



SUNEAST
日 东 科 技

隧道炉系列产品 Tunnel Oven

■ **加热、烘烤、固化设备**
Heating, baking, curing equipment

■ **高产能**
High productivity

■ **低能耗**
Low energy
consumption

■ **热均衡**
Thermal balance



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www.suneast.com.cn

公司简介

Company profile

日东科技1984年成立于香港, 1999年在深圳建立工业园, 2000年在香港上市 (股票代码0365.HK), 为芯成科技控股旗下核心企业。

日东科技配备了现代化的产业园和先进的研发实验设施, 具有雄厚的研发、设计、生产、自动化、信息化装备制造的系统集成能力, 销售网络遍布全球。与清华大学、香港中文大学、香港科技大学、哈尔滨工业大学达成技术战略合作研发实力达到国内外先进水平。

在粤港澳大湾区的核心地带, 日东科技已服务半导体后端应用客户超过三十五年, 公司的下游及终端客户包括华为、中兴、TCL、富士康、木林森、光弘、德赛、聚飞等。公司自主研发的回流焊、波峰焊、选择性波峰焊、垂直炉、印刷机等产品在行业内始终保持技术领先地位, 为国内外众多知名企业提供了专业的电子装备解决方案。“龙门双驱同步跟随直线电机”已成功应用到多个高速、高精度的装备制造和加工领域, 得到用户的广泛赞誉。新推出IC贴合机等半导体封装设备, 是日东科技的又一匠心力作, 助力国产芯片产业发展壮大。如今, 日东科技已成为中国智能装备行业的领导者。

作为芯成科技控股的核心企业, 日东科技将坚定集团的战略目标, 打造成为高科技领域的世界级一流企业。

Founded in Hong Kong in 1984, Suneast technology established its industrial park in Shenzhen in 1999 and listed on the main board of Hong Kong stock exchange in 2000 (Stock Code: 0365. HK), which is the core enterprise under Sino ICT Holdings Limited.

With modern industrial parks and advanced R&D facilities, Suneast technology has strong system integration capabilities in R&D, design, production, automation and information equipment manufacturing. Its sales network is all over the world. Suneast technology has been achieved technical strategic cooperation with Tsinghua University, Chinese University of Hong Kong, Hong Kong University of Science and Technology and Harbin Institute of Technology, and its R&D capabilities has reached the advanced level at home and abroad.

In the core area of Guangdong-Hong Kong-Macao Greater Bay Area, Suneast technology has served semiconductor back-end application customers for more than 35 years, its downstream and end customers include Huawei, ZTE, TCL, Hikvision, MLS LIGHTING, DBG, DESAYSV AUTOMOTIVE, SHENZHEN MTC, JFLED, etc.

The independent R&D products, like reflow oven, wave soldering machine, selective soldering machine, vertical oven, printer and etc has always maintained a leading position in technology, and provided professional electronic equipment solutions for many well-known enterprises at home and abroad. The dual drive gantry synchronous follow linear motor technology has been successfully applied to a number of high-speed and high-precision equipment manufacturing and processing fields, and gains great praise by users. The new semiconductor packaging equipment, like chip bonder is the masterpiece of Suneast technology, which helps the development of domestic chip industry. Today, Suneast technology has become the leader of China's intelligent equipment industry.

As the core enterprise of Sino ICT Holdings, Suneast technology will strengthen the strategic goal of the group and become a world-class enterprise in the field of high technology.



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SHR-01L系列 力骨式网带输送式 SHR-01L Series Force bone net conveyor

产品简介 Product Introduction

SHR-01L系列隧道炉由机架系统、热风循环系统、输送系统、加热系统及电气控制系统等组成。精选优质不锈钢力骨式网带，耐磨性好，使用寿命长，运转平衡。采用模块化、数字化及人性化设计，在功能、性能、稳定性及可靠性、安全性、可维护性、易操作性方面具有良好的优越性，既为客户降低了运营成本，也为客户保质保量生产合格的产品提供了有力的保障。力骨式网带输送方式，可应对多种形式的产品输送，特别适合体积小、数量多的产品生产需求，产品可灵活排布在网带上，设备可配合自动化上下料机构使用。

SHR-01L series tunnel oven is composed of the rack system, hot air circulation system, conveying system, heating system and electrical control system. Selected high quality stainless steel force bone net, good wear resistance, long service life, running balance. Adopting modular, digital and humanized design, it has good advantages in function, performance, reliability, stability, security, maintainability, and easy operation, which not only reduces operating costs for customers, but also provides strong guarantee for customers to produce qualified products with quality and quantity. Force bone net conveyor, can cope with a variety of kinds of product, especially suitable for small size product, large number of production needs, the products can be flexibly arranged on the net, this equipment can be used with automatic loading and unloading mechanism.



*预留配套自动化安装位置为选配，外形以实物为准
Option: reserve the automatic installation position. The actual product serves as the standard.

