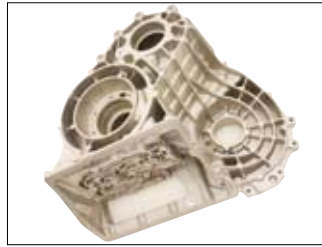


铸造技术

Foundry Technology

www.la-mach.com



企业简介

秦皇岛联安机械科技有限公司位于世界轮毂中心城市——秦皇岛，是专门致力于铸造设备研发、生产、销售和维修服务为一体的制造型企业。公司实力雄厚，注册资本为伍佰万，经过十余年的发展，产品销售范围已覆盖了全国30个省市、自治区并远销东南亚、中东、南美、俄罗斯等国家和地区。

公司主要产品：铸造设备及配套附属设备，铝合金熔炼设备，相关配件等。产品广泛应用于汽车轮毂、汽车零部件、高铁部件、新能源电力、机械工程等行业。

公司现有员工近百人，厂区占地面积8000平方米，其中办公楼1000平方米。公司拥有现代化数控加工中心数台，数控车床，铣床，钻床等加工设备及专门硬度检测设备，压力试验冲击设备，现代化办公设备等配套设施。公司于2012年通过了ISO9001国际标准质量体系认证和CE认证，并成功注册自有公司商标。

公司自建立以来一直坚持走专业化的发展道路，以其领先的技术开发水平、过硬的产品质量、全程一体化的服务理念赢得客户的信赖！公司成立专门的研发部，拥有专业的铸造工艺工程师8人，高级技术工程师4人，紧跟市场客户的需求，不断研发新产品，为联安品牌的创造打下坚实的基础！

公司一直以“对提高全世界工业产品的品质有所助益！”为目标，恪守品质赢得天下的原则，严格控制产品质量，做到每台设备材质的选择、加工、生产、装配、调试都经过严格的检验，确保出厂合格率100%。公司理念：旨在成为员工心目中最受欢迎的工作场所！旨在成为客户心目中最信任的合作伙伴！以打造行业最具竞争力的产品为己任！

如今，公司全体员工正在董事长张广祥的带领下走专业化、差异化、精细化可持续发展之道。

联安，成就您的未来！

About Us

Qinhuangdao Lian An Machinery & Technology Co.ltd (L&A) is located in international wheel center city--Qinhuangdao,it is an integrated professional manufacture enterprise combines with the casting equipment developement and research,production and maintenance.Our company has a strong strength with registered capital over 5 million RMB.Over 10 years development,our products have sold to South East,Middle East,South American,Russia etc countries.

Our main products:low pressure casting machine and its auxiliary and accessories ,aluminum alloy melting furnace etc which are widely used in automobile wheels and parts,high speed train parts,new energy power source and machinery etc industries.

We have about 100 employees and plant taken area about 8000 cubic meters,of which office area is 1000 cubic meters.We have morden digital control CNC,turner,miller,driller etc manufacture machines and professional hardness test equipment,impact test machine.We have passed ISO9001 and CE certificate and ourself registered trade mark.

We are always following a professional development way and to win our customers trust and confidence by good quality and service.Our R&D department has more than 8 professional casting experts,4 high class technical engineers for trace customers requirement in the market and continue to develop new products which make a solide basement for L&A brands.

We are always adhere to “To help improve the quality of industrial products all over the world” as our aim ! Insisting on only quality will win the world ,we always try to focus on every detail.With a strictly control every product quality from material to manufacture,production and assembly to ensure 100 % qualification.Our company aim to become the home of our staff and the most trust partner of customer . To make the most competitive equipments in foundry line.

Under leadership of Mr Zhang Guang Xiang,L&A is on the way to be more professional,precision,differance and sustainable development .

L&A fill your future!

合作成就共赢！ WIN-WIN COOPERATION!

