

螺柱焊钉，螺柱焊机及其配套耗材的研发制造现代化工厂

Development and manufacturing of stud welding nails, stud welding machines, and their supporting consumables in modern factories



常州专成螺柱焊接技术有限公司
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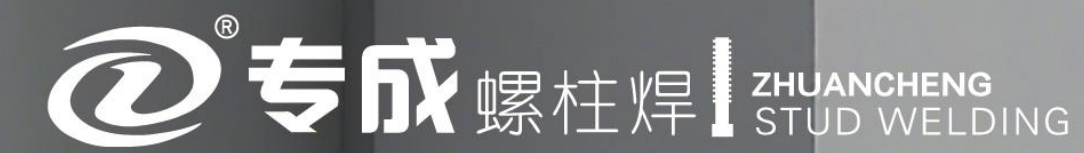
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螺柱焊接系统目录

STUD WELDING SYSTEMS CATALOGUE



公司简介

COMPANY INTRODUCTION

专成螺柱焊接

Changzhou Zhuancheng Stud Welding Technology Co., Ltd. established in 2002, a technological enterprise, specializes in developing and manufacturing stud welding machines, studs and related products. Our company is located in Xuejia town, Xinbei district, Changzhou city, Jiangsu province, covering an area of about 1800m². The main products of the company: pull-arc stud welding machine, capacitive stud welding machine, automatic/semi-automatic stud welding machine, CNC stud welding machine, stud welding machine, auto arc welding screw, energy storage studs, pull-arc welding studs and other non-standard studs, mainly used in automobile body, transformer, ring network cabinet, communication cabinet, heat exchanger, new energy battery furnace box, spiral plate, nuclear power, shield machine, steel structure, ship and boiler and other industries.

After years of development, the company has all kinds of single/multi-mode cold header, wire rolling machine, CNC processing equipment and various kinds of testing equipment, in total more than 30 sets. Our products are designed, produced and manufactured in strict accordance with ISO-13918 and ISO-14555 standards and comply with EU RoHS and REACH environmental regulations, which can provide users with the most satisfactory service.

The company has won the honorary titles of "Jiangsu Province Science and Technology SEMs", "Jiangsu Province private science and technology enterprises", "Jiangsu Province high-tech enterprises" and so on. Our products have passed IATF-16949:2016, ISO9001:2025, ISO14001:2008, ISO45001:2018 and CNAS certification.

Mainly used in automobile body, transformer, ring network cabinet, communication cabinet, heat exchanger, new energy battery furnace box, spiral plate, nuclear power, shield machine, steel structure, ship and boiler and other industries.

常州专成螺柱焊接技术有限公司成立于2002年，是一家专业从事螺柱焊接设备，螺柱焊钉及其相关产品研发和生产的科技型企业。公司位于江苏省常州市新北区薛家镇，占地面积约1800m²，距离京沪高铁常州北站约3公里。公司主要产品有：拉弧式螺柱焊机、电容式螺柱焊机、CNC经过多年的发展，公司拥有各类单模、多模冷镦机，搓丝机，数控加工设备及各类检测设备30余台套。公司产品严格按照ISO-13918和ISO-14555标准实施设计，生产和制造且符合欧盟ROHS和REACH环保法规，能够为用户提供最满意的服务。

公司现已取得国内发明专利4项，实用新型专利25项，软件著作权6项。公司先后获得“江苏省科技型中小企业”，江苏省民营科技型企业，江苏省高新技术企业等荣誉称号。公司产品先后通过IATF-16949:2016, ISO9001:2025, ISO14001:2008, ISO45001:2018等认证。公司产品现已广泛应用在汽车车身，变压器，环网柜，通讯柜体，热交换器，新能源电池炉箱，螺旋板，核电，盾构机，钢结构，船舶及锅炉等行业。

公司本着“诚信、专注、创新、超越”的发展理念，不断巩固和发展客户关系，充分发挥螺柱焊机设备的研发优势和焊接经验，为螺柱焊钉的生产检验和工艺技术提供有力支撑，进一步为客户提供全面，系统性的解决方案。



20年专注 螺柱焊机的研发创新

 **专成** 螺柱焊 ZHUANCHENG STUD WELDING





发展为客户信赖和喜爱的
螺柱焊品牌供应商
Develop into a trusted and beloved
customer baseSupplier of stud welding brand

企业文化

CORPORATE CULTURE

目标

TARGET

打造成为国内螺柱焊接
设备领域实力派供应商
Build into a domestic stud welding industry
Powerful suppliers in the field of equipment

使命

MISSION

提供有竞争力螺柱焊解决方
案和服务，为客户创造价值
Provide competitive stud welding solutions
Creating value for customers through
cases and services

精神

SPIRIT

专心、专注、专业
Focused, dedicated, and professional

理念

IDEA

做实、做大、做强
Be solid, bigger, and stronger

愿景

VISION

发展为客户信赖和喜
爱的螺柱焊品牌供应商
Develop into a trusted and happy customer
base Love's stud welding brand supplier

企业荣誉

CONTENT HERE

公司取得国内发明专利4项，实用新型专利25项，软件著作权6项。

公司获得“江苏省科技型中小企业”，“江苏省民营科技型企业”，“江苏省高新技术企业”等荣誉称号。

公司产品通过IATF-16949：2016，ISO9001：2015，ISO14001：2008，ISO45001：2018等认证。



发明专利 4项



软件著作权 6项



实用新型专利 25项

我们的优势

OUR ADVANTAGES



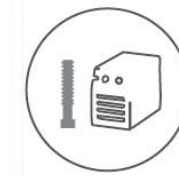
源头厂家
SOURCE MANUFACTURER



质量保证
QUALITY ASSURANCE



支持定制
SUPPORT CUSTOMIZATION



焊机/焊钉全套生产
COMPLETE PRODUCTION OF WELDING
MACHINES/WELDING STUDS



01 技术团队

TECHNICAL TEAM

我们拥有一批多年从事螺柱焊钉，螺柱焊机设计制造的工程技术人员和经验丰富的一线技术人员。随着市场经济不断深入和加工技术不断进步，我厂的技术革新和设备改造日新月异，生产规模逐渐扩大，已形成集产品研发、生产、销售、服务为一体的综合型科技企业。

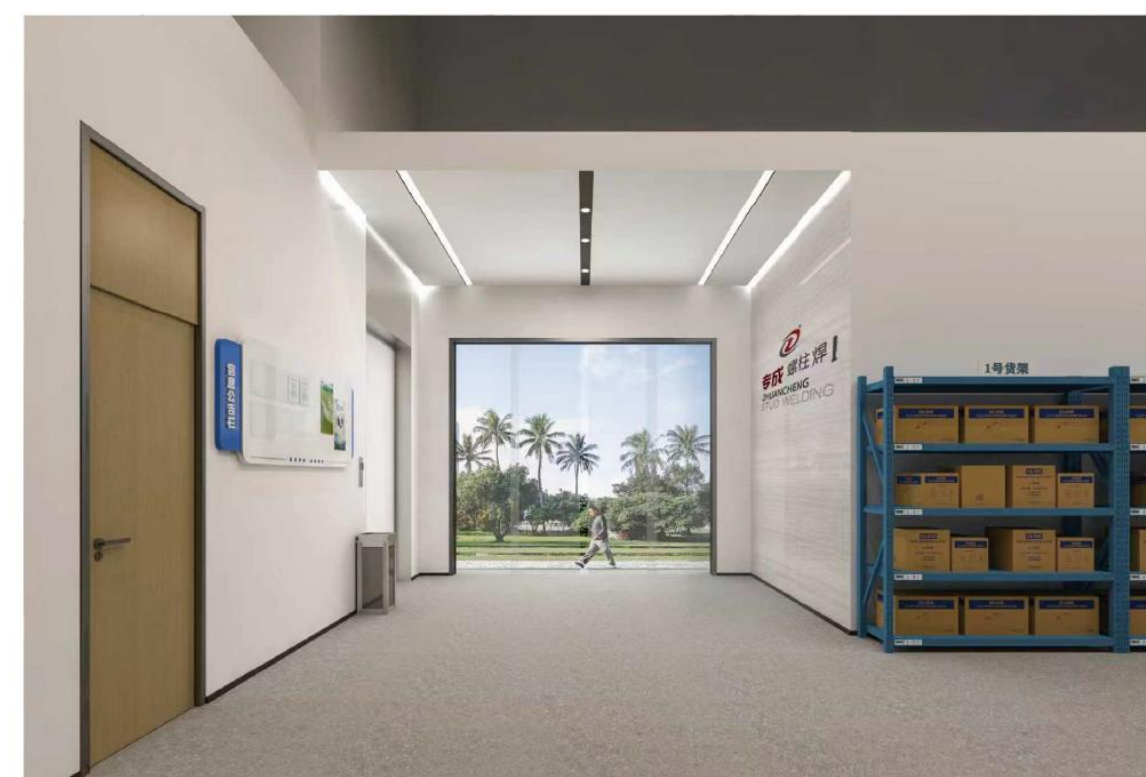
We have a group of engineering and technical personnel who have been engaged in the design and manufacturing of stud welding nails and stud welding machines for many years, as well as experienced front-line technical personnel. With the continuous deepening of the market economy and the advancement of processing technology, our factory's technological innovation and equipment transformation are advancing rapidly, forming a comprehensive technology enterprise integrating product research and development, production, sales, and service.