应用范围

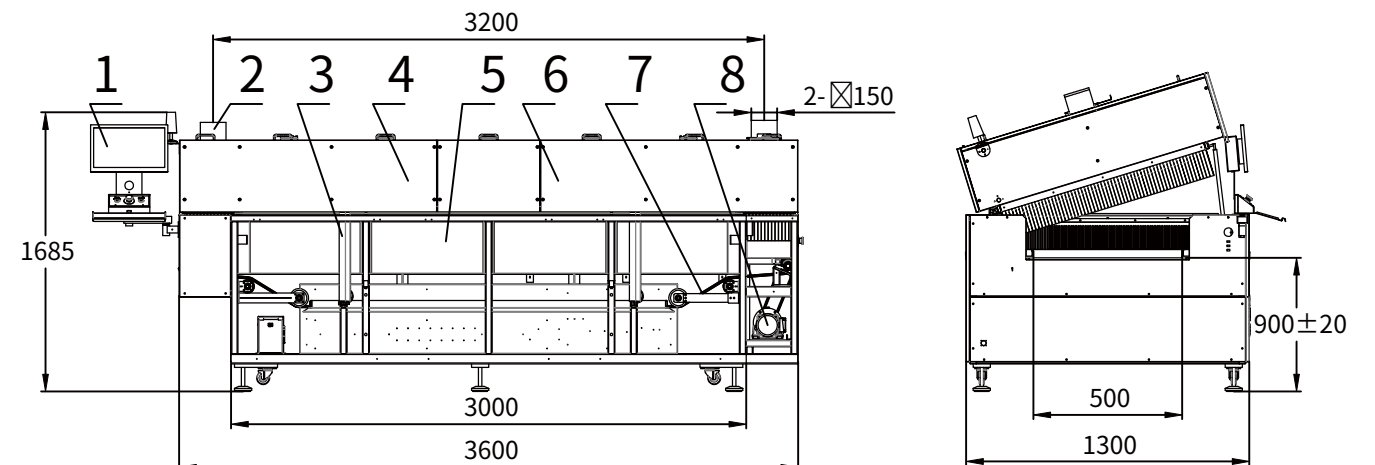
Application range

- 适用于固化无工艺边要求，无底部空间要求的产品；
- 可配合自动化线生产，也可人工放置产品；
- 适用于新能源汽车电子产品封装固化；
- 广泛应用于电子行业：PCB、LED、LCM、LCD、MLCC、电解电容、电感、手机、半导体、3C产品等

固化烘烤工序。

- It is suitable for curing products without the requirement of process edge or bottom space;
- Match up with automation production line, and for manually placed products;
- Suitable for packaging and curing of new energy vehicle electronic products;
- Widely used in electronics industry: curing and baking process of PCB, LED, LCM, LCD, MLCC, electrolytic capacitor, inductor, mobile phone, 3C semiconductor, products, and etc.

- | | |
|--------------------------------|-----------------------------|
| 01 显示器 Monitor | 02 排风系统 Exhaust system |
| 03 炉膛升降装置 Chamber lifting unit | 04 加热模块 Heating module |
| 05 下炉膛模组 Bottom chamber module | 06 上炉膛模组 Top chamber module |
| 07 运输系统 Conveyor system | 08 运输马达 Conveyor motor |



SHR-01K系列 宽板重载链输送式 SHR-01K Series Wide board heavy load chain conveyor

产品简介 Product Introduction

宽板重载链+导轨输送方式, 运载能力更强, 适用较重负载;
运输宽度可兼容, 使用更加灵活, 可满足多种尺寸产品的固化需求;
出入口可选配移载接驳, 提升炉膛使用效率, 满足多种复杂上下料工艺;
全模块化设计, 维护保养方便快捷, 减少维护时间及成本;
专利热风系统, 热风对流传导更高效, 热补偿更快;
全新炉膛结构设计, 多层隔热, 有效降低工作环境温度;

Heavy load wide board chain + rail conveyor, strong carrying capacity, suitable for heavy load.
Compatible conveying width, more flexible, and it can meet the curing needs of a variety of sizes of products.
The inlet and outlet can be optional with shifting connection, to improve the use efficiency of the furnace, and meet a variety of complex loading and unloading processes.
Full modular design, convenient maintenance, reduce maintenance time and cost.
Patented hot air system, more efficient hot air convection conduction, faster heat compensation.
New furnace structure design, multi-layer heat insulation, effectively reduce the working environment temperature.



*前后接驳部分为选配, 外形以实物为准
Option: front and back end buffering unit, The actual product serves as the standard.

应用范围

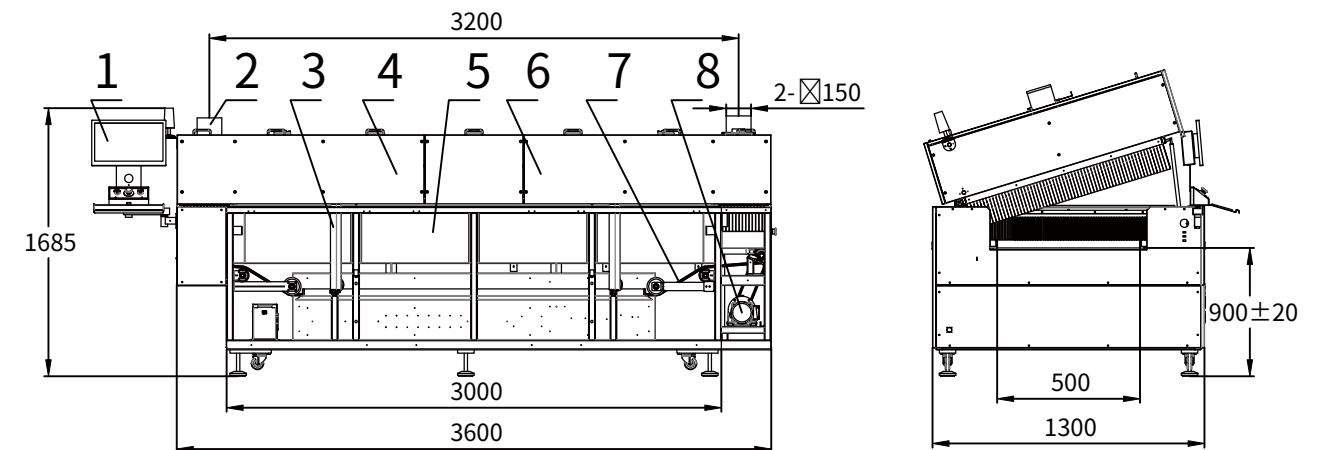
Application range

- 适用于固化无工艺边要求, 无底部空间要求的产品;
- 适用于料盒式过炉方式, 如LED, Mini LED固晶烘烤等;
- 可配合上下位移载接驳机实现多通道输送产品, 使用灵活, 提高机器使用效率;
- 可配合自动化线生产, 也可人工放置产品;
- 适用于LED, 电容, 电源等元器件产品封装固化烘烤工序;

涵盖领域: 电子产品、汽车电子、半导体、3C产品等。

- It is suitable for curing products without the requirement of process edge or bottom space;
- Suitable for magazine type curing, such as solidification baking for LED, Mini LED, etc;
- It can cooperate with previous and next transfer loading and buffering machine to realize multi-channel conveying products, it is flexible and improve the efficiency of the machine;
- Match up with automation production line, and for manually placed products;
- Suitable for packaging, curing and baking of components for LED, capacitor and power supply. It covers electronic products, automotive electronics, semiconductors, 3C products, etc.

