

NORSEN



专业从事热处理设备
技术研发 | 制造 | 安装调试服务

诺森热工技术（江苏）有限公司 Norsen Thermal Technology (Jiangsu) Co., LTD

诺森热工技术（江苏）有限公司

Norsen Thermal Technology (Jiangsu) Co., LTD

手机: +86 (0) 13918552269
TEL: +86 (0) 13918552269

官网: www.ybrcl.com
Http: www.norsengroup.com

邮箱: jiayoubingsen@163.com
E-mail: jiayoubingsen@163.com

地址: 江苏省徐州市沛县经济开发区汉兴路173号
Add:173 Hanxing Road, Peixian Economic Development Zone, Xuzhou City, Jiangsu Province



COMPANY PROFILE

公司简介

诺森热工技术(江苏)有限公司位于大汉之源, 刘邦故里, 江苏沛县。公司致力于开发智能化热处理设备, 提升金属材料热处理性能, 提高企业的生产效率并降低能耗。具有较强的自主创新研发能力、设计能力及制造安装调试水平, 公司取得了ISO9001质量管理体系认证。

公司主要产品有密封箱式多用炉生产线、预抽真空气体氮化炉、网带式渗碳淬火炉生产线、井式炉等各种热处理设备。设备广泛应用于航空航天、军事工业、汽车零部件、纺织机械、工程机械、商业热处理等各种行业的热处理加工。产品远销俄罗斯、东南亚、台湾等国家和地区。

Norsen Thermal Technology (Jiangsu) Co., Ltd. is located in Peixian County, Jiangsu Province, the source of Han Dynasty, Liu Bang's hometown. The company is committed to the development of intelligent heat treatment equipment, improve the heat treatment performance of metal materials, improve the production efficiency of enterprises and reduce energy consumption. With strong independent innovation research and development ability, design ability and manufacturing installation and debugging level, the company has obtained ISO9001 quality management system certification.

The main products of the company are sealed box multi-purpose furnace production line, pre-vacuum gas nitriding furnace, mesh belt carburizing quenching furnace production line, well furnace and other heat treatment equipment. The equipment is widely used in aerospace, military industry, auto parts, textile machinery, construction machinery, commercial heat treatment and other industries of heat treatment processing.

企业文化

Enterprise Culture



核心价值观 / Values

诚信、务实、创新、高效、有我、利他
Integrity, pragmatism, innovation, efficiency, self, altruism



企业使命 / Mission

持续为客户创造价值
Continue to create value for customers



企业愿景 / Vision

做受人尊敬的企业
To be a respected enterprise

“Norsen Thermal”

团队为您提供优质、专业的服务

"Norsen Thermal" team to provide you with quality, professional service.

