

# Styler®

深圳市富斯特电子有限公司  
Styler Electronic (Shenzhen) Co.,Ltd.  
东莞市创德激光智能科技有限公司  
Dongguan Chuangde Laser Intelligent Technology Co.,Ltd.

斯特®  
**Styler®**

专注于激光焊接/电阻焊接领域  
及智能自动化设备解决方案服务商



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**专注于激光焊接/电阻焊接领域  
及智能自动化设备解决方案服务商**

**Focus on Laser Welding/Resistance Welding  
And Intelligent Automation Equipment Solution Service Provider**



## COMPANY PROFILE

### 公司简介

东莞市创德激光智能科技有限公司是一家专业从事激光焊接、精密电阻焊接、切割、打标、微加工设备研发、生产销售技术创新型企业，也是国内唯一具有专业激光精密焊接和电阻焊接的高新技术型企业。公司在精密电阻焊接和激光应用领域有着独特的理解和创新，并通过不断的技术研究和开发，焊接技术已经达到国际同行的先进高度，焊接高稳定品质达到国际领先水平，设备产品远销东南亚、欧美十几个国家。

Styler Company is an innovation enterprise specialized in laser welding, precision resistance welding equipment researching and development, production and sales. Our company has unique understanding and innovation in the field of resistance welding and laser applications, and the welding technology has reached the international level among the peers through continuous technical research and development; thereby reducing the cost of customer use and maintenance, and the welding quality has reached the international level among the peers; thereby the welding quality has arrived the international level meanwhile reduces the cost of maintenance.

中国制造业越来越全球化的今天,现代工业技术发展日新月异,我们在自动化焊接设备的研发,技术储备,生产等领域与现代化工业水平并驾齐驱,部分领域已经超越发达国家水平,我们将倾注自己团队的精湛技术和创新精神,不断挑战激光应用、精密电阻焊接领域技术难题,向成为世界一流焊接设备供应商和品牌迈进。

We come from all corners of the nation, but our common goal breeds the same ideal. The starting point is different but the destination is the same. At this moment, the young hearts are united and inseparable, cut through the waves and bravely set sail.



## PRODUCT RANGE COVERS

### Styler 产品系列涵盖

1.精密交流双脉冲点焊机系列 2.精密储能双脉冲点焊机系列 3.精密逆变电源点焊机系列 4.晶体管点焊机系列  
5.以及配合自动化和半自动化设备匹配的各种精密焊接电源 6.自动化焊接的开发和生产 7.精密焊接 8.高功率  
激光焊接 9.激光切割 10.激光切割 11.微加工 12.激光打标机 13.激光应用类自动化

1.Precise AC Dual Pulse Spot Welder 2.Precise Stored Energy Dual Pulse Spot Welder 3.High Frequency Inverter Power Spot Welder 4.Transistor Spot Welder 5.Welding Power Supply for Automatic and Semi-auto Equipment 6.Other Auto-welding Machine: Developing & Producing.

我们将通过“品质，科技，专业，务实”的精神和不断的技术创新来为我们的客户提供：高性能焊接设备和点焊解决方案；从而与客户形成互利共荣的合作关系，成为行业内备受推崇的供应商。

We implement the company value , “Quality, Technology, Professional, and Practical” throughout the company operation and product's innovation to provide high performance welding machine and solution to our customer, in order to maintain a “win-win” relationship within the partnership; at the same time, become a reputable welding machine supplier in the industry.



# 国内一流精密点焊设备及自动化智能制造工厂

**DOMESTIC FIRST-CLASS PRECISION SPOT WELDING EQUIPMENT AND AUTOMATIC INTELLIGENT MANUFACTURING FACTORY**

## MANAGEMENT 经营理念 IDEA

以精湛的技术和不断的创新、优质快捷的服务为客户提供满意的产品质量；

Provide satisfied product to the customer through our exquisite technology, innovative idea, and excellence service.

以出众的性价比提供给客户高品质之产品和解决方案；

Provide the most cost-effective & high-quality machine and solution to the customer.

从客户在享受使用产品带来价值的过程中来获取回报；

Provide excellence user experience product through ongoing communication with customers to determine the market needs,

以科学的管理以及不断创新来降低成本，用实惠回报客户。

Reduce the cost through continually improvement on product and management and keep the saving to the customer.

### 企业精神 Enterprise spirit:

品质、科技、专业、务实

Quality, science and technology, professional and pragmatic;

### 品质控制 Quality control:

从设计开始，注重流程控制和细节，重视先进的测试检测手段

Starting from the design, pay attention to process control and details, and pay attention to advanced testing methods

### 公司的经营目标 Business objectives:

成就客户，企业和员工，成为行业内备受推崇的供应商

Achieve customers, enterprises and employees, anabecome a highly respected supplier in the industry

### PRODUCT CATALOG

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### 设备特点 Equipment Features

晶体管式电源焊接电流上升速度非常快，可以在短时间内完成焊接过程，焊接热影响区小，焊接过程无飞溅，最适合于超精密焊接，例如细线、扣式电池连接片、继电器的小触点和金属箔。

The welding current of transistor power supply rises very fast and can complete the welding process in a short time. The welding heat affected zone is small and there is no spatter in the welding process. It is most suitable for ultra precision welding, such as thin wire, button battery connector, small contact of relay and metal foil

### 产品特点 PRODUCT FEATURSE:

- ◎ 五种控制方式：定电流、定电压、定电流和定电压组合、定功率、定电流和定功率组合模式。
- ◎ 大液晶显示画面，可显示焊接电流、功率及电极间电压，还可以显示接触电阻
- ◎ 内置检测机能：在正式通电之前可以有检测电流对工件的有无、以及工件的状态进行确认。
- ◎ 可实现一台电源两个焊接头同时工作。
- ◎ 可通过RS-485串口输出实际焊接参数。
- ◎ 可通过外部端口，实现32组能量任意切换。
- ◎ 输入输出信号齐全，可与自动化高度配合使用。
- ◎ Primary constant current, constant voltage and hybrid control mode are adopted to ensure the diversification of welding process.
- ◎ Large LCD screen, which can display welding current, power and voltage between electrodes, as well as contact resistance.
- ◎ Built-in detection function: before the formal power-on, a detection current can be used to confirm the presence of the workpiece and the status of the workpiece.
- ◎ A power source and two welding heads can work at the same time.
- ◎ The actual welding parameters can be output through the RS-485 serial port.
- ◎ Can switch 32 groups of energy arbitrarily through external ports.
- ◎ Complete input and output signal, which can be used in conjunction with a high degree of automation.
- ◎ Can remotely modify and call parameters through Modbus RTU protocol.

### PDC10000A/PDC6000A/PDC4000A 标准型



### 设备参数 Device parameters

型号 MODEL	PDC10000A	PDC6000A	PDC4000A
最大电流 MAX Curr	10000A	6000A	4000A
形式 TYPE	标准 STD	标准 STD	标准 STD
最大消耗功率 MAX POWER	800W	500W	300W
最高电压 MAX VOLT	30V		
输入电流 INPUT	单相100~120VAC或单相200~240VAC 50/60Hz single phase 100~120VAC or single phase 200~240VAC 50/60Hz		
控制方式 CONTROLS	1、定电流控制 2、定电压控制 3、定电流和定电压组合控制 4、定功率 5、定电流和定功率组合 1.const curr;2.const volt;3.const curr and volt combination;4.const power;5.const curr and power combination		
时间设定 TIME SETTINGS	预压时间: 0000~2999ms pressure contact time: 0000~2999ms	预压时间: 0000~2999ms pressure contact time: 0000~2999ms	预压时间: 0000~2999ms pressure contact time: 0000~2999ms
电流设定范围 CURR RG	0.00~6.00KA	0.00~3.00KA	0.00 ~ 2.00KA
电压设定范围 VOLT RG		0.00~9.99V	
功率设定范围 POWER RG		00.0~99.9KW	
电流上下限范围 CURR STG RG		0.00 ~ 9.99KA	
电压上下限范围 VOLT STG RG		0.00 ~ 9.99V	
功率上下限范围 POWER STG RG		00.0~99.9KW	
电阻上下限范围 RESISTANCE STG RG		00.0~9.99mΩ	
外围尺寸 EX. SIZE	205(W)X310(H)X446(D)	205(W)X310(H)X368(D)	
总重量 GW	24千克 (kg)	18千克 (kg)	16千克 (kg)



### 设备特点 Equipment Features

晶体管式电源焊接电流上升速度非常快，可以在短时间内完成焊接过程，焊接热影响区小，焊接过程无飞溅，最适合于超精密焊接，例如细线、扣式电池连接片、继电器的小触点和金属箔。

The welding current of transistor power supply rises very fast and can complete the welding process in a short time. The welding heat affected zone is small and there is no spatter in the welding process. It is most suitable for ultra precision welding, such as thin wire, button battery connector, small contact of relay and metal foil

### 产品特点 PRODUCT FEATURSE:

- ◎ 五种控制方式：定电流、定电压、定电流和定电压组合、定功率、定电流和定功率组合模式。
- ◎ 大液晶显示画面，可显示焊接电流、功率及电极间电压，还可以显示接触电阻
- ◎ 内置检测机能：在正式通电之前可以有检测电流对工件的有无、以及工件的状态进行确认。
- ◎ 可实现一台电源两个焊接头同时工作。
- ◎ 可通过RS-485串口输出实际焊接参数。
- ◎ 可通过外部端口，实现32组能量任意切换。
- ◎ 输入输出信号齐全，可与自动化高度配合使用。
- ◎ Primary constant current, constant voltage and hybrid control mode are adopted to ensure the diversification of welding process.
- ◎ Large LCD screen, which can display welding current, power and voltage between electrodes, as well as contact resistance.
- ◎ Built-in detection function: before the formal power-on, a detection current can be used to confirm the presence of the workpiece and the status of the workpiece.
- ◎ A power source and two welding heads can work at the same time.
- ◎ The actual welding parameters can be output through the RS-485 serial port.
- ◎ Can switch 32 groups of energy arbitrarily through external ports.
- ◎ Complete input and output signal, which can be used in conjunction with a high degree of automation.
- ◎ Can remotely modify and call parameters through Modbus RTU protocol.

### PDC5000B / PDC3000B / PDC2000B 极性切换型



### 设备参数 Device parameters

型号 MODEL	PDC5000B	PDC3000B	PDC2000B
最大电流 MAX Curr	6000A	3000A	2000A
形式 TYPE	极性切换型 POL SWL	极性切换型 POL SWL	极性切换型 POL SWL
最大消耗功率 MAX POWER	800W	500W	300W
最高电压 MAX VOLT	30V		
输入电流 INPUT	单相100~120VAC或单相200~240VAC 50/60Hz single phase 100~120VAC or single phase 200~240VAC 50/60Hz		
控制方式 CONTROLS	1、定电流控制 2、定电压控制 3、定电流和定电压组合控制 4、定功率 5、定电流和定功率组合 1.const curr;2.const volt;3.const curr and volt combination;4.const power;5.const curr and power combination		
时间设定 TIME SETTINGS	预压时间: 0000~2999ms pressure contact time: 0000~2999ms	预压时间: 0000~2999ms pressure contact time: 0000~2999ms	预压时间: 0000~2999ms pressure contact time: 0000~2999ms
电流设定范围 CURR RG	0.00~6.00KA	0.00~3.00KA	0.00 ~ 2.00KA
电压设定范围 VOLT RG		0.00~9.99V	
功率设定范围 POWER RG		00.0~99.9KW	
电流上下限范围 CURR STG RG		0.00 ~ 9.99KA	
电压上下限范围 VOLT STG RG		0.00 ~ 9.99V	
功率上下限范围 POWER STG RG		00.0~99.9KW	
电阻上下限范围 RESISTANCE STG RG		00.0~9.99mΩ	
外围尺寸 EX. SIZE	205(W)X310(H)X446(D)	205(W)X310(H)X368(D)	
总重量 GW	24千克 (kg)	18千克 (kg)	16千克 (kg)



### 设备特点 Equipment Features

晶体管式电源焊接电流上升速度非常快，可以在短时间内完成焊接过程，焊接热影响区小，焊接过程无飞溅，最适合于超精密焊接，例如细线、扣式电池连接片、继电器的小触点和金属箔。

The welding current of transistor power supply rises very fast and can complete the welding process in a short time. The welding heat affected zone is small and there is no spatter in the welding process. It is most suitable for ultra precision welding, such as thin wire, button battery connector, small contact of relay and metal foil

### 产品特点 PRODUCT FEATURSE:

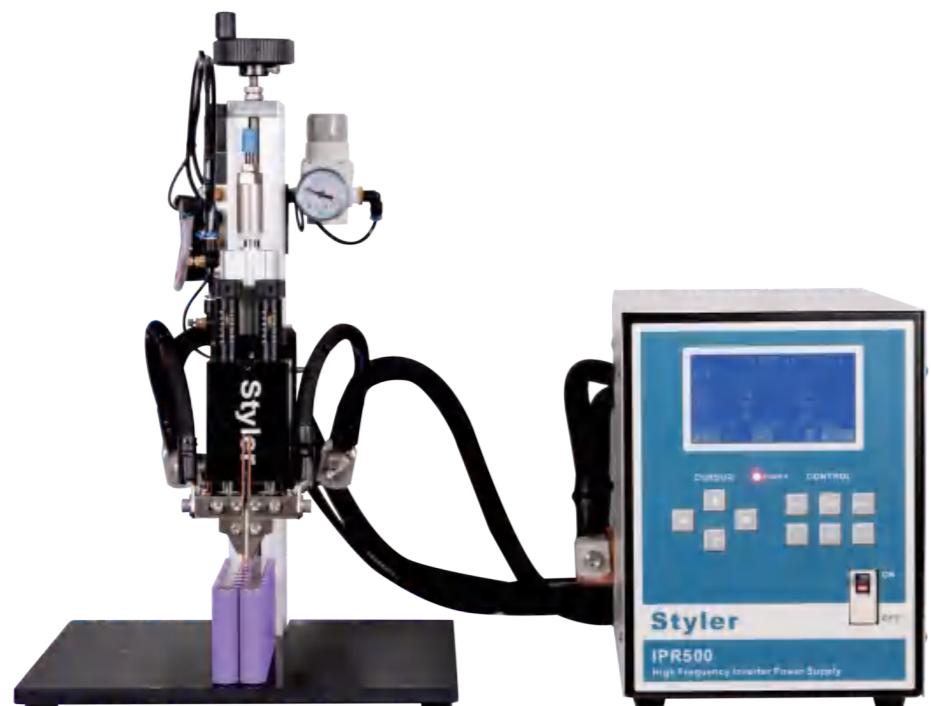
- ◎ 五种控制方式：定电流、定电压、定电流和定电压组合、定功率、定电流和定功率组合模式。
- ◎ 大液晶显示画面，可显示焊接电流、功率及电极间电压，还可以显示接触电阻
- ◎ 内置检测机能：在正式通电之前可以有检测电流对工件的有无、以及工件的状态进行确认。
- ◎ 可实现一台电源两个焊接头同时工作。
- ◎ 可通过RS-485串口输出实际焊接参数。
- ◎ 可通过外部端口，实现32组能量任意切换。
- ◎ 输入输出信号齐全，可与自动化高度配合使用。
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- ◎ Large LCD screen, which can display welding current, power and voltage between electrodes, as well as contact resistance.
- ◎ Built-in detection function: before the formal power-on, a detection current can be used to confirm the presence of the workpiece and the status of the workpiece.
- ◎ A power source and two welding heads can work at the same time.
- ◎ The actual welding parameters can be output through the RS-485 serial port.
- ◎ Can switch 32 groups of energy arbitrarily through external ports.
- ◎ Complete input and output signal, which can be used in conjunction with a high degree of automation.
- ◎ Can <sup>PACKING SIZE</sup> modify and call parameters through Modbus RTU protocol.