- | | |
|--------------------------------|-----------------------------|
| 01 显示器 Monitor | 02 排风系统 Exhaust system |
| 03 炉膛升降装置 Chamber lifting unit | 04 加热模块 Heating module |
| 05 下炉膛模组 Bottom chamber module | 06 上炉膛模组 Top chamber module |
| 07 运输系统 Conveyor system | 08 运输马达 Conveyor motor |



SHR-01G系列

轨道输送式

SHR-01G Series Rail conveyor

产品简介

Product Introduction

采用耐磨导轨, 坚固耐用, 互换性高;
导轨宽度可调节, 满足多种产品尺寸;
采用不锈钢带挡边链条, 防卡板, 实用可靠;
可选多轨道输送, 满足不同工艺需求;
全模块化设计, 维护保养方便快捷, 减少维护时间及成本;
专利热风系统, 热风对流传导更高效, 热补偿更快;
全新炉膛结构设计, 多层隔热, 有效降低工作环境温度;

Adopt wear-resistant guide rail, strong and durable, high interchangeability.
The width of guide rail can be adjusted to meet a variety of product sizes.
Stainless steel chain with guard, anti-jam design, practical and reliable.
Optional multi rails transmission to meet different process requirements.
Full modular design, convenient maintenance, reduce maintenance time and cost.
Patented hot air system, more efficient hot air convection conduction, faster heat compensation.
New furnace structure design, multi-layer heat insulation, effectively reduce the working environment temperature.



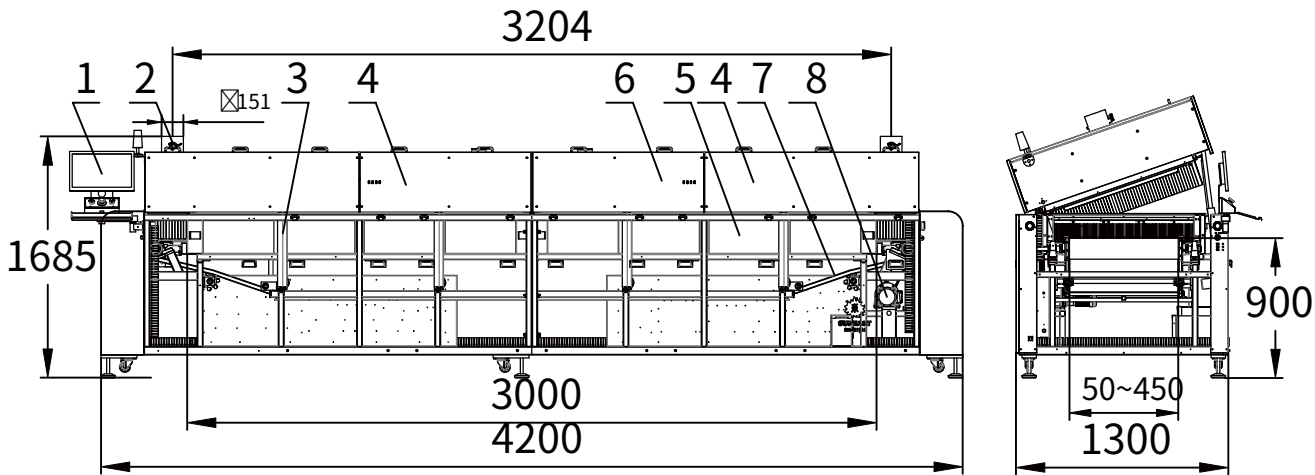
*预留配套自动化安装位置为选配, 外形以实物为准
Option:reserve the automatic installation position.The actual product serves as the standard.

应用范围

Application range

- 适用于固化产品有工艺边要求, 有底部空间要求的产品;
 - 轨道宽度可调整, 可满足产品规格多样性;
 - 适用于PCB、LED、Mini LED、电容、电源等元器件产品烘烤工序;
- 涵盖领域: 电子产品、汽车电子、半导体、3C产品等。
- It is suitable for curing products without the requirement of process edge or bottom space;
 - The rail width can be adjusted to meet the diversity of product specifications;
 - Suitable for curing and baking process of PCB, LED, Mini LED, capacitor, power supply and other components. It covers electronic products, automotive electronics, semiconductors, 3C products, etc.

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|--------------------------------|-----------------------------|
| 01 显示器 Monitor | 02 排风系统 Exhaust system |
| 03 炉膛升降装置 Chamber lifting unit | 04 加热模块 Heating module |
| 05 下炉膛模组 Bottom chamber module | 06 上炉膛模组 Top chamber module |
| 07 运输系统 Conveyor system | 08 运输马达 Conveyor motor |



SHR-01Z系列

重载工业链输送式

SHR-01Z Series Heavy duty industry chain conveyor

产品简介

Product Introduction

重载工业链+导轨输送方式,运行磨损更小,使用寿命长,更稳定可靠;
料框(载具)可差异设计,使用灵活,满足多种复杂上下料工艺;
全模块化设计,维护保养方便快捷,减少维护时间及成本;
专利热风系统,热风对流传导更高效,热补偿更快;
全新炉膛结构设计,多层隔热,有效降低工作环境温度;

Heavy duty industrial chain +rail conveyor, suitable for high load,with less running wear, long service life, more stable and reliable.
The carrier (fixture) can be different designed, flexible, to meet a variety of complicated loading and unloading process.
Full modular design, convenient maintenance, reduce maintenance time and cost.
Patented hot air system, more efficient hot air convection conduction, faster heat compensation.
New furnace structure design, multi-layer heat insulation, effectively reduce the working environment temperature.



