

上海瑞敏机械制造有限公司

Shanghai Ruimin Machinery Manufacturing Co., Ltd.



以质量求生存

以信誉求发展

客户满意就是我们的目标

"Survive on Quality."

"Strive for development with integrity."

"Ensuring guest delight is our mission."

上海瑞敏机械制造有限公司

企业简介 / Company Profile

上海瑞敏机械制造有限公司专业生产土工格栅焊接机, 土工格栅条带挤出机, 土工格室超声波焊接机, 土工格室片材挤出机, 土工格室片材自动冲孔机, 超声波金属焊接机, 超声波塑料焊接机, 以及超声波裁切(銜缝)机, 实力雄厚的厂家。

公司配备先进的生产设备, 标准的生产车间, 并有一批专业的技术人员保证产品性能, 为客户提供优质的产品、优良的品质、合理的价格、及时的交货期为其经营原则。竭诚为每一位顾客服务。

公司本着诚信为本的原则, 与多家生产厂家、企业建立了长期的合作关系, 赢得了客户的一致好评。瑞敏机械将恪守“实力铸就精品, 诚信赢得市场”的企业理念, 继续努力进取。不断创新, 以更完善高效的品质, 更周到快捷的服务回报您一如既往的支持与厚爱, 真诚期待各界朋友来公司参观、业务往来, 让我们携手共创美好未来!

Shanghai Ruimin Machinery Manufacturing Co., Ltd. specializes in the production of geogrid welding machines, geogrid strip extruders, ultrasonic welding machines for geocells, geocell sheet extruders, automatic punching machines for geocell sheets, ultrasonic metal welding machines, ultrasonic plastic welding machines, as well as ultrasonic cutting (sewing) machines. They are a manufacturer with substantial capabilities.

The company is equipped with advanced production equipment, standard production workshop, and a group of professional and technical personnel to ensure product performance, to provide customers with high-quality products, excellent quality, reasonable price, timely delivery for its business principles. Dedicated to every customer service.

Based on the principle of good faith, the company has established long-term cooperative relations with a number of manufacturers and enterprises, and has won the praise of customers.

Ruimin Machinery will adhere to the "Strength forges competitive products, integrity captures the market" business philosophy, continue to strive for progress. With continuous innovation and in appreciation of your enduring support and affection, we are committed to refining our offerings and service. With open arms, we invite you to tour our premises and engage in fruitful collaborations, as we stride towards a shared vision of a glorious future.

土工格栅摩擦焊接机 / Geogrid Friction Welding Machine



土工格栅概述 / General information of geogrid

土工格栅是一种主要的土工合成材料，广泛应用于土木工程中。它通常由聚丙烯、聚氯乙烯等高分子聚合物通过焊接工艺制成，形成二维网格状。土工格栅的主要功能是增强土壤的稳定性，提高地基的承载力，防治水土流失，并适应复杂地形。它还能够延长土木工程结构的使用寿命，尤其适用于软土地基的加固和路面抗裂工程。

Geogrid is one of the main geosynthetic materials, which is widely used in civil engineering. It is usually made of polypropylene, polyvinyl chloride and other polymer through friction welding, forming a two-dimensional grid. The main function of geogrid is to enhance the stability of soil, improve the bearing capacity of foundation, prevent soil erosion, and adapt to complex terrain. It can also extend the service life of civil engineering structures, especially for the reinforcement of soft soil foundations and pavement anti-crack engineering.



摩擦焊接机的特点 /Characteristics of friction welding machine

- 更快的焊接速度，有效提高生产速度，提高产量；
 - 与传统机器相比，新机器易损件减少 90%；
 - 效果更好，强度更高；
 - 减少约 65% 的用电量；
 - 自动化程度更高；
 - 操作方便，可减少人工；
 - 焊接产品更光滑，更美观；
 - 噪音更低，更环保；
 - 焊接原料应用范围更广。
- Faster welding speed, effectively improving production speed and increasing output;
 - Compared to traditional machines, new machine reduces vulnerable parts by 90%;
 - Better effect and higher strength;
 - Reduce electricity consumption by about 65%;
 - Higher degree of automation;
 - Easier to operate, can reduce labor;
 - Welding products are smoother and more aesthetically pleasing;
 - Lower noise and more environmentally friendly;
 - Wider application of welding raw materials.