中国——秦皇岛

联安机械经过十余年的发展，在研发创新上不断投入！每一个创新产品都体现了我们不拘泥于传统、不断发掘新潜力的毅力、冒险精神及勇气。我们能够为客户提供从设计到生产，从装配到服务，直至自动化数据分析的全面专业支持！

QINHUANGDAO——CHINA

L&A MACH-TECH invest continuously in reaserch and innovation during more than ten years developing. Behind the resulting innovative products lies a great deal of perseverance, readiness to take risks, and the courage to depart from conventional paths in order to exploit new potential. We offer our customers comprehensive know-how extending from concept design through the production, assembly and service right up to the automated data support.

40%的机器和设备用于出口/40%of machines and systems are exported.

60%的机器和设备用于中国/60%of machines and systems are domestic.





企业文化 Enterprise Culture



目标 Aim

对提高全世界工业产品的品质有所助益！
To help improve the quality of industrial products all over the world!



团队 Team Work

我们旨在成为员工心目中最受欢迎的工作场所。
We aim to become the home of our staffs.



市场 Marketing

打造行业最具竞争力的产品！
Make the most competitive products in the industry.



客户 Clients

我们旨在成为客户心目中最信任的合作伙伴！
We aim to become the most trusted partner!

低压铸造机 型号: LAD8090
Low pressure casting machine

专为铝轮毂铸造而设计 A special design for aluminium wheel casting

可铸造13-24寸轮毂 13-24 inches of wheels can be cast

上模行程595-1795mm Top mould travel is 595-1795mm

边模开档行程890-1290mm Side mould travel is 890-1290mm

保温炉1000Kg/800Kg Furnace capacity is 1000kgs/800kgs

模具90° 安装 Mould can be installed at 90°

16路风/16路水冷却 16 water /16 air cooling

保温炉可升降移出 Furnace can tilt lift and move in/out

高精度压力自动控制 Precise automatic pressure control

全自动循环 Full automatic drive

伺服液压驱动 Servo motor hydraulic drive

自动脱模 Automatic rejector

自动取件 Automatic Catcher

生产效率高 High production efficiency in casting

高刚性;高强度;高可靠性 A high rigidity /Strength / reliability



-低压铸造机
-差压铸造机
-保温炉换炉系统

-LOW PRESSURE CASTING MACHINES
-COUNTER PRESSURE CASTING MACHINES
-FURNACE SHUTTLE SYSTEMS

低压铸造机 型号: LAD8045
Low pressure casting machine

专为铝轮毂铸造而设计 A special design for aluminium wheel casting

可铸造13-26寸轮毂 13-26 inches of wheels can be cast

上模行程495-1595mm Top mould travel is 495-1595mm

边模开档行程728-1128mm Side mould travel is 728-1128mm

保温炉1000Kg/800Kg Furnace capacity is 1000kgs/800kgs

模具45° 安装 Mould can be installed at 45°

16路风/16路水冷却 16 water /16 air cooling

保温炉可升降移出 Furnace can tilt lift and move in/out

高精度压力自动控制 Precise automatic pressure control

全自动循环 Full automatic drive

伺服液压驱动 Servo motor hydraulic drive

自动脱模 Automatic rejector

自动取件 Automatic Catcher

生产效率高 High production efficiency in casting

高刚性;高强度;高可靠性 A high rigidity /Strength / reliability

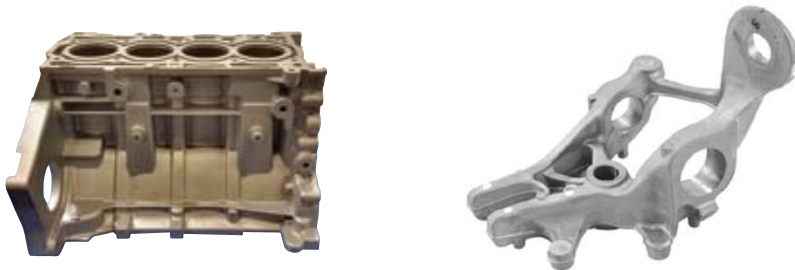


-低压铸造机
-差压铸造机
-保温炉换炉系统

-LOW PRESSURE CASTING MACHINES
-COUNTER PRESSURE CASTING MACHINES