*前后接驳部分为选配
Option: front and back end buffering unit

应用范围

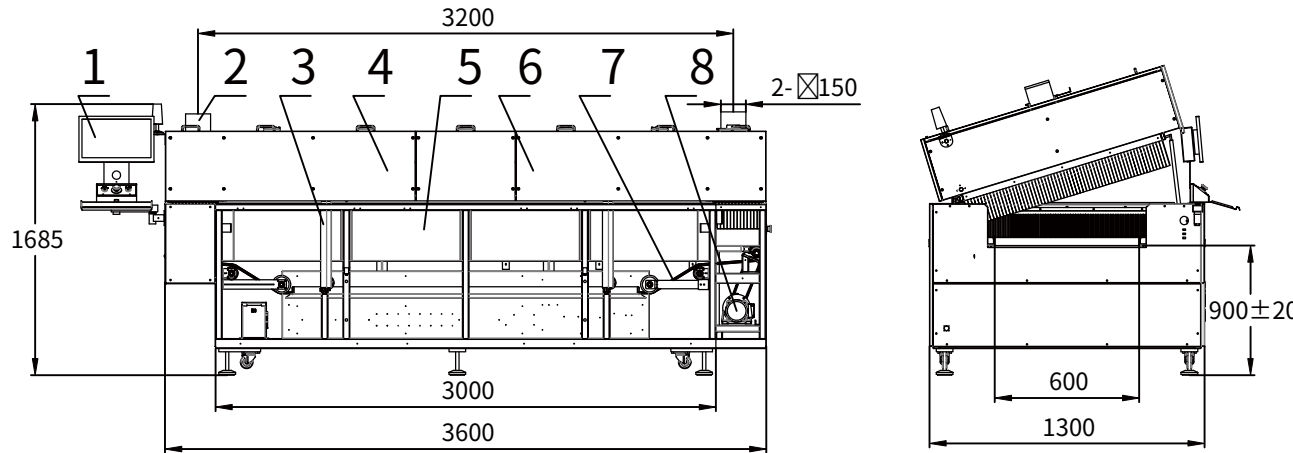
Application range

- 适用于高负载料框式,大载具式过炉方式;
- 适用于产能大,固化时间长的产品,如:三极管后端烘烤,Mini LED固晶烘烤等;
- 适用于固化运输重型产品,如:新能源汽车驱动电机封装烘烤;
- 适用于PCB、LED、Mini LED、电容、电源等元器件产品烘烤工序;

涵盖领域:电子产品、汽车电子、半导体、3C产品等。

- Suitable for heavy load carriers and big fixture conveying;
- Suitable for large capacity, long curing time products, such as: back end baking for audion, solidification baking for Mini LED, etc;
- Suitable for curing the heavy products, such as: new energy vehicle drive motor packaging and baking;
- Suitable for curing and baking process of PCB, LED, Mini LED, capacitor, power supply and other components. It covers electronic products, automotive electronics, semiconductors, 3C products, etc.

- | | |
|--------------------------------|-----------------------------|
| 01 显示器 Monitor | 02 排风系统 Exhaust system |
| 03 炉膛升降装置 Chamber lifting unit | 04 加热模块 Heating module |
| 05 下炉膛模组 Bottom chamber module | 06 上炉膛模组 Top chamber module |
| 07 运输系统 Conveyor system | 08 运输马达 Conveyor motor |



SHR-01B系列

托板链条输送式

SHR-01B Series Board supporting chain conveyor

产品简介

Product Introduction

定制不锈钢托板链条+导轨输送方式, 耐磨性好, 寿命长, 运转稳定;
运输多通道设计, 极大的拓展炉内产品容量, 产能大;
可配置出入口多通道接驳, 可实现自动上下料, 减少人工成本;
全模块化设计, 维护保养方便快捷, 减少维护时间及成本;
专利热风系统, 热风对流传导更高效, 热补偿更快;
全新炉膛结构设计, 多层隔热, 有效降低工作环境温度;

Customized stainless steel board supporting chain +rail conveyor, with less running wear, long service life, more stable and reliable.
Multi-channel design, greatly expand the capacity of products in the furnace, large capacity. It can be configured with multi-channel connection, which can realize automatic loading and unloading and reduce labor cost.
Full modular design, convenient maintenance, reduce maintenance time and cost.
Patented hot air system, more efficient hot air convection conduction, faster heat compensation.
New furnace structure design, multi-layer heat insulation, effectively reduce the working environment temperature.



应用范围

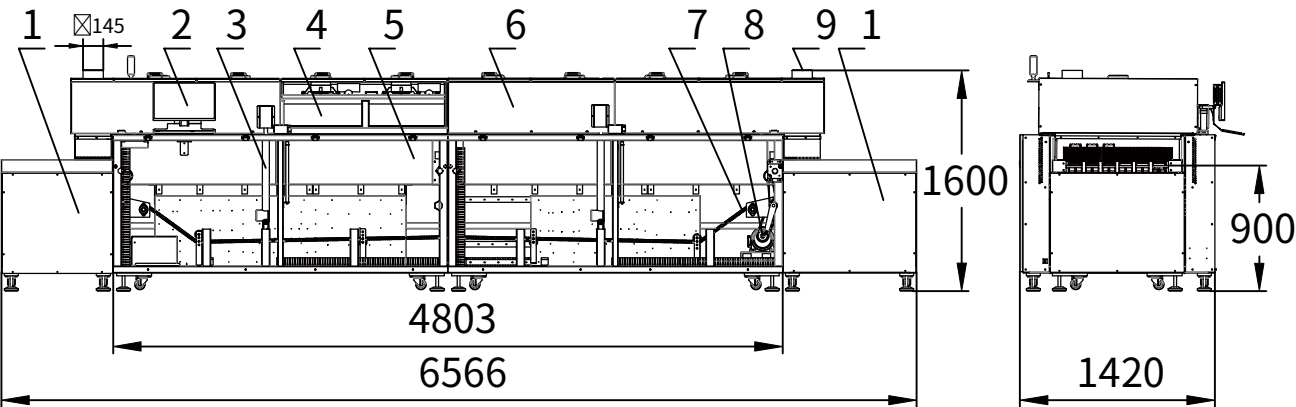
Application range

- 特别适用于料盒式过炉方式;
- 适用于多通道运输方式 (6通道输送, 10通道输送, 16通道输送等);
- 适用于固化时间长, 要求产能大, 固化要求高的Mini LED固晶烘烤;
- 适用于PCB、LED、Mini LED、电容、电源等元器件产品烘烤工序;

涵盖领域: 电子产品、汽车电子、半导体、3C产品等。

- Suitable for magazine type curing;
- Suitable for multi-channel conveying (6-channel, 10-channel, 16-channel, etc.);
- Suitable for Mini LED solidification baking required for long curing time, large production capacity and high curing requirements;
- Suitable for PCB, LED, Mini LED, capacitor, power supply and other components baking process; It covers a wide range of fields electronic products, automotive electronics, semiconductors, 3C products, etc.

