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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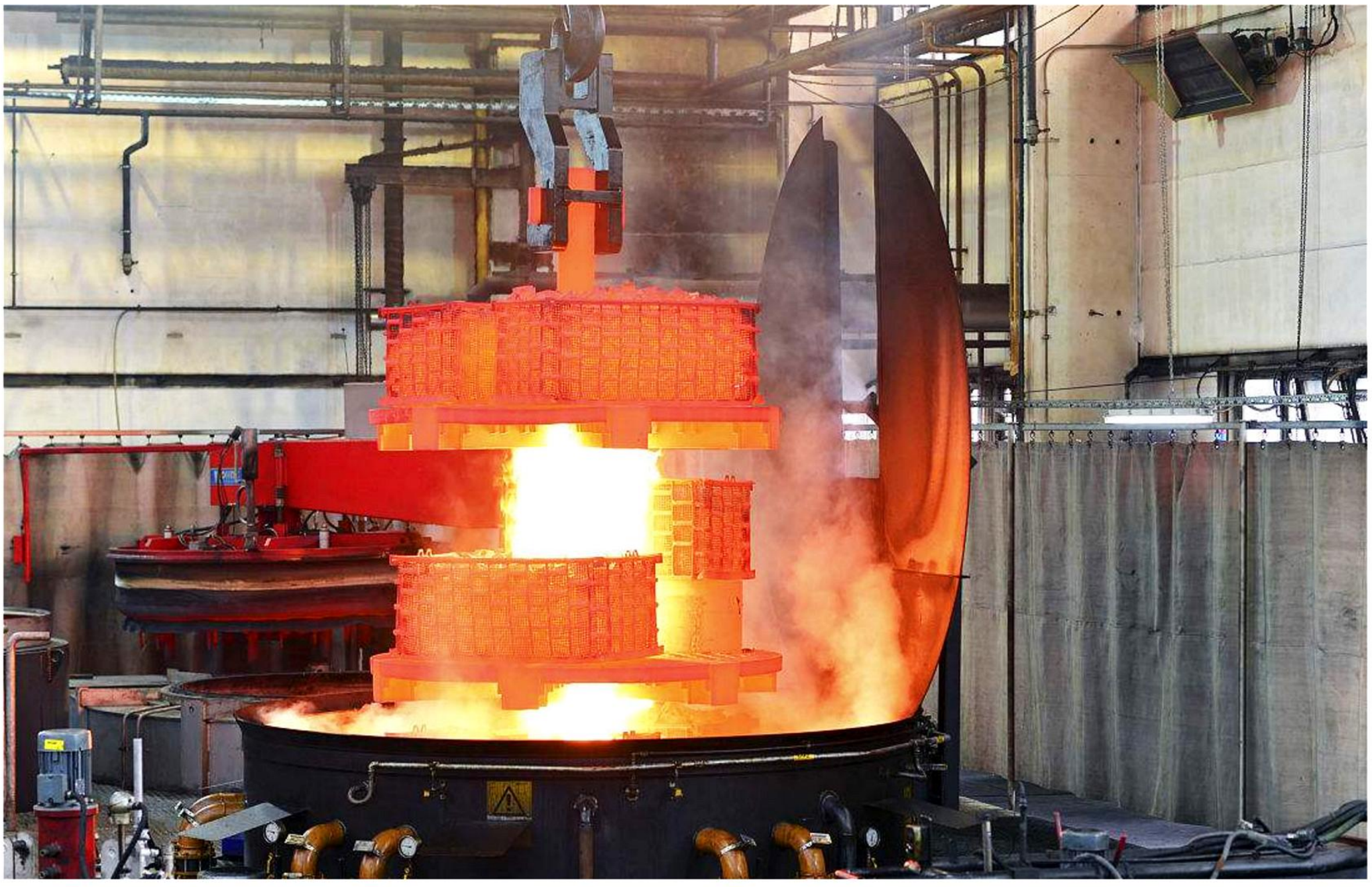
Quenching Furnace

The quenching furnace is a standard energy-saving industrial electric furnace. It is mainly used for quenching heat treatment of shaft workpieces, rod-shaped workpieces, rollers, 45 steel, stainless steel and other metal materials and mechanical parts. It can also be used for annealing and normalizing heat treatment of mechanical parts.



Rated temperature	Rated Power	Max. Loading
960℃	45~3000Kw	200~100000Kg

What is Quenching Furnace

The quenching furnace is a furnace used for heating workpieces before quenching. The workpiece is put into the furnace and heated to a quenching temperature above the critical point and maintained for a period of time. Then the workpiece is quickly taken out of the furnace and put into the quenching liquid (oil or water). The heat source of the furnace can be electricity or fuel, and the temperature can be measured with a thermocouple. Furnaces that use electricity, gas, or liquid fuel can automatically control and adjust the temperature with instruments. The whole machine is a fully automatic trolley structure, with fully automatic loading and unloading of materials. No basic installation is required It only needs to be placed on a flat cement floor to use.

Introduction to Quenching Furnace

The quenching furnace is generally divided into two parts. The first part is a quenching heating furnace used for heating to the quenching temperature, generally called a quenching furnace. The second part is a quenching tank used for cooling and quenching rapidly. The common quenching media includes water, oil, brine, quenching liquid, polyvinyl alcohol aqueous solution, etc.