航空航天
Aerospace



01

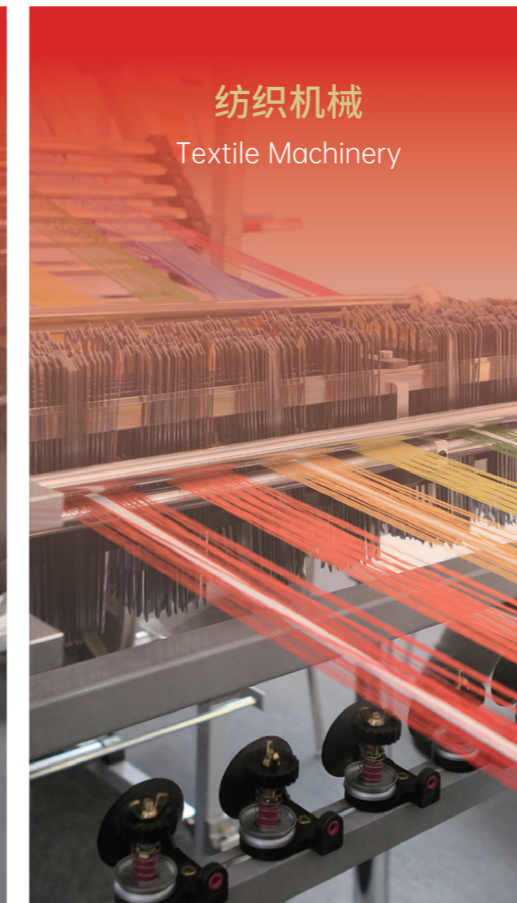
军事工业
Military Industry



汽车零部件
Auto Parts



纺织机械
Textile Machinery



工程机械
Construction Machinery



商业热处理
Commercial Heat Treatment



02

PRESENTATION

产品介绍

密封箱式多用炉

Sealed Box Type Multi-purpose Furnace

诺森热工可控气氛多用炉与周期式回火炉、清洗机、装卸料车等设备可根据用户需求组成多种形式的热处理生产线以满足不同工艺和生产节拍的需求。主要用于淬火，回火，气体渗碳，碳氮共渗，氮碳共渗等热处理工艺过程。公司深耕热处理行业，积累了丰富的热处理设备制造和热处理工艺技术经验，在吸收和消化欧美及日本先进成熟技术基础上，广泛采纳各个工业领域的最新成果，持续对产品优化升级，用一流的技术与品质，实惠的价格，更好的服务于国内外的广大用户。

主要特点

Main Feature



SHQ



DHQ

Norsen Thermal controlled atmosphere multi-purpose furnace and periodic tempering furnace, cleaning machine, loading and unloading hopper and other equipment can be formed according to user requirements of various forms of heat treatment production lines to meet the needs of different processes and production beats. Mainly used for quenching, tempering, gas carburizing, carbonitriding, nitrogen carburizing and other heat treatment processes. The company has accumulated a wealth of mature heat treatment equipment manufacturing and heat treatment technology experience, based on the absorption and digestion of advanced and mature technology in Europe, America and Japan, widely adopted the latest achievements in various industrial fields, continued to optimize and upgrade products, with first-class technology and quality, affordable prices, and better serve the majority of users at home and abroad.

SHQ/DHQ系列渗碳、碳氮共渗密封箱式多用炉

SHQ/DHQ series carburizing, carbonitriding sealed box type multi-purpose furnace

结构形式：前门进出料&双门贯通(F型为带缓冷结构)

Structure: front door inlet and outlet & double door through (F type with slow cooling structure)

应用范围：渗碳、碳氮共渗、保护气氛淬火、正火等

Application: carburizing, carbonitriding, protective atmosphere quenching, normalizing, etc

工作温度：750°C~950°C

Operating temperature: 750°C~950°C

技术规格 Technical Specifications

型号 Furnace Model	有效装载空间 Effective loading space	装炉量 Capacity	最大加热功率 Maximum Heating Power	油槽容积 Oil Bath Volume	装运重量 Shipping Weight	
单门进出 In/Out	双门贯通 In-through	LxWxH mm	千克 kg	电加热 kW	升 Liter	千克 kg
SHQ-08	DHQ-08	1220x760x610	800	126	6000	12000
SHQ-10	DHQ-10	1220x760x760	1000	138	8000	13000
SHQ-15	DHQ-15	1220x910x910	1500	149	10000	15000
SHQ-18	DHQ-18	1220x910x1050	1800	168	12000	16000
SHQ-22	DHQ-22	1520x1220x760	2200	184	13500	19000
SHQ-25	DHQ-25	1520x1220x910	2500	198	15000	21000
SHQ-50	DHQ-50	1800x1500x200	5000	315	25000	30000

加热室内组合式碳化硅导流马弗，使炉内气氛强制循环，保证温度和气氛的均匀性，高承载的平底碳化硅炉底板，大大减少料盘的变形和损耗，延长其寿命；

The combined silicon carbide flow guide Muffle in the heating chamber makes the atmosphere in the furnace forced circulation to ensure the uniformity of temperature and atmosphere. The high-bearing flat bottom silicon carbide furnace floor greatly reduces the deformation and loss of the tray and prolonging its life;