- | | |
|---------------------------------------|-----------------------------|
| 01 前后接驳 Front and rear side buffering | 02 显示器 Monitor |
| 03 炉膛升降装置 Chamber lifting unit | 04 加热模块 Heating module |
| 05 下炉膛模组 Bottom chamber module | 06 上炉膛模组 Top chamber module |
| 07 运输系统 Conveyor system | 08 运输马达 Conveyor motor |
| 09 排风系统 Exhaust system | |



SHR-01L产品规格表

SHR-01L Series Specification table

SHR-L系列参数 SHR-L Series Specification			
技术参数Parameters			
设备型号Model	SHR-01L(注:01-05T-500)	SHR-01L(注:01-05T-850)	备注Remarks
设备尺寸Dimension	L3600xW1300xH1685mm	L3600xW1650xH1685mm	
设备重量Weight	Approx.1400kg	Approx.1800kg	
电源要求 Power Supply	3P5L 380V 50/60Hz	3P5L 380V 50/60Hz	
控制系统Control system	PC+PLC	PC+PLC	
总功率 Total Power	约 Approx.32KW	约 Approx.32KW	
运输形式 Conveying Type	力骨式网带 Force bone net	力骨式网带 Force bone net	
输送宽度Conveying width	500mm	850mm	
产品高度(含治具) Product height (including fixture)	max100mm	max100mm	
入板高度 Infeed height	900±20mm	900±20mm	
传送速度范围 Conveying Speed	100-500mm/min	100-500mm/min	
速度控制方式Speed control mode	变频器闭环无级调速 Closed loop stepless speed regulation by inverter	变频器闭环无级调速 Closed loop stepless speed regulation by inverter	
PCB传送方向 Conveying direction	L-R(Option:R-L)	L-R(Option:R-L)	
控温方式Temperature control mode	PID	PID	
温度设定范围 Temperature range	室温Room temp~200℃	室温Room temp~200℃	
加热系统Heating system	通道上加热Heating on the channel	通道上加热Heating on the channel	
温区数量Heating zones	5个加热区5 heating zones	5个加热区5 heating zones	
加热区长度Heating zone length	3000mm	3000mm	
冷却区长度Cooling zone length	无N/A	无N/A	可选配Option
升温时间Warming up time	约 Approx.15min	约 Approx.15min	设置温度Set temp150℃
运行功率Running power	约 Approx.6KW	约 Approx.7KW	
温度数值显示精度 Temperature value display accuracy	1℃	1℃	
异常报警 Abnormal alarm	三色信号灯+人机界面提示 Three-color signal light + human-machine interface alarm	三色信号灯+人机界面提示 Three-color signal light + human-machine interface alarm	
排风要求 Exhaust requirement	2-φ150排风口,单个排风口排风量要求约15m³/min 2-φ150 air outlet, the exhaust air volume of a single air outlet is about 15m³/min.	2-φ150排风口,单个排风口排风量要求约15m³/min 2-φ150 air outlet, the exhaust air volume of a single air outlet is about 15m³/min.	
参数存储 Parameter storage	可存储多种设置参数 Process Data and status stotage	可存储多种设置参数 Process Data and status stotage	
停电保护 Power cut protection	UPS延时关机 Equipped with UPS	UPS延时关机 Equipped with UPS	
气源要求Air source	无N/A	无N/A	
1.可选:机头机尾可凸出,凸出上炉膛外侧面尺寸300mm(整机尺寸会加长600mm)。 2.注明:根据产能要求,推荐温区数量优先选择:4温区、5温区、8温区、9温区、10温区、12温区,可定制。 1.Option: The front end and rear end of the machine can be extended, and the outer side of the protruding of the upper furnace is 300mm (the length of the whole machine will be lengthened 600mm). 2. Note: According to production capacity requirements, the recommended heating zone number is : 4 heating zones, 5 heating zones, 8 heating zones, 9 heating zones, 10 heating zones, 12 heating zones, which can be customized.			

SHR-01K产品规格表

SHR-01K Series Specification table

SHR-K系列参数SHR-K Series Specification			
技术参数Parameters			
设备型号Model	SHR-01K(注:01-05T-500)	SHR-01K(注:01-05T-850)	备注Remarks
设备尺寸Dimension	L3600xW1300xH1685mm	L3600xW1650xH1685mm	
设备重量Weight	Approx.1400kg	Approx.1800kg	
电源要求 Power Supply	3P5L 380V 50/60Hz	3P5L 380V 50/60Hz	
控制系统Control system	PC+PLC	PC+PLC	
总功率 Total Power	约 Approx.32KW	约 Approx.32KW	
运输形式 Conveying Type	不锈钢宽板重载链 Stainless steel wide board heavy load chain	不锈钢宽板重载链 Stainless steel wide board heavy load chain	
输送宽度Conveying width	Max500mm	Max850mm	
产品高度(含治具) Product height (including fixture)	Max100mm	Max100mm	
入板高度 Infeed height	900±20mm	900±20mm	
传送速度范围 Conveying Speed	100-500mm/min	100-500mm/min	
速度控制方式Speed control mode	变频器闭环无级调速 Closed loop stepless speed regulation by inverter	变频器闭环无级调速 Closed loop stepless speed regulation by inverter	
PCB传送方向 Conveying direction	L-R(Option:R-L)	L-R(Option:R-L)	
控温方式Temperature control mode	PID	PID	
温度设定范围 Temperature range	室温Room temp~200℃	室温Room temp~200℃	
加热系统Heating system	通道上加热Heating on the channel	通道上加热Heating on the channel	
温区数量Heating zones	5个加热区5 heating zones	5个加热区5 heating zones	
加热区长度Heating zone length	3000mm	3000mm	
冷却区长度Cooling zone length	无N/A	无N/A	可选配Option
升温时间Warming up time	约 Approx.15min	约 Approx.15min	设置温度Set temp150℃
运行功率Running power	约 Approx.6KW	约 Approx.7KW	
温度数值显示精度 Temperature value display accuracy	1℃	1℃	
异常报警 Abnormal alarm	三色信号灯+人机界面提示 Three-color signal light + human-machine interface alarm	三色信号灯+人机界面提示 Three-color signal light + human-machine interface alarm	
排风要求 Exhaust requirement	2-φ150排风口,单个排风口排风量要求约15m³/min 2-φ150 air outlet, the exhaust air volume of a single air outlet is about 15m³/min.	2-φ150排风口,单个排风口排风量要求约15m³/min 2-φ150 air outlet, the exhaust air volume of a single air outlet is about 15m³/min.	
参数存储 Parameter storage	可存储多种设置参数 Process Data and status stotage	可存储多种设置参数 Process Data and status stotage	
停电保护 Power cut protection	UPS延时关机 Equipped with UPS	UPS延时关机 Equipped with UPS	
气源要求Air source	无N/A	无N/A	
1.可选:机头机尾可凸出,凸出上炉膛外侧面尺寸300mm(整机尺寸会加长600mm)。 2.注明:根据产能要求,推荐温区数量优先选择:4温区、5温区、8温区、9温区、10温区、12温区,可定制。 1.Option: The front end and rear end of the machine can be extended, and the outer side of the protruding of the upper furnace is 300mm (the length of the whole machine will be lengthened 600mm). 2. Note: According to production capacity requirements, the recommended heating zone number is : 4 heating zones, 5 heating zones, 8 heating zones, 9 heating zones, 10 heating zones, 12 heating zones, which can be customized.			

