and more

Food Processing Equipment

A food dryer, also known as a food dehydrator, is a specialized appliance designed to remove moisture from various types of food. This process helps to extend the shelf life of foods by inhibiting the growth of bacteria, yeast, and mold, while preserving their nutritional value and flavor. Food dryers offer a convenient and efficient way to prepare dried fruits, vegetables, herbs, jerky, and more.

- Fruit and vegetables: 52°F (11°C) to 57°F (14°C)
- Meat and jerky: 63°F (17°C) to 71°F (22°C)
- Herbs and spice: 95°F (35°C) to 105°F (41°C)

These may vary for some.

Temperature Range:

- Room Temperature to 150°C (Optional)

Features:

- Precise Temperature Control
- Adjustable Timer
- Multiple Drying Racks
- Air Circulation System
- Compact and Space-saving Design
- Easy-to-clean Removable Trays
- Energy-efficient Operation
- Moisture Exhaust System

Applications:

- Drying Fruits and Vegetables
- Making Fruit Leather
- Preserving Herbs and Spices
- Dehydrating Meat and Fish
- Making Dried Tea Leaves
- Crafting Decorative Dried Flowers
- Preparing Dehydrated Snacks and more



Food Dehydrator



Tray Type Dryer



Cabinet Type Food Dryer

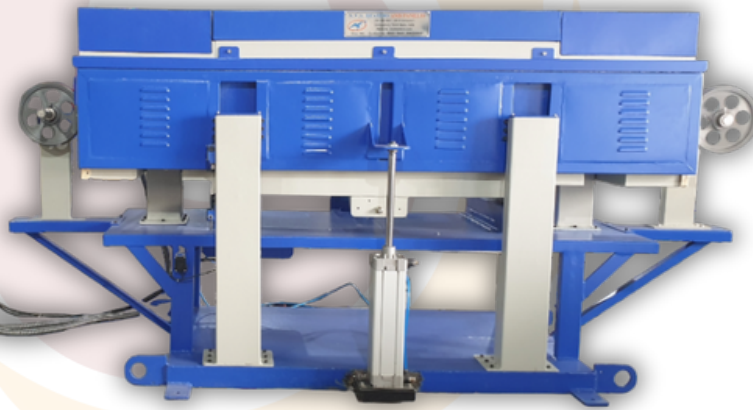


Hot Plate

Our Line of Customized Ovens

- Laboratory Ovens
- Curing Ovens
- Batch Ovens
- Industrial Baking Ovens
- Drying Ovens
- Cabinet Ovens
- Conveyor Ovens
- Powder Coating Ovens
- Truck-In Ovens
- Pre Heating Ovens
- Sheet Heating Ovens
- Oil Industry Ovens
- Walk-In Ovens
- Fuel Fired Ovens
- Electrode Drying Ovens
- Agarbatti Drying Oven
- Coconut DC Powder Drying Oven
- Paint Curing Ovens
- Motor Drying Ovens
- Powder Coating Ovens
- Plastic Pre Heating Ovens
- Charcoal briquettes Drying Ovens
- Forced Convection Ovens
- Welding Rod Baking Ovens
- Trolley Type Ovens
- Tray Type Ovens
- Lab Testing Ovens
- Forced Air Ovens
- Flex Ovens
- Annealing Ovens
- Wire Tape Coating Oven
- Food Dryer
- Varnish Baking Ovens

Our Line of Customized Ovens



INDUSTRIAL FURNACE

An industrial furnace is a device used for heating processes in various manufacturing industries. It is designed to generate and maintain high temperatures required for melting, smelting, annealing, heat treatment, and other thermal processes. Industrial furnaces are vital components in industries such as steel, aluminum, glass, ceramics, cement, chemical, and metallurgical sectors.

The primary function of an industrial furnace is to provide controlled heat to transform raw materials into finished products or perform specific operations on materials. These furnaces are typically large, enclosed structures made of refractory materials capable of withstanding high temperatures. They are equipped with burners or heating elements to generate heat and mechanisms for controlling temperature, airflow, and other process parameters.

Standard Features

- Customizable sizing options to suit specific needs.
- Precise temperature control systems for accurate heat regulation.
- Even heat distribution throughout the furnace chamber for consistent results.
- Safety features, such as insulation and ventilation systems, to ensure a secure working environment.
- User-friendly controls and interfaces for ease of operation.
- Efficient energy usage to minimize costs and environmental impact.