设置自动烧除加热室内可能存在的碳黑，最大程度的保证了每一炉产品的质量稳定性；

Set up automatic burning of carbon black that may exist in the heating chamber to ensure the quality stability of each furnace product to the greatest extent;

四台对称的电机控制的淬火油槽搅拌器，使冷却更加均匀，并且电机转速可调能满足对零件淬火变形的要求；

Four symmetrical motor controlled quenching oil tank agitator, so that the cooling is more uniform, and the motor speed can be adjusted to meet the requirements of quenching deformation of parts;



加热室内配有大功率加热器，采用智能化可控硅调功器控制加热功率，加热器采用变压器降压以增加加热器的使用寿命；

The heating room is equipped with a high-power heater, which uses intelligent thyristor power regulator to control the heating power, and the heater uses transformer step-down to increase the service life of the heater;

淬火室顶部有自动防爆装置，很大程度上提高了设备的安全性能；

There is an automatic explosion-proof device at the top of the quenching chamber, which greatly improves the safety performance of the equipment;

炉料传送采用更平稳可靠的推料方式，前后双驱动，双推头，链条外置，极大的延长了链条的寿命和维护成本。

The charge transfer adopts a more stable and reliable pushing mode, the front and rear double drive, double push head, the chain external, greatly extending the chain life and maintenance costs.



SHQB系列渗碳、碳氮共渗密封箱式多用炉

SHQB Series Carburizing, Carbonitriding Sealed Box Type Multi-Purpose Furnace

▲ SHQB

- ☑ **结构形式:**单门进/出料 (F型为带缓冷结构) Structure: single door inlet/discharge (F type with slow cooling structure)
- ☑ **应用范围:**渗碳、碳氮共渗、保护气氛淬火、正火等 Application: carburizing, carbonitriding, protective atmosphere quenching, normalizing, etc
- ☑ **工作温度:**750°C~950°C Operating temperature: 750°C~950°C

技术规格 Technical Specifications

型号 Furnace Model	有效装载空间 Effective Loading Space	装炉量 Capacity	最大加热功率 Maximum Heating Power	油槽容积 Oil Bath Volume	装运重量 Shipping Weight
单门进出 In/Out	LxWxH mm	千克 kg	电加热 kW	升 Liter	千克 kg
SHQB-06	1200x600x600	600	90	5000	10000
SHQB-10	1200x760x800	1000	138	8000	13000

主要特点 Main Feature



加热室内组合式碳化硅导流马弗, 使炉内气氛强制循环, 保证温度和气氛的均匀性; 高承载的平底碳化硅炉底板, 大大减少料盘的变形和损耗, 延长其寿命;

The combined silicon carbide flow guide Muffle in the heating chamber makes the atmosphere in the furnace forced circulation to ensure the uniformity of temperature and atmosphere; High bearing silicon carbide furnace bottom plate, greatly reduce the deformation and loss of the plate, extend its life;

加热室内配有大功率加热器, 采用智能化可控硅调功器控制加热功率;

The heating room is equipped with high-power heater, and the heating power is controlled by intelligent thyristor power regulator;

淬火室顶部有防爆装置, 很大程度上提高了设备的安全性;

There is an explosion-proof device at the top of the quenching chamber, which greatly improves the safety performance of the equipment;

大功率大流量的循环风机组件, 电机与风叶轴采用皮带式传动在保证风机的冷却效果下延长电机使用寿命, 降低维修成本;

High-power and high-flow circulating fan components, the motor and blade shaft adopt belt drive to extend the service life of the motor and reduce maintenance costs while ensuring the cooling effect of the fan;

四台对称的电机控制的淬火油槽搅拌器, 使冷却更加均匀, 并且电机转速可调能满足对零件淬火变形的要求。

Four symmetrical motor controlled quenching oil tank agitators make cooling more uniform, and the motor speed can be adjusted to meet the requirements of quenching deformation of parts.

