



**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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# Closed Circuit Cooling Tower

Closed Circuit Cooling Tower places a tubular heat exchanger in the tower to ensure the cooling effect through heat exchange of circulating air, spray water and circulating water. Because it is a closed design, it can ensure that the water quality is not polluted, which protects the efficient operation of the main equipment and improves its service life.



## What is Closed Circuit Cooling Tower

Closed Circuit Cooling Tower is a device used for heat dissipation and cooling. Its main body is composed of a shell, a heat exchanger, a fan, a water collector, a spray pump, a spray tank and pipeline valve accessories. It has a tubular heat exchanger inside and ensure the cooling effect through heat exchange of circulating air, spray water and circulating water. It is usually used in large industrial equipment, power equipment, air conditioning systems and other occasions where heat dissipation is required. The closed circuit cooling tower device is small in size and takes up less space. It does not need to build a water pool, which reduces installation and maintenance costs.





## **Introduction to Closed Circuit Cooling Tower**

Closed circuit cooling towers can be divided into counterflow closed cooling towers, crossflow closed cooling towers, mixed flow closed cooling towers according to the air inlet direction.

The tubular heat exchanger is an important component of the closed cooling tower. It is made of stainless steel and has high corrosion resistance, long service life, high thermal efficiency, light weight, and recyclability.

The fin cooler is the main component to realize the dry cooling mode operation of the cooling tower. It has a high heat exchange rate, saves water and energy, and can effectively avoid the generation of "white fog" in cold seasons.

The closed circulating water system does not come into contact with the external environment, which can avoid water evaporation and concentration, and reduce the formation of scale and algae. At the same time, the completely closed circulation of the cooling medium can effectively prevent impurities from entering the cooling pipeline, avoid evaporation loss of the cooling medium, and improve cooling efficiency.

Choosing soft water as the cooling medium avoids pipeline blockage caused by scaling in the cooling system, reduces the failure rate, and improves the reliability and durability of the system.

## **Customized Design**

Customized design according to the actual needs of customers.



## High Quality

The circulating water system can not only improve cooling efficiency, but also reduce the waste of water resources and reduce sewage discharge. In addition, the automated intelligent control system can automatically change the cooling mode according to the actual working environment, improving operation accuracy.



## Good Performance

The dual cooling methods of air cooling and spray water evaporation and heat absorption ensure that the system can still maintain good cooling performance in high temperature environments. In addition, automatic temperature monitoring and over-pressure protection devices can prevent system failure and damage caused by overheating or excessive pressure of the equipment.



## Product features

Adopts frequency conversion control and heat recovery technology. Frequency conversion control can dynamically adjust cooling power to adapt to different cooling needs and avoid energy waste. Heat recovery can recycle the heat generated during equipment operation and reduce energy consumption.



## Working Principle

The cooling water of the closed cooling tower is transported from the water tank to the tower body through a water pump, flows down the tower body surface, and meets the dry air blown by the upper blower, resulting in heat transfer and material transfer between the water and the air. At this time



the heat in the water is transferred to the air, and as the water evaporates, a stream of water vapor is formed. The blower beats the water vapor into the gas collector, and then introduces it to other links for processing. Through this transfer method, the temperature of the water continues to drop, and finally returns to the water tank for recirculation.



Type	Cooling capacity	External dimensions	Net weight	Running weight
	m <sup>3</sup> /h	L×W×H	KG	KG
NWN-1000-Z7-S	175	4650×2250×3910	4000	6500
NWN-1150-Z7-S	200	6200×2250×4020	4800	8500
NWN-1300-Z7-S	225	6200×2250×4020	5000	8800
NWN-1450-Z7-S	250	6250×2500×4280	5400	9700
NWN-1750-Z7-S	300	6250×3000×4380	6100	11200



# 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.