Installation

- Shipped completely assembled or as customer preferred.
- Set in place and hook up power supply.
- Professional training and guidance on furnace operation and maintenance.

Engineering Expertise

- Skilled engineering team.
- Tailoring solutions to specific needs.
- Collaborative approach with clients.
- Extensive knowledge and experience.
- Focus on innovation and cutting-edge technologies.
- Continuous improvement.

Temperature Range

Industrial furnaces are insulated enclosures or tunnels that operate at temperatures from as low as 200°C to 1400°C.

Air Circulation

- Balanced airflow distribution to ensure even heating throughout the oven chamber.
- Selection of appropriate fan types and configurations to optimize air movement and reduce energy consumption.

Heating Medium

- Electric heating elements
- Gas burners or combustion systems
- Infrared heating systems

Insulation

- Refractory bricks and Ceramic fiber
- Fire-resistant insulation to enhance safety
- Compliance with relevant insulation standards and regulations.
- Focus on providing optimal thermal insulation for temperature control and energy efficiency

Kiln Furnace

A kiln rotary furnace, also known as a rotary kiln, is a specialized type of industrial furnace used for various thermal processes, primarily in the cement, lime, and minerals industries. The primary function of a kiln rotary furnace is to carry out high-temperature processes such as drying, calcination, sintering, and roasting. These processes involve subjecting materials to elevated temperatures in a controlled environment to achieve specific physical or chemical changes. The rotation of the furnace ensures that the materials are evenly exposed to heat and promotes efficient heat transfer throughout the process.

Temperature Range:

- Temperature ranges from 500°C to 1400°C (Optional)

Features:

- Cylindrical shape with rotation for even heat distribution.
- Refractory lining to withstand high temperatures.
- Riding rings and support rollers for stability.
- Drive gear and motor for controlled rotation.
- Advanced control systems for precise operation



Applications:

- Cement production.
- Lime production.
- Mineral processing.
- Ceramics manufacturing.
- Chemical processing.
- Waste incineration.
- Metal smelting and refining.



Hardening Furnace

A hardening furnace, also known as a heat treatment furnace or an annealing furnace, is a type of industrial furnace used for the process of hardening or heat treating materials, typically metals. The primary purpose of a hardening furnace is to subject the material to controlled heating and cooling cycles to achieve desired mechanical properties, such as increased hardness, improved strength, and enhanced wear resistance. The specific design and configuration of a hardening furnace can vary based on the materials being processed, the required heating and cooling rates, and the desired final properties of the material.

Temperature Range:

- Temperature ranges from 400°C to 1400°C (Optional)

Applications:

- Heat treatment of metals.
- Hardening of steel components.
- Annealing processes.
- Carburizing and nitriding.
- Stress relieving.
- Tool and die manufacturing.

Features:

- Heating elements for generating heat.
- Insulation to minimize heat loss.
- Safety systems for safe operation.
- Control panel for monitoring and adjustment.

Annealing Furnace

An annealing furnace is a type of industrial furnace used for the process of annealing, which involves heating a material to a specific temperature and then cooling it slowly to alter its physical and mechanical properties. Annealing is commonly used to reduce hardness, improve ductility, relieve internal stresses, and refine the microstructure of metals and alloys. The specific design and configuration of an annealing furnace can vary based on the materials being processed, the required temperature profiles, and the desired final properties of the material.

Temperature Range:

- Annealing furnaces operate in temperature ranges from 200°C to 1400°C (Optional)

Features:

- Heating elements for generating heat.
- Temperature control system for precise regulation.
- Insulation to minimize heat loss.
- Safety systems for safe operation.
- Control panel for monitoring and adjustment.

Applications:

- Metal heat treatment and annealing.
- Stress relieving of components.
- Softening of materials.
- Annealing of steel, aluminum, and copper alloys.
- Heat treatment of springs and wires.
- Batch or continuous annealing processes.



Features:

- Rectangular or square-shaped chamber for accommodating materials.
- Temperature control system for precise regulation.
- Access door for easy loading and unloading of materials.
- Safety systems for safe operation.

Box Type Furnace

A hardening furnace, also known as a heat treatment furnace or an annealing furnace, is a type of industrial furnace used for the process of hardening or heat treating materials, typically metals. The primary purpose of a hardening furnace is to subject the material to controlled heating and cooling cycles to achieve desired mechanical properties, such as increased hardness, improved strength, and enhanced wear resistance. The specific design and configuration of a hardening furnace can vary based on the materials being processed, the required heating and cooling rates, and the desired final properties of the material.

