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洛阳市锐创电气设备有限公司
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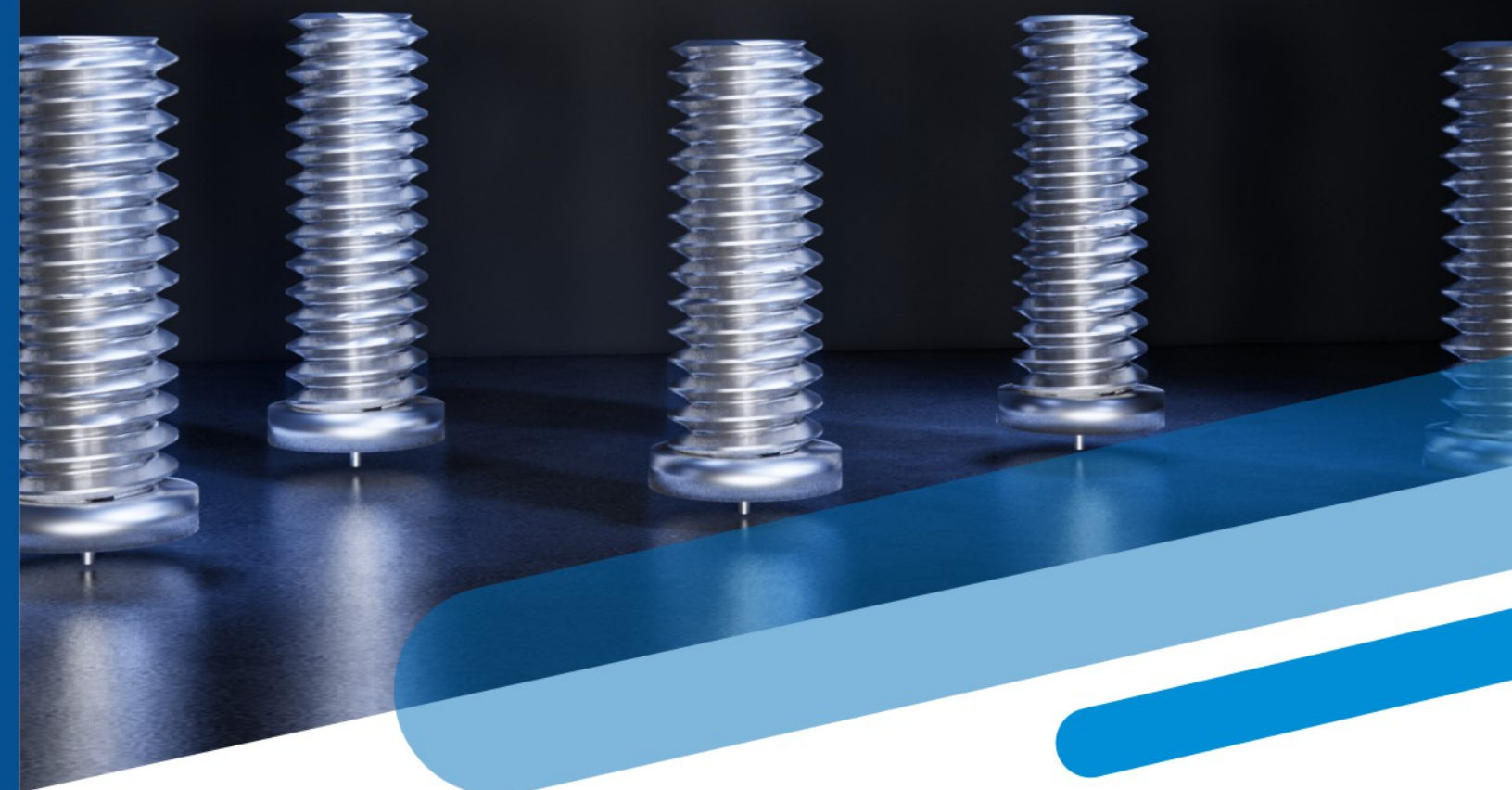
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螺柱焊接系统

STUD WELDING SYSTEM

洛阳市锐创电气设备有限公司
LUOYANG RUICHUANG ELECTRICAL EQUIPMENT CO., LTD

公司介绍

ABOUT US

洛阳市锐创电气设备有限公司成立于2002年,是一家以高低压成套配电设备、自动化生产线及智能数控设备(数控发泡密封胶设备、工业平板打印设备、螺柱焊接系统、激光焊接系统、激光切割机等)、智慧电力云平台、工业机器人应用的设计、生产、安装、调试、维修、培训为一体的综合性制造施工总承包的高科技企业。

Luoyang Ruichuang Electrical Equipment Co., Ltd. was established in 2002. It is a comprehensive manufacturing and construction general contractor of high and low voltage power distribution equipment, automatic production line and intelligent numerical control equipment (CNC foam sealing gluing equipment, industrial flat printing equipment, stud welding system, laser welding system, laser cutting machine, etc.), intelligent power cloud platform, industrial robot application design, production, installation, commissioning, maintenance and training Technology enterprises.



公司秉承着“锐意进取,创新超越”的企业精神,一直在产品研发上不断投入,使得产品更新及技术先进性一直位于国内领先,已经形成从工程/产品设计、基础原材料到成套产品全过程的生产及服务。

The company adhering to the "forge ahead, innovation beyond" spirit of enterprise, has been constantly invested in product research and development, making product updates and technological advancement has been in the leading position in China, has formed from engineering/product design, basic raw materials to complete sets of products the whole process of production and service.

目前,把螺柱通过种焊的方式焊接在金属基材上的工艺普遍使用在电气柜、家电、家居,汽车配件等各种五金钣金件上,这种焊接方式一般可以分为储能焊和拉弧焊两种方式。

At present, the process of welding the stud on the metal substrate by piling is widely used in various metal sheet metal parts such as electrical cabinets, household appliances, home furnishing, auto parts, etc. This welding method can generally be divided into two ways of energy storage welding and drawing arc welding.

储能焊对于直径不大的螺柱焊接使用的最为普遍。其原理就是通过电容储能,在螺柱与基材接触的瞬间释放出存储的能量,使螺柱和基材接触的区域熔化焊接在一起。这种焊接方式是瞬间完成焊接,具有操作简单,焊接面印迹小,效率高,设备小巧、易搬运等特点,现已广泛的应用到薄板螺柱焊接生产的各个领域。

Energy storage welding is the most common use for small diameter stud welding. The principle is that through capacitor energy storage, the stored energy is released at the moment of contact between the stud and the substrate, so that the contact area between the stud and the substrate is melted and welded together. This welding method is instant completion of welding, with simple operation, small welding surface impression, high efficiency, small equipment, easy to carry and other characteristics, has been widely used in various fields of thin sheet stud welding production.