### PDC5000C/PDC3000C/PDC2000C 双通道



### 设备参数 Device parameters

型号 MODEL	PDC5000C	PDC3000C	PDC2000C
最大电流 MAX CURR	6000A	3000A	2000A
形式 TYPE	双通道 DC	双通道 DC	双通道 DC
最大消耗功率 MAX POWER	800W	500W	300W
最高电压 MAX VOLT	30V		
输入电流 INPUT	单相100~120VAC或单相200~240VAC 50/60Hz single phase 100~120VAC or single phase 200~240VAC 50/60Hz		
控制方式 CONTROLS	1、定电流控制 2、定电压控制 3、定电流和定电压组合控制 4、定功率 5、定电流和定功率组合 1.const curr;2.const volt;3.const curr and volt combination;4.const power;5.const curr and power combination		
时间设定 TIME SETTINGS	预压时间: 0000~2999ms pressure contact time: 0000~2999ms	预压时间: 0000~2999ms pressure contact time: 0000~2999ms	预压时间: 0000~2999ms pressure contact time: 0000~2999ms
电流设定范围 CURR RG	0.00~6.00KA	0.00~3.00KA	0.00 ~ 2.00KA
电压设定范围 VOLT RG		0.00~9.99V	
功率设定范围 POWER RG		00.0~99.9KW	
电流上下限范围 CURR STG RG		0.00 ~ 9.99KA	
电压上下限范围 VOLT STG RG		0.00 ~ 9.99V	
功率上下限范围 POWER STG RG		00.0~99.9KW	
电阻上下限范围 RESISTANCE STG RG		00.0~9.99mΩ	
外围尺寸 EX. SIZE	205(W)X310(H)X446(D)	205(W)X310(H)X368(D)	
总重量 GW	24千克 (kg)	18千克 (kg)	16千克 (kg)



## 设备特点 Equipment Features

- ◎ 采用4种控制方式：定电流控制、定脉宽控制、定电压控制、定功率控制，保证焊接过程的多样化；
- ◎ 双脉冲焊接独特而优异的特性能提供更优良的焊接质量脉冲，采用不同能量对焊接物体连续两次放电；
- ◎ 第一脉冲清除焊料表面脏物，并使电极更好地对准基面，第二脉冲焊接基料，因而焊接牢固、美观，飞溅物少，操作安全；
- ◎ 采用精确的数字控制，能预存32组参数，并可随意更改、调用：彩屏LCD可以方便显示各焊接参数和曲线。
- ◎ 放电时间可精确控制，使焊点更牢固，更美观；焊接调节时间最小分度为1ms，让精度更加的精确
- ◎ 焊接电流的上升速度快，焊接时间长。最适合于精密焊接，长时间加热焊接。
- ◎ Four control methods are adopted: constant current control, constant pulse width control, constant voltage control, and constant power control to ensure the diversification of the welding process;
- ◎ The unique and excellent characteristics of dual pulse welding provide better welding quality pulses, using different energies to continuously discharge the welded object twice;
- ◎ The first pulse removes the dirt on the surface of the solder and makes the electrode better align with the base surface, and the second pulse welds the base material, so the welding is firm and beautiful, with less spatter and safe operation;
- ◎ Using precise digital control, 32 groups of parameters can be stored in advance, and can be changed and called at will: The color LCD can easily display various welding parameters and curves.
- ◎ The discharge time can be accurately controlled, making the solder joints more firm and beautiful; The minimum division of welding adjustment time is 1ms, making accuracy more accurate
- ◎ The rising speed of welding current is fast, and the welding time is long. Most suitable for precision welding, long-term heating welding.



## 设备参数 Device parameters

型号 MODEL	IPR100	IPR200	IPR300	IPR500
电气参数 ELECTRICAL PARAMETERS	最大电流: 1500A max curr: 1500A	最大电流: 2500A max curr: 2500A	最大电流: 3500A max curr: 3500A	最大电流: 5000A max curr: 5000A
输入电源: 三相电380VCA (50/60Hz) 或者单相220VAC (50/60Hz) input: 3 phase 380VAC 50/60Hz single phase 220VAC 50/60Hz				
变压器额定容量 RATED CAPACITY OF TRANSFORMER	2.5KVA	5.5KVA	7.5KVA	15KVA
1、定电流控制 2、定脉宽控制 3、定电压控制 4、定功率控制 1. Constant current control 2. Constant pulse width control 3. Constant voltage control 4. Constant power control				
控制方式 CONTROLS	预压时间设定: 0000~9999ms pressure contact time: 0000~9999ms			
时间设定 TIME SETTING	加热1、加热2时间 : 000~999ms Heating 1, heating 2, time: 000-999ms			
电流设定范围 CURRENT SETTING RANGE	冷却时间: 000~999ms Cooling time: 000-999ms			
脉宽设定范围 PULSE WIDTH SETTING RANGE	保压时间: 000~999ms Holding time : 000-999ms			
电压设定范围 VOLTAGE SETTING RANGE	电流: 0000~1500A curr:0000~1500A	电流: 0000~2500A curr:0000~2500A	电流: 0000~3500A curr:0000~3500A	电流: 0000~5000A curr:0000~5000A
功率设定范围 POWER SETTING RANGE	0.00~99.9%			
监控电流上下限设定 MONITORING CURRENT UPPER AND LOWER LIMIT SETTING	0.00~99.9KW			
监控电压上下限设定 MONITORING VOLTAGE UPPER AND LOWER LIMIT SETTING	0.00~9.99KA			
监控功率上下限设定 MONITORING POWER UPPER AND LOWER LIMIT SETTING	0.00~9.99V			
监控电阻上下限设定 MONITORING RESISTANCE UPPER AND LOWER LIMIT SETTING	0.00~99.9KW			
监控显示 MONITORING DISPLAY	0.00~9.99mΩ			
外围尺寸 EX. SIZE	通电 1、2 (电流、电压、功率、电阻平均值) Power on 1 and 2 (average value of current, voltage, power, resistance)			
包装尺寸 PACKING SIZE	236(W)X429(D)X293(H)毫米/mm			
总重量 GW	280(W)X530(D)X340(H)毫米/mm			
	18千克 (kg)			
	19千克 (kg)			
	23千克 (kg)			



### 设备特点 Equipment Features

- ◎ 采用初级定电流方式，焊接电流上升 的速度快。
- ◎ 4KHz的高速控制速度。
- ◎ 可储存50种接焊规范，对应不同的焊接工件。
- ◎ 能减少焊接飞溅，实现更整洁更美观的焊接。
- ◎ 高可靠性及高效率。
- ◎ The primary constant current mode is adopted, and the welding current rises quickly
- ◎ High speed control speed of 4kHz
- ◎ Store 50 kinds of welding specifications, corresponding to different welding workpieces.
- ◎ Reduce welding spatter and achieve cleaner and more beautiful appearance
- ◎ High reliability and high efficiency

### 设备参数 Device parameters

型号 MODEL	IPR450
电气参数 ELECTRICAL PARAMETERS	最大电流: 5000A max curr: 5000A 空载电压: 10.2V no-load volt: 10.2V 载入电源: 3相340~420VAC 50/60HZ input: 3 phase 340~420VAC 50/60Hz 变压器额定容量: 15KVA transformer rated capacity:15KVA 初级定流控制 primarily constant current 上升1、上升2 : 00~49ms rising 1, rising 2: 00~49ms 焊接1的时间:00~99ms、焊接2的时间:000~299ms welding time 1: 00~99ms;welding time 2: 000~299ms 热量1、热量2 : 800~5000A heat qty 1,heat qty 2:800~5000A 电流监测 (峰值) 从0%到49%的上、下限设定 detected peak curr value:0%-49%
控制方式 CONTROLS	预压时间设定: 000~999x10ms pressure contact time:000~999x10ms 焊头冷却时间设定: 00~99ms welding pole cooling time:00~99ms 焊后保持时间设定: 000~999ms holding time after welding:000~999ms
控制精度 CONTROL ACCURACY	空冷 AC
时间设定 TIME SETTING	215(W)X431(D)X274(H)毫米 /mm
冷却方式 COOLING METHOD	280(W)X530(D)X340(H)毫米 /mm
外围尺寸 EX. SIZE	23千克 (kg)
包装尺寸 PACKING SIZE	
总重量 GW	



### 设备参数 Device parameters

型号 MODEL	IPR850
最大输出电流 MAX Curr	8500A
变压额定电流 TRANSFORMER RATED Curr	25KVA
输入电流 INPUT Curr	3相340~420VAC 50/60Hz 3 phase 340~420VAC 50/60Hz
控制方式 CONTROLS	初级定电流控制、定电压控制和混合控制 Primary constant current control, constant voltage control and hybrid control
电流设定范围 CURR RG	800~8500A
脉宽设定范围 PULSE WIDTH SETTING RANGE	00.0%~99.9%
时间设定 TIME SETTING	焊接1的时间: 00~99ms、焊接2的时间: 000~299ms welding time 1: 00~99ms;welding time 2: 000~299ms
电流监测 CURRENT MONITORING	从0000到9999的上、下限设定 Upper and lower limit setting from 0000 to 9999
外围尺寸 EX. SIZE	215(W)X431(D)X274(H)毫米 /mm

### 设备特点 Equipment Features

- ◎ 采用初级定电流、定电压和混合控制方式，保证焊接过程的多样化。
- ◎ 4KHz的高速控制速度。
- ◎ 可储存50种接焊规范，对应不同的焊接工件。
- ◎ 能减少焊接飞溅，实现更整洁更美观的焊接。
- ◎ 高可靠性及高效率。
- ◎ Primary constant current, constant voltage and hybrid control mode are adopted to ensure the diversification of welding process
- ◎ High speed control speed of 4kHz
- ◎ Store 50 kinds of welding specifications, corresponding to different welding workpieces.
- ◎ Reduce welding spatter and achieve cleaner and more beautiful appearance
- ◎ High reliability and high efficiency



## 设备特点 Equipment Features

- ◎ 采用初级定电流、定电压和混合控制方式，保证焊接过程的多样化。
- ◎ 4KHz的高速控制速度。
- ◎ 可储存50种接焊规范，对应不同的焊接工件。
- ◎ 能减少焊接飞溅，实现更整洁更美观的焊接。
- ◎ 高可靠性及高效率。
- ◎ Primary constant current control, constant voltage control, mixed control, ensuring the diversity of welding.
- ◎ High control rate: 4KHz.
- ◎ Up to 50 stored welding patterns memory, handling different workpiece.
- ◎ Less welding spray for a clean and fine welding result.
- ◎ High reliability and high efficiency.

