



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, enhancing their 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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Aluminum Rod Continuous Casting and Rolling Production Line

Aluminum Rod Continuous Casting and Rolling Production Line is a production line for producing aluminum rods. Through the process of continuous casting and rolling, molten aluminum liquid is converted into the required aluminum rod products. It is widely used in many fields such as construction transportation, electricity, agriculture, etc.



What is Aluminum Rod Continuous Casting and Rolling Production Line

Aluminum Rod Continuous Casting and Rolling Production Line is a production line for producing aluminum rods. It combines continuous casting and continuous rolling technology, greatly improving production efficiency and product quality. It is mainly used to produce ordinary aluminum and aluminum alloy rods for electrical use. This production line consists of equipment such as melting furnace, holding furnace, casting machine, continuous rolling mill and winding rod assembly.



Introduction to Aluminum Rod Continuous Casting and Rolling Production Line

Aluminum rods are produced through the process of continuous casting and continuous rolling. The whole process starts with melting aluminum ingots, and then goes through multiple steps such as casting, shearing, rolling, cooling and winding to finally produce the required aluminum rod products.

This production line consists of a melting furnace, a holding furnace, an online degassing and filtration system, a new four-wheel continuous casting machine, a front traction machine, a rolling shear, a guide roller device, a continuous rolling machine, a double basket winding machine and other devices. It can produce three specifications of conductive aluminum rods: $\Phi 9.5\text{mm}$, $\Phi 12\text{mm}$, and $\Phi 15\text{mm}$.

The melting furnace and the holding furnace are used to melt and maintain the appropriate temperature of the aluminum liquid. The casting machine casts the aluminum liquid into aluminum rods through the crystallization wheel and the supporting wheel group. The continuous rolling machine continuously rolls the cast aluminum rods to obtain the required size and shape. Finally, the winding assembly winds the rolled aluminum rods into the required shape.

The new four-wheel planetary continuous casting machine is used, which is currently the most advanced continuous casting machine in China. It realizes automatic flow control and horizontal casting, reduces the number of operators and ensures that the aluminum liquid is cast smoothly and does not roll, overcomes the defects of slag inclusion and pores inside the aluminum rod, and greatly improves the product quality.

Through precise process control and equipment linkage matching program setting, the quality of the aluminum rod produced can be ensured to be stable. At the same time, the production line is equipped with an advanced electrical control system, which is easy to operate. It can ensure the synchronization of the production line through fine-tuning, making the operation simple and convenient.

High Quality

By optimizing equipment hardware and process flow the air absorption and oxidation of molten aluminum can be reduced to ensure the mechanical properties and surface quality of the aluminum rod.



Good Performance

The production process is stable and controllable with the use of automated control technology, which improves the production quality and work efficiency of the aluminum rod.

Product Features

The production line adopts a new four-wheel planetary continuous casting machine and continuous casting and rolling process, with efficient ingot casting and rolling speed. At the same time, energy-saving melting furnaces and online degassing and filtration systems are used to reduce energy consumption and environmental pollution.



Customized Design

Customized design according to the actual needs of customers.

Working Principle

Smelting: Put the mixed raw materials into the furnace for heating and melting to generate aluminum liquid. In this process, it is necessary to control the parameters such as furnace temperature, melting rate, atmosphere, etc. to ensure the purity and stability of the aluminum liquid.

Continuous casting: The molten aluminum liquid is continuously cast into aluminum strips through a continuous casting machine. The continuous casting machine consists of upper and lower pouring pots, gravity flow regulating devices, crystallization wheels and transmission devices, clamping wheel devices, cooling devices, etc. During the continuous casting process, it is necessary to control the parameters such as the shape, thickness and temperature of the aluminum strip.

Rolling: The aluminum strip is rolled through a rolling mill and pressed into the required aluminum rod shape. The rolling mill is divided into multi-roller and low-roller rolling mills. Among them, the multi-roller rolling mill has more precise control over the shape of the aluminum rod and can produce aluminum rods with higher precision.

Rod collection: The high-temperature aluminum rod coming out of the continuous rolling mill is cooled to the temperature set by the user's process through a continuous water cooling device. The rod collecting device consists of two parts: the lower wire rack and the wire frame trolley.



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.