-FURNACE SHUTTLE SYSTEMS

坩埚式低压铸造机 型号: LAG8090
Crucible furnace low pressure casting machine

- 上模行程595-1795mm Top mould travel is 595-1795mm
- 边模开档行程890-1290mm Side mould travel is 890-1290mm
- 保温炉1000Kg/800Kg Furnace capacity is 1000kgs/800kgs
- 模具90° 安装 Mould can be installed at 90°
- 16路风/16路水冷却 16 water /16 air cooling
- 坩埚式保温炉可升降移出 Crucible furnace can tilt lift and move in/out
- 高精度压力自动控制 Precise automatic pressure control
- 全自动循环 Full automatic drive
- 伺服液压驱动 Servo motor hydraulic drive
- 自动脱模 Automatic rejector
- 自动取件 Automatic Catcher
- 生产效率高 High production efficiency in casting
- 高刚性;高强度;高可靠性 A high rigidity /Strength / reliability



-低压铸造机
-差压铸造机
-保温炉换炉系统

-LOW PRESSURE CASTING MACHINES
-COUNTER PRESSURE CASTING MACHINES
-FURNACE SHUTTLE SYSTEMS

八导柱式低压铸造机 型号: LAY8090
Eight guide pillar low pressure casting machine

专为铝轮毂铸造而设计 A special design for aluminium wheel casting

可铸造13-24寸轮毂 13-24 inches of wheels can be cast

上模行程495-1595mm Top mould travel is 495-1595mm

边模开档行程728-1128mm Side mould travel is 728-1128mm

保温炉1000Kg/800Kg Furnace capacity is 1000kgs/800kgs

模具90° 安装 Mould can be installed at 90°

16路风/16路水冷却 16 water /16 air cooling

保温炉可升降移出 Furnace can tilt lift and move in/out

高精度压力自动控制 Precise automatic pressure control

全自动循环 Full automatic drive

伺服液压驱动 Servo motor hydraulic drive

自动脱模 Automatic rejector

自动取件 Automatic Catcher

生产效率高 High production efficiency in casting

高刚性;高强度;高可靠性 A high rigidity /Strength / reliability



-低压铸造机
-差压铸造机
-保温炉换炉系统

-LOW PRESSURE CASTING MACHINES
-COUNTER PRESSURE CASTING MACHINES
-FURNACE SHUTTLE SYSTEMS

低压铸造机 型号: LAD5090
Low pressure casting machine

专为小型铝合金铸件而设计 A special design for small aluminum alloy products

可根据铸件尺寸定制 According to alloy products size can be cast

上模行程1000mm Top Mold travel is 1000 mm

上模锁/开模力 147/100KN Top Mold lock /unlock pressure 147/100KN

保温炉500kgs Furnace capacity is 500 kgs

T型槽模具安装 Mold can be installed as T groove

8路水/8路风冷却 8 water / 8 air cooling

固定式保温炉 Stationary type furnace

高精度压力自动控制 Precise automatic oressure control

全自动循环 Full automatic drive

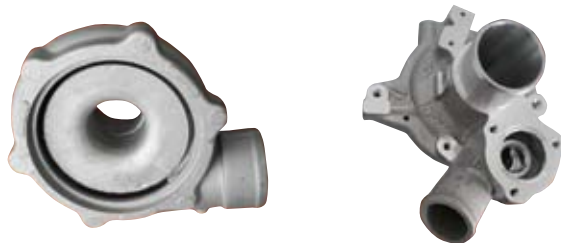
伺服液压驱动 Servo motor hydraulics drive

自动脱模 Automatic ejector

自动取件 Automatic catcher

生产效率高 High production efficiency in casting

高刚性/高强度/高可靠性 High Rigidity / Strength / Reliability



-低压铸造机
-差压铸造机
-保温炉换炉系统

-LOW PRESSURE CASTING MACHINES
-COUNTER PRESSURE CASTING MACHINES
-FURNACE SHUTTLE SYSTEMS

平台安装式伺服机械手 型号: M2
Platform installation servo control manipulator

通过设计巧妙的4轴联动, 可实现轮毂的抓取, 翻转, 升降, 旋转移动。
采用德国西门子智能控制系统, 全自动运行。

A good designed 4 axes combination to realized wheels grip, turn over, lifting, rotary movement. Using Siemens intelligent control system, all automation.