清洗机 Cleaning Machine

☑ **应用范围:**适用于热处理工件的前、后清洗

Scope of application: suitable for pre- and post-cleaning of heat treatment workpieces

主要特点
Main Feature

SMW型单室清洗机及DMWV双室真空清洗机, 可实现加热、浸泡、震荡、烘干等功能, 极大的提高了设备的生产效率和零件表面光洁度, 并自动对清洗液进行油水分离, 该清洗机可和多种热处理设备组成生产线。

SMW type single room cleaning machine and DMWV double liquid vacuum cleaning machine, can achieve heating, soaking, shaking, drying and other functions, greatly improve the production efficiency of the equipment and parts surface finish, and automatically separate the cleaning liquid oil and water, the cleaning machine can be composed of a variety of heat treatment equipment production line.

回火炉 Tempering Furnace

☑ **应用范围:**用于在空气或氮气气氛中工件的回火和预热

Application: for tempering and preheating workpieces in air or nitrogen atmospheres

☑ **工作范围:**150°C-650°C (低温150°C-450°C)

Working range: 150°C-650°C (low temperature 150°C-450°C)

主要特点
Main Feature

HT/LT型高/低温回火炉, 单室加热区, 可采用保护气氛加热, 具有很高的炉温均匀性, 可选择有马弗或无马弗结构, 设备成熟稳定, 通过可靠的自动控制, 实现经济、高效的回火处理工艺。

HT/LT type high/low temperature tempering furnace, single chamber heating area, can be heated by protective atmosphere, with high furnace temperature uniformity, can be selected with or without Muffle structure, mature and stable equipment, through reliable automatic control, to achieve economic and efficient tempering treatment process.

装/卸料车 Loading/unloading Truck

☑ **应用范围:**用于热处理工件的搬入和搬出

Application: for heat treatment workpiece moving in and out.

主要特点
Main Feature

生产线配置的装/卸料车, 操作简单、运行平稳、双速行走、安全可靠。

The loading/unloading truck configured in the production line has the advantages of simple operation, stable running, two-speed walking, safety and reliability.

升降台 Lifting Platform

主要特点
Main Feature

升降台为方便装料和卸料, 设计中充分考虑了易于装卸料的高度和料盘(料框)的辊轮上的安全性。

In order to facilitate loading and unloading, the design fully considers the height of easy loading and unloading and the safety on the roller wheel of the tray (material frame).

固定台 Fixed Station

主要特点
Main Feature

用于工件的放置, 可做成双工位和多工位。

For the placement of the workpiece, can be made into double station and multi-station.