02 质量保证

QUALITY ASSURANCE

公司生产设备精良，技术力量雄厚，进行严格的质量控制。严格按照标准和用户需求组织生产。以完善的设备、过硬的产品质量，产品畅销海内外各地，深得用户信赖和好评，选择我们的产品就等于选择了可靠保证！

The company has excellent production equipment, strong technical strength, and strict quality control. Strictly organize production according to standards and user needs. Our factory has perfect equipment and excellent product quality. Our products are sold well all over the country and have won the trust and praise of users. Choosing our products is equivalent to choosing a reliable guarantee for the project!



适用场景

STUD WELDING APPLICABLE SCENE



船舶建造 SHIP CONSTRUCTION



汽车 CAR INDUSTRY



机车 RAIL INDUSTRY



石化行业 PETRIFACTION INDUSTRY



核电 NUCLAER POWER



新能源 NEW ENERGY



港口机械 HARBOUR MACHINERY



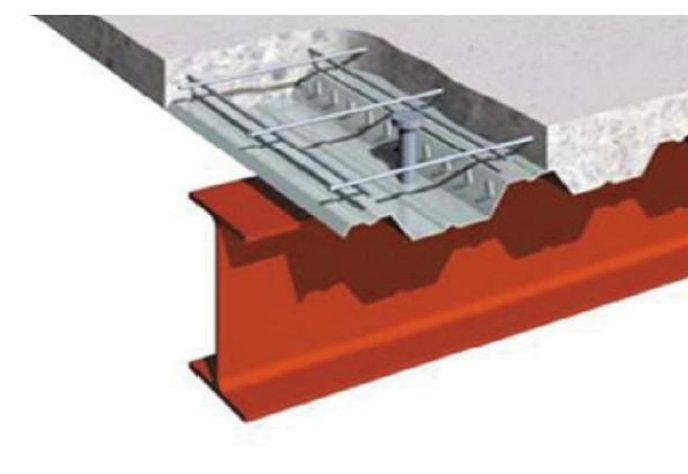
厨房电器 KITCHEN APPLIANCE



电梯 ELEVATOR INDUSTRY



工程机械 CONSTRUCTION MACHINERY



建筑行业 BUILDING CONSTRUCTION



变压器 TRANSFORMER ASSEMBLY



电力柜体 ELECTRICITY CABINET



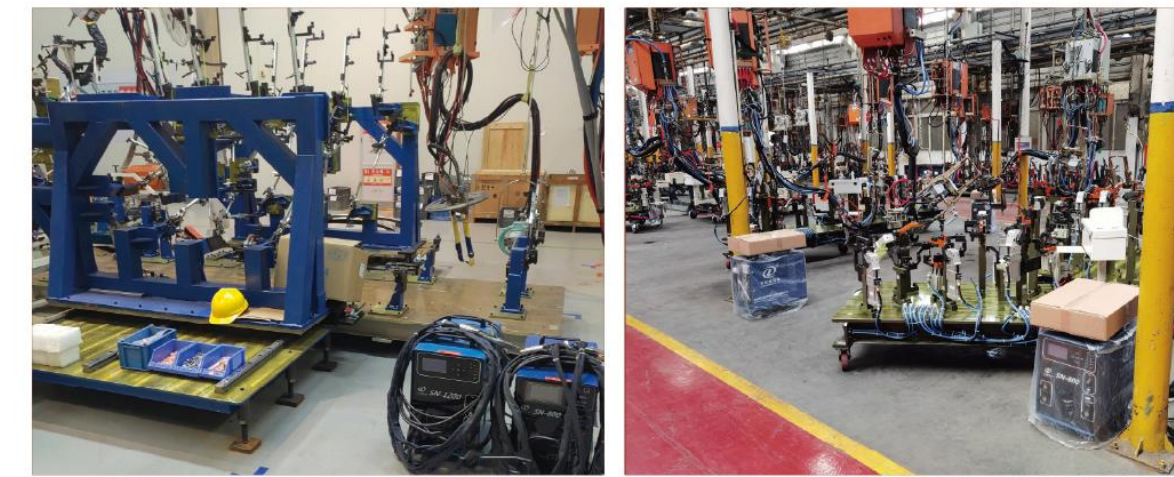
锅炉工业 BOILER INDUSTRY



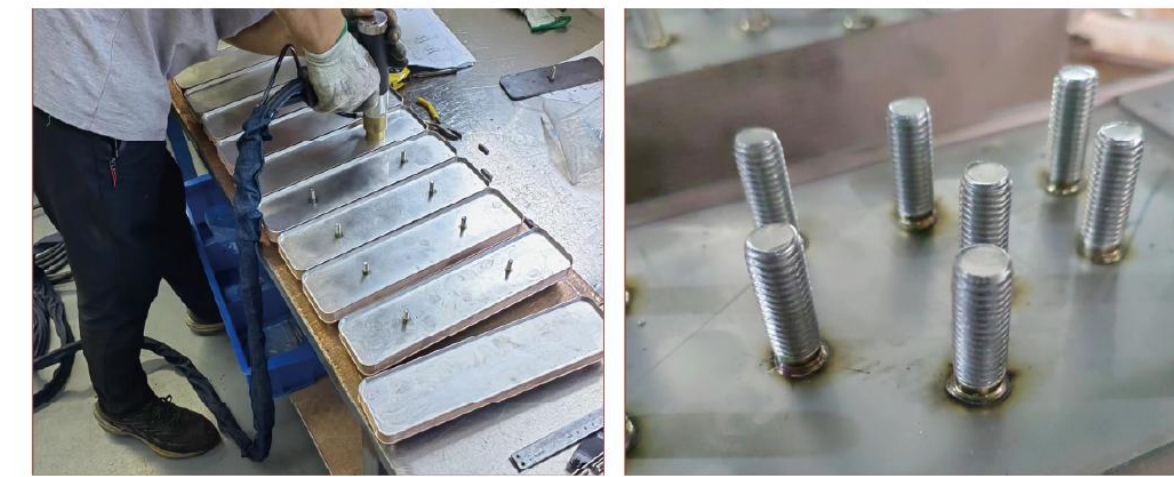
风电建设 WIND POWER

案例展示

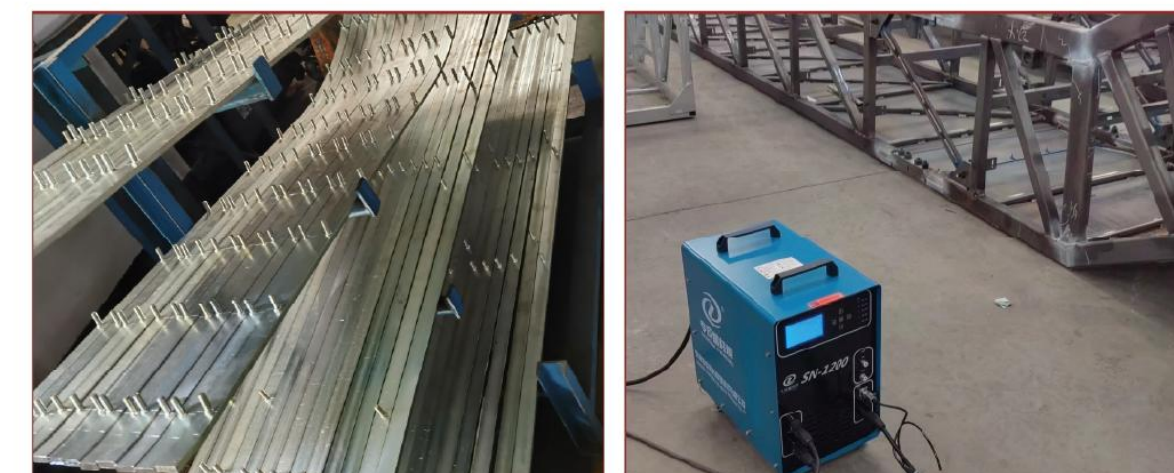
CASE SHOWCASE



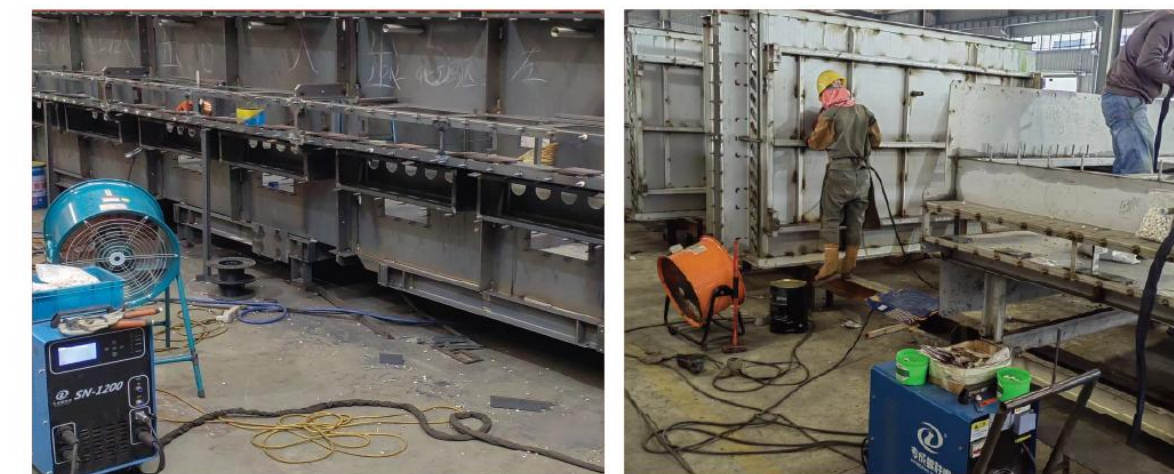