抓取轮毂范围(寸): grasping range	12-26 inches
长×宽×高 (mm) : Dimension (L × W × H):	1480 × 900 × 2200mm
重量 (kg) : Net.Weight(kg):	530kg
升降行程(mm) Lift Stroke(mm):	600mm
升降最高速度(mm/s): Lifting maximum speed (mm/s)	215mm/s
翻转角度: Rolling-over angle	180°
控制方式: Control Method	PLC+HMI



桁架式伺服取件机械手 型号: HJ-ASF
Truss type servo control manipulator

通过自身的信号源,来控制每个部件的精确定位和启停。各动作之间可以联动,从而实现在最短的时间内完成一个工件的搬运过程。

HJ-ASF servo manipulator,through itself signal source to have precision control each part positioning and starting,it can have a linkage movement between each of part thus to finish a wheel transportation in a short time.

抓取轮毂范围(寸): grasping range	12-24 inches
长×宽×高 (mm) : Dimension (L×W×H)	3428×1628×3000mm
重量 (kg) : Net.Weight(kg)	1270kg
升降行程(mm) Lift Stroke(mm)	800mm
升降最高速度(mm/s): Lifting maximum speed (mm/s)	215mm/s
平移行程(mm): Translational stroke	600mm
平移最高速度(mm/s) Translational maximum speed(mm/s)	235.5mm/s
夹持气缸(mm): Clmaping air cylinder(mm)	SC50×225mm
控制方式: Control Method	PLC+HMI



辐射式单室保温炉
Radial single furnace

采用辐射式加热技术 Radiation heating technology

进口高强度耐火材料整体浇筑成型，抗铝液侵蚀、渗透

Intergrated pouring with high strenthen refractory insulation,its characteristic is against Al-metal erosion and penetration.

采用德国进口纳米超级隔热保温材料，热损失明显减少

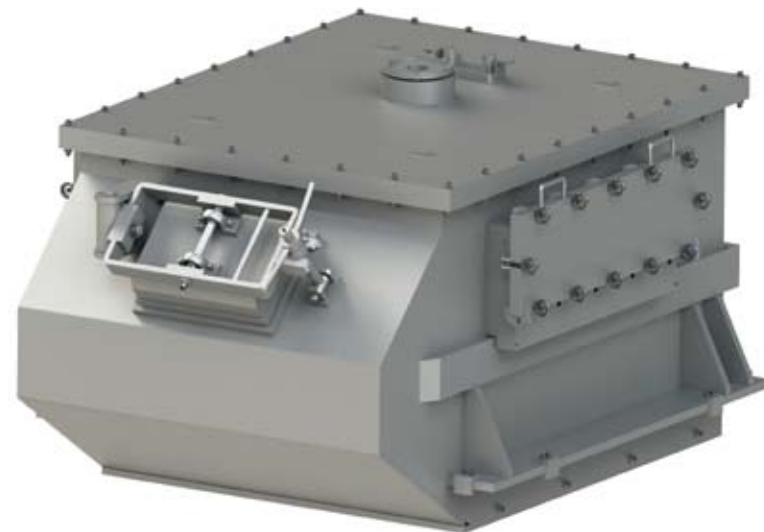
Nano heat insulation material made in Germany is less thermo accumulation in the furnace body.

炉壳采用高强度结构钢板双面焊接成型

The furnace shell is double faces welded with high strenthen steel sheet.