拉弧焊接是将电压通过线圈施加在螺柱和基材之间,在螺柱接触到基材提升基材几毫米距离的动作下瞬间短路,电流会拉出电弧,这种高温电弧会熔化螺柱与基材接触面,一段时间后再压紧,这样螺柱和基材就牢牢地焊接在一起,这种工艺主要焊接比较大的螺柱、要求焊接比较结实牢固,主要应用在汽车配件,钢板结构件等要求焊接强度较高的领域。

Drawing arc welding is the voltage applied between the stud and the substrate through the coil, the stud contacts the substrate and then leaves the substrate a few millimeters away from the action of an instant short circuit, the current will pull out the arc, this high-temperature arc will melt the contact surface of the stud and the substrate, and then press down after a period of time, so that the stud and the substrate are firmly welded together, this process mainly welding relatively large studs, The welding requirements are relatively strong and firm, mainly used in automotive parts, steel plate structural parts, etc., which require high welding strength.

螺柱焊接系统是由我公司自主研发生产,目前主要有电容储能式螺柱焊机、短周期拉弧式螺柱焊机、长周期拉弧式螺柱焊机、自动化螺柱焊机等。

Stud welding system is developed by Luoyang Ruichuang Electrical Equipment Co., Ltd., the main products of the company are capacitor energy storage stud welding machine, short period drawing arc stud welding machine, long period drawing arc stud welding machine, automatic stud welding machine and so on.

电容储能式螺柱焊机

CAPACITOR ENERGY STORAGE STUD WELDER >>>

电容放电式焊接工艺

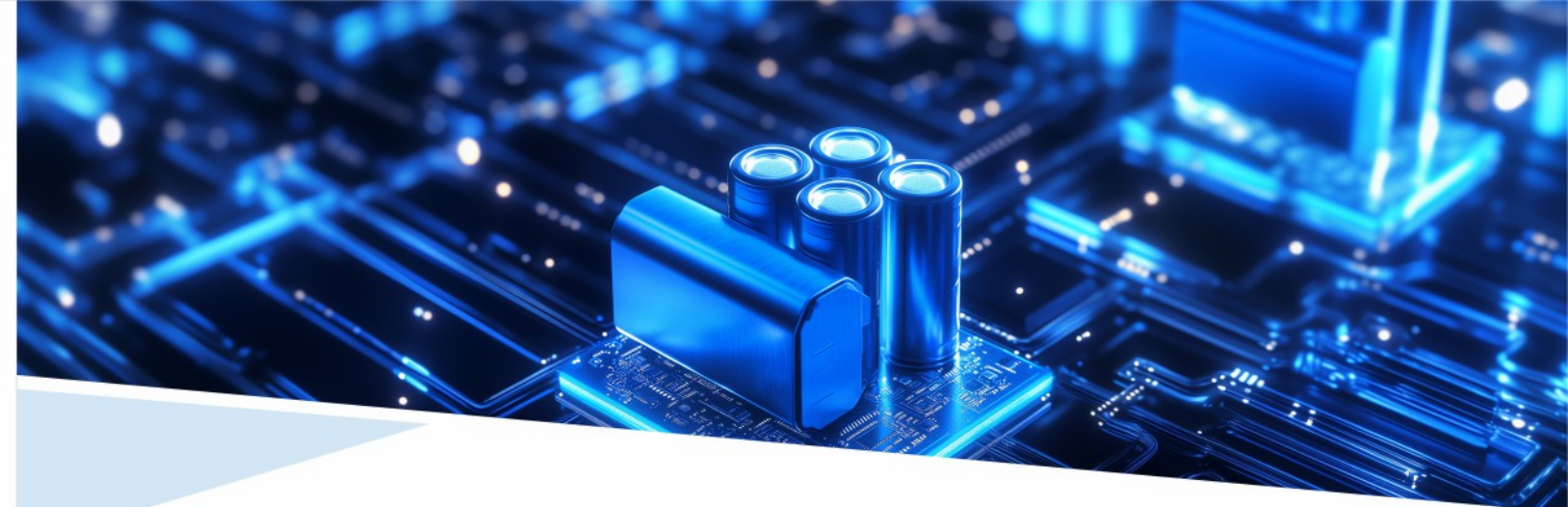
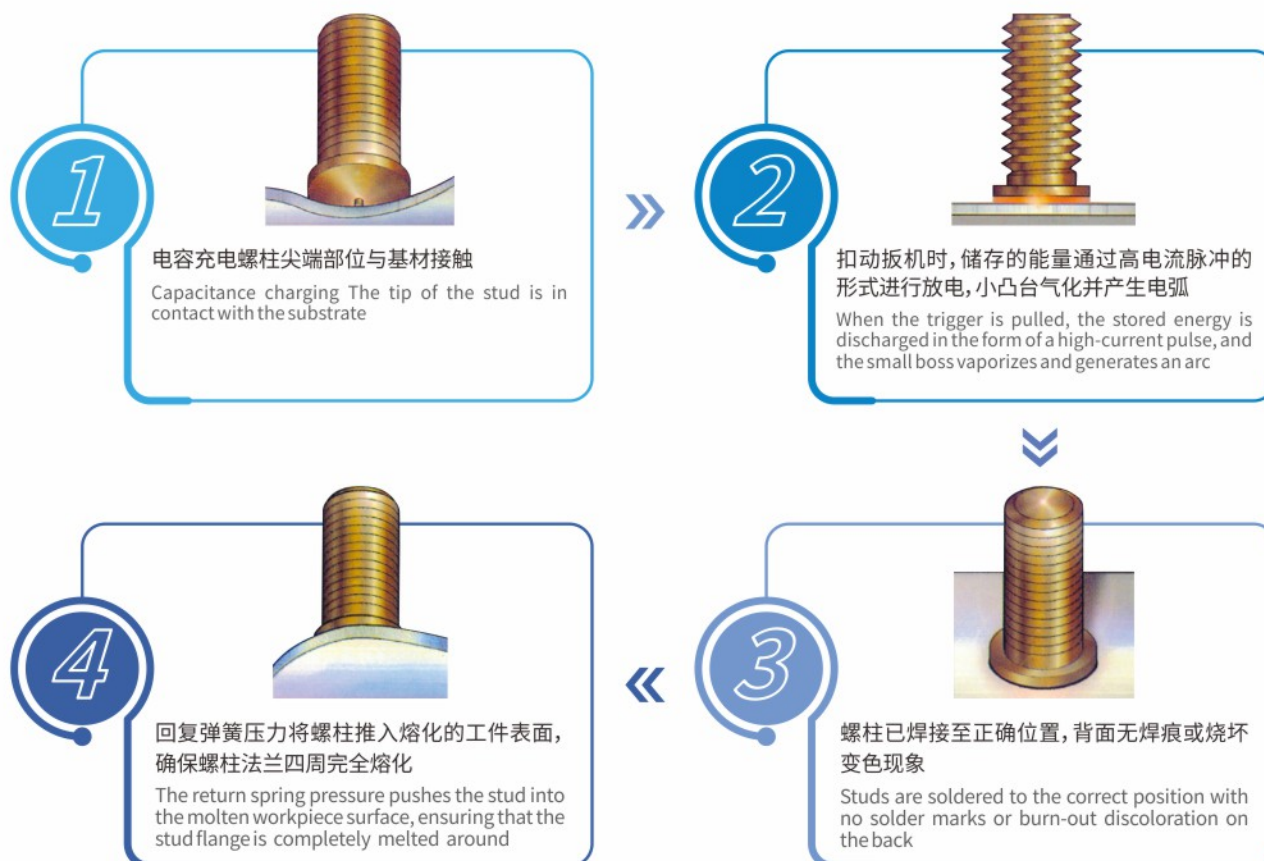
CAPACITOR DISCHARGE WELDING PROCESS

- ◆ 储能式螺柱焊又被称为电容放电螺柱焊, 先将预先设置好的能量额度充入电容中, 随后焊接时, 能量从电容中一次性全部释放出来用于焊接; 焊接时间为1-3ms, 发热量小, 穿透性差, 板材几乎不变形; 熔池深度浅, 背面印痕小, 适合较薄的板材焊接。

Energy storage stud welding is also known as capacitor discharge stud welding, the pre-set energy amount is first filled into the capacitor, and then when welding, the energy is released from the capacitor at one time for welding; The welding time is 1-3ms, the heat is small, the penetration is poor, and the plate is almost not deformed; The depth of the molten pool is shallow, and the impression on the back is small, which is suitable for welding of thin plates.