汽车行业 AUTOMOTIVE INDUSTRY



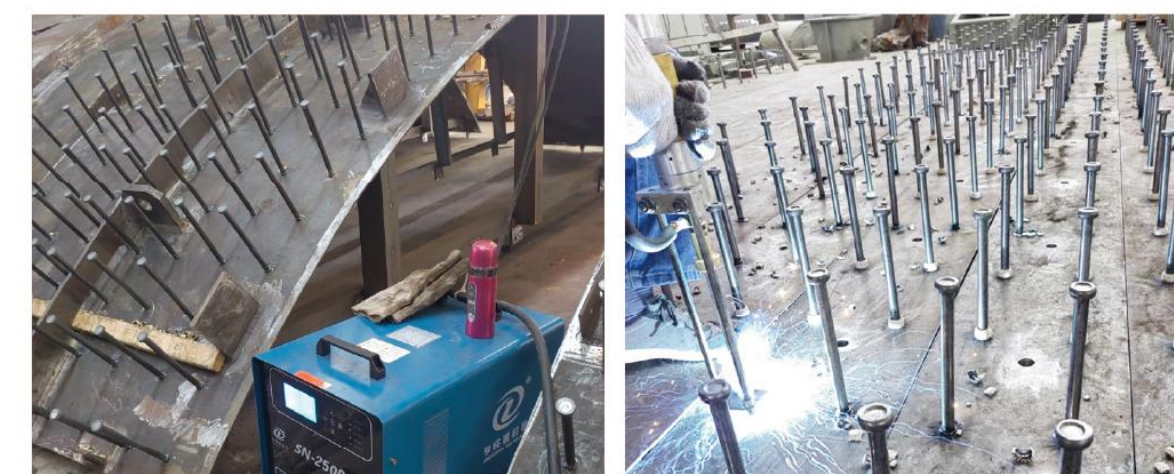
板式换热器行业 PLATE HEAT EXCHANGER INDUSTRY



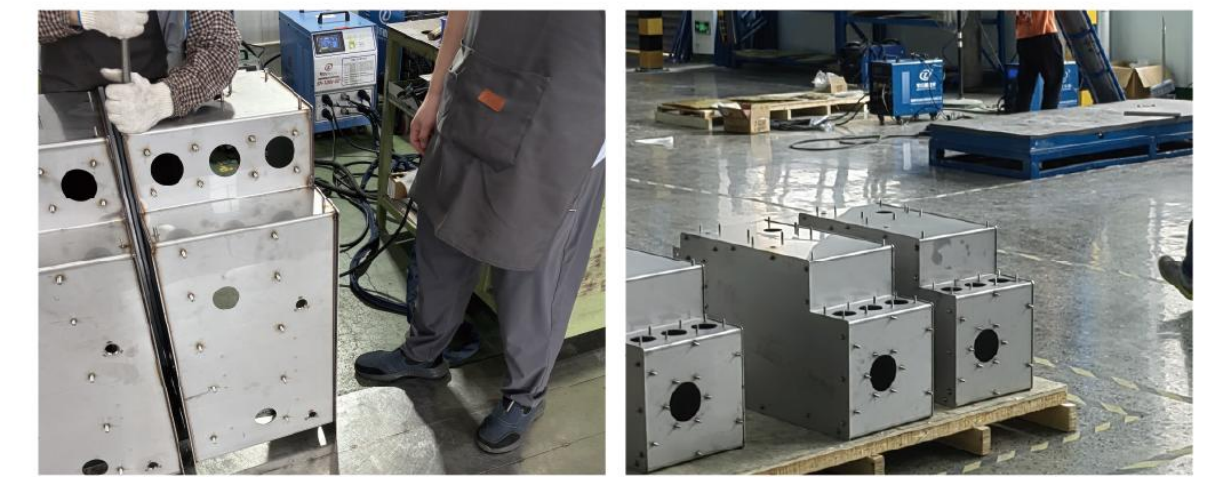
电梯行业 ELEVATOR INDUSTRY



新能源行业 NEW ENERGY INDUSTRY



钢结构行业 STEEL STRUCTURE INDUSTRY



环网柜行业 RING MAIN UNIT INDUSTRY INDUSTRY



变压器行业 TRANSFORMER INDUSTRY



螺旋板行业 SPIRAL PLATE INDUSTRY



造船行业 SHIPBUILDING INDUSTRY



锅炉行业 BOILER INDUSTRY



01 螺柱焊接介绍

- 基本理论
- 焊接优点
- 焊接工艺分类

05 多通道螺柱焊接系统

- SN-800-02
- SN-1200-02
- SN-1600-02

03 逆变拉弧螺柱焊机

- SN-800
- SN-1200
- SN-1600
- SN-2000
- SN-2500
- SN-3200

07 电容式螺柱焊机

- CD-66
- CD-99
- CD-132

09 铝螺柱焊机

- ALU-06

13 NCS系列自动螺柱焊接平台

- NCS-6090 CNC
- NCS-1050NC
- NCS-1520 CNC
- NCS-1820 CNC
- NCS-2545 CNC

11 电容储能式螺柱焊机

- LZH-3000

15 配件目录

- 螺柱焊枪
- 陶瓷磁环
- 螺柱夹头/接头

螺柱焊接基本理论

BASIC THEORY OF STUD WELDING

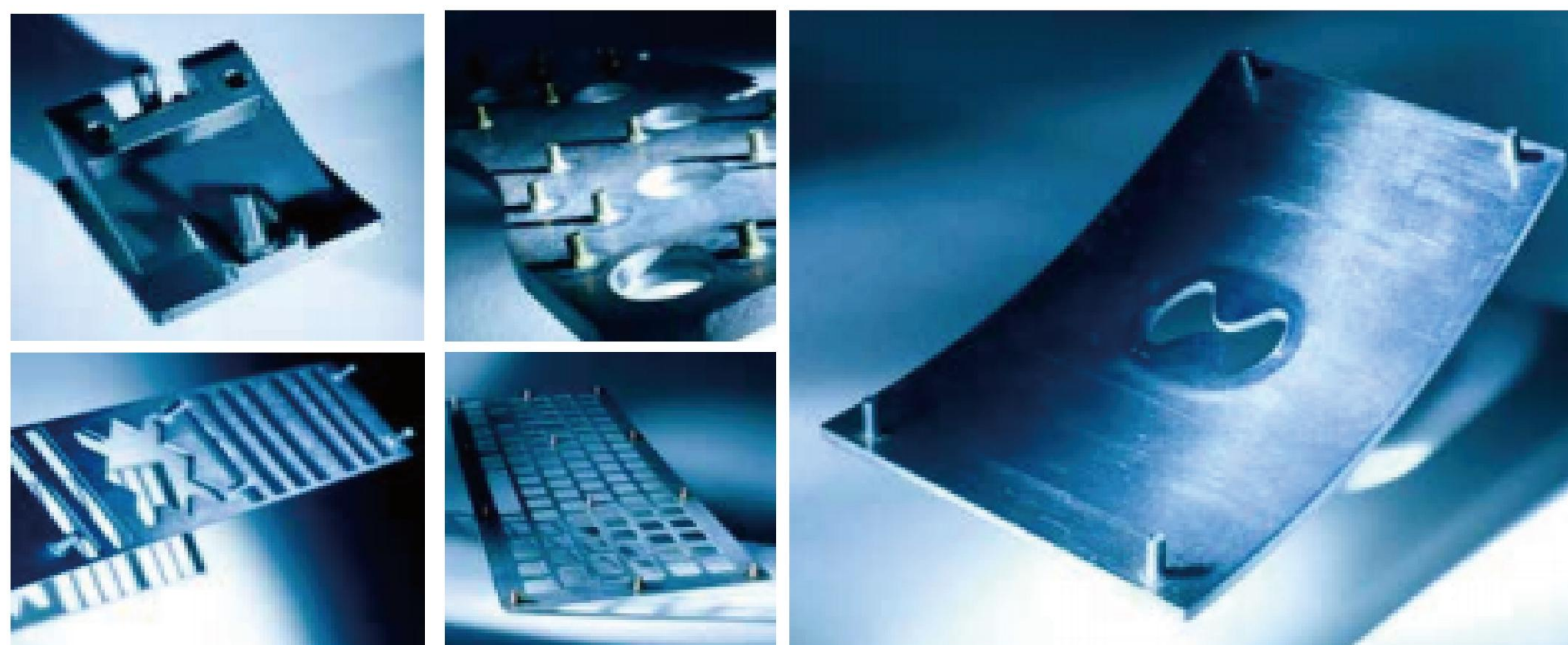
螺柱焊接是一种极其简易的焊接紧固工艺方法，它可以将螺柱瞬间焊接到金属工件表面，以实现高质量、高强度、低成本的永久粘合。由于焊接螺柱的整个表面都连接到工件上，因此产生的焊接接头比螺柱或母材更坚固。随着日常生活用品和工业用品中对板材的防漏、无孔、装饰、板面变形要求越来越高，如果没有螺柱焊接，许多工程和产品都是不可能的完成制造。因此，螺柱焊接逐渐开始代替铆接、冲孔和钻孔工艺。