铝液超温报警、炉膛超温报警、炉压超限报警等多种安全保护

Equiped with a multi-safety protective such as Al-metal temperature over alarm;hearth temperature over alarm;hearth pressure over alarm;



模具加热炉
Mould Heating Furnace

适用于铸造模具的预热；加热过程全封闭；缩短加热时间；节能高效；

升液管预热；根据客户需求定制。

For heating casting mould;Totally enclosed during heating;Shorten heating time;High efficiency,save energy;

For riser tube pre-heating; According to clients' demand to make.



浸没式双室保温炉

Immersive Double-chamber holding furnace

浸没式保温炉采用浸入铝液中直接加热方式，炉型相对传统辐射式保温炉，热效率提高，节能高达50%以上；

A ceramic heating is immersed into metal,compare to radiation furnace,improved heating efficiency;Save energy upto 50%.

炉体可在固定导轨上前后移动，方便维修；一机一炉，维修互不影响；独特安全的阀门开闭机构；保持室和加热室分离；

Furnace body can move forward /backward on the fixed rail.Easy to maintainance;One machine one furnace;Special safe valve unit for opening and closing;To keep holding room and heating room separate.

铸造时，机器无须停止；节约了时间；提高工作效率；氧化物减少，铝液质量明显提高，增加良品率；

No need stop machine,shorten time,improving working efficiency;Less metal oxides,clear metal so improved good product yield rate.

铝液吸气少，温度均匀；降低铝液清理频次。

Less air into metal,so temperature stable ;Lower cleaning metal frequency.



浸没式三室保温炉

Immersive triple chamber holding furnace

结构紧凑，适用于两台设备共用一个保持室，节省空间

Compacted structure,apply to two machines with one holding rood,save space.

炉型相对传统辐射式保温炉，热效率提高，节能高达50%以上

A ceramic heating is immersed into metal,improved heating efficiency;Save energy upto 50%.

铸造时，机器无须停止；节约了时间；提高工作效率；氧化物减少，铝液和铸件质量明显提高，增加良品率

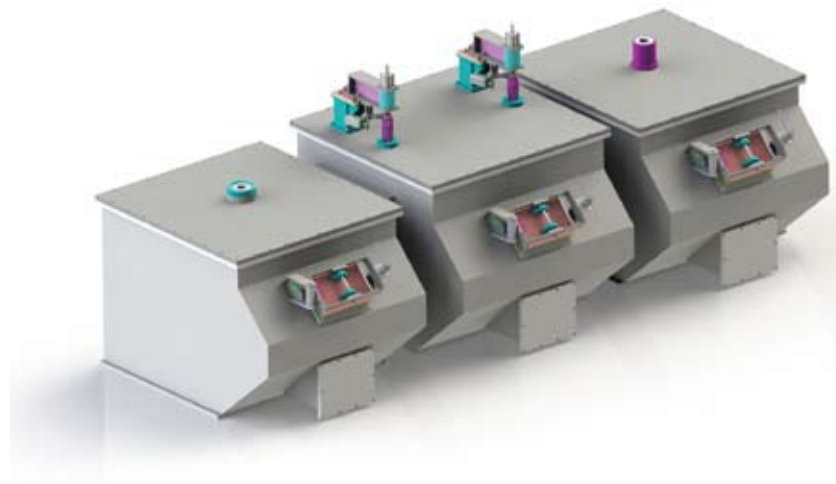
No need stop machine,shorten time,improving working efficiency;Less metal oxides,clear metal so improved good product yield rate.

独特安全的阀门开闭机构；保持室和加热室分离

Special safe valve unit for opening and closing;To keep holding room and heating room separate.

铝液吸气少，温度均匀；降低铝液清理频次

Less air into metal,so temperature stable ;Lower cleaning metal frequency.



轮毂升降机构 型号: DS-01

Wheel Lifter

升降机结构为双导柱形式;

通过气缸带动接料平台上下运动, 实现轮毂的垂直运输。

The lifting devise is double guide pillar which use lifting cylinder to drives catching platen to go up/down to realize wheel vertical transportation.

