IDM

Carefully crafted to serve the world

LuoYang IDM Metallurgy Trading Co., Ltd.

IDM METALLURGY

LuoYang IDM is committed to the development of industries such as smelting and casting equipment in China, and has its own unique advantages in this field. For many years, the company has always prioritized technological research and development, and has carried out a series of upgrades and improvements to its products, enhancingtheir competitiveness. Currently, we have maintained friendly cooperative relationships with many countries in Central Asia, the Commonwealth of Independent States, South America, and more.

Heat treatment furnace

Melting furnace

Rolling mill

Foundry equipment

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Car Bottom Furnace

Car bottom furnace is a standard energy-saving periodic operation furnace. It is mainly used for quenching, annealing and heat treatment of various machinery and parts, applicable to high chromium and high manganese steel castings, ductile iron, rollers, steel balls, crusher hammerswear-resistant lining plates, etc.

Although large car bottom furnace have high work efficiency, they also have a large volume and occupy a large area, making them suitable for large casting or steel enterprises. The small car bottom furnace is easy to move and occupies a small area, making it suitable for small and mediumsized enterprises.

The full name of car bottom furnace is car bottom type resistance furnace, which includes car bottom type annealing furnace, car bottom type tempering furnace, car bottom type quenching furnace, car bottom type aluminum alloy aging furnace, etc.

Rated temperature
1200~1400℃

Rated Power
30 ~2500Kw

Max. Loading
500 ~ 60000Kg

What is Car Bottom Furnace

Car Bottom Furnace, the full name of bogie-hearth resistance furnace, it's called oil-fired trolley furnace, and gas-fired trolley furnace when oil or gas is used as the heating method. It is an energy saving, periodical industrial furnace, with a trolley that can be entered and exited at the bottom as the main loading carrier, and there are heat treatment equipment with heating elements on both sides front and bottom. The furnace body is an energy-saving structure, and there are different furnace masonry installation methods. One is WDS composite furnace insulation structures, which is composed of lightweight energy-saving bricks and high-purity aluminum silicate fiber insulation materials. The other is full-fiber lining insulation structuresThe furnace opening is generally made of anti-impact bricks, self-sealing trolley and furnace door. Integrated rail, no foundation installation required, can be used on level ground.

Introduction to Car Bottom Furnace

Car Bottom Furnace is mainly used for quenching, normalizing, annealing and heat treatment of various machinery and parts, applicable to high chromium, high manganese steel castingsgray iron castings, ductile iron castings, rollers, steel balls, crusher hammers, wear-resistant linings, auto parts metal structural parts, carbon steel, welding parts, alloy steel parts, etc. It can also be used for drill bit sintering, catalyst baking, and precision mold shell baking.

The heating methods of Car Bottom furnace can be divided into three types: electric heating, oil heating and gas heating. They are: trolley-type resistance furnace, oil-fired trolley furnace, and gas fired trolley furnace.According to the furnace structure, it can be divided into: composite lining trolley furnace built with lightweight bricks and insulation fiber, and full-fiber trolley furnace.

The Car Bottom furnace has a movable trolley at the bottom for loading workpieces. The loadbearing capacity is stronger than other industrial furnaces, it can load large and heavy workpieces for heat treatment. Before heating, the loading trolley is driven out of the furnace. It can be loaded with a crane in the workshop or in various ways. The workpiece can be directly placed on the trolley with the furnace floor installed, and then the electrically controlled trolley can send the workpiece into the furnace and automatically sealed, after that the temperature control system will perform the heat treatment process automatically. After heat treatment, it can be cooled with the furnace temperature or the trolley can be directly driven out of the furnace for cooling.

According to different heat treatment temperatures, Car Bottom furnace can be divided into three types: 1200~1400℃ high temperature furnace, 950℃ medium temperature furnace and 650℃ low temperature furnace.

According to different use, Car Bottom Furnace can be divided into: high-temperature bogie hearth furnaces, medium-temperature bogie hearth furnaces, low-temperature bogie hearth furnaces, trolley type quenching furnaces, trolley-type annealing furnaces, and trolley-type tempering furnaces, turning bogie hearth furnace, trolley-type resistance furnace, trolley-type aluminum alloy quenching furnace pre-vacuum bogie hearth furnace, double-door bogie hearth furnace, trolley-type drill sintering furnace trolley-type mold preheating furnace, etc...

High Quality

In step with the international advanced technology of bogie hearth furnace , we have won a good reputation in the international market with our energy-saving technology, high-precision temperature control, high temperature uniformity and other properties.

Good Performance

Energy-saving and emission-reduction technology, full fiber high-pressure module insulation. Low thermal conductivity, low heat capacity, anti-corrosion, anti oxidation, high load, ultra-high temperature heating without breakage.