Stud welding is a complete one-step fastening system, using fasteners called weld studs. A weld stud can be end-joined to a metal work piece instantaneously for a high quality, high strength permanent bond. As the whole surface of the weld stud is joined to the workpiece, the resulting weld joint is stronger than the stud or parent material. With the requirement of no holes, no deformation, no leakproof more and more important from the customer, many engineer projects will can't move forward without stud welding. So, it has even been possible to replace many areas of gluing, riveting, punching and drilling.

螺柱焊接的优点

ADVANTAGES OF STUD WELDING

- 薄板/厚板都可以进行焊接;
 - 螺柱焊接范围从 $\phi 2\text{MM}$ ~ $\phi 40\text{MM}$;
 - 材料几乎无变形;
 - 可进行各种材料组合;
 - 操作快速简便，生产效率高。
- Weldable in thin or thick sheet metal;
 - Wide range of use from $\phi 2\text{ mm}$ up to $\phi 40\text{ mm}$;
 - No any deformation and changes in material nearly;
 - Various material combinations welding available;
 - Fast and easy operation ensure high productivity.



焊接工艺分类

CLASSIFICATION OF WELDING PROCESSES

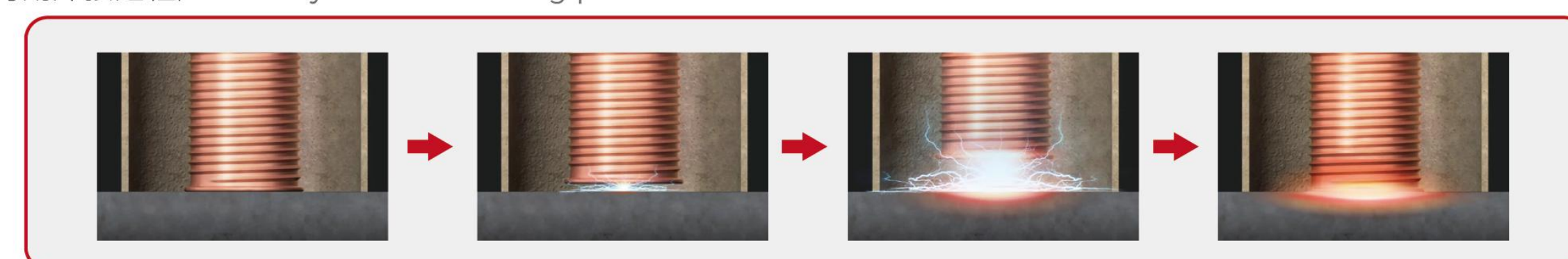
根据不同的焊接需求，螺柱焊主要分为以下4类焊接方式：

ACCORDING TO DIFFERENT WELDING REQUIREMENTS, STUD WELDING IS MAINLY DIVIDED INTO THE FOLLOWING FOUR TYPES OF WELDING METHODS