长×宽×高 (mm)

1230×1100×高度待定

Dimension(L*W*H)

升降高度

根据客户要求定制(According to clients' demand)

Lifting height

气缸规格

SC100

Lifting air cylinder

接料辊道电机

TCH-3

Track Motor

辊道直径 mm

60mm

Track Diameter:mm

气源压力

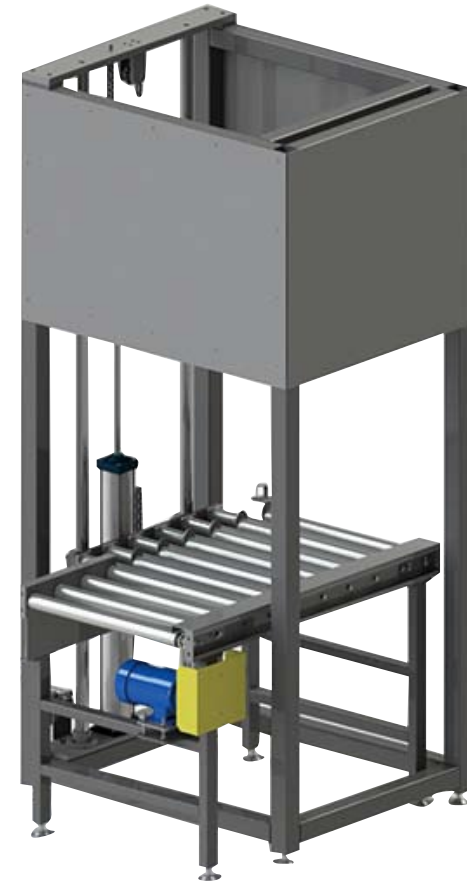
0.6-0.8MPa

Air Pressure

控制方式

自动电控 Auto-Electric

Control system



输送辊道 型号: GD-01
Travelling roller

滚筒输送机内宽度可按客户需求制作

The wide of roller conveyor is nominated by the final user.

转弯滚线标准内半径为300、600、900、1200mm等

The rotary linear standard radius of turning circle is 300、600、900、1200mm etc.

直段滚筒直径38、50、60、76、89mm等

The roller diameter is 38、50、60、76、89 mm etc.

转弯滚筒的锥度根据输送物体的重量、外形尺寸、线速度等设计

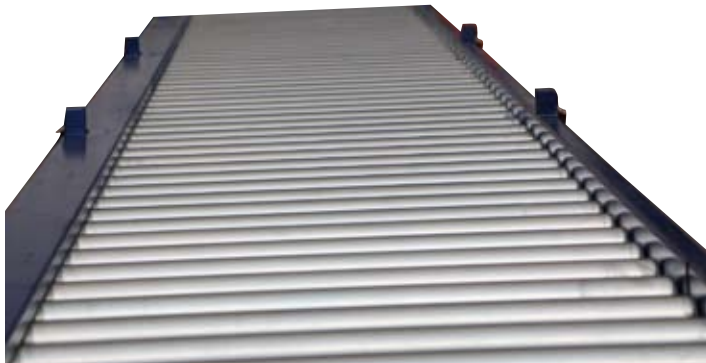
The conical degree of turning roller shall designed by L&A according to transporting part weight,size and its linear speed etc.

机架材质: 碳钢 Frame material:carbon steel

动力方式: 减速电机 Power way:speed reducer

传动方式: 单链轮、双链轮 Drive way:single sproket and double sproket

调速方式: 定速/变频调速 Speed adjusting:fixed speed/convert speed



烤包器 型号: KB-01
Landle Baking Device

铝液中转包预热装置, 用于快速、均匀提高浇包温度, 减少铝液注入过程中的热损失; 燃料可选

A nature gas or other optional gas burning ladle preheater is used for a fast and even heating ladle temperature and reduce thermo loss during metal pouring.

烘烤速度调节范围大; 燃烧充分、节能、环保

Heating speed adjusting range is large and with a characteristic of enough burning,energy saving and environmental protection.