## IPV100 / IPV200 /IPV300 /IPV500



## 设备参数 Device parameters

型号 MODEL	IPV100	IPV200	IPV300	IPV500
电气参数 ELECTRICAL PARAMETERS	最大电流: 1500A max curr: 1500A	最大电流: 2500A max curr: 2500A	最大电流: 3500A max curr: 3500A	最大电流: 5000A max curr: 5000A
变压器额定容量 RATED CAPACITY OF TRANSFORMER	空载电压: 7.2V no-load volt: 7.2V	空载电压: 8.5V no-load volt: 8.5V	空载电压: 9.2V no-load volt: 9.2V	空载电压: 10V no-load volt: 10V
输入电源: 3相340~420VAC 50/60Hz input: 3 phase 340~420VAC 50/60Hz				
控制方式 CONTROLS	3.5KVA	5.5KVA	8.5KVA	15KVA
控制精度 CONTROL ACCURACY	初级定电流控制、定电压控制和混合控制 primarily const. curr, const. volt, mixed contro			
时间设定 TIME SETTING	电压: 00.0%~99.9% volt:00.0%~99.9%	电流: 200~1500A curr:200~1500A	电流: 400~2500A curr:400~2500A	电流: 400~3500A curr:400~3500A
冷却方式 COOLING METHOD	缓升1、缓升2 : 00~49ms slow rising 1, slow rising 2: 00~49ms			
外围尺寸 EX. SIZE	焊接1的时间: 00~99ms、焊接2的时间: 000~299ms welding time 1:00~99ms;welding time 2:000~299ms			
包装尺寸 PACKING SIZE	缓降1、缓降2 : 00~49ms slow down time 1; slow down time 2:00~49ms			
总重量 GW	电流监测 (峰值) 从0000到8000的上、下限设定 detected peak curr value: 0-8000			
	预压时间设定: 0000~9999ms pressure contact time: 0000-9999ms			
	焊头冷却时间设定: 000~999ms welding pole cooling time: 000-999ms			
	焊后保持时间设定: 000~999 ms holding time after welding: 000-999ms			
	空冷 AC			
	215(W)X431(D)X274(H)毫米/mm			
	280(W)X530(D)X340(H)毫米/mm			
	17千克 (kg)			
	23千克 (kg)			

**AH-06S**



**AH-06**



### 设备特点 Equipment Features

- ◎ 刚性好，工作中产生扭曲变形小、稳定性好；
- ◎ 压力追随性好，适合于焊接较厚的极片或工件；
- ◎ 内置压力开关与焊接控制器相连，可保证在相同压力下焊接；
- ◎ 焊头速度可微调，气缸行程可调（可选）。
- ◎ 双针压力独立可调，可针对要求双针采用不同压力时的焊接，焊接速度快，效果佳。
- ◎ Good rigidity, small distortion and good stability
- ◎ Good pressure following, suitable for welding thick pole pieces or workpieces
- ◎ The built-in pressure switch is connected with the welding controller to ensure welding under the same pressure;
- ◎ The welding head speed can be adjusted slightly, and the cylinder stroke can be adjusted (optional)
- ◎ The double needle pressure is independently adjustable, which can be welded under different pressure according to the requirements. The welding speed is fast and the effect is good

### 精密焊头设计 PRECISE WELDING HEAD DESIGN

加强的立柱和台板保证焊头的刚性和稳定性。较低的惯性保证的灵活性，从而保证了焊接时压力的快速追随，使焊接更牢固，焊点更美观。机头内部的压力感应控制系统，随时检测焊针是否压紧工作，并在设定的压力下放电焊接，保证了焊接的可靠性，使焊接速度明显加快，提高了生产效率。电极与焊件间压力通过压力调节柄可调，针对不同的焊片，调节不同的焊接压力。机头侧边的机头动作速度调节阀，使电极动作平缓，降低对焊接面的冲压，减小压痕，飞溅物更少，使焊接更牢固，焊点更美观。

The reinforced post and baseboard guarantee the rigidity and stability of the welding pole. Lower inertia makes the welding pole more flexible. This feature ensure the pressure keeping constant rapidly. The welding spot is more secure and fine. There is a built-in pressure sensor in the welding head to detect if the welding pole compress the workpiece tightly. When the pressure that the welding pole apply to the workpiece reach the set value, the welding operation begin. This increase the welding speed. The pressure is produced from the air cylinder and the spring, which can be adjusted according to different workpiece. The moving speed of the welding head is also easily adjustable to ensure lower the impacting force, the lighter indentation, less welding spray, more firm welding, and better surface of the welding spot.

弹簧加压电极与焊件间压力，可通过压力调节柄调压与驱动气缸限位方式，保证焊接时压力不变。针对不同的焊片，调节不同的焊接压力。气缸加压电极与焊件间压力，可使压力在任务位置和时刻保持相同，机头侧边的机头动作速度调节阀，使电极动作平缓，降低对焊接面的冲压，减小压痕，飞溅物更少，使焊接更牢固，焊点更美观。

The pressure between the spring-loaded electrode and the weldment can be adjusted by the pressure regulating handle and the limit of the driving cylinder to ensure that the pressure remains unchanged during welding. Adjust different welding pressure for different welding pads. The cylinder pressurizes the pressure between the electrode and the weldment, which can keep the same pressure at any position and at any time. The head action speed regulating valve on the side of the head can make the electrode move smoothly, reduce the stamping of the butt welding surface, reduce the indentation and reduce the spatter, so as to make the welding more firm and the solder joint more beautiful.

### 独特结构 UNIQUE STRUCTURE

立体式电极调节，使焊针的调节更方便；工作台无级升降，手拧式锁紧，使调整工件位置更方便。

气动操作，配以快速接头可方便更换操作位置，更适合于生产线上的频密调动，也更方便机器的安装调试和保养。

Three dimensional electrode adjustment makes the adjustment of welding needle more convenient; Stepless lifting of worktable and hand screw locking make it more convenient to adjust the position of workpiece.  
Pneumatic operation

Pneumatic operation, equipped with quick connectors, is convenient to change the operation position, more suitable for the frequency and density adjustment of the production line, and more convenient for the installation, commissioning and maintenance of the machine.

### 技术参数 SPECIFICATIONS

型号 MODEL	AH-06S	AH-06
电极行程 (mm) WELDING POLE STROKE(mm)	20	25
加压范围 (N) PRESSURE RANGE(N)	10-60	10-40(15~65)
焊针加压方式 PRESSURE METHOD	弹簧 (粗, 细, 标准) spring(small, big, standard)	弹簧 (粗, 细, 标准) spring(small, big, standard)
电极至机体距离 (mm) DISTANCE P TO M (MM)	145	120
工作空间高度 (mm) OPERATION SPACE HEIGHT(mm)	0~200	10~230
电极直径 (mm) DIA OF WELDING POLE(MM)	3.0/6.0	1.5/3.0/6.0
焊臂结构 STRUCTURE	伸缩摆动控制 stretch out and draw back, swing	滑动旋转 glide,rotate
外圈尺寸 (mm) EX. SIZE(MM)	270X160X420	370X170X420
总重量 (Kg) G.W.(KG)	11	12



**AHP-06**

## 设备特点 Equipment Features

- ◎ 刚性好，工作中产生扭曲变形小、稳定性好；
- ◎ 压力追随性好，适合于焊接较厚的极片或工件；
- ◎ 内置压力传感器，可设定放电压力范围，保证在相同压力下焊接。
- ◎ 焊头速度可微调，气缸行程可调（可选）。
- ◎ 双针压力可独立调节，并且可独立显示压力值，同时可在牛顿，克，与千克之间切换单位。
- ◎ 支持MODBUS通信协议，可通过上位机显示压力值，也可通过上位机修改压力范围。
- ◎ Good rigidity, small distortion and good stability
- ◎ Good pressure following, suitable for welding thick pole pieces or workpieces
- ◎ The built-in pressure sensor can set the discharge pressure range to ensure welding under the same pressure
- ◎ The welding head speed can be adjusted slightly, and the cylinder stroke can be adjusted (optional)
- ◎ The double needle pressure can be adjusted independently, and the pressure value can be displayed independently. At the same time, the unit can be switched between Newton, gram and kilogram
- ◎ Modbus communication protocol is supported. The pressure value can be displayed through the upper computer, and the pressure range can be modified through the upper computer

## 精密焊头设计 PRECISE WELDING HEAD DESIGN

加强的立柱和台板保证焊头的刚性和稳定性。较低的惯性保证的灵活性，从而保证了焊接时压力的快速追随，使焊接更牢固，焊点更美观。机头内部的压力感应控制系统，随时检测焊针是否压紧工作，并在设定的压力下放电焊接，保证了焊接的可靠性，使焊接速度明显加快，提高了生产效率。电极与焊件间压力通过压力调节柄可调，针对不同的焊片，调节不同的焊接压力。机头侧边的机头动作速度调节阀，使电极动作平缓，降低对焊接面的冲压，减小压痕，飞溅物更少，使焊接更牢固，焊点更美观。

The reinforced post and baseboard guarantee the rigidity and stability of the welding pole. Lower inertia makes the welding pole more flexible. This feature ensure the pressure keeping constant rapidly. The welding spot is more secure and fine. There is a built-in pressure sensor in the welding head to detect if the welding pole compress the workpiece tightly. When the pressure that the welding pole apply to the workpiece reach the set value, the welding operation begin. This increase the welding speed. The pressure is produced from the air cylinder and the spring, which can be adjusted according to different workpiece. The moving speed of the welding head is also easily adjustable to ensure lower the impacting force, the lighter indentation, less welding spray, more firm welding, and better surface of the welding spot.

弹簧加压电极与焊件间压力，可通过压力调节柄调压与驱动气缸限位方式，保证焊接时压力不变。针对不同的焊片，调节不同的焊接压力。气缸加压电极与焊件间压力，可使压力在任务位置和时刻保持相同，机头侧边的机头动作速度调节阀，使电极动作平缓，降低对焊接面的冲压，减小压痕，飞溅物更少，使焊接更牢固，焊点更美观。

The pressure between the spring-loaded electrode and the weldment can be adjusted by the pressure regulating handle and the limit of the driving cylinder to ensure that the pressure remains unchanged during welding. Adjust different welding pressure for different welding pads. The cylinder pressurizes the pressure between the electrode and the weldment, which can keep the same pressure at any position and at any time. The head action speed regulating valve on the side of the head can make the electrode move smoothly, reduce the stamping of the butt welding surface, reduce the indentation and reduce the spatter, so as to make the welding more firm and the solder joint more beautiful.

可通过面板按键或上位机软件修改放电压力区间，配合焊机一起使用，可保证只在设定压力范围内焊接，以解决因外在因素导致压力不稳定而出现的焊接不良；进一步提升焊接的稳定性，一致性和可靠性。

The discharge pressure range can be modified through panel keys or upper computer software, which can be used together with the welding machine to ensure that the welding is only within the set pressure range, so as to solve the poor welding caused by unstable pressure caused by external factors; Further improve the stability, consistency and reliability of welding

## 独特结构 UNIQUE STRUCTURE

立体式电极调节，使焊针的调节更方便；工作台无级升降，手拧式锁紧，使调整工件位置更方便。  
气动操作，配以快速接头可方便更换操作位置，更适合于生产线上的频密调动，也更方便机器的安装调试和保养。

Three dimensional electrode adjustment makes the adjustment of welding needle more convenient; Stepless lifting of worktable and hand screw locking make it more convenient to adjust the position of workpiece.

Pneumatic operation, equipped with quick connectors, is convenient to change the operation position, more suitable for the frequency and density adjustment of the production line, and more convenient for the installation, commissioning and maintenance of the machine.

## 技术参数 SPECIFICATIONS

型号 MODEL	AHP-06S	AHP-06
电极行程 (mm) WELDING POLE STROKE(mm)	20	25
加压范围 (N) PRESSURE RANGE(N)	10-60	10-40(15~65)
焊针加压方式 PRESSURE METHOD	弹簧 (粗, 细, 标准) spring(small, big, standard)	弹簧 (粗, 细, 标准) spring(small, big, standard)
电极至机体距离 (mm) DISTANCE P TO M (MM)	145	120
工作空间高度 (mm) OPERATION SPACE HEIGHT(mm)	0~200	10~230
电极直径 (mm) DIA OF WELDING POLE(MM)	3.0/6.0	1.5/3.0/6.0
焊臂结构 STRUCTURE	伸缩摆动控制 stretch out and draw back, swing	滑动旋转 glide,rotate
外围尺寸 (mm) EX. SIZE(MM)	270X160X420	370X170X420
总重量 (Kg) G.W.(KG)	11	12

## 双头卧式自动点焊设备

DUO-HEADED AUTOMATIC WELDING MACHINE



设备特点 Equipment Features

- ◎ 是一款专为焊接方向一致，为提供效率而采用双面同时焊接而开发的自动化设备；
  - ◎ 能容纳的电池包最大尺寸为600X400mm的60-70mm高度的电池包；
  - ◎ 设备采用焊针补偿、左右独立八组能量切换，焊针修复、焊针打磨报警、左右错时焊接或非对称焊接等功能确保焊接稳定；
  - ◎ 设备采用电磁铁吸附、物料到位检测、气缸压紧、伺服控制等措施提高焊接位置的精度；
  - ◎ 设备通过可快速切换90°焊接方向的夹头，快速切换焊接方向不一致的产品；
  - ◎ 设备通过操作手柄、CAD导图、多重阵列计算、U盘共享数据、局部操作、触摸屏旋转、Z轴前后移动、断点虚焊、自动检测物料启动等措施实现傻瓜式操作；
  - ◎ 设备带有锁屏功能防止误操作。
  - ◎ 压料轴采用电机与丝杆驱动，使更换产品更加方便，操作更人性化。
- ◎ This full-automatic machine is designated for welding in a consistent direction. Its double-sided simultaneous welding design improves the work efficiency without the necessity to make sacrifice on the performance.
- ◎ Max. compatible battery pack dimension: 600 x 400mm, with height between 60-70mm.
- ◎ Automatic Needle Compensation: left and right sides consist of 4 detection switches, 8 in total, to detect the positions and control the needles. Needle repair; Needle grinding alarm; Staggered Welding Function
- ◎ Electromagnet device, battery pack detector, cylinder compression device, and service control system, etc, are installed to ensure battery pack is placed in right position and improve the welding accuracy.
- ◎ A speedy 90-degree rotatable chuck is installed to move the battery pack with inconsistent direction welding spot
- ◎ The operating handles, CAD maps, multiple array calculations, portable driver insert port, partial area control, switchable screen, Z-axis forward & backward movement, break-point virtual welding, battery pack detection & go features make the machine more user-friendly
- ◎ Complete function, fit for mass welding production.
- ◎ The pressing shaft is driven by a motor and a screw rod, which makes the replacement of products more convenient and the operation more user-friendly.