工艺过程如图所示

THE PROCESS IS SHOWN IN THE FIGURE



基材 Substrate



特别适用于0.5-2mm薄板的焊接, 可以对不锈钢、低碳钢、镀锌板、铝、黄铜等常见金属进行焊接 (螺柱材质需要与基材相近或者相同); 板材表面应干净整洁、导电性良好。

Especially suitable for 0.5-2mm sheet welding, can be stainless steel, carbon steel, galvanized sheet, aluminum, brass and other common metals welding (stud material needs to be similar to the substrate or the same); The surface of the plate should be clean and tidy, good electrical conductivity.

螺柱 Stud



一般用于焊接直径为3-10毫米的螺柱, 螺柱前端必须有精确的小凸台和一定的锥角。

It is generally used for welding studs with a diameter of 3-10 mm, Stud welded end face must have a precise small convex and a certain cone Angle.

工艺优势 Process advantage



螺柱成本低; 设备成本低; 焊接工艺快捷; 夹具使用方便; 无需瓷环, 无需气保护, 无需抛光。

low stud cost; Low equipment cost; Fast welding process; The fixture is easy to use; No porcelain rings, no gas protection, no polishing.

应用行业 Application industry



电气柜制造业、厨卫家用电器制造业、电梯制造业、标牌固定行业、铝幕墙装饰业、暖通空调保温行业等。

Electric cabinet manufacturing, kitchen and bath household appliances manufacturing, elevator manufacturing, sign fixing industry, aluminum curtain wall decoration industry, HVAC insulation industry, etc.

锐创自主研发储能焊机

RUICHUANG INDEPENDENT RESEARCH AND DEVELOPMENT
OF ENERGY STORAGE WELDER

◆ 目前,我司自主研发的储能式焊机有两个系列:手持式储能螺柱焊机和双路通信焊机。

At present, there are two series of energy storage welders independently developed by our company: handheld energy storage stud welder and dual communication welder.

命名规则

NAMING RULES

RC-CHJ-3500 XXX

RC-CHJ

公司标识和储能焊机标识。
Company abbreviation and energy storage welder abbreviation

3500

储能焊机产品系列代码。
Energy storage welder product series code

XXX

S表示手持焊机、D表示双路通讯焊机、P表示增强版、I表示触摸屏面板并且可以监控焊机能量。

S stands for handheld welder, D stands for dual communication welder, P stands for enhanced version, I stands for touch panel and can monitor welder energy.

手持式储能螺柱焊机

HANDHELD SINGLE-CHANNEL ENERGY STORAGE WELDER

- 采用优化的结构设计,在保证容量的前提下,体积小,重量分布均匀,方便携带或现场移动作业。
Optimized structure design, under the premise of ensuring capacity, small size, uniform weight distribution, easy to carry or on-site mobile operation.
- 操作简单,功能强大。
Simple operation, powerful function.
- 采用三段数码管显示当前电容电压或设定电压,通过按钮和指示灯可以方便灵活的配置所需的放电电压。
The current capacitance voltage or set voltage is displayed with a three-section digital tube, and the required discharge voltage can be easily and flexibly configured through buttons and indicators.
- 焊机充放电采用高速单片机控制,充电速度快,充电电压准确。
The charging and discharging of welder is controlled by high-speed single chip microcomputer, which has fast charging speed and accurate charging voltage.

- 超宽电压输入范围,可自动适应电网变化。
Ultra-wide voltage input range, can automatically adapt to grid changes.
- 采用专用的储能电解电容(为螺柱焊接特别设计)。
Special energy storage electrolytic capacitors (specially designed for stud welding).
- 可根据需要扩展RS485通信,方便上位机系统控制焊接时序和采集焊接信息。
Rs485 communication can be extended as required to facilitate the upper computer system to control welding timing and collect welding information.



RC-CHJ-2500S

黑色

Mini version

采用国产大品牌可控硅, MOS管, 小巧轻便, 充放电时间短, 适合在薄板上焊接3-6mm的螺柱, 特别针对不锈钢, 冷轧钢板材料, 两个电容(电容容量66000μF)。

Equipped with high-quality domestic brand SCR and MOS tubes, this model is compact and lightweight, with short charging and discharging times. It is suitable for welding 3-6 mm studs on thin plates, especially stainless steel and cold-rolled steel sheets. It is configured with two capacitors (capacitance 66000μF).



RC-CHJ-3500S

黄色基础版

Basic version

采用国产大品牌可控硅, MOS管。三个电容(电容容量99000μF)

Equipped with high-quality domestic brand SCR, MOS tubes and three capacitors (99000μF).



RC-CHJ-4600SP

橙色高配版

High-end version

采用国产大品牌可控硅, MOS管, 四个电容(电容容量132000μF)

Equipped with high-quality domestic brand SCR, MOS tubes and four capacitors (132000μF).