烘烤温度和时间可控; 具有长明火点火及火焰检测功能

Heating temperature and time is adjustable,it is has long fire ignition and flame test function.

配有进口高速燃气烧嘴和自身预热烧嘴

It is equipped with fast burning nozzle and self preheating nozzle.



转运浇包 Ladle 型号：JB-01

用于铝水转运，可在其中完成精炼除气等工艺过程

Multipurpose ladle that suitable for Al-metal transportation and degass and fine process is realized during transportation.

铝水浇包由包壳、包衬、运输用吊臂（或叉脚）、包盖（选配）组成

Our ladle is composed by ladle shell,lining,suspension arm (or forklift hole) and ladle cover(optional).

多种形式：悬吊浇包、叉车浇包、电动浇包、悬吊叉车两用浇包和透气砖除气精炼铝水浇包

Al-metal ladle is divided as suspension ladle, forklift ladle, electric ladle; suspension/ forklift ladle, ventilating brick degass, fine metal ladle etc.



选择项 optionl	内容 content	备注 note
包盖 cover	(无No)、大包盖固定fix cover、大包盖活动removeable cover	包盖便于保温及室外转运 the cover is used for holding or transportation
包嘴型式 nozzle type	茶壶式teapot style、(鸭嘴式duckbilled)	
包嘴数量 nozzle Number	(单包嘴single ladle nozzle)、双包嘴double ladle nozzle	
保温层数 insulation layer No	无No、(单层single layer)、双层double layer	
保温层材料 insulation material	浇包专用进口纳米浇筑料 special imported Nano insulation material.	
自然温降 natural temperature cooling	<20、30、(50) °C/h	包温预热到与铝水温度一致 ladle is heaed untill temperature is same as Al-metal metal
浇包容量 capacity	150~2000kg (AL)	
包体转运方式 transportation ways	行车trolley、叉车forklift、行车叉车两用 forklift/trolley	
包体倾转方式 top tilting way	手动manual、电动electrical power、叉车 forklift	叉车倾转须配倾转附件 tilting devise must have in the tilting forklift

精炼除气机 型号: CQM-01
Affinage Degassing Machine

除气位置固定, 适用于移动的转运浇包、移动的坩埚炉

Degas position is fixed and suitable for degass of removeable Al-metal ladle or removeable crucible.

具有多种形式: 悬臂不旋转、悬臂手动旋转、悬臂电动旋转

Kinds type : Non rotary suspension arm ;manual rotary suspension.

三挡除气时间, 处理时间可以任意设定;

Three type degassing time system,treatment time can be set.

变频调速; 新型气路系统, 流量可调, 气压异常报警装置

Converting speed adjustable;New design gas system,gas flow rate is adjustable,gas abnormal alarm.

自动化控制处理系统; 进口PLC程序控制器; 外置显示屏

Auto control treatment system;Imported PLC system ;Outside display screen.



自动废轮冲孔机 型号: FLC-01
Automatic rejected wheel puncher

对不合格的轮毂进行彻底的报废处理，防止再次混入合格品中

To destroy the rejected wheel automatic to avoid mixing among qualify wheels.

轮毂尺寸 Wheel size	13" -24"
主油缸尺寸 Cylinder size	KD 125×90×200
系统压力 System pressure	20MPa
控制方式 Control ways	PLC 自动控制
气源压力 Air source pressure	0.6MPa
设备外形 Dimension L×W×H	1800×1100×1800mm
液压功率 Hydraulic power	2.2KW
辊道电机 Conveyor motor	0.4kw
辊道距地面高度 Roller heigh from the floor	800mm
辊道速度 Roller speed	10m/min



轮毂全自动中心孔钻床 型号: AD01
Automatic Degating Drilling Machine

自动上料; 自动下料; 自动检测轮毂高度和宽度; 高速钻头, 高效率去冒口;

Automatic loading; Automatic unloading; Automatic testing wheel width and height;
High speed drilling; High efficiency deburring.