## 七轴自动化设备

7 AXIS AUTOMATIC WELDING MACHINE



设备特点 Equipment Features

- ◎ 是一款专为焊接方向不一致，为提高效率而采用双工位焊接而开发的自动化设备；
  - ◎ 能容纳的电池包最大尺寸为160 X 125 mm的60-70mm高度的电池包；
  - ◎ 设备采用焊针补偿、八组能量切换，焊针修复、焊针打磨报警、等功能确保焊接稳定；
  - ◎ 设备采用物料到位检测、定位销定位、伺服控制等措施提高焊接位置的精度；
  - ◎ 设备采用治具旋转机构，实现异形电池包焊机方向不一致的电池包焊接；
  - ◎ 设备采用采用自动翻转，双工位模式来提高生产效率；
  - ◎ 设备通过操作手柄、CAD号图、多重阵列计算、U盘共京数据、局部操作.听点康焊等措施实现傻瓜式操作；
  - ◎ 设备带有锁屏功能防止误操作。
- ◎ This full-automatic machine is designated for welding in a consistent direction. Its double-sided simultaneous welding design improves the work efficiency without the necessity to make sacrifice on the performance
- ◎ Max. compatible battery pack dimension: 160 x 125mm, with height between 60-70mm.
- ◎ Automatic Needle Compensation: consist of 4 detection switches to detect the positions and control the needles. Needle repair; Needle grinding alarm
- ◎ Battery pack detector, locating nickel, and service control system are installed to ensure battery pack is placed in right position and increase the welding accuracy.
- ◎ Rotatable jig structure to proceed welding on battery pack in different shapes, or welding spot in different area.
- ◎ Automatic rotatable, dual welding position mode.
- ◎ The operating handles, CAD maps, multiple array calculations, portable driver insert port, partial area control, and break-point virtual welding features make the machine more user-friendly.
- ◎ Lock feature to prevent misoperation.



### 设备特点 Equipment Features

- ◎ 是一款专为焊接方向一致，电池包尺寸大开发的自动化设备；
- ◎ 能容纳的电池包最大尺寸为480 X 480 mm的50-150mm高度的电池包；
- ◎ 设备采用焊针补偿、十六组能量切换，焊针修复、焊针打磨报警等功能确保焊接稳定；
- ◎ 设备采用物料到位检测、气缸压紧、伺服控制等措施提高焊接位置的精度；
- ◎ 设备通过可快速切换90°焊接方向的夹头，快速切换焊接方向不一致的产品；
- ◎ 设备通过操作手柄、CAD导图、多重阵列计算、U盘共享数据、局部操作、断点虚焊等措施实现傻瓜式操作；
- ◎ 设备带有锁屏功能防止误操作。
- ◎ This full-automatic machine is designated for welding in a consistent direction with large size battery pack.
- ◎ Max. compatible battery pack dimension: 480 x 480mm, with height between 50-150mm.
- ◎ Automatic Needle Compensation: 16 detection switches. Needle repair; Needle grinding alarm
- ◎ Battery pack detector, cylinder compression device, and service control system, etc, are installed to ensure battery pack is placed in right position and increase the welding accuracy.
- ◎ A speedy 90-degree rotatable chuck is installed to move the battery pack with inconsistent direction welding spot.
- ◎ The operating handles, CAD maps, multiple array calculations, portable driver insert port, partial area control, and break-point virtual welding features make the machine more user-friendly.
- ◎ Complete function, fit for mass welding production.



### 设备特点 Equipment Features

- ◎ 是一款专为焊接方向一致，为提供效率而采用双面同时焊接而开发的自动化设备；
- ◎ 能容纳的电池包最大尺寸为600X400mm的60-70mm高度的电池包；
- ◎ 设备采用焊针补偿、左右独立四组能量切换，焊针修复、焊针打磨报警、左右错时焊接或非对称焊接等功能确保焊接稳定；
- ◎ 设备采用电磁铁吸附、物料到位检测、气缸压紧、伺服控制等措施提高焊接位置的精度；
- ◎ 设备通过可快速切换90°焊接方向的夹头，快速切换焊接方向不一致的产品；
- ◎ 设备通过操作手柄、CAD导图、多重阵列计算、U盘共享数据、局部操作、触摸屏旋转、Z轴前后移动、断点虚焊、自动检测物料启动等措施实现傻瓜式操作；
- ◎ 设备采用工控机与运动控制卡协同工作，使接口更加丰富，扩展更加便捷；
- ◎ 设备可通过扫描枪获取电池包编号，通过串口实时接收焊接参数，并把可焊接实际参数本地或远程保存；
- ◎ 可实现与MES系统对接
- ◎ This full-automatic machine is designated for welding in a consistent direction. Its double-sided simultaneous welding design improves the work efficiency without the necessity to make sacrifice on the performance.
- ◎ Max. compatible battery pack dimension: 600 x 400mm, with height between 60-70mm.
- ◎ Automatic Needle Compensation: left and right sides consist of 4 detection switches, 8 in total, to detect the positions and control the needles. Needle repair ; Needle grinding alarm; Staggered Welding Function
- ◎ Electromagnet device, battery pack detector, cylinder compression device, and service control system, etc, are installed to ensure battery pack is placed in right position and improve the welding accuracy
- ◎ A speedy 90-degree rotatable chuck is installed to move the battery pack with inconsistent direction welding spot.
- ◎ The operating handles, CAD maps, multiple array calculations, portable driver insert port, partial area control, and break-point virtual welding features make the machine more user-friendly.
- ◎ IPC works along with the motion control card to improve the needle movement and welding performance.
- ◎ The attached scanner could read the battery pack number and retrieve the welding parameter, at the same time, capable to save the data locally or by cloud.
- Compatible with EMS system



### 设备功能 Equipment Functions

- ◎ 电压内阻测试
- ◎ 10档位分选
- ◎ 分选效率: ≥4200个/小时
- ◎ Voltage internal resistance test
- ◎ 10 gear selection
- ◎ Sorting efficiency: ≥ 4200 pieces/hour

### 设备特点 Equipment Features

- ◎ 上料方式: 手工装电池到上料斗
- ◎ 收料方式: 10档手工收料
- ◎ 测试工位: 1次测试1个电池
- ◎ 分选方式: 步进电机一次一格移载电池, 气缸推电池到收料档位
- ◎ 分选系统: 信捷PLC+15寸触摸屏
- ◎ Loading method: manually load the battery into the loading hopper
- ◎ Material receiving method: 10-level manual material receiving
- ◎ Test station: test one battery at a time
- ◎ Sorting method: The stepper motor moves the battery one grid at a time, and the air cylinder pushes the battery to the receiving gear
- ◎ Sorting system: Xinje PLC+15 inch touch screen

### 设备参数 Device parameters

工作电压 WORKING VOLTAGE	AC 220V±10%/50Hz, 功率(power): ≤1.5 KW
工作气源 WORKING GAS SOURCE	0.5~0.7 Mpa (干燥气体 dry gas)
分选效率 SORTING EFFICIENCY	70PPM
适应电池规格 APPLICABLE BATTERY SPECIFICATION	18650成品电芯 18650 finished battery cell
设备重量 EQUIPMENT WEIGHT	300kg
设备合格率 EQUIPMENT QUALIFICATION RATE	≥99.5%
设备稼动率 EQUIPMENT UTILIZATION RATE	≥98%
外形尺寸 OVERALL DIMENSION	1500 (长length) ×900 (宽wide) ×1600 (高height) mm
分选机框架材料 SORTER FRAME MATERIAL	优质厚冷轧板, 铝型材制作 high-quality thick cold-rolled plate, made of aluminum
分选参数 SORTING PARAMETERS	开路电压、交流内阻 open circuit voltage, AC internal resistance
测试精度 TEST ACCURACY	和普HK3561 精密内阻测试仪 Hepu HK3561 precision internal resistance tester
开路电压 OPEN CIRCUIT VOLTAGE	精度 +/- 0.1% rdg, 显示分辨率 0.1毫伏 accuracy +/- 0.1% rdg, display resolution 0.1 mV
交流内阻 AC INTERNAL RESISTANCE	精度 +/- 0.5% rdg, 显示分辨率 0.1毫欧 accuracy +/- 0.5% rdg, display resolution 0.1 milliohm
参数调用 PARAMETER CALL	可以保存并调用多组 (≥20组) 分选参数进行分选 can save and call multiple groups (≥ 20 groups) of sorting parameters for sorting
档位计数 GEAR COUNT	实时显示各档位的电池数量 Displays the number of batteries in each gear in real time
数据存储 DATA STORAGE	分选数据实时保存, 存储时间大于等于半年 sorting data is stored in real time for at least half a year

### 应用样品 Application Samples



18650锂电池

21700锂电池

32700锂电池



### 设备功能 Equipment Functions

- ◎ 此程序可同时控制10个单片机工作。
- ◎ 可设置32个工步参数、可设置最多256个循环，可以先做小电流充放循环，然后再做大电流充放循环，反之也可
- ◎ 可根据指定循环号和工步号的开路电压和指定循环号和工步号的平均电压、容量及到达5个指定特征电压点的时间等多个参数综合选电池
- ◎ 保留每个充放电工步的开路电压、平均电压、终止电压、终止时间、终止容量、终止电量、终止电流等，对于放电工步，还自动计算衰减容量、放电效率、损失比等。
- ◎ 设备不能脱机运行，如果脱机，将自动压缩曲线数据。
- ◎ 各种数据可保存、显示和打印。
- ◎ 电池巡检界面可选择图形显示、显示综合数据、显示分类数据、异常显示等。
- ◎ This program capable controls 10 microprocessor to working
- ◎ Can sets 32 work steps parameters maximum setting 256 cycle can carry out low current charges and discharges cycle then under take high current charges and discharges cycle reverse operation was available
- ◎ Capable under take battery classification according several comprehensive parameters such as open circuit voltage and average voltage of designated cycle no and step no capacitance and time of arrived to 5 designated character voltage point etc
- ◎ Save the open circuit voltage ,average voltage,terminated voltage,terminated time,terminated capacity,terminated electricity volume,terminated current,towards discharges step,return automatic compute attenuation capacity discharges efficiency,loss ratio of each charges and discharges steps
- ◎ Device unable off line to running,if is will compress curve data automatically
- ◎ Various datas can saves shows and print
- Battery conducting inspection interface can select graphic display,shows comprehensive datas,shows classified datas,abnormal displays etc.

### 设备参数 Device parameters

型号 MODEL	MN-3512L	MN-3384L	MN-3256L
点数 CHANNELS	512	384	256
外型尺寸mm 长×高×宽 External dimension (mm)		1600×1840×500	
设备重量 KG	200	180	150
电源 POWER SUPPLY		AC 380 V/50 HZ	
最大功耗(W) MAX DISSIPATION(W)	9000	6800	4500
电压测量范围(V) VOLTAGE MEASURING RANGE(V)		DC 0 ~ 5	
电压分辨率(mV) VOLTAGE RESOLUTION (mV)		1	
电压测量误差 CURRENT MEASUREMENT ERROR		±(0.2RD%+0.1%FS)	
恒压范围(V) CONSTANT VOLTAGE RANGE(V)		DC +3.8 ~ +4.3	
恒流电流范围(A) CONSTANT CURRENT RANGE(A)		DC 0.05 ~ 2.0	
电流分辨率(mA) CURRENT RESOLUTION(mA)		1	
电流测量误差 CURRENT MEASUREMENT ERROR		±(0.2RD%+0.1%FS)	
时间测量范围(min/工步) RANGE OF TIME MEASURING(min/step)	30000		
时间分辨率(s) TIEMS RESOLUTION(S)		1	
时间测量误差 TIMES MEASUREMENT ERROR		±0.1%	

### 应用样品 Application Samples



18650锂电池

21700锂电池

32700锂电池



### 设备参数 Device parameters

型号 MODEL	SPD-90D	SPD-90T	SPD-90	SPD-160	SPD-185	SPD-220	SPD-260	SPD-320
电源容量 RATE CAPACITY	90KVA			160KVA	180KVA	150KVA	200KVA	300KVA
输入电源 INPUT Curr				380V 3Φ 50/60HZ				
负载率 LOAD FACTOR				20%				
工作尺/mm THROAT DIMENSION	180*450*50	180*450*80	180*450*100		250*450*100			
压力 PRESSURE	80kg/cm2		450kg/cm2		750kg/cm2		1000kg/cm2	
外型尺寸/mm OVERALL DIMENSIONS	600*700*850	950*580*1450	1050*650*1500	1050*650*1650	1200*800*1650		1250*800*1850	
冷却水 COOLING WATER		Min.6		Min.8		Min.10		

### 原理简介 Principle introduction

- 中频直流逆变式点焊机的工作原理是把三相交流电源整流为直流电源，经交换器转化为1kHz的中频电源，然后由单相中频变压器为低电压电流经整流二极体输出直流焊接电源
- The working principle of the intermediate frequency DC inverter spot welding machine is to convert the three intersecting power supplies into a DC power supply, which is converted into a 1kHz intermediate frequency power supply through a switch, and then converted from a single-phase intermediate frequency power supply. The transformer is a DC welding power source with low pressure current output through a rectified diode

### 设备功能 Equipment Functions

- 适合焊接：铝及铝合金，铜及铜合金，镀层板，电解板，不锈钢等金属材料
- Suitable for welding: aluminum and aluminum alloy, copper and copper alloy, coated plate, electrolytic plate, stainless steel and other metal materials

### 设备特点 Equipment Features

- 采用以CPU为核心的主控制器，极快的电流反馈速度，保证了电流的稳定可靠；
- 三相电源输入，平衡电网负载，降低峰值电流，功率因素高达0.85以上，在真正意义上省电，降低生产成本；
- 直流输出，焊接回路无阻抗，电极臂长拓展空间大大加强；
- 焊接时无飞溅，不会破坏工件表面，同时极大地提高了电极的使用寿命。
- Adopting a CPU based main controller with extremely fast current feedback speed, ensuring stable and reliable current;
- Three-phase power input, balancing grid load, reducing peak current, with a power factor of over 0.85, truly saving electricity and reducing production costs;
- DC output, no impedance in the welding circuit, greatly enhancing the space for electrode arm length expansion;
- There is no splashing during welding, which will not damage the surface of the workpiece and greatly improve the service life of the electrode.