RC-CHJ-2500/3500/4600SPI
金色带触控智能版

Smart version with touch screen

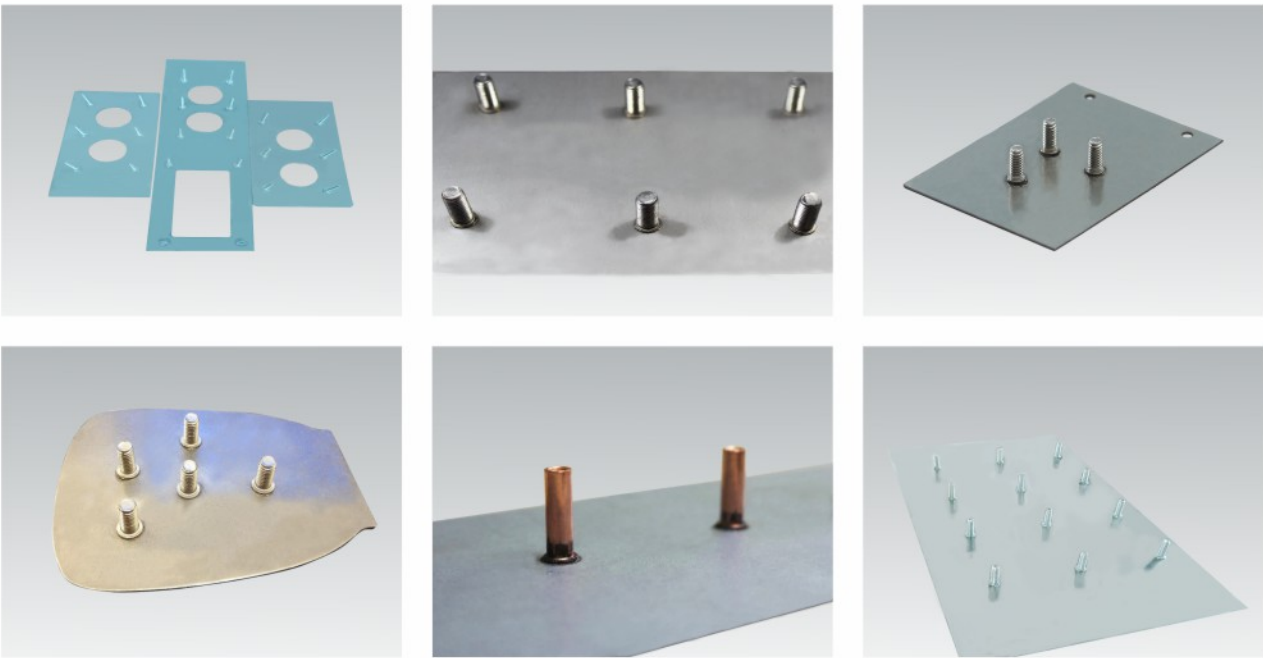


RC-CHJ-2500/3500/4600SPI型为金色带触控智能版:增加触摸屏控制,使用触摸屏替换传统的数码管;可以同时显示多种焊机信息,如电容电压、焊接次数、充电时间等等。有利于焊接信息的收集。同时增加了我公司独有的焊接电流监控功能,该功能可以有效防止焊接时放电不充分引起的虚焊;其采用高速高灵敏度电流传感器、专用放大器、AD采集控制器,对每次焊接时的放电电流进行高速采集,将焊接电流值显示在触摸屏上。如果将该型扩展为RS485通信型则可以将焊接数据及波形上传至上位机系统,以便做焊接评估报告。

RC-CHJ-2500/3500/4600SPI golden touch-screen smart version: added touch-screen control to replace the traditional digital tube; Multiple welder information can be displayed at the same time, such as capacitor voltage, welding times, charging time and so on. It is conducive to the collection of welding information. At the same time, we have added our company's unique welding current monitoring function, which can effectively prevent the virtual welding caused by insufficient discharge during welding; It adopts high speed and high sensitivity current sensor, special amplifier and AD acquisition controller to collect the discharge current at high speed during each welding and display the welding current value on the touch screen. If it is extended to RS485 communication type, the welding data and waveform can be uploaded to the upper computer system for welding evaluation report.

焊接效果展示

WELDING EFFECT DISPLAYWELDING EFFECT DISPLAY



手持式储能螺柱焊机配置及技术参数

CONFIGURATION AND TECHNICAL PARAMETERS

产品型号 Model No.	RC-CHJ-2500S RC-CHJ-2500SPI	RC-CHJ-3500S RC-CHJ-3500SPI	RC-CHJ-4600SP RC-CHJ-4600SPI
供电电压 Supply Voltage	220V/50HZ		
充电电压 Charging voltage	20~200V可调 Adjustable		
焊接螺柱直径范围 Stud diameter	M3-M6	M3-M8	M3-M10
可焊接螺柱长度范围 Stud length	标准5-35mm(可扩展至任意长度) Standard 5-35mm (can be extended to any length)		
可焊接板材厚度 Suitable plate thickness	≥ 0.5 mm		
可焊接的材质 Welding material	不锈钢、低碳钢、镀锌板、铝、黄铜 Stainless steel, carbon steel, galvanized sheet, aluminum, brass		
焊接速度 Welding speed	25-30个/分钟(取决于输入电压和螺柱直径) 25-30 PCS/min (depending on input voltage and stud diameter)		
动力方式 Dynamic mode	电解电容储能 Electrolytic capacitor energy storage		
电容容量 Capacitance capacity	66000μF	99000μF	132000μF
电容耐压 Capacitance withstand voltage	250VDC		
电容可充放电次数 Charged discharged times	200万次 Two million times		
焊把线材质及截面积 Welding handle wire material and cross-sectional area	国标25平方 National standard 25 square		
输出材质 Output material	T2紫铜 T2 copper		
保险丝 Fuse wire	10A 250VAC		
是否可扩展自动化 Whether automation is scalable	可选配RS485通信组件 RS485 communication components are optional		
焊接时间 Welding time	1-3ms		
控制方式 Control method	微处理器控制 Microprocessor control		
连接方式 Connection method	DKJ50-70型快接端子 quick junction terminal		
重量 Weight	24KG	25KG	26KG
外观尺寸 Dimension	550×211×238 (mm)		

双路通信焊机 DUAL COMMUNICATION WELDER

- ◆ 我司自主研发双组通信焊机产品，该系列焊机均为双组电容模式，使用时一组电容工作，另一组电容作为备用或连接手动焊枪进行手动作业，充分提高使用效率。采用高速单片机控制系统，通过多级匹配的PID算法对电容进行充电控制，充电速度领先业界！

Our company independently developed two sets of communication welders, this series of welder are two sets of capacitor mode, when the use of one set of capacitors work, the other set of capacitors as a backup or connect the manual welding gun manual operation, fully improve the efficiency of use. Using high-speed single-chip microcomputer control system, through multi-level matching PID algorithm for capacitor charging control, charging speed leading the industry!

- ◆ 具有数字化通讯功能，可以满足自动化系统与焊机实时通讯。实时接收上位机控制指令（如充电指令、焊接指令等）并实时发送焊机状态信息；通过和上位机系统充分交互，可以实现同一焊机连接多组焊枪，大幅提高自动裁钉机系统效率。

It has digital communication functions and can meet the real-time communication requirements between the automation system and the welder. Receive the control instructions of the upper computer in real time (such as charging instructions, welding instructions, etc.) and send the status information of the welder in real time; Through full interaction with the upper computer system, the same welding machine can be connected to multiple groups of welding guns, greatly improving the efficiency of the automatic nail machine system.



RC-CHJ-3500D
灰色双路电容基础版
Basic version

具备和设备通讯功能，焊机内部采用国产大品牌可控硅、MOS管。

with the function of communication with equipment, the welder is equipped with high-quality domestic brand SCR and MOS tubes.



RC-CHJ-3500DI
金色双路电容智能版
Smart version

使用触摸屏面板替代了原有的数字LED屏；可在触摸屏上同时观察焊机的多个信息，如当前电容电压、设置电压、焊接电流、充电时间、班组焊接次数、焊接记录、报警记录等，有利于实时掌控焊机状态；

uses a touch-screen panel instead of the original digital LED display. Multiple welder information can be viewed simultaneously on the touch screen, such as current capacitor voltage, set voltage, welding current, charging time, number of welds per shift, welding records, alarm records, etc., which facilitates real-time monitoring of the welder status.