SHR-01G产品规格表

SHR-01G Series Specification table

SHR-G系列参数SHR-01G Series Specification			
技术参数Parameters			
设备型号Model	SHR-01G(注:01-05T-400)	SHR-01G(注:01-05T)	备注Remarks
设备尺寸Dimension	L4200xW1300xH1685mm	L4200xW1650xH1685mm	
设备重量Weight	Approx.1400kg	Approx.1800kg	
电源要求 Power Supply	3P5L 380V 50/60Hz	3P5L 380V 50/60Hz	
控制系统Control system	PC+PLC	PC+PLC	
总功率 Total Power	约 Approx.32KW	约 Approx.32KW	
运输形式 Conveying Type	不锈钢防卡板链条 Stainless steel anti-jam chain	不锈钢防卡板链条 Stainless steel anti-jam chain	
导轨固定方式Guide fixed mode	前端导轨固定Front end fixed	前后端导轨固定, 中间两条活动 Front and back end fixed, 2 movable guide rails in the middle	
输送宽度Conveying width	min50mm-max400mm	min50mm-max350mm (双轨同时Dual-track simultaneity)	
产品高度(含治具) Product height (including fixture)	max95mm	max95mm	
入板高度 Infeed height	900±20mm	900±20mm	
传送速度范围 Conveying Speed	100-500mm/min	100-500mm/min	
速度控制方式Speed control mode	变频器闭环无级调速 Closed loop stepless speed regulation by inverter	变频器闭环无级调速 Closed loop stepless speed regulation by inverter	
PCB传送方向 Conveying direction	L-R(Option:R-L)	L-R(Option:R-L)	
控温方式Temperature control mode	PID	PID	
温度设定范围 Temperature range	室温Room ~200℃	室温Room ~200℃	
加热系统Heating system	通道上加热Heating on the channel	通道上加热Heating on the channel	
温区数量Heating zones	5个加热区 5 heating zones	5个加热区 5 heating zones	
加热区长度Heating zone length	3000mm	3000mm	
冷却区长度Cooling zone length	无N/A	无N/A	可选配Option
升温时间Warming up time	约 Approx.15min	约 Approx.15min	设置温度Set temp150℃
运行功率Running power	约 Approx.6KW	约 Approx.7KW	
温度数值显示精度 Temperature value display accuracy	1℃	1℃	
异常报警 Abnormal alarm	三色信号灯+人机界面提示 Three-color signal light + human-machine interface alarm	三色信号灯+人机界面提示 Three-color signal light + human-machine interface alarm	
排风要求 Exhaust requirement	2-φ150排风口, 单个排风口排风量要求约15m³/min 2-φ150 air outlet, the exhaust air volume of a single air outlet is about 15m³/min.	2-φ150排风口, 单个排风口排风量要求约15m³/min 2-φ150 air outlet, the exhaust air volume of a single air outlet is about 15m³/min.	
参数存储 Parameter storage	可存储多种设置参数 Process Data and status stotage	可存储多种设置参数 Process Data and status stotage	
停电保护 Power cut protection	UPS延时关机 Equipped with UPS	UPS延时关机 Equipped with UPS	
气源要求Air source	无N/A	无N/A	
1. 注明: 根据产能要求, 推荐温区数量优先选择: 4温区、5温区、8温区、9温区、10温区、12温区, 可定制。 1. Note: According to production capacity requirements, the recommended heating zone number is : 4 heating zones, 5 heating zones, 8 heating zones, 9 heating zones, 10 heating zones, 12 heating zones, which can be customized.			