### 应用样品 Application Samples





### 设备功能 Equipment Functions

- ◎ 适合焊接：焊接通用五金件，特别适合焊接：电解板、镀锌板、中高碳钢等材料。
- ◎ Application scope: Welding genera hardware, especially suitable for welding: electrolytic plate, galvanized plate, medium and high carbon steel materialsect.

### 设备特点 Equipment Features

- ◎ 采用PU为核心的控制电路，三段位放电设计：预热、熔接、退火彻底解决熔核、龟裂及爆火现象、使焊接效果尽善尽美，大大提高产品档次；
- ◎ 三段位放电设计，兼容了单端和二段，可根据被焊件的不同材质来选择放电方式，解决了传统焊接种种不良现象，特别适合镀锌层片，中高碳钢等的焊接；
- ◎ 电压自动补偿功能 ( $\pm 15\%$ )，使电压误差在  $\pm 1\%$  之内，杜绝因电源不稳产生的虚焊现象；
- ◎ 1/1000 热量精度，放电时间由1/2至99周波；
- ◎ 全数字显示及控制，令操作更直观，更惬意，焊接效果更理想、更稳定；
- ◎ 自我检测功能，令您的工作更简单、更轻松；
- ◎ 过热报警功能，令您的工作绝无后顾之忧；
- ◎ 一体式高牢固强度的机架机构，高气压操作时更具有抗冲击及抗震能力，实现焊接位置更精确。
- ◎ Adopting PU as the core control circuit, with a three-stage discharge design: preheating, welding, and annealing completely solve the problems of melting, cracking, and explosion, making the welding effect perfect and greatly improving the product grade;
- ◎ Three stage discharge design, compatible with single end and two stages, can choose the discharge method according to the different materials of the welded parts, solving various adverse phenomena in traditional welding, especially suitable for welding galvanized layers, medium and high carbon steel, etc;
- ◎ The automatic voltage compensation function ( $\pm 15\%$ ) ensures that the voltage error is within  $\pm 1\%$ , eliminating false soldering caused by unstable power supply;
- ◎ 1/1000 thermal accuracy, discharge time from 1/2 to 99 cycles;
- ◎ Full digital display and control make the operation more intuitive and comfortable, and the welding effect is more ideal and stable;
- ◎ Self inspection function makes your work simpler and easier;
- ◎ The overheat alarm function ensures that your work has no worries at all;
- ◎ The integrated high strength rack mechanism has better impact resistance and seismic resistance during high-pressure operation,
- ◎ achieving more accurate welding positions.

### 设备参数 Device parameters

型号 MODEL	SPW-A100KP	SPW-A150KP	SPW-A200KP
电源容量 RATE CAPACITY	100KVA	150KVA	200KVA
输入电源 INPUT CURR	380V 3Φ 50/60HZ		
暂率载 TEMPORARY LOAD	15%		
熔接电流 WELDING CURRENT	27000	30000	33600
熔接能力 WELDING CAPACITY	6+6	6.5+6.5	7+7
工作尺(mm) THROAT DIMENSION	250*450*100		
压力 PRESSURE	750kg/cm2	1000kg/cm2	
外型尺寸(mm) OVERALL DIMENSIONS	1250*800*1850		
冷却水 COOLING WATER	Min.8	Min.10	

### 应用样品 Application Samples





## 设备功能 Equipment Functions

- ◎ 适合焊接：小五金件，及电子零件的焊接
- ◎ Suitable for welding: the welding of small hardware and electronic components

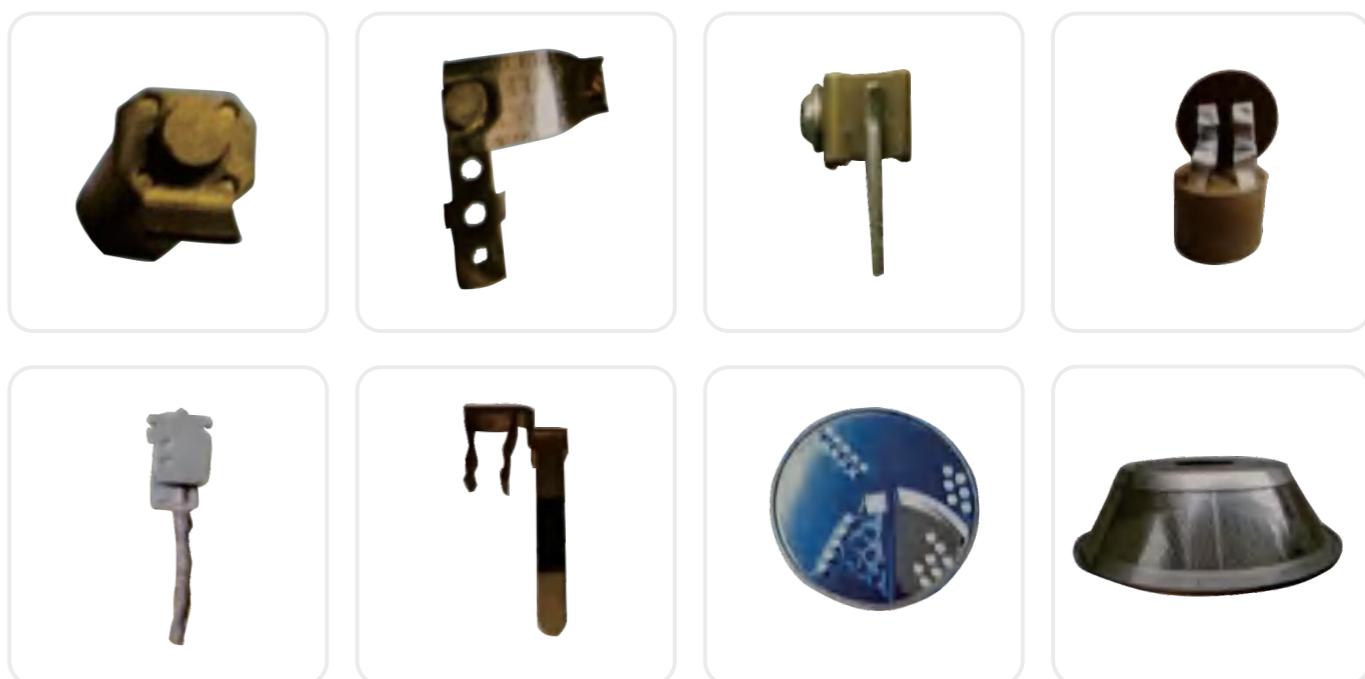
## 设备特点 Equipment Features

- ◎ 采用以CPU为核心的主控制器，充电电压锁定功能，电压精度高；
- ◎ 全数字显示及控制，令操作更直观更惬意，焊接效果更理想、更稳定；
- ◎ 采用日本原装进口急充急放电容，放电时间1/1000秒，充电时间0.8秒，工作效率大大提高，并且比一般焊机节能50%或以上，更适合24小时工作；
- ◎ 瞬间放电，产品完成后不发黄、不发黑，特别适合银、铝、铜等导电率高的有色金属；
- ◎ 高速充、放电稳压电路、每分钟工作可达60次以上，电压误差 $\pm 1V$ ；
- ◎ 进口气动组件1，保证每次压力一致；
- ◎ 具有预压及加压短路保护功能。
- ◎ Using CPU as the core of the main controller, charging voltage locking function, high voltage accuracy;
- ◎ Full digital display and control make the operation more intuitive and comfortable, and the welding effect is more ideal and stable;
- ◎ It adopts the capacitor imported from Japan for quick charge and quick discharge, the discharge time is 1/1000 second, the charging time is 0.8 second, the work efficiency is greatly improved, and the energy saving is 50% or more than that of ordinary welding machines, which is more suitable for 24-hour work;
- ◎ Instantaneous discharge, the product will not turn yellow or black after completion, especially suitable for non-ferrous metals with high conductivity such as silver, aluminum and copper;
- ◎ High-speed charging and discharging voltage stabilizing circuit, can work more than 60 times per minute, and the voltage error is  $\pm 1V$ ;
- ◎ Imported pneumatic components 1 to ensure consistent pressure every time;
- ◎ It has the function of pre-pressure and pressure short-circuit protection.

## 设备参数 Device parameters

型号 MODEL	SCW-2000	SCW-CD-2000	SCW-3000-SP	SCW-3000	SCW-5000	SCW-7000	SCW-10K	SCW-15K	SCW-18K	SCW-20K
工作方式 METHOD	SPOT		SPOT/PROJECTION							
输入 INPUT	380V 2Φ									
功率 POWER	2KVA		3.5KVA		5KVA	7KVA	10KVA	15KVA	18KVA	20KVA
输出 OUTPUT	500WS		1500WS		3000WS	4500WS	6000WS	8000WS	12000WS	15000WS
电容量 CAPACITANCE	4500μF		13500μF		27000μF	40500μF	55500μF	73500μF	108000μF	135000μF
加压压力 MAX PRESSURE	120kg		300kg		500kg	500kg	1000kg	15000kg	20000kg	
行程 STROKE	50mm		80mm		100mm					
外型尺寸(mm) OVERALL DIMENSIONS	70*140		160*450	220*380 (500)			250*430 (700)			
冷却水 COOLING WATER	—		Min.2	Min.3		Min.6		Min.10		

## 应用样品 Application Samples





### 设备功能 Equipment Functions

- ◎ 软包聚合物电池焊接
- ◎ 转镍批量焊接应用
- ◎ 方形铝壳电池连接片焊接应用
- ◎ 汽车配件以及其它五金焊接应用
- ◎ Soft pack polymer battery welding
- ◎ Nickel-to-nickel batch welding applications
- ◎ Welding Application of Connection Pieces for Square Aluminum Shell Batteries
- ◎ Auto parts and other hardware welding applications

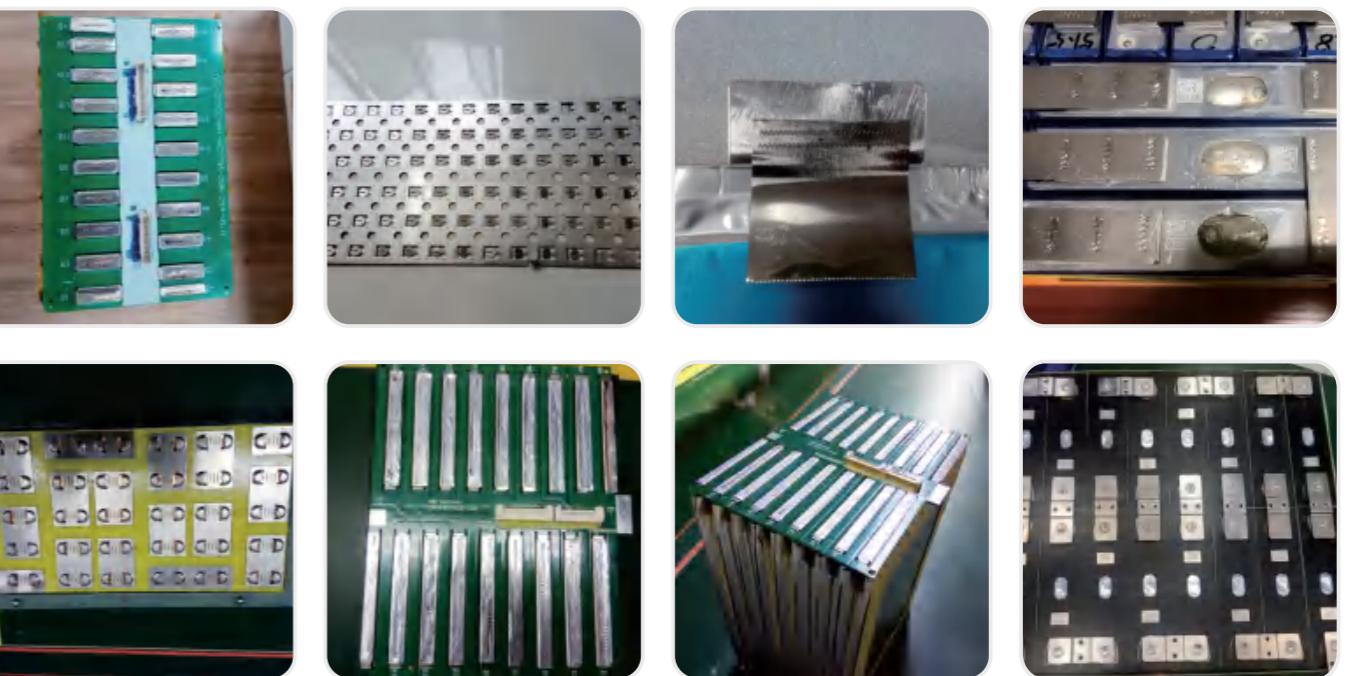
### 设备特点 Equipment Features

- ◎ 振镜扫描范围100mm/150mm
- ◎ 超出范围部分通过XY轴移动区域焊接
- ◎ 幅面移动焊接, xy幅面大小可定制
- ◎ 采用振镜式扫描焊接系统, 减少轴的移动时间, 焊接效率更高
- ◎ 工作台采用龙门结构, 产品不动, 激光头移动焊接, 减少移动轴的磨损
- ◎ 激光器工作台一体设计, 方便搬运, 车间挪位, 节省占地空间
- ◎ 大铝板平面, 平整, 美观, 台面上设有100\*100安装孔, 方便锁治具
- ◎ Galvanometer scan range 100mm/150mm
- ◎ Welding of areas beyond the range through XY axis movement
- ◎ Mobile welding of format, with customizable xy format size
- ◎ The galvanometer scanning welding system is adopted to reduce the moving time of the axis, and improve welding efficiency
- ◎ The workbench adopts a gantry structure, with the product stationary and the laser head moving for welding, reducing the wear of the moving shaft
- ◎ Integrated design of laser workbench, convenient for handling and workshop relocation, saving space
- ◎ Large aluminum plate, flat, and aesthetically pleasing, with 100 \* 100 installation holes on the countertop for easy locking of fixtures