可对焊接配方（母板类型、母板厚度、焊钉直径）进行详细设置及选择；

The welding formula (motherboard type, motherboard thickness, welding nail diameter) can be set and selected in detail;

通过操作触摸屏，可以随时设置焊机参数以满足高速运行的需求；

By operating the touch screen, the welding machine parameters can be set at any time to meet the needs of high-speed operation;

同时增加了我公司独有的焊接电流监控功能；并可通过通讯总线上报给上位机进行监控，检测到有不正常的焊接电流时，焊机报警、会暂停，及时发现漏焊、虚焊现象；

It is also equipped with our company's unique welding current monitoring function. Through the communication bus, the welding data can be reported to the host system for monitoring. When abnormal welding current is detected, the welding machine will alarm and pause, the leaks and weak welds will be discovered in time.

双路通信焊机配置及技术参数

DUAL-CHANNEL COMMUNICATION WELDER CONFIGURATION AND TECHNICAL PARAMETERS

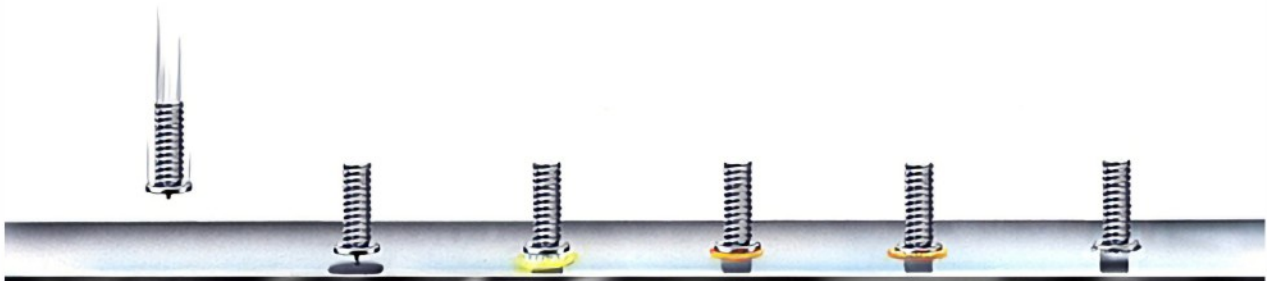
产品型号 Product model	RC-CHJ-3500D	RC-CHJ-3500DI
供电电压 Supply voltage	380V/50HZ	
充电电压 Charging voltage	20~200V可调 Adjustable	
焊接螺柱直径范围 Welding stud diameter range	M3-M10	M3-M10
可焊接螺柱长度范围 Weldable stud length range	标准5-35mm (可扩展至任意长度) Standard 5-35mm (expandable to any length)	
可焊接板材厚度 Suitable plate thickness	≥0.5mm	
可焊接的材质 Weldable materials	不锈钢、碳钢、镀锌板、铝、黄铜 Stainless steel, carbon steel, galvanized sheet, aluminium, brass	
焊接速度 Welding speed	25-30个/分钟 (取决于输入电压和螺柱直径) 25-30 PCS/min (depending on input voltage and stud diameter)	
动力方式 Power mode	电解电容储能 Electrolytic capacitors for energy storage	
电容容量 (单组) Capacitance (single group)	99000μF	99000μF
电容耐压 Capacitor withstand voltage	250VDC	
电容尺寸 Capacitor size	高度H=165mm; 直径D=90mm Height H=165mm; Diameter D=90mm	
电容可充放电次数 Number of times the capacitor can be charged and discharged	200万次 2 million times	
焊把线材质及截面积 Welding handle wire material and cross-sectional area	国标35平方 National standard 35 sq. ft.	
输出材质 Output material	T2紫铜 T2 copper	
保险丝 Fuse	10A 250VAC	
是否可扩展自动化 Is automation scalable?	是 Yes	
远程控制方式 Remote control method	RS485通讯或开关控制 RS485 communication or switch control	
焊接时间 Welding time	1-3ms	
控制方式 Control method	微处理器控制 Microprocessor control	
重量 Weight	62KG	65KG
外观尺寸 External dimensions	700×378×354 (mm)	

储能式螺柱焊枪

ENERGY STORAGE TYPE STUD WELDING GUN



品名 Product name	接触式焊枪 Contact welding gun
焊接范围 Welding range	M3-M10
焊接螺钉长度范围 Welding screw length range	5-35mm
焊枪电缆长度 Welding gun cable length	3米 (可加长) 3 meters (extensions available)
焊枪尺寸 Welding gun dimension	182×130×35mm



接触式螺柱焊 (压力式焊接) 工艺流程

CONTACT STUD WELDING (PRESSURE WELDING) PROCESS FLOW:



拉弧式螺柱焊机 DRAWING ARC STUD WELDER

- ◆ 根据螺柱直径不同以及使用场合不同，拉弧式螺柱焊有不同的焊接方式以及保护方式。
According to the different diameter of the stud and the different use occasions, the draw-arc stud welding has different welding methods and protection methods.
- ◆ 焊接方式分为“短周期拉弧式螺柱焊”和“长周期拉弧式螺柱焊”；
The welding methods are divided into "Short period drawing arc stud welding" and "long period drawing arc stud welding";
- ◆ 保护方式分为“无需保护”、“气体保护”和“瓷环保护”。
Protection modes are divided into "no protection", "gas protection" and "porcelain ring protection".