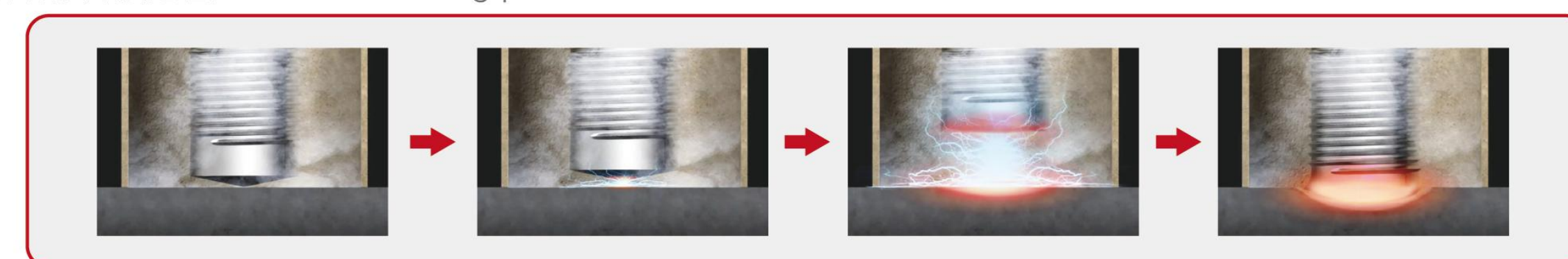
1. 电容储能螺柱焊接：在瞬间（1-3MS）实现8000-10000A的电弧能量输出，用于在薄板上焊接螺柱。
2. 短周期螺柱焊接：适用于将直径约12毫米以下的螺柱焊接到薄板上，也使用焊接到镀锌表面。如需焊接更大直径的螺柱，我们建议使用保护气体。
3. 带保护气体得螺柱焊：当不使用陶瓷套圈时，用来提高焊接质量。
4. 带陶瓷套圈的螺柱焊：由于熔深大及可形成精确焊缝，该方法事可靠的通用焊接工艺。

1. Capacitor energy storage stud welding: Achieve 8000-100000 A arc energy output in an instant (1-3ms) for welding studs on thin plates.
2. Short cycle stud welding: suitable for welding studs with a diameter of about 12 millimeters or less to thin plates, as well as to galvanized surfaces. If larger diameter bolts need to be welded, we recommend using shielding gas.
3. Stud welding with protective gas: used to improve welding quality when ceramic rings are not used.
4. Stud welding with ceramic collar: Due to its deep penetration and the ability to form precise welds, this method is a reliable universal welding process.

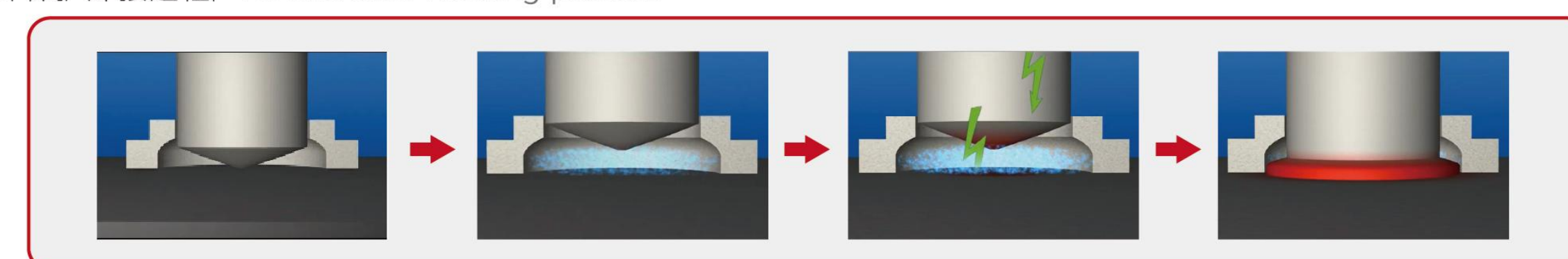
短周期焊接过程/ Short cycle stud welding process



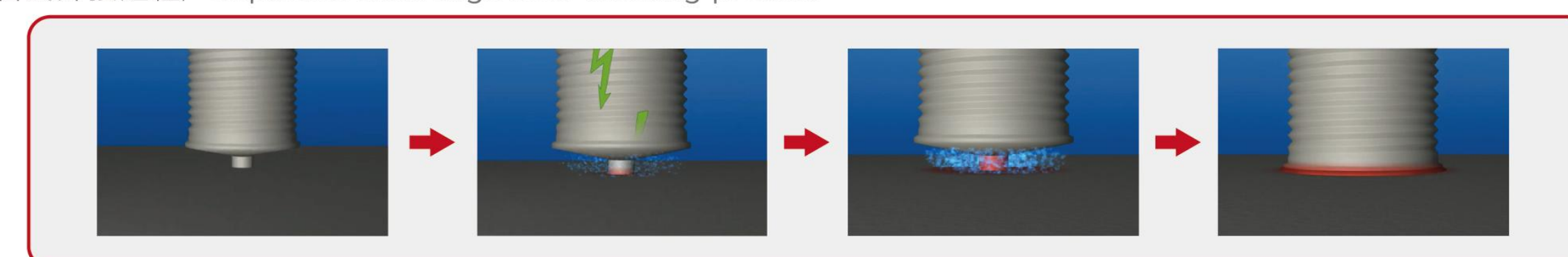
气体保护焊接过程/ Gas stud welding process



磁环保护焊接过程/ Ferrule stud welding process



电容式焊接过程/ Capacitor discharge stud welding process



逆变拉弧螺柱焊机

INVERTER DRAW ARC STUD WELDING MACHIN

拉弧式螺柱焊接方法（陶瓷环保式及气体保护式）被广泛应用于中厚板工件上施焊Φ3-Φ40MM的螺柱，螺柱焊可以取代传统的铆接、钻孔和攻螺纹链接且无需为螺钉紧固件的螺纹深度预留凸台和法兰。由于其焊接件重量轻、较高的可靠性及生产效率、较低的用工成本，现在已被广泛用于多个行业。

Arc stud welding methods (ceramic and gas protected) are widely used to weld Φ3-Φ30mm studs on medium and thick plate workpieces. Stud welding can replace traditional riveting, drilling and tapping links without reserving convex and flange for thread depth of screw fasteners. Due to its light weight, high reliability and production efficiency, and low labor cost, it has been widely used in many industries.

产品特点

PRODUCT FEATURES

- 采用IGBT逆变技术，动态响应速度快，可靠性好；
 - 采用模块化电路设计，维修更换方便；
 - 具有电网电压波动自动补偿功能；
 - MCU智能电路控制，液晶界面显示，焊接参数可以无极调整；
 - 采用液晶显示/触摸屏人机交互界面，具备故障诊断功能提示；
 - 体积小，重量轻，节能高效，移动方便。
- nverter IGBT technology, speed of dynamic response is fast and reliability is good.
 - Modular circuit design makes it easy maintenance and replacement.
 - With function of the power grid voltage fluctuation automatic compensation.
 - The liquid crystal operation interface shows the intelligently controlled circuit by MCU, welding parameters can be precisely adjusted.
 - Good man-machine interface, with fault diagnosis function prompts.
 - Small size, light weight, energy efficient and easy to move.

产品概述

PRODUCT DESCRIPTION

“专成”逆变拉弧式螺柱焊机是在第一代晶闸管整流式的基础上研制开发而成。SN逆变系列设备结合了客户要求重量轻，体积小，功耗低，操作简便等性能要求。其焊接电流，焊接时间都是无极可调，并且运用最新的MCU芯片进行数字驱动控制，使得电流的控制输出更加柔和精准，并且可以让客户保存20组不同规格螺柱的焊接工艺参数（焊接电流，焊接时间，气体时间），大大方便了现场员工的操作使用。SN系列螺柱焊机采用液晶屏和彩色触摸屏显示，可以根据不同客户需求进行配置良好的人机操控界面。

"Zhuancheng" Arc stud welding machine is developed based on the first generation of thyristor rectifier stud welding machine, the microcomputer-controlled inverter IGBT arc stud welding machine, its welding current up to 3000A, can weld the diameter of 3-25mm stud. Support customization of one machine matches two guns or multiple guns.