SHR-01Z产品规格表

SHR-01Z Series Specification table

SHR-Z系列参数SHR-Z Series Specification			
技术参数Parameters			
设备型号Model	SHR-01Z(注:01-05T-600)	SHR-01Z(注:01-05T-950)	备注Remarks
设备尺寸Dimension	L3600xW1300xH1685mm	L3600xW1650xH1685mm	
设备重量Weight	Approx.1400kg	Approx.1800kg	
电源要求 Power Supply	3P5L 380V 50/60Hz	3P5L 380V 50/60Hz	
控制系统Control system	PC+PLC	PC+PLC	
总功率 Total Power	约 Approx.32KW	约 Approx.32KW	
运输形式 Conveying Type	重载工业链 Heavy duty industrial chain	重载工业链 Heavy duty industrial chain	
输送宽度Conveying width	600mm	950mm	
产品高度(含治具) Product height (including fixture)	Max100mm	Max100mm	
入板高度 Infeed height	900±20mm	900±20mm	
传送速度范围 Conveying Speed	100-500mm/min	100-500mm/min	
速度控制方式Speed control mode	变频器闭环无级调速 Closed loop stepless speed regulation by inverter	变频器闭环无级调速 Closed loop stepless speed regulation by inverter	
PCB传送方向 Conveying direction	L-R(Option:R-L)	L-R(Option:R-L)	
控温方式Temperature control mode	PID	PID	
温度设定范围 Temperature range	室温Room temp~200℃	室温Room temp~200℃	
加热系统Heating system	通道上加热Heating on the channel	通道上加热Heating on the channel	
温区数量Heating zones	5个加热区5 heating zones	5个加热区5 heating zones	
加热区长度Heating zone length	3000mm	3000mm	
冷却区长度Cooling zone length	无N/A	无N/A	可选配Option
升温时间Warming up time	约 Approx.15min	约 Approx.15min	设置温度Set temp150℃
运行功率Running power	约 Approx.6KW	约 Approx.7KW	
温度数值显示精度 Temperature value display accuracy	1℃	1℃	
异常报警 Abnormal alarm	三色信号灯+人机界面提示 Three-color signal light + human-machine interface alarm	三色信号灯+人机界面提示 Three-color signal light + human-machine interface alarm	
排风要求 Exhaust requirement	2-φ150排风口, 单个排风口排风量要求约15m³/min 2-φ150 air outlet, the exhaust air volume of a single air outlet is about 15m³/min.	2-φ150排风口, 单个排风口排风量要求约15m³/min 2-φ150 air outlet, the exhaust air volume of a single air outlet is about 15m³/min.	
参数存储 Parameter storage	可存储多种设置参数 Process Data and status stotage	可存储多种设置参数 Process Data and status stotage	
停电保护 Power cut protection	UPS延时关机 Equipped with UPS	UPS延时关机 Equipped with UPS	
气源要求Air source	无N/A	无N/A	
1. 可选: 机头机尾可凸出, 凸出上炉膛外侧面尺寸300mm (整机尺寸会加长600mm)。 2. 注明: 根据产能要求, 推荐温区数量优先选择: 4温区、5温区、8温区、9温区、10温区、12温区, 可定制。 1.Option: The front end and rear end of the machine can be extended, and the outer side of the protruding of the upper furnace is 300mm (the length of the whole machine will be lengthened 600mm). 2. Note: According to production capacity requirements, the recommended heating zone number is : 4 heating zones, 5 heating zones, 8 heating zones, 9 heating zones, 10 heating zones, 12 heating zones, which can be customized.			

SHR-01B产品规格表

SHR-01B Series Specification table

SHR-B系列参数SHR-B Series Specification		
技术参数Parameters		
设备型号Model	SHR-01B(注:01-08T-C06)	备注Remarks
设备尺寸Dimension	L6566xW1420xH1685mm	
设备重量Weight	Approx.1400kg	
电源要求 Power Supply	3P5L 380V 50/60Hz	
控制系统Control system	PC+PLC	
总功率 Total Power	约 Approx.45KW	
运输形式 Conveying Type	定制不锈钢托板链 Stainless steel customized supporting chain	
运输通道数Channels	6通道6 channels	
产品高度(含治具) Product height (including fixture)	L162*W68-82*H160mm	
入板高度 Infeed height	900±20mm	
传送速度范围 Conveying Speed	30-150mm/min	
速度控制方式Speed control mode	变频器闭环无级调速变频器闭环无级调速 Closed loop stepless speed regulation by inverter	
PCB传送方向 Conveying direction	L-R(Option:R-L)	
控温方式Temperature control mode	PID	
温度设定范围 Temperature range	室温Room temp~200℃	
加热系统Heating system	通道上加热Heating on the channel	
温区数量Heating zones	8个加热区 8 heating zones	
加热区长度Heating zone length	4800mm	
冷却区长度Cooling zone length	无N/A	可选配Option
升温时间Warming up time	约 Approx.15min	设置温度Set temp150℃
运行功率Running power	约 Approx.6KW	
温度数值显示精度 Temperature value display accuracy	1℃	
异常报警 Abnormal alarm	三色信号灯+人机界面提示 Three-color signal light + human-machine interface alarm	
排风要求 Exhaust requirement	2-φ150排风口, 单个排风口排风量要求约15m³/min 2-φ150 air outlet, the exhaust air volume of a single air outlet is about 15m³/min.	
参数存储 Parameter storage	可存储多种设置参数 Process Data and status stotage	
停电保护 Power cut protection	UPS延时关机 Equipped with UPS	
气源要求Air source	无N/A	

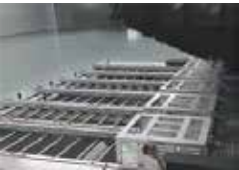
隧道炉配置可选项

Options

冷却系统 1.增压式强制风冷却 2.冷水机	Cooling system 1. Pressure charged air cooling 2. Water chiller
氮气系统	Nitrogen system
MES接口	MES interface
测温曲线接口	Temperature profile interface
接驳系统 1.多通道接驳 2.带移载接驳	Buffering system 1. Multi-channel buffer 2. With shifting connection
预热系统 1.可定制预热长度	Preheating system 1. The preheating length can be customized.
运输系统 1.输送宽度可选500mm、850mm, 或定制宽度。 2.可选多通道设计	Conveyor system 1. Conveying width can be 500mm, 850mm, or to be customized. 2. Multi-channel design .
机架部分 1.预留工装夹具安装位置	Rack 1.Reserve the installation position for the fixture



▲ 冷水机
Water chiller



▲ 6通道接驳
6 channels buffer



▲ 温度曲线测试接口
Temperature curve test interface



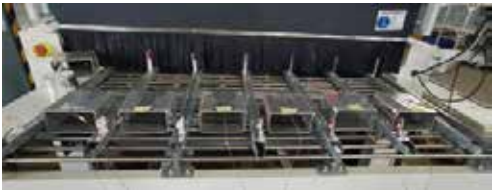
▲ 机器预留配套自动化
安装位置
Reserve the installation position
for automatic line



▲ 移载接驳
Transfer buffering



▲ 预热长度依工艺产能定制
The preheating length is customized
according to process and capacity.



▲ 6通道, 输送通道总宽达1.3米
6 channels, total width of the channels
is 1.3 meters.