短周期拉弧式螺柱焊机 SHORT PERIOD DRAWING ARC STUD WELDER



船舶制造业
Shipbuilding industry



锅炉行业
Boiler industry



金属家具制造业
Metal furniture manufacturing

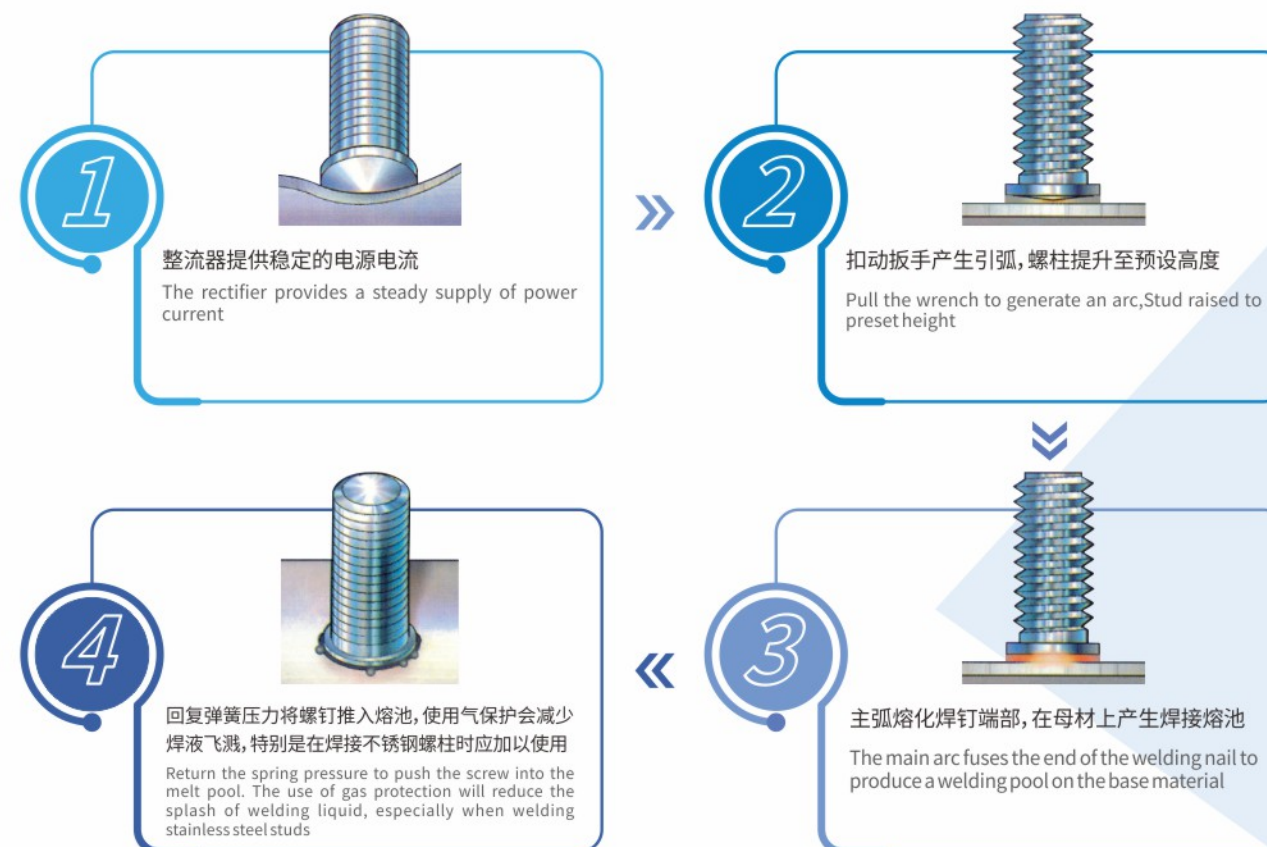


机械设备制造业
Machinery and equipment manufacturing



轨道汽车制造业
Rail car manufacturing

短周期螺柱焊工艺流程 SHORT PERIOD STUD WELDING PROCESS



- ◆ 可焊接M3-M12范围内的螺柱，储能焊钉也可用此种工艺进行焊接，可以扩展旋弧焊接，焊接普通螺母；
It can weld studs in the range of M3-M12, energy storage welding studs can also be welded by this process, can extend drawing arc welding, welding ordinary nuts;
- ◆ 短周期工艺比储能工艺更能渗透工件，当工件表面不平整时，此工艺更适用；
The short period process can penetrate the workpiece better than the energy storage process, and this process is more suitable when the surface of the workpiece is uneven.
- ◆ 可以对不锈钢、耐热钢等金属进行焊接，母材表面不规则；
Can weld stainless steel, Heat-resistant steel and other metals, base metal surface is not regular;
- ◆ M8以下的螺柱无需保护，但为了实现高焊接质量，建议采用气体保护；
Studs below M8 do not require protection, but gas protection is recommended for high welding quality.
- ◆ M8以上的螺柱要采用气体或者磁环保护进行焊接，以便达到理想的焊接效果；
The stud above M8 should be welded with gas or porcelain ring protection in order to achieve the ideal welding effect;
- ◆ 具有计数功能，特别适用于计件行业；
It has the function of counting, especially for the piecework industry;
- ◆ 工业级液晶显示可以对电流、时间等参数进行精细化的调节，以确保焊接可靠性；
Industrial-grade LCD display allows precise adjustment of parameters such as current and time, ensuring welding reliability;

短周期拉弧螺柱焊枪
SHORT PERIOD DRAWING ARC STUD WELDING GUN



型号 Model	SPH-01
焊接螺柱直径范围 Diameter range of welding stud	M3-M12
焊接螺柱长度范围 Length range of welding stud	5-200mm
保护类型 Protection type	气体保护 Gas protection



型号 Model	SPH-02
焊接螺柱直径范围 Diameter range of welding stud	M3-M12
焊接螺柱长度范围 Length range of welding stud	5-45mm
保护类型 Protection type	气体保护 Gas protection



型号 Model	SPH-03
焊接螺柱直径范围 Diameter range of welding stud	M8-M12
焊接螺柱长度范围 Length range of welding stud	5-60mm
保护类型 Protection type	瓷环保护 Porcelain ring protection

焊接效果展示
WELDING EFFECT DISPLAY



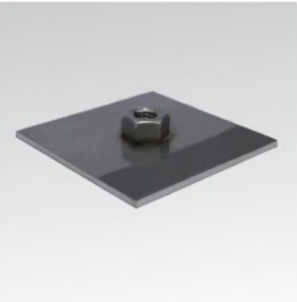
螺柱焊镀锌钢板
Studs welded on galvanized steel sheet



螺柱焊不锈钢板
Studs welded on stainless steel plate



铝螺母
aluminium nut



旋弧焊接螺母
Spin Arc Welding Nuts

短周期拉弧式螺柱焊机技术参数
TECHNICAL PARAMETERS OF SHORT PERIOD ARC DRAWING STUD WELDER

产品型号 Product model	RC-SP-1500i	RC-SP-1500A/D
控制方式 Control method	开关电源 Switching Power Supply	变压器 Transformer
可焊螺柱尺寸 Solderable stud size	M3-M12	M5-M12
焊接通道数量 Number of welding channels	1	2
焊接定位方式 Welding positioning method	套筒定位 Sleeve positioning	
可焊螺柱材质 Stud material	不锈钢及耐热钢 Stainless steel and heat-resistant steel	
适合板厚 Suitable plate thickness	≥0.8mm	
焊接电流 Welding current	自适应, 最大1500A Adaptive, maximum 1500A	
焊接电压 Welding voltage	51V	
焊接时间 Welding time	10-999ms	
焊接速度 Welding rate	15-30颗/分钟 (焊M3或Ø2mm) 15-30 studs/minute (welding M3 or Φ2mm)	
	5颗/分钟 (焊M12) 5 studs/minute (welding M12)	
电源 Power Supply	交流 380V±10%/50Hz (三相五线) AC 380V±10%/50Hz (three-phase five-wire)	
输出电压 Output voltage	30-60V DC	
瞬时电流 Instantaneous current	3×380V 交流电时 60A/相	
瞬间最大额定功率 Rated power	18KVA	67KVA
防护等级 Ingress Protection	IP23	
保护气流量 Protective gas flow	4-5L/min	
重量 Weight	65KG	153KG
外形尺寸 External dimensions	665×345×550mm	700×460×610mm