HMV型碳氢溶剂真空清洗机

HMV Type Hydrocarbon Solvent Vacuum Cleaner

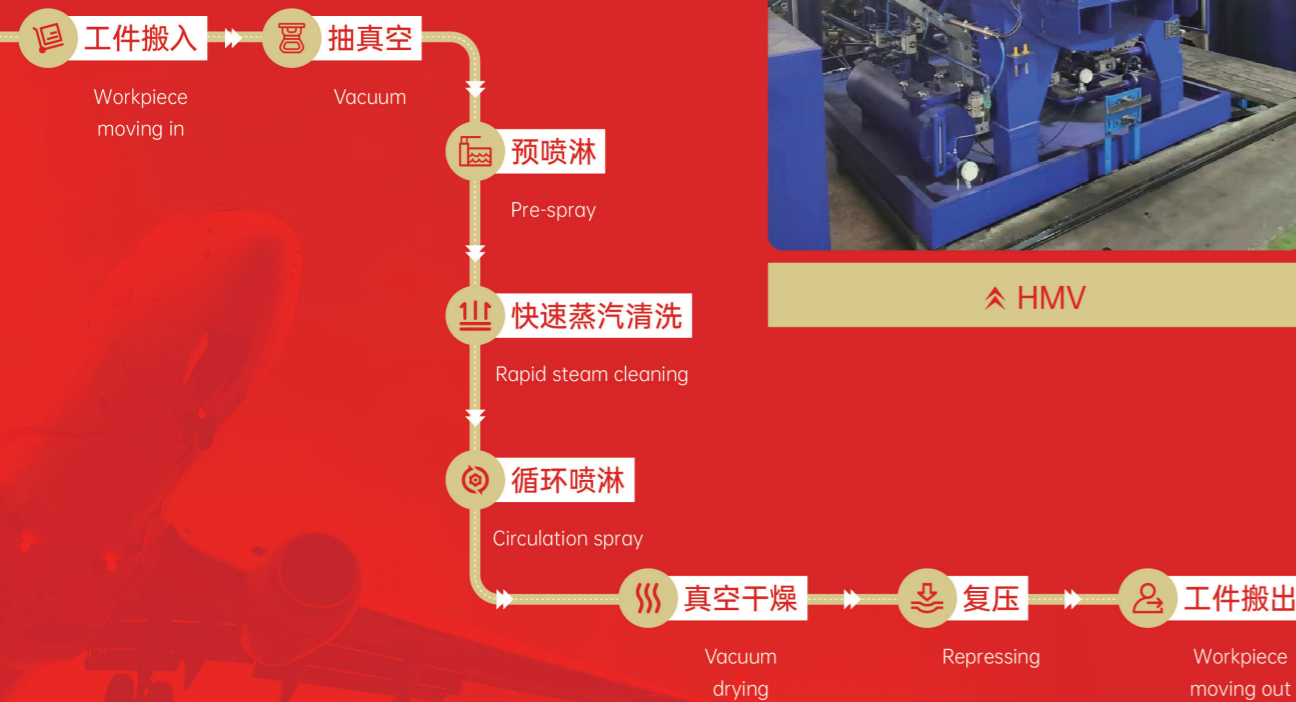
☑ 结构形式:单门进/出料

Structure: single door in/out

☑ 应用范围:热处理工件的前清洗或后清洗

Scope of application: pre-cleaning or post-cleaning of heat treated workpieces

清洗流程 Cleaning Process



HMV

主要特点

Main Feature



在真空下用碳氢溶剂和溶剂蒸汽对工件进行清洗, 彻底清除工件表面、内部、盲孔的油脂, 真空负压加热促使溶剂挥发, 达到干净、干燥的效果;

Under vacuum, the workpiece is cleaned with hydrocarbon solvent and solvent steam, and the grease on the surface, inside and blind hole of the workpiece is completely removed. The vacuum negative pressure heating causes the solvent to volatilize to achieve a clean and dry effect.

清洗室包括喷淋装置、蒸汽喷射装置、装料台、密封前门等构成及各连接管路。蒸汽清洗和喷淋清洗及真空干燥过程均在清洗室内完成, 为真空密封设计, 与真空泵组连接, 可以满足不同清洗阶段及干燥过程的不同真空度要求;

The cleaning room comprises a spray device, a steam jet device, a charging table, a sealed front door, etc., and the connecting pipes. Steam cleaning and spray cleaning and vacuum drying process are completed in the cleaning room, vacuum seal design, connected with the vacuum pump group, can be filled Different vacuum requirements for different cleaning stages and drying processes.

每段清洗程序可单独设定, 时间也可以设定;

Each cleaning procedure can be set separately, and the time can also be set.

冷却水系统为设备标准配置, 用户无需考虑因冷却水质及水温对设备运行造成的影响。采用不锈钢密闭冷却水循环水箱, 配备制冷机及软水系统, 确保冷却水四季在25°C内, 并且为软化水。

The cooling water system is the standard configuration of the equipment, and the user does not need to consider the impact of the cooling water quality and water temperature on the operation of the equipment. Stainless steel closed cooling water circulation tank, equipped with a refrigerator and soft water system to ensure that the cooling water is within 25°C all seasons, and is softened water.