通过采用IGBT逆变，全桥软开关技术和MCU数字控制技术，SN系列拉弧焊机具有体积小、重量轻、功耗低、控制精度高、动态响应速度快等特点。设备具有故障诊断提示功能，相比国产其他品牌的晶闸管整流式螺柱焊机都上了一个台阶，人机界面更加贴近工人现场需求。

By using inverter IGBT, full bridge soft switch technology and micro-control technology, SN series arc welding machine has the characteristics of small size, light weight, low power consumption, high control accuracy, fast dynamic response speed and so on. Because it is controlled by microcomputer, with operation display interface and fault diagnosis prompt function, compared with

SN系列高频逆变拉弧螺柱焊机，已经广泛用于电力设备机箱、工程机械、汽车钣金、船舶生产中的螺钉植焊以及钢构工程、桥梁工程中的栓钉焊植和其他一般机械制造过程中的螺钉焊植（如锅炉销钉、保温棉安装、Y型锚固沟、螺旋板散热器等）。

SN series high frequency inverter pull arc stud welding machine, has been widely used in power equipment chassis, engineering machinery, automotive sheet metal, ship production screw welding, steel structure engineering, bridge engineering stud welding and other general mechanical manufacturing process screw welding (such as boiler pin, thermal insulation foam installation, Y anchoring ditch, spiral plate radiator, etc.).



机器型号 Host Model	SN-800	SN-1200	SN-1600	SN-2000	SN-2500	SN-3200
可焊材料 Available welding materials	Mid-carbon steel/stainless steel/ galvanized plate/ copper or other metal materials					
输入电压 Input Voltage(V)	AC 3*380±15%, 50~60Hz	AC 3*380±15%, 50~60Hz	AC 3*380±15%, 50~60Hz	AC 3*380±15%, 50~60Hz	AC 3*380±15%, 50~60Hz	AC 3*380±15%, 50~60Hz
最大电流 (A) Max. Welding Current(A)	800A	1200A	1600A	2000A	2500A	3200A
焊接可调电流范围 Current adjust range	200-800A	200-1200A	200-1600A	200-2000A	200-2500A	200-3200A
焊接时间可调范围 Time adjustable range (ms)	0-990ms	0-2000ms	0-2000ms	0-3000ms	0-3000ms	0-4000ms
焊接效率 (颗/分钟) Welding speed (pc/min)	N=3-20 pc/min					
可焊螺柱规格范围 Available welded studs size range	ø3-ø10	ø3-ø12	ø3-ø16	ø3-ø20	ø3-ø25	ø3-ø30
可焊母材厚度 (mm) Welded metal thickness(mm)	Used for metal with thickness ≥ 0.65 mm					
主机重量 (kg) Weight/(kg)	48kg	55kg	60kg	70kg	75kg	85kg
外形尺寸/(mm) Size/(mm)	550*340*580	550*340*640	680*450*640	680*450*640	680*450*640	680*450*640
冷却方式 Cooling Mode	Ail Cooled	Ail Cooled	Ail Cooled	Ail Cooled	Ail Cooled	Ail Cooled

多通道螺柱焊接系统
BMULTI CHANNEL STUD WELDING SYSTEM

为了满足某些特定行业的客户群体需求如钣金，电力及汽车行业。针对多种不同规格的焊钉焊接过程中，频繁切换焊枪的繁琐操作，针对性的为客户设计生产了短周期系列的1拖2和1拖3等多通道螺柱焊机系统。

To meet the needs of specific customer groups in industries such as sheet metal, power, and automotive. We have designed and produced a short cycle series of multi-channel stud welding machine systems, including 1-to-2 and 1-to-3, specifically for customers who frequently switch welding guns during the welding process of various specifications of welding nails.



机器型号 Host Model	SN-800-02	SN-1200-02	SN-1600-02
输入电压 Input Voltage(V)	AC 3*380±15%, 50-60Hz	AC 3*380±15%, 50-60Hz	AC 3*380±15%, 50-60Hz
最大电流 (A) Max. Welding Current (A)	800A	1200A	1600A
焊接可调电流范围 Current adjust range	200-800A	200-1200A	200-1600A
焊接时间可调范围 Time adjustable range(ms)	0-990ms	0-2000ms	0-2000ms
可焊螺柱规格范围 Available welded studs size range	ø3-ø10	ø3-ø12	ø3-ø16
主机重量 (kg) Weight/(kg)	48kg	55kg	60kg
外形尺寸/(mm) Size/(mm)	550*340*580	550*340*640	680*450*640
冷却方式 Cooling Mode	Ail Cooled	Ail Cooled	Ail Cooled

多通道螺柱焊机
适用不同规格焊钉
便捷·省时



电容式螺柱焊机

CAPACITOR DISCHARGE STUD WELDING MACHINE

电容储能螺柱焊机是以电容器组作为电弧供电电源，焊接过程实际是释放电容器中储存的能量，产生瞬时的电弧。其特点是焊接过程很短，大约在0.8-3MS之间，焊件上的熔池深度在0.05-0.2MM，特别适合在0.8MM~3MM薄板上焊接 ϕ 2MM~ ϕ 8MM的螺柱。目前在五金、家电、厨具、仪表盘、电梯、船舶及幕墙等行业应用电容螺柱焊机非常广泛。

目前公司生产的电容式螺柱焊机主要有4款CD-66，CD-99，CD-132及ALU-06。CD系列主要是用于钢制螺钉的焊接，ALU-06主要用于铝螺钉的焊接。

The capacitor energy storage stud welding machine uses a capacitor bank as the arc power supply. The welding process actually releases the energy stored in the capacitor, generating an instantaneous arc. Its characteristic is that the welding process is very short, approximately between 0.8-3ms, and the depth of the molten pool on the welded part is 0.05-0.2mm, which is particularly suitable for welding ϕ 2mm- ϕ 8mm bolts on 0.8mm~3mm thin plates. At present, capacitor stud welding machines are widely used in industries such as hardware, home appliances, kitchen-ware, instrument panels, elevators, ships, and curtain walls.

At present, the company mainly produces four types of capacitive stud welding machines: CD-66, CD-99, CD-132, and Alu-06. The CD series is mainly used for welding steel screws, while Alu-06 is mainly used for welding aluminum screws.

电容放电焊接过程

PCAPACITOR DISCHARGE WELDING PROCESS



型号 Host Model	CD-66	CD-99	CD-132
输入电压(V) Input Voltage(V)	220V/AC or 110V/AC	220V/AC or 110V/AC	220V/AC or 110V/AC
功率 (W) Power (W)	500W	600W	700W
充电电压 (V) Voltage Range(V)	20-200	20-200	20-200
允许网压波动范围 (V) Allowable Voltage Fluctuated Range (V)	±10%	±10%	±10%
Welding speed/(pc/min)	N=8-30 pc/min	N=8-30 pc/min	N=8-30 pc/min
Available welded studs	M3-M8	M3-M10	M3-M12
电容 (uF) Capacitance Capacity (uF)	66000	99000	13200
可焊材料 Available Welded Metal Material	低碳钢 / 不锈钢 Mild Steel / Stainless steel	低碳钢 / 不锈钢 Mild Steel / Stainless steel	低碳钢 / 不锈钢 Mild Steel / Stainless steel
可焊板材厚度 (mm) Welded Metal thickness (mm)	厚度 $\geq$ 0.8mm thickness $\geq$ 0.8 mm	厚度 $\geq$ 0.8mm thickness $\geq$ 0.8 mm	厚度 $\geq$ 0.8mm thickness $\geq$ 0.8 mm
重量 (kg) Weight (kg)	13kg	16kg	20kg
外形尺寸 (mm) Size/(mm)	420*250*430	420*250*430	420*250*430
适配焊枪 Suitable welding torch	CN-03	CN-03	CN-03
冷却方式 Cooling Mode	风冷 Ail Cooled	风冷Ail Cooled	风冷 Ail Cooled
保护等级 Protection rate	IP23	IP 23	IP 23

铝螺柱焊机

ALUMINUM STUD WELDING MACHINE

产品特点

PRODUCT FEATURES

针对以上特性，钢制电容式螺柱焊机显然不在适合铝螺柱的焊接。因此，ALU-06铝螺柱焊机是针对铝镁合金材料焊接特性设计的一款铝螺柱焊机。

- 特别适用于焊接铝镁材料；
- 焊接铝螺钉直径范围：M3~M8；
- 快速的充放电过程；
- 焊接飞溅小，焊疤成型美观；
- 持续可调的充电电压。

Based on the above characteristics, the steel capacitor stud welding machine is obviously not suitable for welding aluminum studs. Therefore, the Alu-06 aluminum stud welding machine is designed for the welding characteristics of aluminum magnesium alloy materials.