Quenching furnaces are widely used in the machinery manufacturing industry, especially in the manufacturing of automobiles, aircraft, ships, etc., where almost all steel parts must undergo quenching heat treatment. It can also be used for quenching and heating automobile and aircraft parts, shafts gears, sprockets, bolts and various steel parts.

Quenching furnaces can be divided into three different types according to the heating method: electric heating, oil heating and gas heating. They are: Electric Heating Quenching Furnace, Oil Quenching Furnace, Gas Quenching Furnace. Quenching furnaces can also be divided into Vacuum Quenching Furnaces and Quenching Heating Furnaces heated in ordinary air.

According to different uses, quenching furnaces can be divided into: Trolley-type Quenching Furnaces Pit-type Quenching Furnaces, Box-type Quenching Furnaces, Vacuum Quenching Furnaces, Pipeline type Quenching Furnaces, etc...

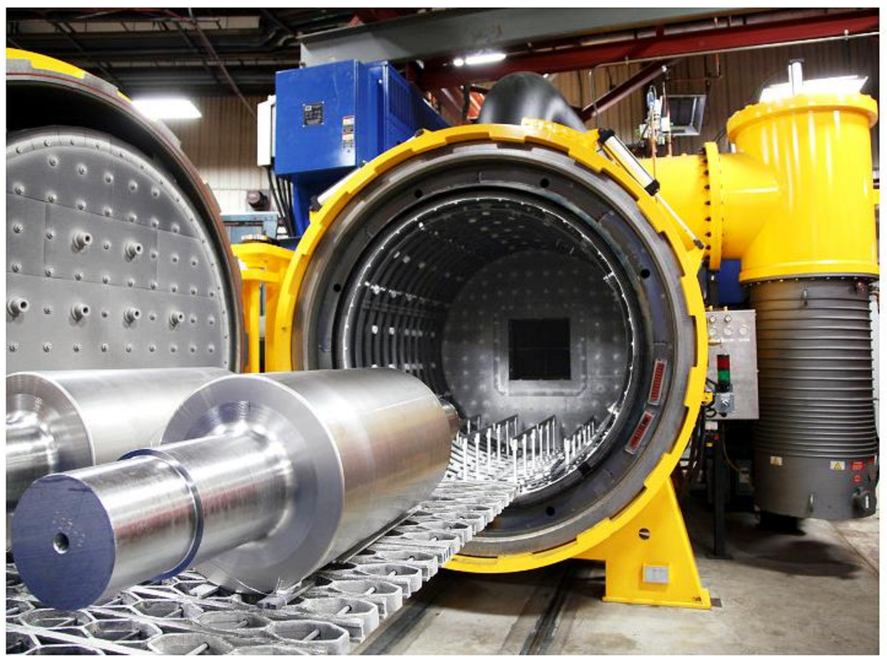
High Quality

The optimized design of the middle heat-insulation door has accurate positioning and good action repeatability, ensuring complete isolation between the heating chamber and the cooling chamber

equipped with high-performance insulation materials, the insulation effect is good and the power consumption is reduced.

Good Performance

The unique internal stacking structure and signal collection device can realize the adjustable workpiece transfer time to meet the quenching requirements of different workpieces; the optimized design of the oil quenching system and the professional cooling system can control the initial temperature of quenching and the recovery time of oil temperature returns to the initial temperature after quenching, making the workpiece to cool quickly and evenly.



Product Features

The charging platform has strong carrying capacity and large furnace loading capacity. The touch screen interface is simple and practical. It can display and monitor the operating status of the equipment, can invoke edit and store the process library, and has the functions of displaying, querying and printing for process reports real-time curves, historical curves, fault alarms and reports.

Customized Design

Customized design according to the actual requirement of customers.

Working Principle

Put the metal material to be processed into the quenching furnace, heat it to a certain temperature, and then start the quenching process. Heating systems generally use electric heating pipes, gas burners etc. as heating sources.

After the metal material is heated to a certain temperature, the temperature is quickly cooled by high-pressure water or oil, and the surface of the metal material is hardened, thereby changing the mechanical properties and increasing the service life of the metal material.

During the heating and quenching process of the quenching furnace, in order to facilitate workers to process metal materials, the quenching furnace needs to have a lifting mechanism. The lifting system includes driving devices, transmission mechanisms, control switches and other parts.

The transmission system is an important control part of the quenching furnace. It is responsible for driving the collaborative work of the lifting system, heating system and quenching system to realize the overall intelligent control of the quenching furnace.

Monitoring and controlling all parts of the quenching furnace through software and hardware equipment can effectively maintain the safe operation of the quenching furnace, control the temperature in the furnace, and control the placement and removal of items, ensuring the quality of metal materials after quenching.

Furnace Type	Furnace Chamber Size	Rated Voltage	Rated Power	Rated Temp.	Heat Up time
	mm	V	KW	℃	H
RT4-105-12	3000x1000x1000	380	105	1200	2.5
RT4-180-12	4000x1000x1000	380	150	1200	3
RT4-220-12	6000x1200x1200	380	180	1200	3
RT4-320-12	19000x1500x1500	380	220	1200	3
RX3-115-12	1800x900x500	380	115	1200	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.