技术规格 Technical Specifications

型号 Furnace Model	有效装载空间 Effective Loading Space	装炉量 Capacity	加热功率 Heating Power	导热油 Thermal Oil	碳氢溶剂 Hydrocarbon Solvent	干燥真空度 Dry Vacuum Degree
单门进出 In/Out	LxWxH mm	千克 kg	电加热 kW	升 Liter	升 Liter	Pa
HMV-06	1200x600x600	600	60	600	500	100
HMV-10	1200x760x800	1000	60	600	600	100
HMV-15	1200x910x910	1500	60	600	700	100

RHN预抽真空气体氮化炉

RHN Pre-vacuum Gas Nitriding Furnace



RHN >>

采用德国原装进口的氢探头及氮势控制系统,气氛板上安装有美国进口的质量流量计,精准的在线控制炉内氮势(可选配低温氧探头控制前后氧化工艺时的氧势);

The hydrogen probe and nitrogen potential control system imported from Germany are adopted, and the mass flowmeter imported from the United States is installed on the atmosphere panel to accurately control the nitrogen potential in the furnace online (optional low-temperature oxygen probe can control the oxygen potential before and after the oxidation process). The hydrogen probe and nitrogen potential control system imported from Germany are adopted, and the mass flowmeter imported from the United States is installed on the atmosphere panel to accurately control the nitrogen potential in the furnace online (optional low-temperature oxygen probe can control the oxygen potential before and after the oxidation process);



- 结构形式:**单门进出、侧开门形式

Structure form: single door entry and exit, side door opening form
- 应用范围:**用于气体氮化、氮碳共渗、氧化处理、光亮退火或回火等工艺

Application: For gas nitriding, nitrocarburizing, oxidation treatment, bright annealing or tempering and other processes.
- 工作温度:**450°C~750°C

Operating temperature: 450°C~750°C

加热室内装有耐热钢的马弗罐,耐热合金的高速循环风扇将炉膛内的气氛强制对流循环起来,炉内气氛、温度更加均匀;

The heating room is equipped with a heat-resistant steel Muffle tank, and the high-speed circulating fan of heat-resistant alloy forces the atmosphere in the furnace to circulate convective, and the atmosphere and temperature in the furnace are more uniform;



在炉后安装有一套废气燃烧系统,包括点火喷嘴、火焰监测器、环形烧嘴和控制阀等。以确保经燃烧分解后的废气达到相关排放标准;

Install an exhaust gas combustion system at the back of the furnace, including ignition nozzle, flame monitor, ring burner and control valve. To ensure that the exhaust gas after combustion decomposition meets the relevant emission standards;

技术规格 Technical specifications

型号 Furnace Model	有效装载空间 Effective Loading Space	装炉量 Capacity	最大加热功率 Maximum Heating Power	额定温度 Rated Temperature
单门进出 In/Out	LxWxH mm	千克 kg	电加热 kW	°C
RHN-644	600x400x400	200	50	750
RHN-966	900x600x600	600	90	750
RHN-1299	1200x900x900	1500	140	750

利用真空系统,更快、更干净地排除炉内空气,可缩短气体置换时间,节省保护气体。还可以利用真空系统进行脉冲渗氮和更换气氛组成;

Using the vacuum system, the air in the furnace can be removed faster and more cleanly, which can shorten the gas replacement time and save the protective gas. Also The vacuum system can be used for pulsed nitriding and changing atmosphere composition;

内、外冷系统可根据工艺要求进行选择,也可以同时工作。更快的达到降温目的。

The internal and external cooling system can be selected according to the process requirements, or can work at the same time. Faster to achieve the goal of cooling.