隧道炉产品特点

Product characteristics of tunnel oven

- 分段控温, 以适应不同产品的工艺需求, 采用PID控温方式, 炉内温度均匀性好, 固化品质更优;
 - 加热箱体热风内循环, 热效率高, 总功率小, 比市面上传统设备省电率达25%以上;
 - 特殊结构的隔热方式, 机壳外表温度接近环境温度, 减少能源消耗;
 - 模块化设计, 配置灵活, 可满足各种工艺需求, 特别是要求在炉内烘烤时间比较长, 可有效的提升产能;
 - 可与自动化生产线链接使用, 有效控制人力, 减少搬运, 减少不良, 节约时间, 节省投入成本。
-
- Stage temperature control, to adapt to the process requirements of different products, PID temperature control, with good furnace temperature uniformity and better curing quality;
 - Hot air circulation, high thermal efficiency, the total power is small, saving more than 25% power than the traditional equipment;
 - Special heat insulation structure, the surface temperature of the machine housing is close to the room temperature, reduce energy;
 - Modular design, flexible configuration, can meet various process requirements, especially for the products require for long baking;
 - It can be used with automatic production line to effectively control manpower, reduce handling, reduce defects, save time and save input cost.

隧道炉结构特点

Structural characteristics of tunnel oven



输送速度电脑控制, 变频可调, 运行平衡
Conveying speed computer control, adjustable frequency conversion, balanced running



炉膛开启电动推杆, 稳定可靠
Electric push rod for opening the chamber, stable and reliable



排废气装置, 炉膛更干净
Exhaust device, clean furnace



温度曲线测试接口, 使用方便 (选配)
Temperature curve test interface, easy to use(option)



热风马达模组式设计, 维护更换方便快捷
Modular hot air motor, convenient for maintenance and replacement



加热模组抽屉式拔插
Drawer type heating module

导轨运输定制 Customized conveying rails

导轨运输方式可根据客户产品工艺需求定制
The guide rail conveying mode can be customized according to the product process requirements.



力骨式网带输送
Force bone net conveyor



宽板重载链输送
Wide board heavy load chain conveyor



轨道输送
Rail conveying



重载工业链输送
Heavy duty industrial chain



托板链条输送
Board supporting chain conveyor

专利风道结构设计 (专利号 201721160420.1)

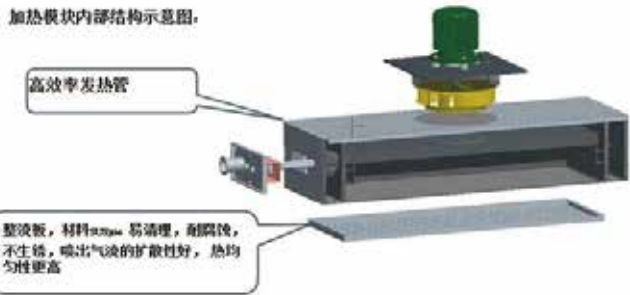
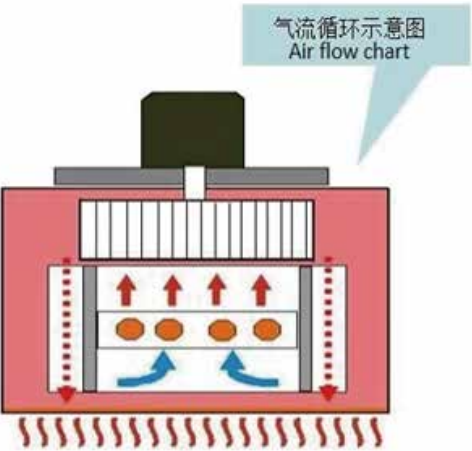
Air channel Structure Design (Patent No. 201721160420.1)

专利风道结构设计, 高效的加热模组, 温度均匀性更好、热效率更高, 有效保证固化品质

Patented air channel structure, efficient heating module, better temperature uniformity, higher thermal efficiency, which effectively ensure the curing quality

加热模组, 采用高效率发热管, 使用寿命长, 抽屉式拔插, 易更换

Heating module, using high efficiency heating element, long service life, drawer type installation, easy to replace



应用场景

Application scenarios

- 适用于固化时间长,要求产能大的产品,如PCB、LED、Mini LED固晶烘烤、LCM、LCD、MLCC、电容、电感、三极管后端烘烤等元器件产品的烘烤。广泛应用于电源、手机、新能源、汽车电子、半导体、3C产品等行业;
- 可用于料盒式、料框式,大载具式等过炉方式;
- 运输宽度可兼容,满足产品规格多样性;
- 可配合自动化线生产,也可人工放置产品;
- 可定制多通道运输方式(6通道输送,10通道输送,16通道输送等)。
- Suitable for products with long curing time and high production capacity, such as the components baking of PCB, LED, Mini LED solidification baking, LCM, LCD, MLCC, capacitor, inductor, audion back-end baking and others. It is widely used in power supply, mobile phone, new energy, automotive electronics, semiconductor, 3C products and other industries.
- Suitable for conveying with magazine, carrier, large load fixture;
- The rail width can be adjusted to meet the diversity of product specifications;
- Match up with automation production line, and for manually placed products;
- Suitable for multi-channel conveying (6-channel, 10-channel, 16-channel, etc.)

客户处实测隧道炉温度曲线图 Actual measured temperature profile of the tunnel oven from customers

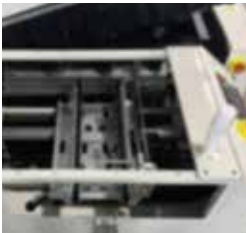


定制类隧道炉项目展示

Customized tunnel oven project



■ 整机16米,加热长度8.4米,冷却长度3.6米,运载能力达3吨,可灵活拓展对接多种自动化输送系统
The whole machine is 16 meters, the heating length is 8.4 meters, the cooling length is 3.6 meters. Flexible expansibility to connect with a variety of automated conveying systems



■ 隧道炉前后配移载接驳,可提升炉膛使用率,提产能,降能耗
Equipe with the transfer load connection at the front and back end, which can improve the usage rate of the furnace, increase production capacity and reduce energy consumption



■ 多通道隧道炉,长度达28米,助力客户自动化智能化生产建设
Multi-channel tunnel oven, up to 28 mtrs long, supporting the automatic intelligent production construction of customers



■ 6通道重载宽板链隧道炉,前后接驳滚轴形式传动,高负载,大产能
6 channels heavy load wide board chain tunnel oven, front and rear buffering with roller driving, high load capacity, large capacity



■ 加长版力骨式网带隧道炉,整机模组式拼接,安装转运方便,拓展性强
Extended force bone mesh belt tunnel oven, modular assembly, easy to install and transfer, strong expandability.