用途 Function 通过高速钻头去除铝轮毂的冒口。

加工范围 Working range 13" × 4J-24" × 13J

主轴单元 Main axis unit Motor : 18.5KW 380V 50Hz

转速 Rotation Speed 1750r/m

液压系统 Hydraulic system 80L

Oil tank capacity 油箱容量

电机 Motor 7.5KW 380V 50Hz

外形 Dimension L × W × H 2000 × 1310 × 3100mm

重量 G.W. 4T



不锈钢泡水桶 型号: D26
Stainless steel water tank

长×宽×高 (mm)	1200×1000×1410mm
Dimension: L×W×H	
升降气缸	SC80×500
Lifting air cylinder	
水箱尺寸 (mm)	1100×1000×735mm
Water tank size	
水箱材质	不锈钢
Tank Material	
气源压力	0.6-0.8MPa
Air Pressure	
控制方式	自动电控
Control System	





硅碳棒 SiC rod



碳化硅热电偶保护管 SiC Tube Protector



升液管 Riser Tube



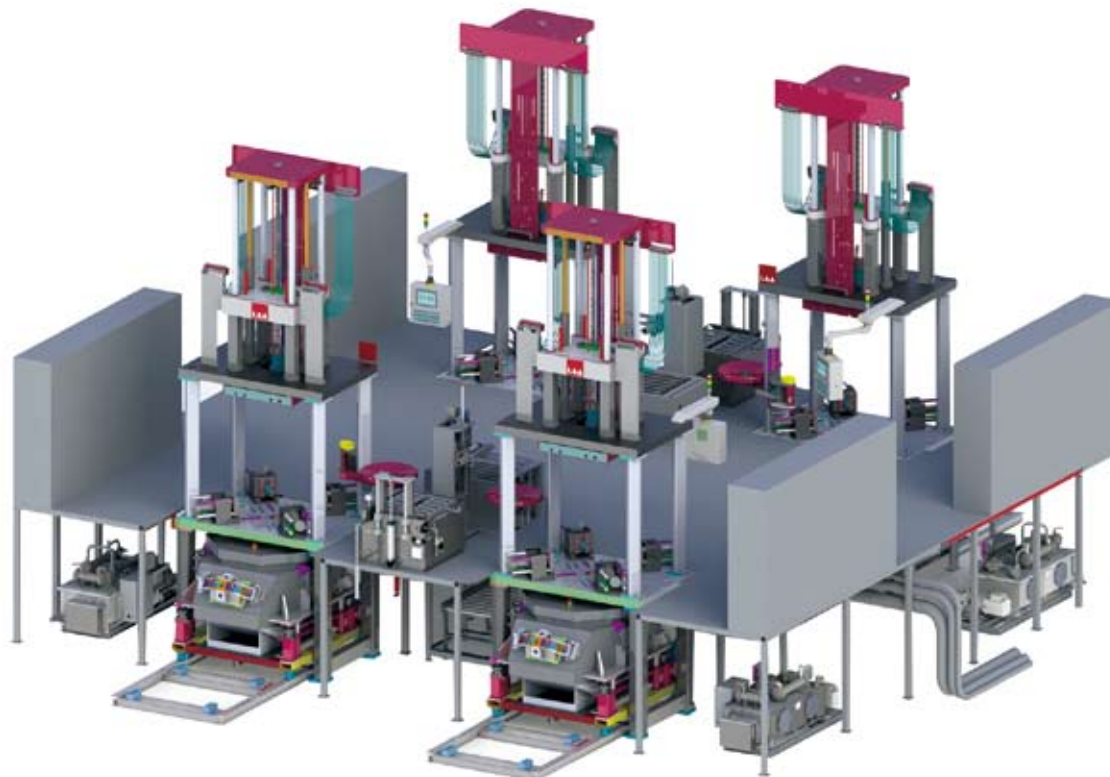
热电偶保护管 Thermo Couple Protector



中间陶瓷管 Ceramic Tube



硅酸铝垫片 Aluminium Silicate Pad



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