ADI系列等温淬火箱式多用炉

ADI Series Isothermal Quenching Box Type Multi-purpose Furnace



ADI

结构形式: 三室结构, 前门进出料

Structure form: three-chamber structure, front door access material

应用范围: 渗碳、碳氮共渗、正火、退火、等温淬火、球墨铸铁等温淬火等

Application: carburizing, carbonitriding, normalizing, annealing, isothermal quenching, ductile iron isothermal quenching, etc

工作温度: 780-950°C

Operating temperature: 780-950°C

技术规格 Technical specifications

型号 Furnace Model	有效装载空间 Effective Loading Space	装炉量 Capacity	最大加热功率 Maximum Heating Power	盐槽容积 Salt Tank Volume
单门进出 In/Out	LxWxH mm	千克 kg	电加热 kW	立方 m ³
ADI-10	1200x760x760	1000	138	10
ADI-15	1200x910x910	1500	149	15
ADI-25	1520x1200x910	2500	198	25

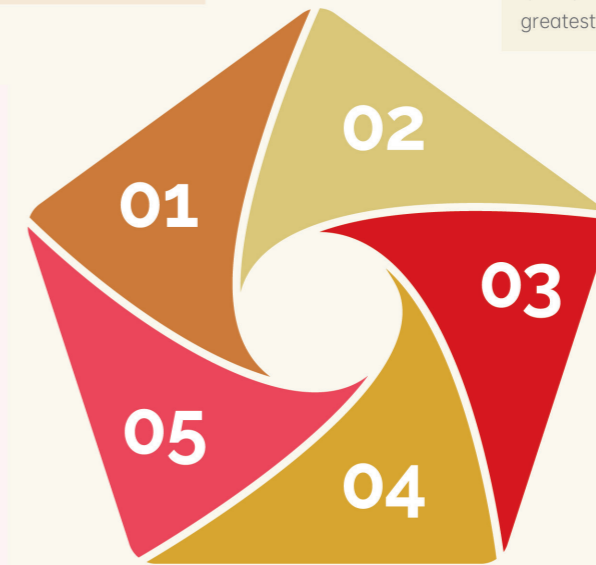
主要特点 Main Feature

智能碳控系统, 精准控制炉内碳势;

Intelligent carbon control system, accurately control the carbon potential in the furnace;

对称的变频电机控制的淬火盐槽专用搅拌器, 使冷却更加均匀, 并且电机转速可调, 满足对零件淬火的变形要求。对称的变频电机控制的淬火盐槽专用搅拌器, 使冷却更加均匀, 并且电机转速可调, 满足对零件淬火的变形要求。

The special stirrer for quenching salt tank controlled by symmetrical variable frequency motor makes the cooling more uniform, and the motor speed can be adjusted to meet the deformation requirements of parts quenching.



自动烧除加热室内可能存在的碳黑, 最大程度的保证了每一炉产品的质量稳定性;

The carbon black that may exist in the heating chamber is automatically burned to ensure the quality stability of each furnace product to the greatest extent;

淬火室、过渡室和淬火盐槽均有保温层, 节省能源的同时也保护了人员的安全;

The quenching chamber, the transition chamber and the quenching salt tank are all insulated, which saves energy and protects the safety of personnel;

淬火盐槽内装有加热系统和风冷却系统, 淬火时可启动风冷却系统, 迅速降低硝酸盐的温度, 保证硝酸盐的温升控制在需要的温升范围内, 停炉时可启动加热系统保持硝酸盐一直处于液体状态;

The quenching salt tank is equipped with heating system and wind cooling system. The wind cooling system can be started during quenching to rapidly reduce the temperature of nitrate and ensure that the temperature rise of nitrate is controlled within the required temperature rise range. The heating system can be started when the furnace is shut down to keep the nitrate in a liquid state;

其他炉型-网带式渗碳（调质）生产线

Other Furnace Types-Mesh Belt Carburizing (Tempering) Production Line

结构形式:带碳化硅马弗的网带炉

Structure: mesh belt furnace with silicon carbide Muffle

应用范围:用于工件的渗碳、调质、正火

Application: used for carburizing, tempering and normalizing of workpieces

主要特点 Main Feature

加热炉内安装有碳化硅马弗,将加热室分成独立的若干个区,每个区都配有强力循环风扇,确保气氛均匀性;