Product Features

Easy for loading materials, has a large heating temperature range, the heated workpiece is not limited by its shape the heating chamber can quickly adjust the temperature and the heating speed is fast. The furnace body is made of high-quality refractory materials, which has good thermal insulation and reduces heat loss. Automatic and precise temperature control, high safety, easy operation and maintenance.

Customized Design

Customized design according to the actual needs of customers.

Working Principle

Heating stage

The trolley sends the metal material to be processed into the furnace. The burner or electric furnace on the upper part of the furnace will produce high-temperature flame or electric heat energy, which will be radiated and conducted to the metal material and raise to the required processing temperature.

Insulation stage

When the metal material reaches the processing temperature, a constant temperature will be maintained in the furnace, allowing the metal material to perform the required heat treatment processes at this temperature, such as annealing, sintering, quenching, etc.

Cooling phase

After the heat treatment process, the supply of the heating source in the furnace will be stopped and the temperature in the furnace will gradually drop. In order to prevent metal materials from generating stress and deforming if the metal material cooled too quickly, two cooling methods can be used. One is natural cooling, left the metal material in the furnace and cool down statically. The second is to use external cooling media, such as air, water or oil.

Solution

Car Bottom Furnace

Can be used for the heat treament procedure on casting parts, forging parts of different metal.

In 2003, our company improved the design of its own products based on advanced furnace types It adopted a rapid quenching unit with large production capacity, obvious energy saving effect, fast quenching time, and good heat treatment effect. It can arrange quenching, tempering, and annealing on the same production line. , normalizing and other quenching and tempering treatments, greatly improving production efficiency.

According to different use, Car Bottom Furnace can be divided into: high-temperature bogie hearth furnaces, medium-temperature bogie hearth furnaces, low-temperature bogie hearth furnaces, trolley type quenching furnaces, trolley-type annealing furnaces, and trolley-type tempering furnaces, turning bogie hearth furnace, trolley-type resistance furnace, trolley-type aluminum alloy quenching furnace pre-vacuum bogie hearth furnace, double-door bogie hearth furnace, trolley-type drill sintering furnace trolley-type mold preheating furnace, etc...

Configuration

Equipment list

Quenching fumae, annealing fumace, tempering fumace, toley, temperature control system

Usage

Used for annealin, quenching, tempering for high chrome steel, hioh manganese steel, grey iron, ductile iron, rollers, balls or other stel alloy.

Rated power

60~6000KW, customized according to different capactiy

Rated temp.

600°C~1200°C, customized according to different requirement

Heat Up time

2.5hours and above, according to technology flow requirement

Load capacity

50kgs~120tons

Furnace Type	Furnace Chamber Size	Rated Voltage	Rated Power	Rated Temp.	Heat Up time
	mm	V	KW	℃	H
RT3-180-9	2200x1050x750	380	180	950	2.5
RT3-200-9	2000x1200x800	380	200	950	2.5
RT3-220-9	2500x1300x900	380	220	950	2.5
RT3-240-9	2500x1400x900	380	240	950	2.5
RT3-250-9	2800x1500x900	380	250	950	2.5

Heat treatment furnace factory

Factory Introduction

In order to continuously improve the quality of thermal treatment furnace, we have carried out unremitting research in the four aspects of safety, stability, efficiency, and energy saving for many years, and conducted experiments and explorations around the two major topics of reducing power consumption and reducing heat loss. Today, IDM's thermal processing furnace has an excellent performance in terms of product performance, and has established trust with customers from all over the world to meet their needs for high quality products.

Melting furnace factory

Factory Introduction

The development, production and technical upgrade of the intermediate frequency induction furnace and the sensing heating control system is one of the operating projects of IDM Metallurgy Group. The R & D Center is located in Cangzhou City and Factory of Hebei Province, China, and is located in Tangshan City Hebei Province, China. It covers an area of more than 15,000 square meters. It has a complete sales and after -sales service system. The products are sold to more than 70 countries and have been well received by customers.

Rolling mill factory

Factory Introduction

The IDM Metallurgy Group's rolling machine is located in the industrial park of Tangshan City, Hebei Province, China. It covers an area of more than 20,000 square meters. It integrates production, research and development, and sales. The comprehensive strength is among the top domestic industry. In 2016 technical cooperation with many universities in China, in -depth research in the safety and stability of the rolling machine, continuously improved product quality, and won the recognition of customers at home and abroad.

Foundry equipment factory

Factory Introduction

As the core product of the IDM Industrial Group, the casting equipment has a large proportion in the annual export share. Resin Sand Casting Line, Static Pressure Automatic Molding Line, Iron Mold Sand Coated Casting Plant and other equipment were exported to South America Eastern Europe, Africa, and West Asia, and were widely used in automotive, ships, steel, and aerospace and other fields. Mature production technology and thoughtful after sales service are important guarantees for overseas customers to establish a cooperative relationship with IDM.