- Specially suitable for welding aluminum magnesium materials;
- Diameter range of welded aluminum screws: M3~M8;
- Rapid charging and discharging process;
- Small welding spatter and beautiful welding scar formation;
- Continuously adjustable charging voltage.

产品概述

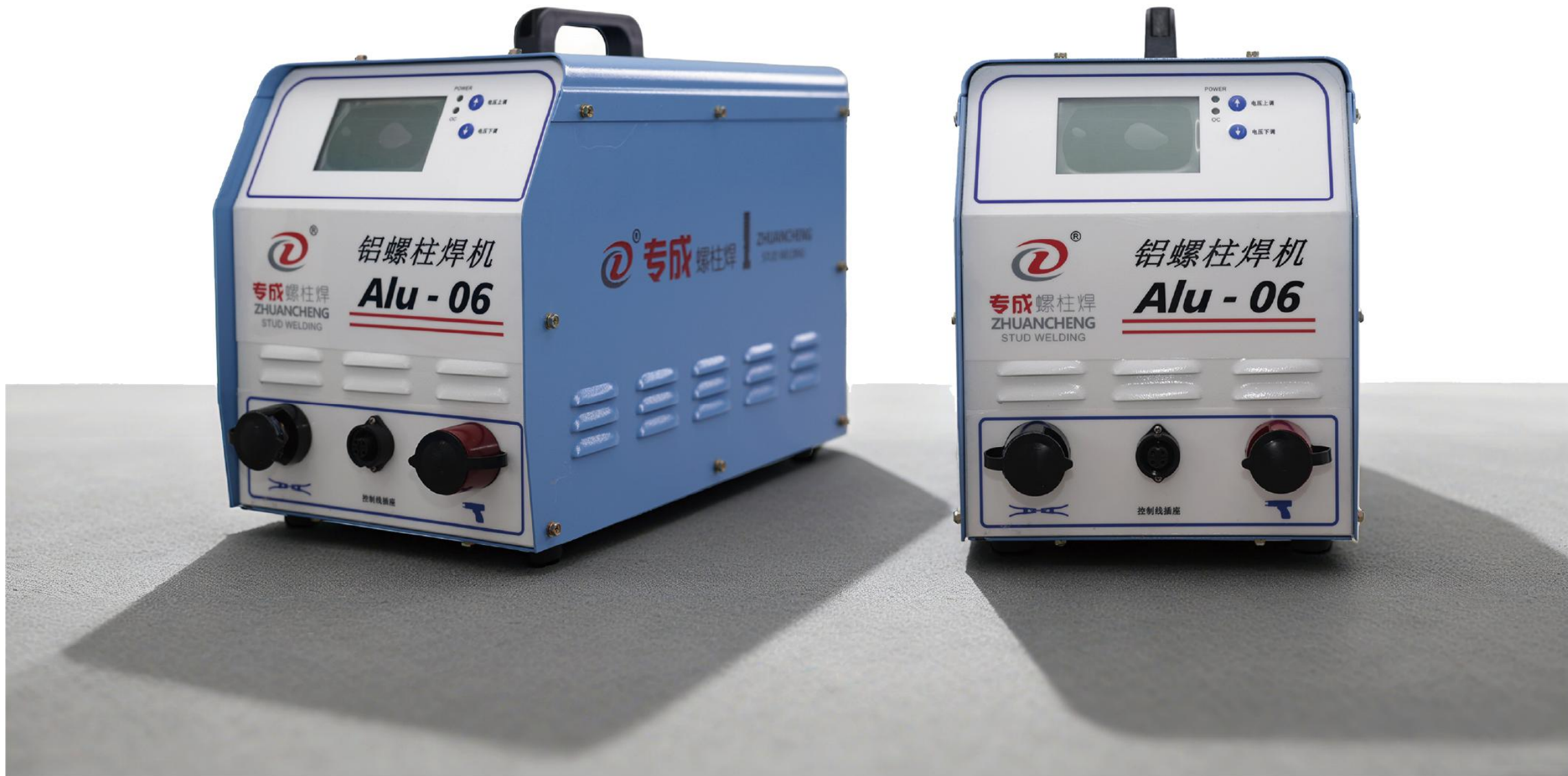
PRODUCT DESCRIPTION

铝镁合金作为一种轻质、高强度的金属材料，在航空航天、汽车制造，钣金等领域具有广泛应用。然而，这种材料在焊接过程中却表现出较大的难度。由于铝材料存在以下几点特性：

- 高导热性：铝材的导热系数远高于钢材,焊接时容易产生热量迅速散失的问题,导致焊缝难以熔合。
- 易氧化性：铝镁合金在高温下极易与空气中的氧气发生反应，生成致密的氧化铝薄膜。这层薄膜不仅阻止了焊缝金属与熔池的正常融合，还可能导致焊缝中夹杂氧化物，降低焊接强度。
- 热敏感性：铝镁合金在凝固过程中容易产生热裂纹，特别是在焊缝金属受到较大拘束应力的情况下。热裂纹的形成会严重影响焊接接头的强度和密封性，甚至可能导致整个焊接结构的失效

Aluminum magnesium alloy, as a lightweight and high-strength metal material, has a wide range of applications in aerospace, automotive manufacturing, sheet metal and other fields. However, this material exhibits significant difficulty during the welding process. Due to the following characteristics of aluminum materials:

- High thermal conductivity: The thermal conductivity of aluminum is much higher than that of steel, which can easily cause rapid heat dissipation during welding, making it difficult for the weld to fuse.
- Oxidation susceptibility: Aluminum magnesium alloys are highly reactive with oxygen in the air at high temperatures, forming dense aluminum oxide films. This thin film not only prevents the normal fusion of the weld metal and the molten pool, but may also lead to the inclusion of oxides in the weld, reducing the welding strength.
- Thermal sensitivity: Aluminum magnesium alloys are prone to thermal cracking during solidification, especially when the weld metal is subjected to significant restraining stress. The formation of hot cracks can seriously affect the strength and sealing of welded joints, and may even lead to the failure of the entire welded structure.



型号 Host Model	Alu-06
输入电压 Input Voltage(V)	220V/AC or 110V/AC
功率 Power (W)	700W
充电电压 Voltage Range(V)	20-200
允许网压波动范围 (V) Allowable Voltage Fluctuated Range (V)	±10%
Welding speed/(pc/min)	N=8-30 pc/min
Available welded studs	M3-M8
电容 Capacitance Capacity (uF)	99000
可焊材料 Available Welded Metal Material	铝 Aluminum
可焊板材厚度 Welded Metal thickness (mm)	厚度≥0.8mm thickness ≥ 0.8 mm
重量 Weight (kg)	13kg
外形尺寸 Size/(mm)	420*250*430
适配焊枪 Suitable welding torch	CN-03
冷却方式 Cooling Mode	风冷Ail Cooled
保护等级 Protection rate	IP 23

电容储能式螺柱焊机
 CAPACITIVE ENERGY STORAGE STUD WELDING MACHINE

LZH3000是一款特大功率电容式储能螺柱焊接电源，由于采用了大功率的电容器组和多线程ARM单片机处理器，实现快速放电功能和最大焊接M12的螺钉能力。

LZH3000 is a high-power capacitor based energy storage screw welding power supply. Due to the use of high-power capacitor banks and multi-threaded ARM microcontroller processors, it achieves fast discharge function and maximum welding capacity for M12 screws.