### 设备参数 Device parameters

型号 MODEL	ST-ZH1000	ST-ZH2000	ST-ZH3000
最大输出功率 MAXIMUM OUTPUT POWER	1000W	2000W	3000W
中心波长 CENTER WAVELENGTH		1070±10mm	
输出功率不稳定度 OUTPUT POWER INSTABILITY		<1%	
光束质量 BEAM QUALITY		M <sup>2</sup> <1.3	
光纤长度 FIBER LENGTH		10m	
光纤芯径 FIBER CORE DIAMETER		20um	
工作模式 WORKING MODE	连续或调制 Continuous or modulated		
激光器消耗功率 LASER POWER CONSUMPTION	5kw		
水箱消耗功率 WATER TANK CONSUMPTION POWER	4.5kw		
工作环境温度 WORKING ENVIRONMENT TEMPERATURE	10-40°C		
工作环境湿度 WORKING ENVIRONMENT HUMIDITY	<70%		
冷却方式 COOLING METHOD	水冷 Water cooling		
供电需求 POWER SUPPLY DEMAND	220v±10%AC、50/60HZ		

### 应用样品 Application Samples





### 设备参数 Device parameters

型号 MODEL	GW-3000W
最大输出功率 MAXIMUM OUTPUT POWER	3000W
中心波长 CENTER WAVELENGTH	1070±10mm
输出功率不稳定度 OUTPUT POWER INSTABILITY	1-100%
光束质量 BEAM QUALITY	M <sup>2</sup> < 1.3
光纤长度 FIBER LENGTH	10m
光纤芯径 FIBER CORE DIAMETER	20um
工作模式 WORKING MODE	连续或调制 Continuous or modulated
激光器消耗功率 LASER POWER CONSUMPTION	5kw
水箱消耗功率 WATER TANK CONSUMPTION POWER	4.5kw
工作环境温度 WORKING ENVIRONMENT TEMPERATURE	10-40°C
工作环境湿度 WORKING ENVIRONMENT HUMIDITY	< 70%
冷却方式 COOLING METHOD	水冷 Water cooling
供电需求 POWER SUPPLY DEMAND	220v±10%AC、50/60HZ

### 设备功能 Equipment Functions

- ◎ 软包聚合物电池焊接
- ◎ 方形铝壳电池连接片焊接应用
- ◎ Soft pack polymer battery welding
- ◎ Welding Application of Connection Pieces for Square Aluminum Shell Batteries

### 设备特点 Equipment Features

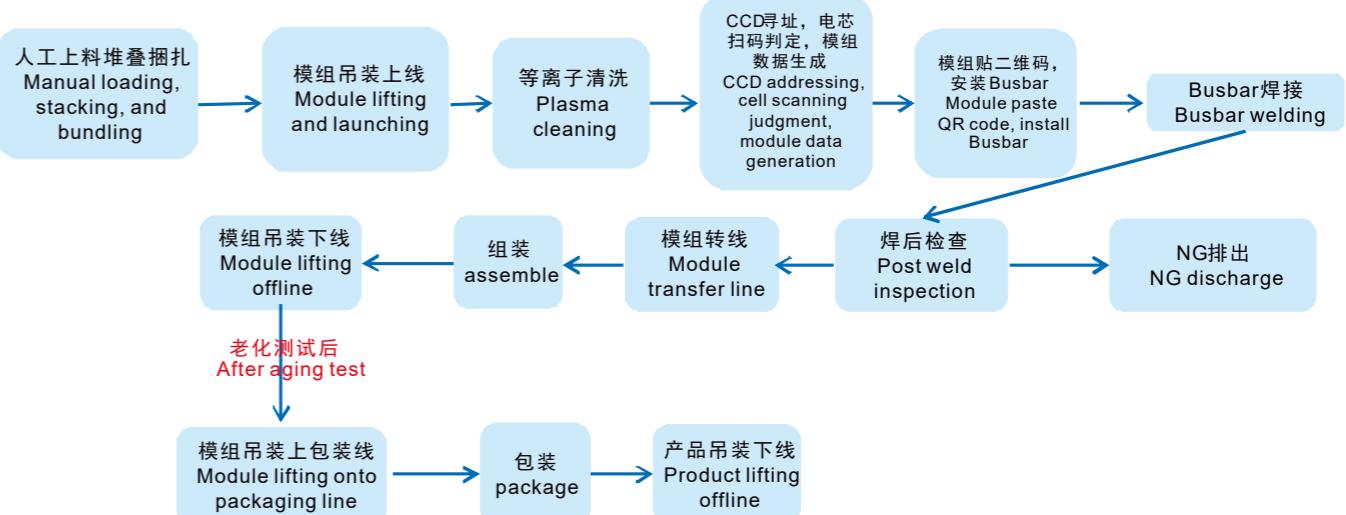
- ◎ 振镜扫描范围100mm/150mm
- ◎ 超出范围部分通过XY轴移动区域焊接
- ◎ 幅面移动焊接, xy幅面大小可定制
- ◎ 采用振镜式扫描焊接系统, 减少轴的移动时间, 焊接效率更高
- ◎ 工作台采用龙门结构, 产品不动, 激光头移动焊接, 减少移动轴的磨损
- ◎ 激光器工作台一体设计, 方便搬运, 车间挪位, 节省占地空间
- ◎ 大铝板平面, 平整, 美观, 台面上设有100\*100安装孔, 方便锁治具
- ◎ Galvanometer scan range 100mm/150mm
- ◎ Welding of areas beyond the range through XY axis movement
- ◎ Mobile welding of format, with customizable xy format size
- ◎ The galvanometer scanning welding system is adopted to reduce the moving time of the axis, and improve welding efficiency
- ◎ The workbench adopts a gantry structure, with the product stationary and the laser head moving for welding, reducing the wear of the moving shaft
- ◎ Integrated design of laser workbench, convenient for handling and workshop relocation, saving space
- ◎ Large aluminum plate, flat, and aesthetically pleasing, with 100 \* 100 installation holes on the countertop for easy locking of fixtures

### 应用样品 Application Samples





## 生产工序流程 Production process flow



## 设备功能 Equipment Functions

- ◎ 软包聚合物电池焊接
- ◎ 方形铝壳电池连接片焊接应用
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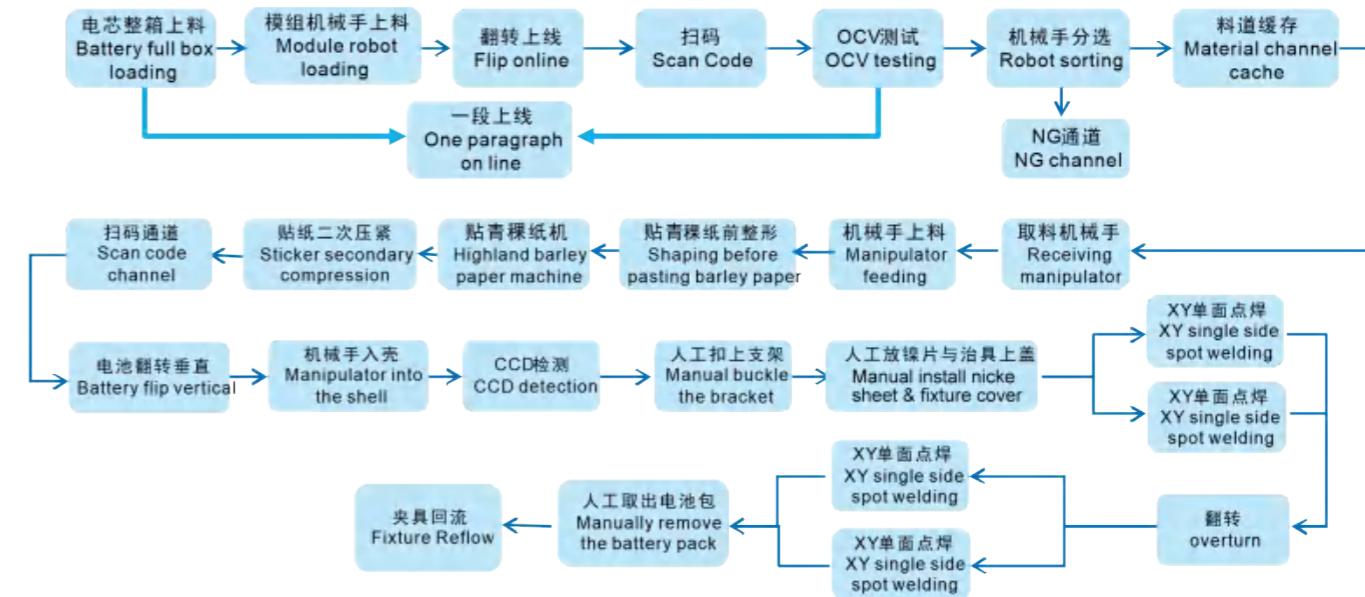
## 设备特点 Equipment Features

- ◎ 振镜扫描范围100mm/150mm
- ◎ 超出范围部分通过XY轴移动区域焊接
- ◎ 幅面移动焊接, xy幅面大小可定制
- ◎ 采用振镜式扫描焊接系统, 减少轴的移动时间, 焊接效率更高
- ◎ 工作台采用龙门结构, 产品不动, 激光头移动焊接, 减少移动轴的磨损
- ◎ 激光器工作台一体设计, 方便搬运, 车间挪位, 节省占地空间
- ◎ 大铝板平面, 平整, 美观, 台面上设有100\*100安装孔, 方便锁治具
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## 应用样品 Application Samples



## 生产工序流程 Production process flow



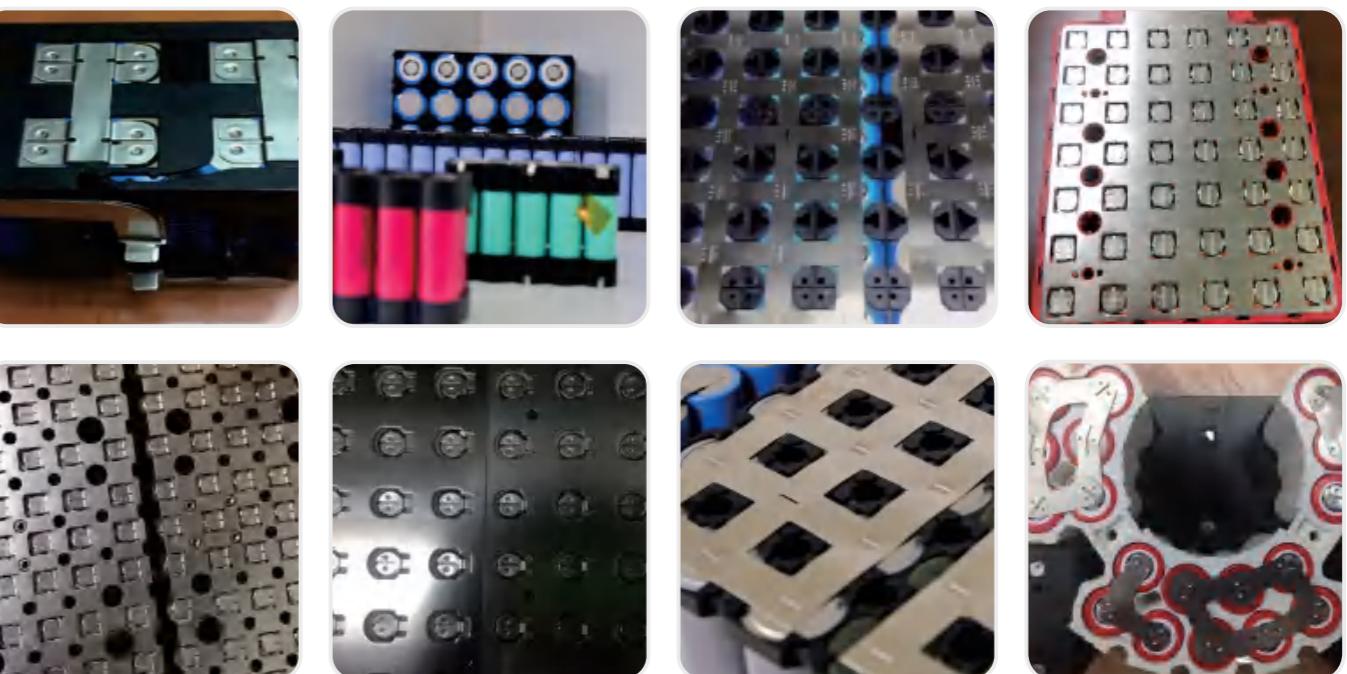
## 设备功能 Equipment Functions

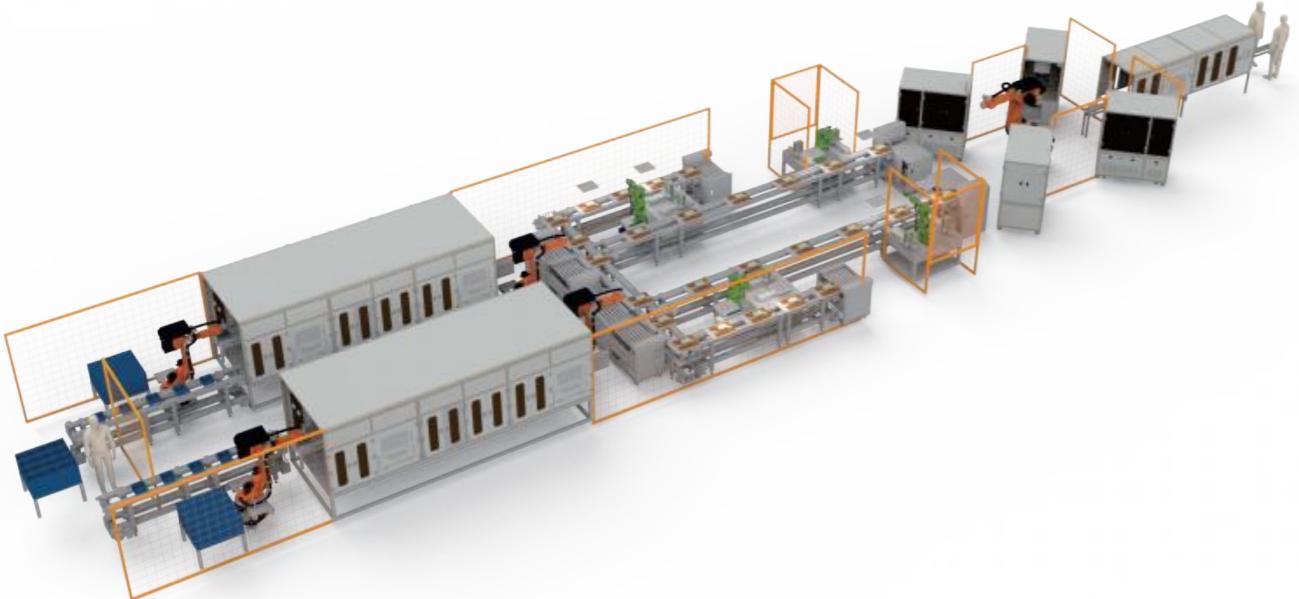
- ◎ 18650电池包焊接
- ◎ 21700电池包焊接
- ◎ 18650 Battery pack welding
- ◎ 21700 Battery pack welding