Silicon carbide Muffle is installed in the heating furnace, and the heating chamber is divided into several independent zones, each zone is equipped with powerful circulating fans to ensure atmosphere uniformity;

加热炉分多区温控,每一区都采用SCR调功器PID连续控制,温控精度高,稳定性好;

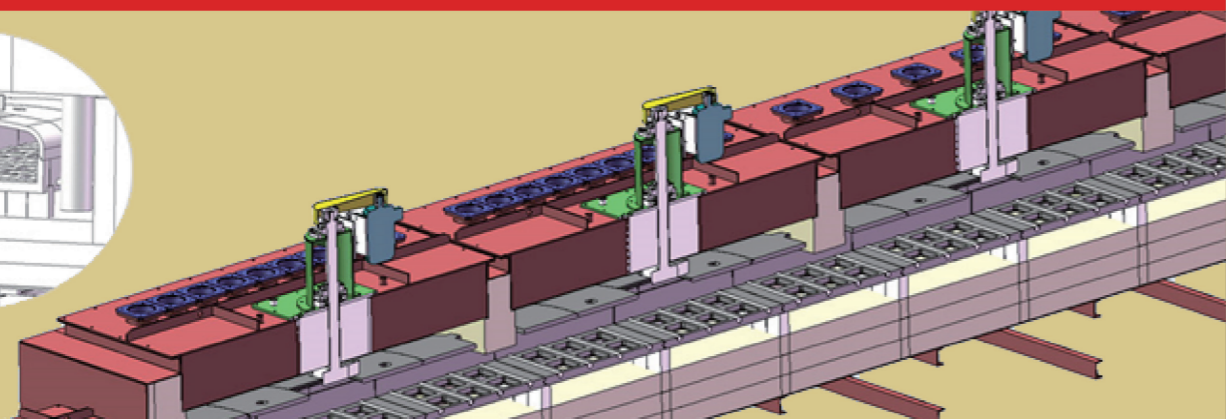
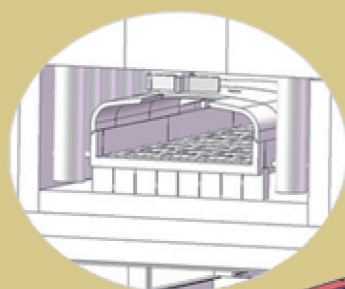
The heating furnace is divided into multiple zones for temperature control, each zone adopts SCR power regulator PID continuous control, which has high temperature control precision and good stability;

大功率、大直径的辐射管采用垂直安装,寿命长,方便维护、更换;

High-power, large-diameter radiation tube adopts vertical installation, long life, easy maintenance and replacement;

加热炉的网带传送采用马弗加托辊式同步传动,运转轻松平稳,即使速度调至很低,也不会产生爬行现象。

The mesh belt transmission of the heating furnace adopts Mavoga roller synchronous transmission, easy and smooth operation, even if the speed is adjusted to a very low, there will be no crawling phenomenon.



井式炉氮化炉（渗碳炉）生产线

Shaft Furnace Nitriding Furnace (Carburizing Furnace) Production Line

应用范围:井式氮化炉用于机械零件的渗氮、氮碳共渗、前氧化、后氧化、氧氮共渗等多种热处理工艺。井式渗碳炉适用于产品的气体渗碳、淬火、正火、退火、调质等热处理,可根据用户的生产需要进行设计。

Application: well nitriding furnace is used for nitriding, nitrocarburizing, pre-oxidation, post-oxidation, oxynitriding and other heat treatment processes of mechanical parts. Well type carburizing furnace is suitable for gas carburizing, quenching, normalizing, annealing, tempering and other heat treatment of products, which can be designed according to the production needs of users.

客户定制设计

Customer
Customized
Design