Temperature Range:

- Temperature ranges from 100°C to 1400°C (Optional)

Applications:

- Heating
- Annealing
- Tempering
- Brazing
- Sintering
- Material processing

Laboratory Furnace

A laboratory furnace is a type of furnace specifically designed for use in laboratory settings. These furnaces are used for a variety of applications, including heating, drying, annealing, sintering, and conducting experiments or tests on small-scale samples. Laboratory furnaces are typically compact, versatile, and offer precise temperature control to meet the specific requirements of laboratory research and analysis.

Temperature Range:

- Lab furnaces operate in temperature ranges from 200°C to 1400°C (Optional)

Features:

- Compact size
- Heating elements
- Temperature control system
- Insulation
- Safety features
- Programmable functionality
- Ventilation
- Transparent viewing window

Applications:

- Heat treatment
- Drying and dehydration
- Annealing and tempering
- Sintering
- Catalysis and chemical reactions
- Material testing and analysis
- Research and development



Features:

- Rectangular or square-shaped chamber for accommodating materials.
- Temperature control system for precise regulation.
- Access door for easy loading and unloading of materials.
- Safety systems for safe operation.

Tube Furnace

A tube furnace is a type of laboratory or industrial furnace that consists of a cylindrical heating chamber, typically made of refractory materials, with a central heating element. The cylindrical shape allows for the heating of materials placed inside a quartz, ceramic, or metal tube that runs through the center of the furnace. Tube furnaces are widely used for various heating and thermal processing applications in research laboratories, material synthesis, heat treatment, and other industrial processes.

Temperature Range:

- Temperature ranges from 400°C to 1100°C (Optional)

Applications:

- High-temperature materials research and synthesis.
- Thermal decomposition and calcination of materials.
- Heat treatment of small samples or components.
- Annealing and sintering of ceramics and powders.
- Catalyst testing and characterization.
- Crystal growth and solid-state reactions.
- Sublimation and purification processes.
- Sample preparation for spectroscopy or microscopy.

Non-ferrous melting Furnace

Non-ferrous melting furnaces, also known as non-ferrous metal melting furnaces, are specifically designed for melting and refining non-ferrous metals, which are metals that do not contain iron. These furnaces are commonly used in foundries, metal casting facilities, and other industrial settings where non-ferrous metals need to be melted for various applications. Non-ferrous melting furnaces are used for melting a wide range of non-ferrous metals, including aluminium, copper, brass, bronze, zinc, lead, and various alloys.

Temperature Range:

- These furnaces operate in temperature ranges from 200°C to 1400°C (Optional)

Features:

- Crucible or pot
- Heating system
- Temperature control
- Insulation
- Charging and pouring mechanism
- Exhaust system
- Safety features
- Control panel

Applications:

- Foundries
- Metal casting facilities
- Fabrication industries
- Automotive industry
- Aerospace industry
- Construction industry
- Electrical industry
- Manufacturing industry



Automatic Stirrer Type Furnace

A stirrer type furnace, also known as a rotary stirrer furnace, is a specialized type of furnace that incorporates a stirring mechanism within the heating chamber. This design allows for enhanced mixing and agitation of materials during the heating process, providing improved heat transfer and homogenization. Stirrer type furnaces are commonly used in applications that require uniform heating and thorough mixing of materials, such as powder processing, chemical reactions, and materials synthesis.

Temperature Range:

- Room Temperature to 400°C to 1400°C (Optional)

Applications:

- Powder processing and mixing
- Chemical reactions
- Materials synthesis
- Homogenization of materials
- Heat treatment
- Sample preparation
- Materials research and development
- Pharmaceutical and food processing



Our Line of Customized Furnaces

- Metal Melting Furnaces
 - Copper
 - Aluminium
 - Brass
 - Gold
- Batch Furnaces
- Tunnel Furnaces
- Electric Arc Furnaces
- Crucible Furnaces
- Tilting Furnaces
- Tempering Furnaces
- Pit Furnaces
- Bell Furnaces
- High Temperature Furnaces
- Chamber Furnaces
- Annealing Furnaces
- Hardening Furnaces
- Fuel Fire Furnaces
- Muffle Furnaces
- Laboratory Furnaces
- Gas Furnaces
- Car Bottom Furnaces
- Conveyor Furnaces
- Kiln Rotary Furnaces
- Tube Furnaces
- Hearth Furnaces
- Box Furnaces

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