

## 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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#### **Section Rolling Mill**

The section rolling mill is a machine used to process metal materials. It is composed of multiple components, including frames, rollers, transmission systems, lubrication systems and control systems and the roll is cut into multiple holes of different specifications according to the requirements of product use and specifications. These components cooperate with each other to complete the rolling processing of metal materials and realize the production of metal materials of different shapes and sizes.



#### What is Section Rolling Mill

Section rolling mill is composed of a two-roller reversible roughing mill, a reversible series mill consisting of a universal working rolling mill and a flange rolling mill, and a universal finishing rolling mill arranged on the discharge side. It is a kind of mechanical equipment used in the field of metal processing. Mainly used for processing, forming and changing the shape of metal materials It can be divided into three categories according to their uses and product specifications: large rail and beam rolling mills, small and medium-sized rolling mills and wire rod rolling mills. According to the rolling mill layout, it can be divided into: horizontal type, longitudinal type, staggered type and continuous type.







### Introduction to Section Rolling Mill

The roller is one of the most important components of the section rolling mill. It consists of multiple rollers, each of which has its own role. During the rolling process, the rollers interact to complete the processing and shaping of the metal material. Rollers are usually made of cast iron or steel and have high strength and wear resistance.

The transmission is another important component that is responsible for transmitting the power generated by the motor to the rollers for operation. The transmission device usually consists of reducer, coupling and gear box.

The electrical system is the control center of the section rolling mill. It is responsible for controlling the starting, stopping, speed adjustment and other functions of the rolling mill. Electrical systems usually consist of switches, buttons, wiring boards, and controllers.

The lubrication system is one of the essential components of the section rolling mill. It can ensure that the rollers do not generate excessive heat and loss due to friction during operation. Lubrication systems usually consist of oil pumps, oil pipes and oil tanks.

The section rolling mill also includes some auxiliary components, such as bases, safety shield, sensors etc. The base is the support structure of the mill, it can ensure that the rolling mill will not shake and tilt during operation; the safety shields can protect the safety of workers and prevent them from being involved in the rollers; the sensor can monitor the operating status of the rolling mill and provide timely alarms to avoid malfunctions.

#### **High Quality**

The rolling process of the mill can refine the grains of steel and eliminate defects in the microstructure, thereby making the steel structure dense and improving its mechanical properties. Bubbles, cracks and looseness formed during pouring can also be welded under high temperature and pressure.



#### **Good Performance**

The deformation of the rolled piece is relatively uniform and the speed difference of each part on the cross-section is small; the internal stress of the rolled piece is small large-sized steel can be rolled with small-diameter rolls the adjustment of the rolling mill is simple, the product efficiency is high, and the roll consumption is low.



### **Product Features**

Our section rolling mill adopts cast steel structure, open frame, and AC/DC motor drive. It has the advantages of high product efficiency, stable quality, reasonable structure, convenient maintenance, and reliable use.



### **Customized Design**

Customized design according to the actual needs of customers.

### **Working Principle**

After the steel billet is rolled through multiple passes such as pre-rolling, rough rolling, intermediate rolling, and finishing rolling, it is formed into profiles of various specifications and cross-sectional shapes. During the rolling process, the steel billet undergoes multiple compression and tensile deformations. Under extreme conditions such as high temperature, high pressure, and high speed through metal plastic deformation, the arrangement of steel particles is changed, causing changes in physical properties and chemical composition, and finally forming profiles that meet standard specifications.



Type	Roll DIA	Roll working length	Main motor Power	Rotating speed
	mm	mm	KW	r/min
FF300×4	Ф280-Ф330	700	630	590
FF250×6	Ф230-Ф280	500	800	590
FF250×2	Ф230-Ф380	500	240	738
FF220×2	Ф200-Ф240	350	185	738

### 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.