长周期拉弧式螺柱焊机 LONG PERIOD DRAWING ARC STUD WELDER



长周期拉弧焊主机
Long period drawing arc welding machine



长周期拉弧焊枪
Long period drawing arc welding gun



钢结构工程
Steel structure engineering



桥梁工程
bridge engineering



船舶制造业
shipbuilding industry



锅炉行业
boiler industry

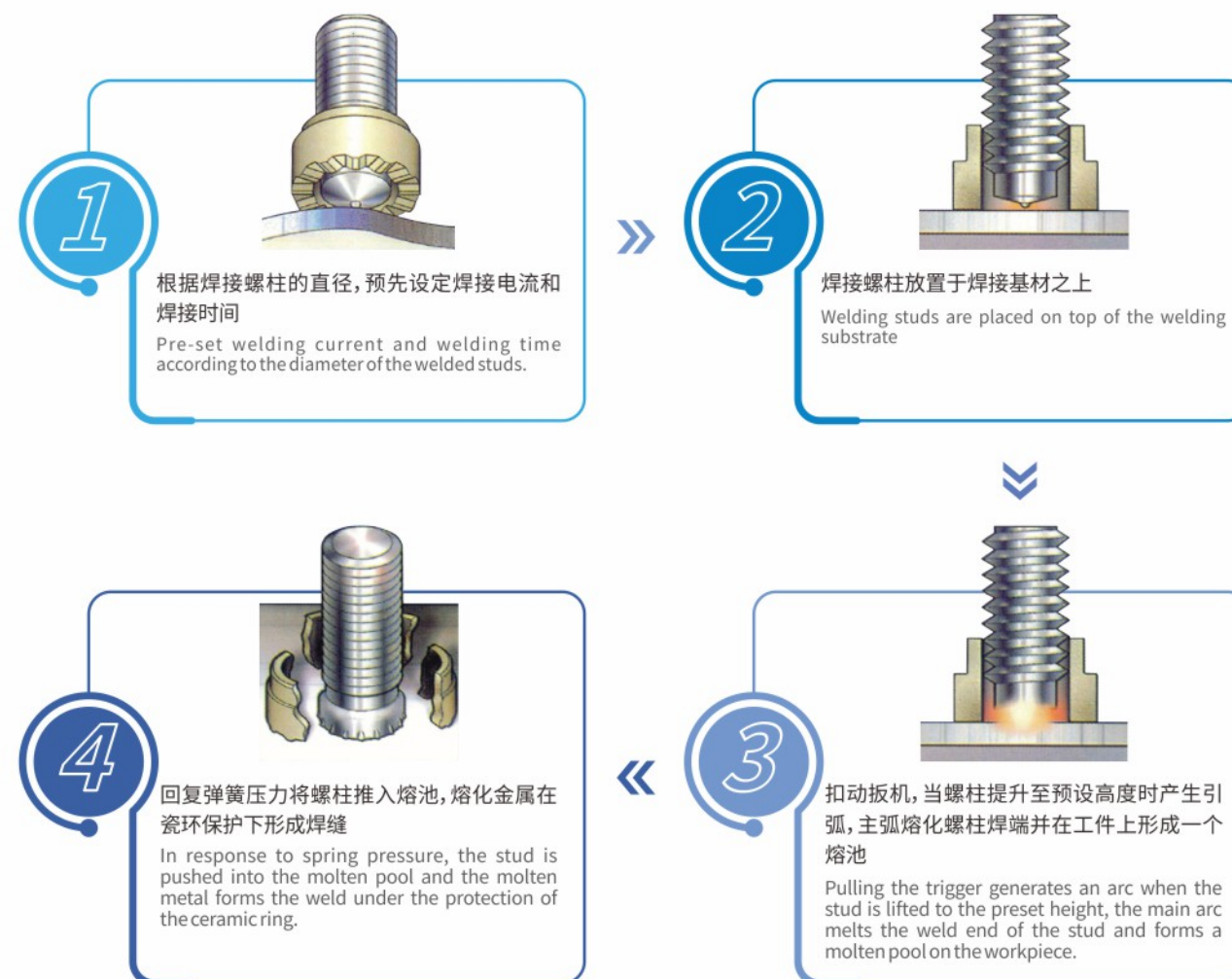


轨道汽车制造业
rail car manufacturing

◆ 采用先进的IGBT逆变技术, 焊接时间较长, 熔池较深, 可焊螺柱直径较大, 对板材表面质量要求较低, 允许工件表面弯曲、不规则, 特别适用于2mm及以上厚板的焊接, 可以对低碳钢、不锈钢进行焊接, 对于直径12mm以上的螺柱推荐使用磁环进行保护焊接。

It adopts advanced IGBT inverter technology, with longer welding time, deeper molten pool, larger weldable stud diameter, lower requirements on plate surface quality and allows for curved and irregular workpiece surfaces, especially suitable for the welding of 2mm and above thick plates, can be welded to low carbon steel, stainless steel, for the diameter of more than 12mm stud recommended to use magnetic ring for protection welding.

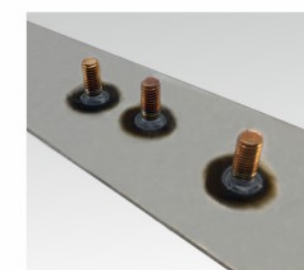
长周期拉弧式螺柱焊工艺流程 LONG PERIOD DRAWING ARC STUD WELDING PROCESS



焊接效果展示 WELDING EFFECT DISPLAY



气体保护螺柱焊不锈钢板
Gas shielded studs welded on stainless steel plate



气体保护螺柱焊低碳钢板
Gas shielded studs welded on low carbon steel plate



焊接栓钉
Welding pegs



焊接栓钉
Welding pegs

长周期拉弧式螺柱焊机参数表
PARAMETER TABLE OF LONG PERIOD DRAWING ARC STUD WELDER

产品型号 Product model	RC-LP-25
焊接螺栓直径范围 Welding stud diameter range	6-25mm
可焊栓钉长度 weldable stud length	≤400mm
适合板厚 Suitable plate thickness	≥2mm
输入电压 Input Voltage	交流380V±10%/50Hz (三相五线) AC 380V±10%/50Hz (three-phase five-wire)
额定输入容量 Rated input capacity	107KVA
额定焊接电压 Rated welding voltage	32VDC
焊接电流调节范围 Welding current	250-2500A
焊接时间 Welding time(m/sec)	50-1500ms
连续焊接速度 Continuous welding speed	6~30只/分钟 Pcs/min
保护等级 Protection level	IP21S
冷却系统 Cooling system	连续式风扇 Continuous Fan
绝缘等级 Insulation class	F
重量 Weight	105kg
尺寸Size L×W×H mm (不包括轮子)(Wheels not included)	780×390×800mm

螺柱焊焊接工艺参数参考值
REFERENCE VALUES FOR STUD WELDING PROCESS PARAMETERS

可焊栓钉直径 (mm) Weldable stud diameter (mm)	焊接电流 (A) Welding current (A)	焊接时间 (S) Welding time (S)	焊接生产率 (个/分钟) Welding productivity (pcs/min)
6	420	0.20	25
10	550	0.35	25
13	800	0.55	25
16	900	0.90	16
19	1500	0.80	12
22	2100	1.00	8
25	2300	1.10	7

德国BSK+BTv螺柱焊机 GERMAN BSK+BTv STUD WELDING MACHINE

◆ 产品组合涵盖了整个铆焊技术的程序：紧凑的手动螺柱焊机、设备技术及半自动和全自动应用的设备组件：CNC 和特殊设备，以及几乎所有尺寸的焊接元件（螺钉、栓钉等）。

Our portfolio includes the entire range of stud welding technology: from the compact manual stud welding device to equipment technology and components for semi- and fully automatic applications or CNC and special systems to welding elements in almost all dimensions (Screws, studs, etc.).