## 设备特点 Equipment Features

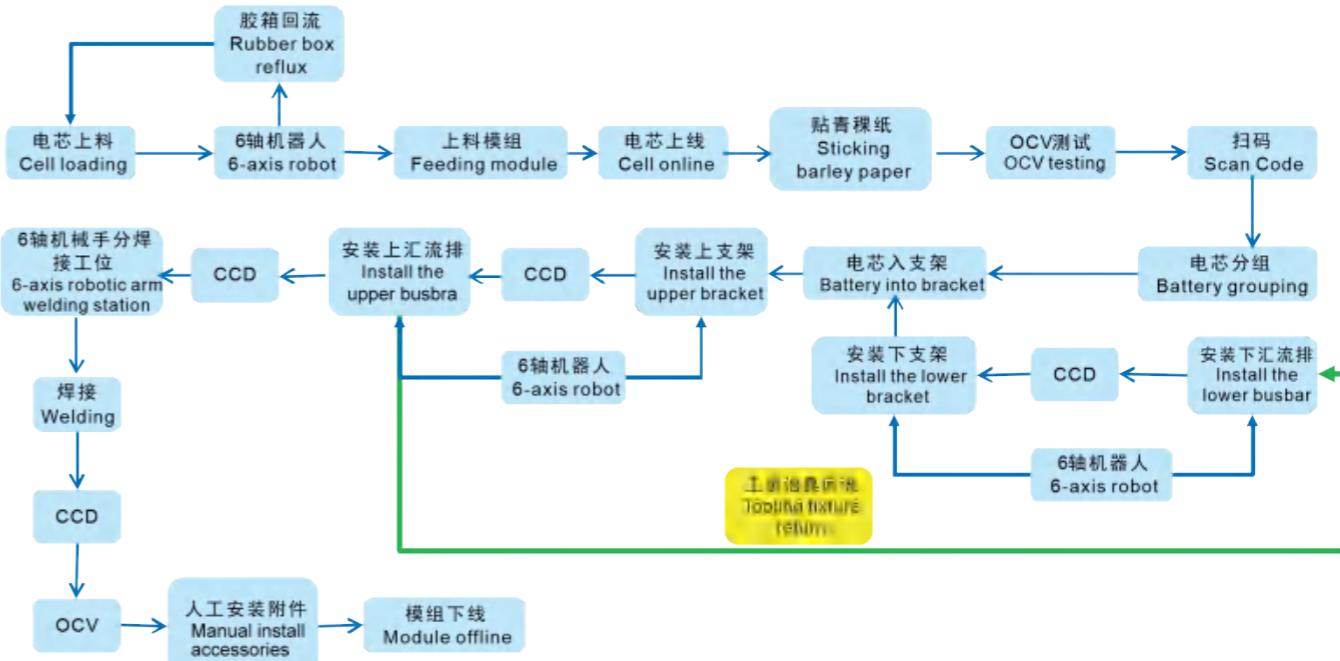
- ◎ 采用柔性化设计
- ◎ 人机结合优化工序，提高品质
- ◎ 单机独立使用
- ◎ 采用RFID输送，工站数据写入
- ◎ 人机结合无缝对接，人机也可随时调换
- ◎ 工序可随时调整，对接完成即可投入生产
- ◎ 生产数据可适时上传，工位数据一清二楚
- ◎ Adopt flexible design
- ◎ Optimizing processes through human-machine integration to improve quality
- ◎ Single machine independent use
- ◎ RFID transmission and station data writing
- ◎ Seamless integration of human-machine interface, and human-machine can also be exchanged at any time
- ◎ The process can be adjusted at any time, and once the docking is completed, it can be put into production
- ◎ Production data can be uploaded in a timely manner, and the station data is clear

## 应用样品 Application Samples





## 生产工序流程 Production process flow



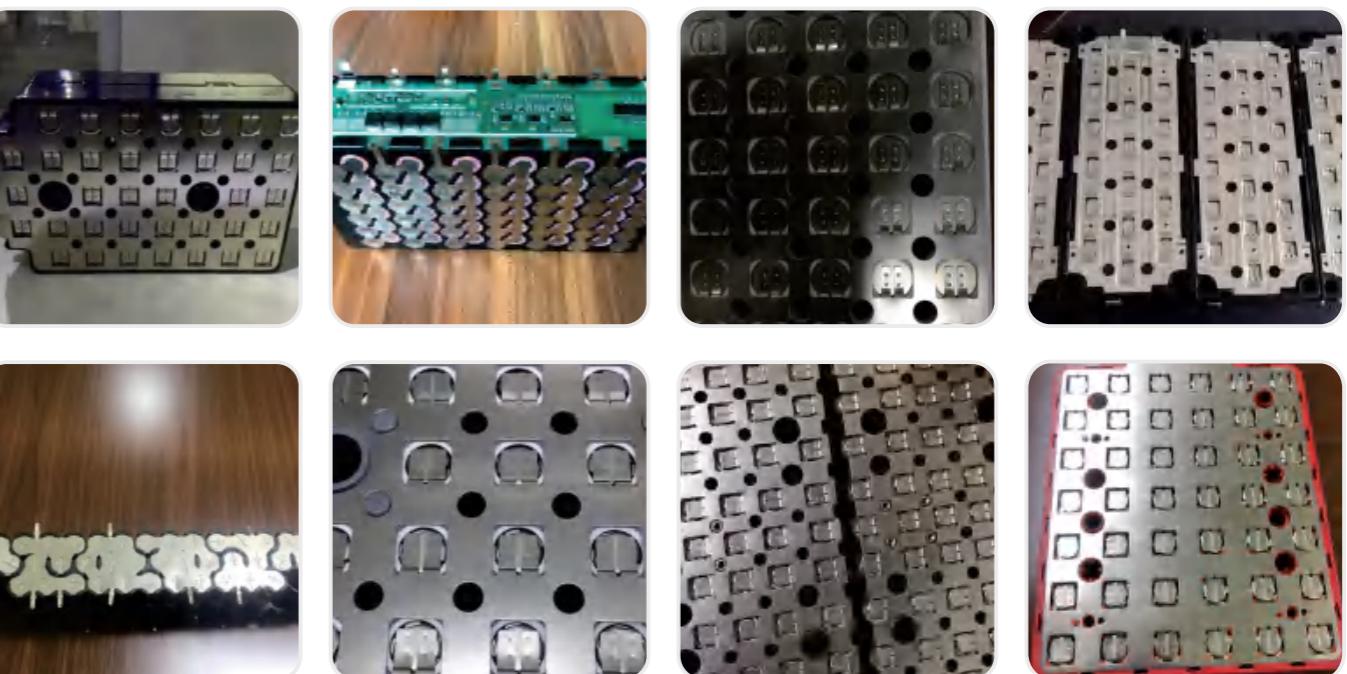
## 设备功能 Equipment Functions

- ◎ 18650电池包焊接
- ◎ 21700电池包焊接
- ◎ 18650 Battery pack welding
- ◎ 21700 Battery pack welding

## 设备特点 Equipment Features

- ◎ 采用柔性化设计
- ◎ 人机结合优化工序，提高品质
- ◎ 单机独立使用
- ◎ 采用RFID输送，工站数据写入
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## 应用样品 Application Samples





## 设备功能 Equipment Functions

◎ 手持激光焊接机适用于：

手持激光焊接机是一种可以便携式操作的设备、可以灵活的应用在各种工作环境下的使用、针对的行业主要有展架、厨具、机箱、水箱、五金灯饰、门窗框架、厨卫、洗手盆、卫生洁具、广告牌、广告字类五金的激光焊接。

◎ The handheld laser welding machine is suitable for:

Handheld laser welding machine is a portable device that can be flexibly applied in various working environments and is mainly targeted at industries Laser welding of shelves, kitchen utensils, chassis, water tanks, hardware lighting, door and window frames, kitchen and bathroom, wash basins, sanitary ware, billboards, and advertising hardware.

## 设备特点 Equipment Features

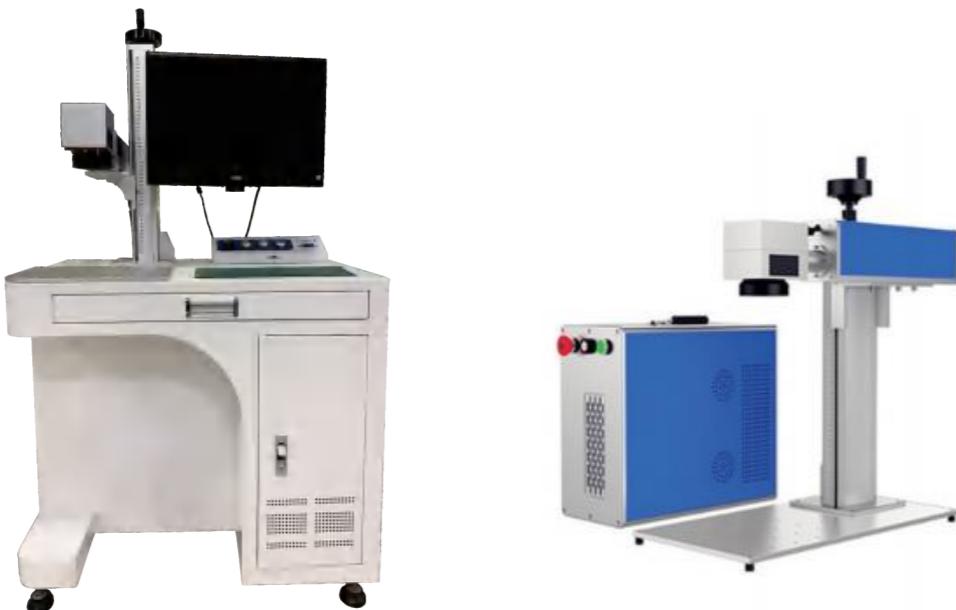
- ◎ 手持激光焊接机节省能量80%-90%左右。与电弧焊比较，加工成本可下降30%左右；
- ◎ 手持式激光焊接热输入极低，焊后的变形量小，焊接表面非常光滑美观。焊接后续处理很少；
- ◎ 手持式激光焊接机能够减少巨大的抛光和整平工序上的人工成本；
- ◎ 便携式设计、机器可以在一定空间内随意变换位置使用；
- ◎ 可焊接异性件、不合适的工装夹具的异形或者大型件；
- ◎ 专有激光安全操作防护功能，保障操作人员工作期间的安全；
- ◎ 设备操作简单易学上手快，操作人员技术门槛不高，更省人工成本支出；
- ◎ 焊点饱满，光滑，焊接强度接近母材，焊后只需简单处理或面处理；
- ◎ 焊点深宽比较高，焊缝宽度小，热影响区小，变形小，焊接速度快；
- ◎ The handheld laser welding machine can save about 80% -90% of energy. Compared with arc welding, the processing cost can be reduced by about 30%;
- ◎ Handheld laser welding has extremely low heat effect, small deformation after welding, with a very smooth and beautiful welding surface. Few subsequent welding treatments;
- ◎ A handheld laser welding machine can reduce the huge cost of huge polishing and leveling processes;
- ◎ Portable design, the machine can be freely changed in a certain space for use;
- ◎ Weldable dissimilar parts, irregular or large parts that are not suitable for tooling fixtures;
- ◎ Exclusive laser safety operation protection function, ensuring the safety of operators during work;
- ◎ The equipment operation is simple, easy to learn, and quick to get started. The technical threshold for operators is not high, which saves labor costs and expenses;
- ◎ The solder joint is full, smooth, and the welding strength is close to the base metal. After welding, only simple treatment or surface treatment is required;
- ◎ High depth to width ratio of welding spot, small weld width, small Heat-affected zone, small deformation and fast welding speed;

## 设备参数 Device parameters

型号 Model	ST-C1000	ST-C1500	ST-C2000	ST-C3000
最大输出功率 Maximum output power	1000w	1500w	2000w	3000w
中心波长 Center wavelength			1070±50mm	
输出功率不稳定度 Output power instability			±1.5%	
光束质量 Beam Quality			BPP <2.3(MM×mrad)	
工作模式 Working mode			连续或者调试 Continuous or debugging	
标准接口 Standard interface			数字I/O,模拟 Digital I/O, Analog	
工作环境温度 Working environment temperature			10-40°C	
工作环境湿度 Working environment humidity			<70%	
冷却方式 Cooling method			水冷 water-cooling	
供电需求 Power supply demand			380v±10%AC、50/60HZ	

## 应用样品 Application Samples





### 设备功能 Equipment Functions

- ◎ 激光打标机广泛应用于对深度、光滑度、精细度要求较高的领域，标刻图案精细美观、永不磨损。  
主要行业应用有金属制品、五金配件、集成电路、电子元器件、透光按键、pvc管材、汽车配件、医疗器械、手机制造、珠宝、钟表、工具配件等。广泛应用于食品药品、贵金属首饰、电子制造业、通讯业、IT产业、医疗器材、包装印刷、工艺礼品等诸多行业。
- ◎ Laser marking machines are widely used in fields with high requirements for depth, smoothness, and precision, with exquisite and beautiful marking patterns that never wear out.  
The main industry applications include metal products, hardware accessories, integrated circuits, electronic components, transparent buttons, PVC pipes, automotive parts, medical devices, mobile phone manufacturing, jewelryClocks, tool accessories, etc.  
Widely used in various industries such as food and medicine, precious metal jewelry, electronic manufacturing, communication, IT, medical equipment, packaging and printing, and craft gifts.