型号 Host Model	LZH-3000	
输入电压 Input Voltage(V)	220V/AC	
功率 Power (W)	1000W	
充电电压 Voltage Range(V)	20-200	
允许网压波动范围 Allowable Voltage Fluctuated Range (V)	±10%	
Welding speed/(pc/min)	N=8-30 pc/min	
Available welded studs	M3-M12	
电容 Capacitance Capacity (uF)	198000	
可焊材料 Available Welded Metal Material	钢 Steel	
可焊板材厚度 Welded Metal thickness(mm)	厚度≥0.8mm thickness ≥ 0.8 mm	
重量 Weight (kg)	30kg	
外形尺寸 Size/(mm)	420*250*430	
适配焊枪 Suitable welding torch	CN-03	
冷却方式 Cooling Mode	风冷 Ail Cooled	
保护等级 Protection rate	IP 230	



NCS系列自动螺柱焊接平台
 NCS SERIES AUTOMATIC STUD WELDING PLATFORM

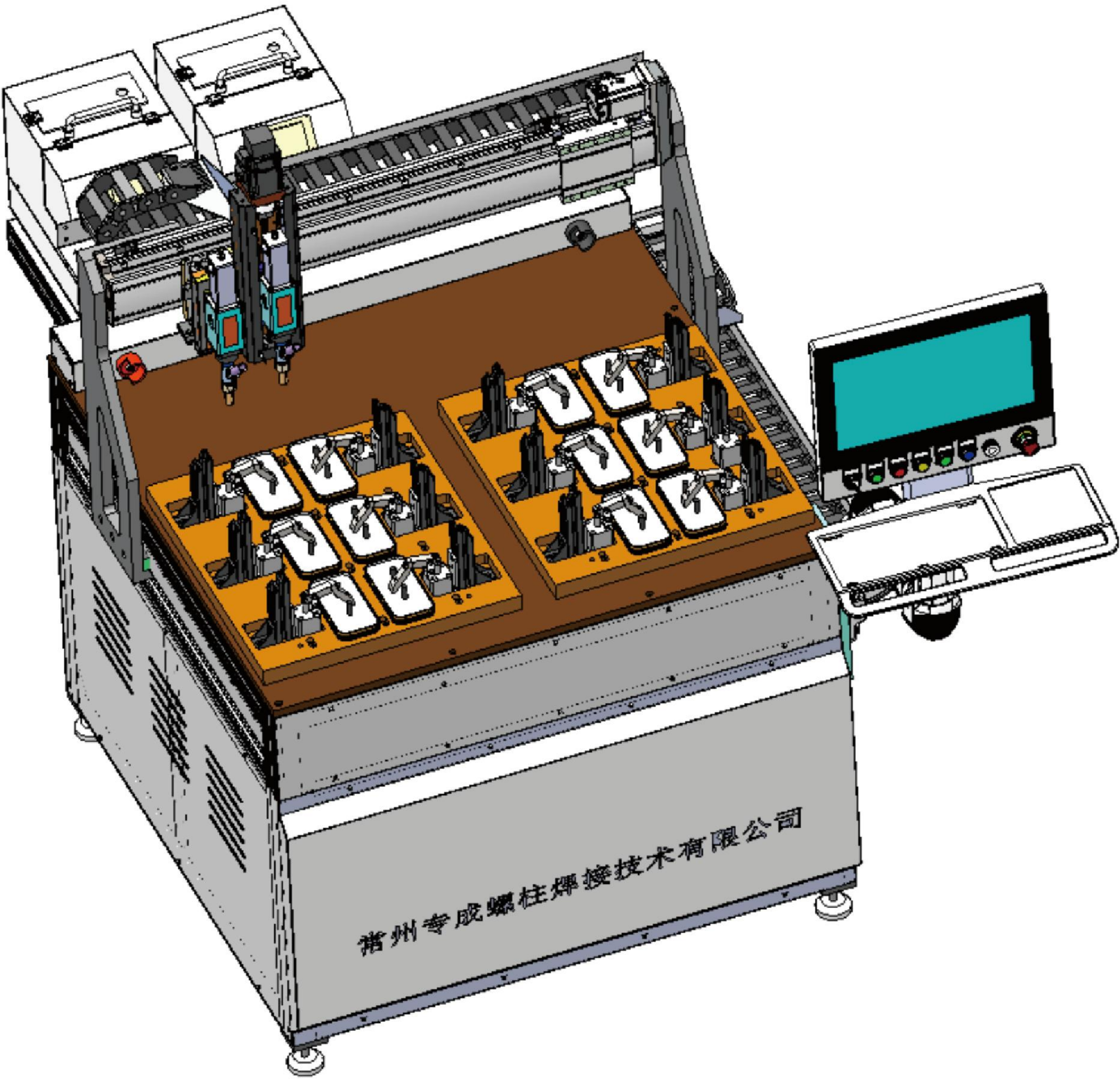
CNC螺柱焊接系统作为我司近年来独立开发研制的一款高效，稳定的全自动螺柱焊接平台，设备尺寸从小型到中型各个规格全覆盖，能够满足不同行业，不同客户产品的定制需求。如果配置我司生产、制造的高性能螺柱焊机（带焊接质量监测）和高品质螺钉，可以使得CNC螺柱焊接系统获得高质量的焊接效果，大大降低焊接不良率。

As an efficient and stable automatic stud welding platform independently developed by our company in recent years, the CNC stud welding plant-form size covers from small to medium and large, which can meet different customer's demand. If it can equipped with high-performance stud welding machine (with welding quality monitoring) and high-quality studs produced and manufactured by our company, the CNC stud welding system can obtain high-quality welding results and greatly reduce the welding defect rate.

产品特点
 PRODUCT FEATURES

- 1.可以进行DXF导图
 2.可以对焊接点位，进行轨迹运动模拟
 3.可以实时对每个焊点进行焊接质量监控
 4.平台大小可以根据客户定制
- 1.It Can convert DXF file into CNC control system
 2.It can simulated the welding point movement path
 3.It can monitoring each welding point quality real time
 4. Plant-form size can be customize according to the customers

型号 Mode	NCS-6090 CNC	NCS-1050 NC	NCS-1520 NC	NCS-1820 NC	NCS-2545 NC	支持定制
工作台面尺寸 Platform Size(X×Y)	600*900	1000*1500	1500*2000	1800*2000	2500*4500	/
X轴移动范围 X-axis working area	500	1000	1500	1800	2500	/
Y轴移动范围 Y-axis working area	480	1050	1650	1650	4000	/
定位精度 Position Accuracy	±0.15mm	±0.15mm	±0.15mm	±0.15mm	±0.15mm	±0.15mm
重复定位精度 Repeating Position Accuracy	±0.15mm	±0.15mm	±0.15mm	±0.15mm	±0.15mm	±0.15mm
移动速度 positioning Speed	400mm/s	400mm/s	400mm/s	400mm/s	400mm/s	400mm/s
焊接速度 Wedling Speed	15-25 pcs/min	15-25 pcs/min	15-25 pcs/min	15-25 pcs/min	15-25 pcs/min	15-25 pcs/min
输入电压 Input Volatge	110v/220v	110v/220v	110v/220v	110v/220v	110v/220v	110v/220v
焊接螺钉范围 Available weding Stud Range	ø3-ø8mm	ø3-ø8mm	ø3-ø8mm	ø3-ø8mm	ø3-ø8mm	ø3-ø8mm



螺柱焊枪
STUD WELDING GUN



 陶瓷磁环
CERAMIC FERRULES



配件目录
PARTS CATALOG