◆ 具有现代的微处理器控制、一键式操作、强大的逆变器充电部件和宽大的 4 英寸图形显示屏。

Featuring the most modern microprocessor control, one-button operation, powerful inverter charging parts and a large 4-inch graphic display.

产品特点：数字位移测量和数字过程控制，具有焊接电流和能量含量的监控、故障检测报警以及许多其他库功能。

Product features: Digital displacement measurement and digital process control with monitoring of the welding current and the energy content, fault detection alarms and many other library functions.

手持单路储能焊机 HANDHELD SINGLE-CHANNEL ENERGY STORAGE WELDER



型号 Model	CDP-66M	CDP-99M
焊接范围 Welding range	碳钢和不锈钢螺柱 M3-M8, 镀锌金属板<15μm, 铝合金最大螺柱M6 Carbon and stainless steel studs M3-M8, zinc-coated metal sheets <15μm, Aluminium-alloy max. Stud M6	碳钢和不锈钢螺柱 M3-M10, 镀锌金属板 <15μm / M8 铝合金最大螺柱 M6 Carbon and stainless steel studs M3-10, zinc-coated metal sheets<15 μ m/M8 Aluminium-alloy max. Stud M6
焊接速度 Welding speed	20 个螺柱 / 分钟 (M8 规格, 连续运行时) 20 studs /minute metrics M8 (in continuous operation)	
电容容量 Capacity	66,000μF	99,000μF
自动化 Automation	可连接4把手动焊枪, 不提供自动和 CNC 功能 4 manual welding guns; does not provide automatic or CNC functions.	可连接4把手动焊枪/自动焊枪/全自动螺柱送料器 (与“Switchbox DA-4”结合使用) 4 manual welding guns/automatic welding guns/fully automatic stud feeders (connected while using the Switchbox DA-4)

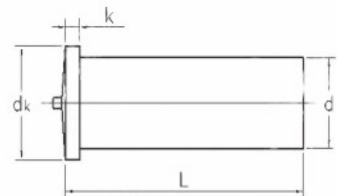
拉弧焊机 DRAWING ARC STUD WELDER



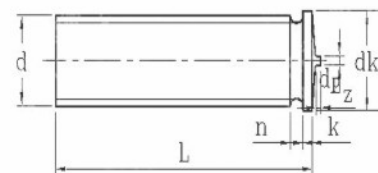
型号 Model	DAI-1300	DAI-1300S	DAI-2300S
焊接面积 (最大焊接直径) Welding area (max. welding diameter)	M3-M16(RD), Ø2-13mm(SD)	M3-M16(RD), Ø2-13mm(SD)	M3-M24(RD), Ø2- 22mm(SD)
可焊接材料 Weldable material	碳钢、不锈钢、铝合金, 厚度0.8mm以上 Carbon and stainless steel, aluminium-alloy. thickness≥0.8mm		
焊接应用 Welding application	拉弧 (使用陶瓷或保护气体), 短周期 Drawn-Arc (with ceramics or protective gas), Short-cycle		
焊接电流I(A) Welding current I(A)	100A-1000A, 无级可调 100A-1000A, infinitely variable	100A-1000A, 无级可调 100A-1000A, infinitely variable	100A-2000A, 无级可调 100A-2000A, infinitely variable
焊接时间t(ms) Welding time t(ms)	5-600ms, 无级可变 5-600ms, infinitely variable	5-600ms, 无级可变 5-600ms, infinitely variable	5-1500ms, 无级可变 5-1500ms, infinitely variable
焊枪连接 Welding guns connections	可连接4把手动焊枪/自动焊枪 (与“Switchbox DA-4”结合使用) 4 manual welding guns / automatic welding guns (connected while using the Switchbox DA-4)	可直接连接4把手动焊枪/自动焊枪/全自动螺柱送料器 4 manual welding guns / automatic welding guns / fully automatic stud-feeding system can be connected	

储能式焊钉

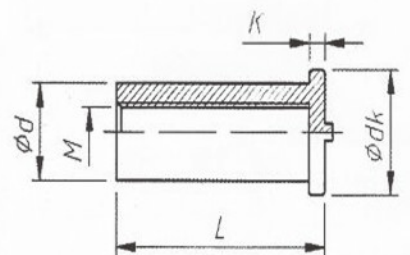
ENERGY STORAGE TYPE WELDING NAIL >>>



类型 Type	PT
规格 Specification	4.8 碳钢镀铜, A2-50 不锈钢, CuZn 37(Ms63)铜, ENAW-ALMg3 铝镁合金。 4.8 carbon steel copper plated, A2-50 stainless steel, CuZn 37 (Ms63) copper, ENAW-ALMg3 aluminum magnesium alloy.
材料 Material	M3X6mm-M8X60mm



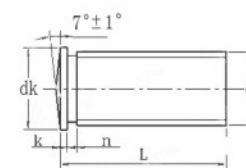
类型 Type	B型 B type
规格 Specification	4.8 碳钢镀铜, A2-50 不锈钢, CuZn 37(Ms63) 铜, ENAW-ALMg3 铝镁合金。 4.8 carbon steel copper plated, A2-50 stainless steel, CuZn 37 (Ms63) copper, ENAW-ALMg3 aluminum magnesium alloy.
材料 Material	M3X6mm-M8X60mm



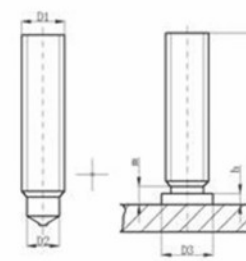
类型 Type	螺母焊钉 Nut welding nail
规格 Specification	4.8碳钢镀铜, A2-50不锈钢, CuZn 37(Ms63)铜, ENAW-ALMg3铝镁合金。 4.8 carbon steel copper plated, A2-50 stainless steel, CuZn 37 (Ms63) copper, ENAW-ALMg3 aluminum magnesium alloy.
材料 Material	M3X6mm-M8X60mm

拉弧式焊接螺钉

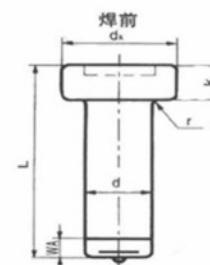
ARC WELDING SCREW >>>



类型 Type	FT 短周期拉弧式焊钉 FT short cycle arc welding nail
规格 Specification	4.8碳钢镀铜, A2-50不锈钢。 4.8 carbon steel copper plating, A2-50 stainless steel.
材料 Material	M5X8-M12X50mm



类型 Type	RT
规格 Specification	4.8碳钢镀铜, A2-50不锈钢。 4.8 carbon steel copper plating, A2-50 stainless steel.
材料 Material	M6X8-M16X50mm



类型 Type	钢结构栓钉 Steel stud
规格 Specification	碳钢 S235J2G3+C450 Carbon steel S235J2G3+C450
材料 Material	M10X20-M25X300mm