### 设备特点 Equipment Features

- ◎ 光纤激光打标机采用光纤激光器输出激光，由数字高速振镜系统实现精细标刻、具有高品质的加工工艺、可提高生产效率、降低能耗、减少环境污染。
- ◎ 速度快，是传统机型的2倍以上
- ◎ 操作方便，光路全封闭免维护，稳定可靠
- ◎ 使用寿命长，泵浦源寿命10万小时以上
- ◎ 激光器抗高反射，所有金属都能标刻
- ◎ 高精细度，分辨率达到2540dpi
- ◎ 功率输出稳定，光束质量优，采用风冷方式冷却，机型小巧
- ◎ The fiber laser marking machine uses a fiber laser to output laser, and is achieved by a digital high-speed galvanometer system for precise marking with high-quality marking
- ◎ Industrial processes can improve production efficiency, reduce energy consumption, and reduce environmental pollution.
- ◎ Fast, more than twice the speed of traditional models
- ◎ Easy to operate, fully enclosed optical path, maintenance free, stable and reliable
- ◎ Long service life, with a pump source lifespan of over 100000 hours
- ◎ Laser anti high reflection, all metals can be marked
- ◎ High precision, with a resolution of 2540dpi
- ◎ Stable power output, excellent beam quality, adopt air cooling, compact model

### 设备参数 Device parameters

型号 MODEL	ST-MPF-20	ST-MPF-30	ST-MPF-50
最大输出功率 MAXIMUM OUTPUT POWER	20W	30W	50W
中心波长 CENTER WAVELENGTH	1064		
重复精度 REPEATABILITY	<0.005mm		
调Q频率 Q FREQUENCY	20-100khz		
标记范围 MARKING RANGE	30mm×30mm-220×220mm		
标记线速度 MARK LINE SPEED	< 100m/min		
最小字符 MINIMUM CHARACTER	0.5mm		
冷却方式 COOLING METHOD	风冷 AC		
最小线宽 MINIMUM LINE WIDTH	0.01mm	0.02mm	0.05mm
整机功率 OVERALL POWER	750w	850w	850w
电力要求 POWER REQUIREMENTS	220v±10%AC、50/60HZ		

### 应用样品 Application Samples





### 设备功能 Equipment Functions

◎ 性能优越、操作方便。

紫外激光打标机采用355nm的紫外激光器，紫外激光由于聚焦斑极小，且加工热影响区小，因而可以进行超精细打标、特殊材料打标，是对打标效果有更高的要求客户的首选产品。

该机采用三阶腔内倍频技术，同红外激光比较，355nm紫外光聚焦光斑极小，能在很大程度上降低材料的机械变形且加工热影响小。因而主要用于超精细打标、雕刻，特别适用于超精细加工的高端市场如电子产品、化妆品、药品、食品及其他高分子材料的超精细打标。

◎ Superior performance and easy operation.

The ultraviolet laser marking machine adopts 355nm ultraviolet laser. Because the focus spot of the ultraviolet laser is very small and the processing Heat-affected zone is small

It can perform ultra fine marking and special material marking, making it the preferred product for customers with higher requirements for marking effectiveness.

This machine adopts third-order intracavity frequency doubling technology, and compared with infrared lasers, the 355nm ultraviolet light focusing spot is very small, which can greatly reduce the Low material mechanical deformation and minimal processing heat impact. Therefore, it is mainly used for ultra fine marking and carving, especially suitable for high precision machining Ultra fine marking of end markets such as electronic products, cosmetics, pharmaceuticals, food, and other polymer materials.

### 设备特点 Equipment Features

◎ 光束质量好，聚焦光斑更小，能实现超精细标记

◎ 适用范围更加广泛

◎ 标记速度快，效率高

◎ 热影响区域极小，不会产生热效应和材料烧焦问题

◎ 整机性能稳定、体积小、功耗低

◎ Good beam quality, smaller focusing spot, capable of achieving ultra fine marking

◎ Wider application range

◎ Fast marking speed and high efficiency

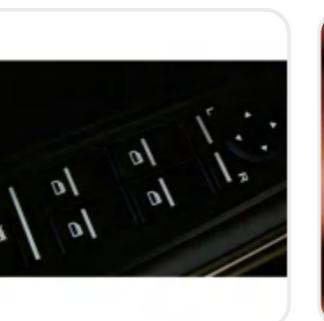
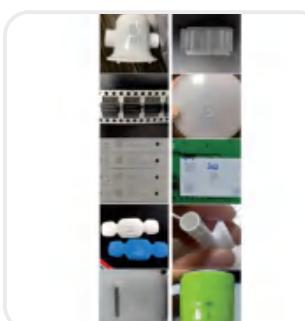
◎ The heat affected area is very small, so there will be no thermal effect and material burning problem

◎ Stable overall performance, small size, and low power consumption

### 设备参数 Device parameters

激光功率 LASER POWER	3W	5W
标刻范围 MARKING RANGE	50×50/100×100/150×150	
标刻速度 MARKING SPEED	≤7000mm/s	
光束质量 BEAM QUALITY	<2	
调Q频率 Q FREQUENCY	8-15khz	
最小线宽 MINIMUM LINE WIDTH	< 0.001mm	
最小字符 MINIMUM CHARACTER	0.2mm	
重复精度 REPEATABILITY	±0.0003	
整机功率 OVERALL POWER	2kw	

### 应用样品 Application Samples





## 设备功能 Equipment Functions

- ◎ 二氧化碳激光打标机可标刻多种非金属材料和部分金属制品，如竹制品、木材、纸张ABS、PVC环氧树脂、亚克力、皮革、玻璃、建筑陶瓷、橡胶等等。  
广泛应用于医药包装、食品包装、饮料包装、塑胶、纺织、皮革、木材、工艺品、电子元件、通讯、钟表、眼镜、印刷等行业。
- ◎ Carbon dioxide laser marking machine can mark various non-metallic materials and some metal products, such as bamboo products, wood, paper ABS, PVC epoxy resin, acrylic, leather, glass, building ceramics, rubber, and so on.  
Widely used in pharmaceutical packaging, food packaging, beverage packaging, plastics, textiles, leather, wood, handicrafts, electronic elements Industries such as electronics, communication, watches, glasses, printing, etc.

## 设备特点 Equipment Features

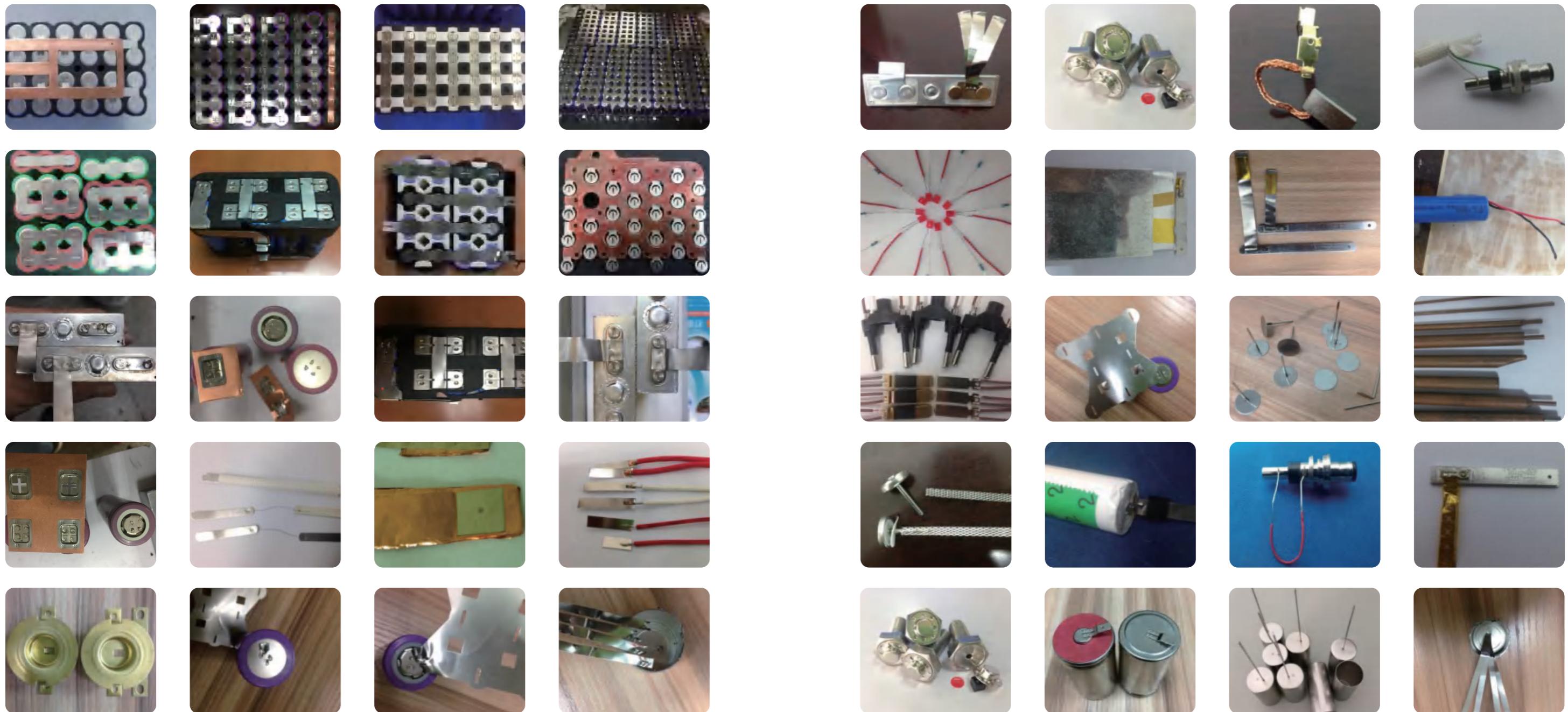
- ◎ 振镜是决定打标质量的重要因素振镜体积小，适用于恶劣环境
- ◎ 清晰标尺，方便快捷标刻结果人性化标尺提高调节精准度
- ◎ 使用寿命长，泵浦源寿命10万小时以上
- ◎ 场镜扫描系统采用新科技，新材料，新艺术，新工作设计和制造
- ◎ 高精度，分辨率达到2540dpi
- ◎ 功率输出稳定，光束质量优，采用风冷方式冷却，机型小巧
- ◎ The galvanometer is an important factor in determining the quality of marking. The small volume of the galvanometer is suitable for harsh environments
- ◎ Clear ruler, convenient and fast marking results, user-friendly ruler to improve adjustment accuracy
- ◎ Long service life, with a pump source lifespan of over 100000 hours
- ◎ Field mirror scanning system adopts new technology, new materials, Art Nouveau and new work design and manufacturing
- ◎ High precision, with a resolution of 2540dpi
- ◎ Stable power output, excellent beam quality, air-cooled cooling, compact model

## 设备参数 Device parameters

激光功率 LASER POWER	30w
打印范围 PRINT RANGE	100×100/150×150/200×200
激光波长 WAVELENGTH	1064nm
打印深度 PRINT DEPTH	0-2 (mm)
打印高度 PRINT HEIGHT	1000mm
标记范围 MARKING RANGE	30mm×30mm-220×220mm
最大线速 MAXIMUM LINE SPEED	≤7000mm/s
最小字符 MINIMUM CHARACTER	0.5mm
冷却方式 COOLING METHOD	风冷 AC
外形尺寸 OVERALL DIMENSIONS	800mm*800mm*1500mm
整机重量 OVERALL WEIGHT	100kg
电力要求 POWER REQUIREMENTS	220v±10%AC、50/60HZ

## 应用样品 Application Samples





### 设备特点 Equipment Features

- ◎ 部分点焊样品包括：锂电池、镍氢电池、镍镉电池、锂亚电池、纽扣电池等。焊接工艺：从薄型极片到厚度至0.6mm的极片，从双点、单点到端面焊接，异性连接片的焊接。
- ◎ 备注：欲了解以上焊接样品的具体焊接工艺和相关设备，请联系我司：同时我司还可以为客户提供各种精密电阻点焊的解决方案。
- ◎ Some of welding workpiece using our welder. Include: lithium battery, NIMH battery, nickel-cadmium battery, Li-SOCl<sub>2</sub> battery, button cell.  
Welding type: ultra thin sheet, 0.6mm thick sheet metal, double point welding, single point welding, end face welding, irregular metal connector welding.
- ◎ Note: If you want to learn more about the welder and detailed welding technology, please contact us. We can also supply spot welding solution specially according to our customer's requirements.

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## 合作伙伴

COOPERATIVE PARTNER



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