Weldable material/ 可焊接材料

土工格栅振动摩擦焊机均由 PLC 控制，进行摩擦焊接，减少了焊接对土工格栅焊点的损伤，并较好地焊接 PP、PE、PVC、PET、PC 等材料。

The vibration friction welding machine for geogrid reduces the damage to the weld points of the geogrid during the welding process and provides good welding performance for materials such as PP, PE, PVC, PET, and PC through PLC control.



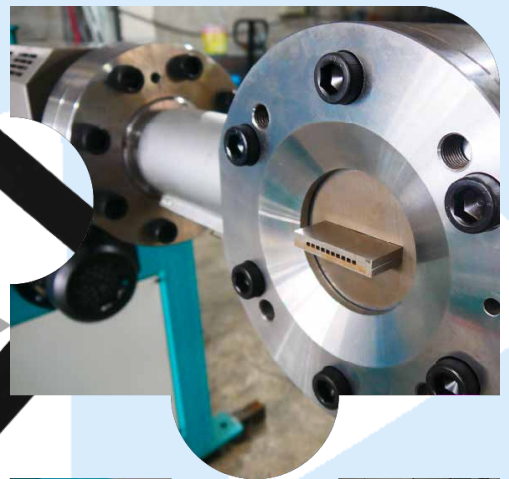
设备参数表 /Equipment parameter list

设备型号 Equipment type	RM-98#-6000#	RM-26#-6000#
焊接头位数 Number of welding head	98	26
最大输出功率 Maximum output power	2.6-10KW	2.6-10KW
单头输出功率 Single head output power	50-100W	750W
设备外形尺寸 Overall dimensions of equipment	7.2*2.5*2.1m	7.2*2.5*2.1m
设备重量 Equipment weight	9.6T	8.6T
额定输入电压 Rated input voltage	AC380V 50-60HZ	
输入电压形式 Input voltage form	三相四线 Three-phase and four-wire	
额定输入压力 Rated input pressure	0.6~1.0MPa	
空气压力容器 Air pressure vessel	$\geq 0.6\sim 1.0\text{m}^3$	
气压流量 Barometric flow	2.5~3.0 m^3	
可焊接宽度 Weldable width	3m-4m-5m-6m	
可焊接材料 Weldable material	PP、PE、PVC PET PC	

条带挤出机生产线 / Strip extruder production line



放丝架
Threading plate



模具
Mould



冷却装置
Cooling unit

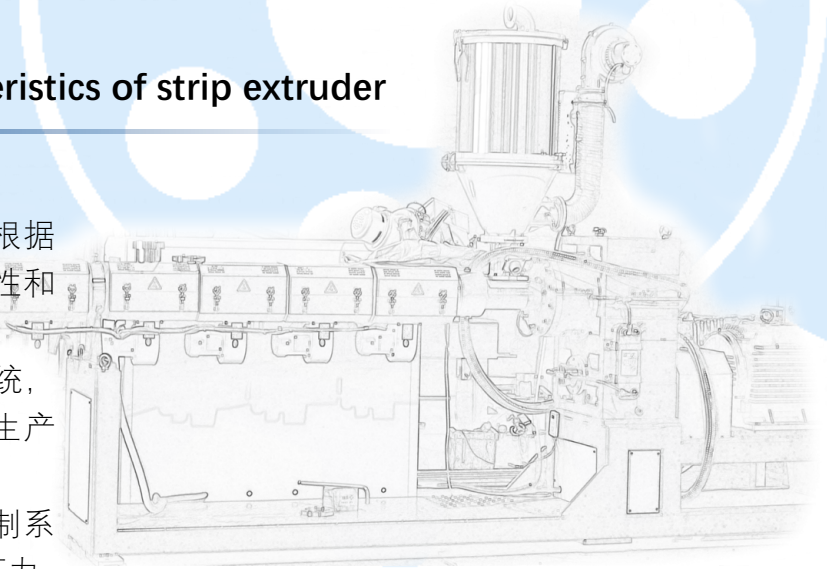


收卷机
Winder

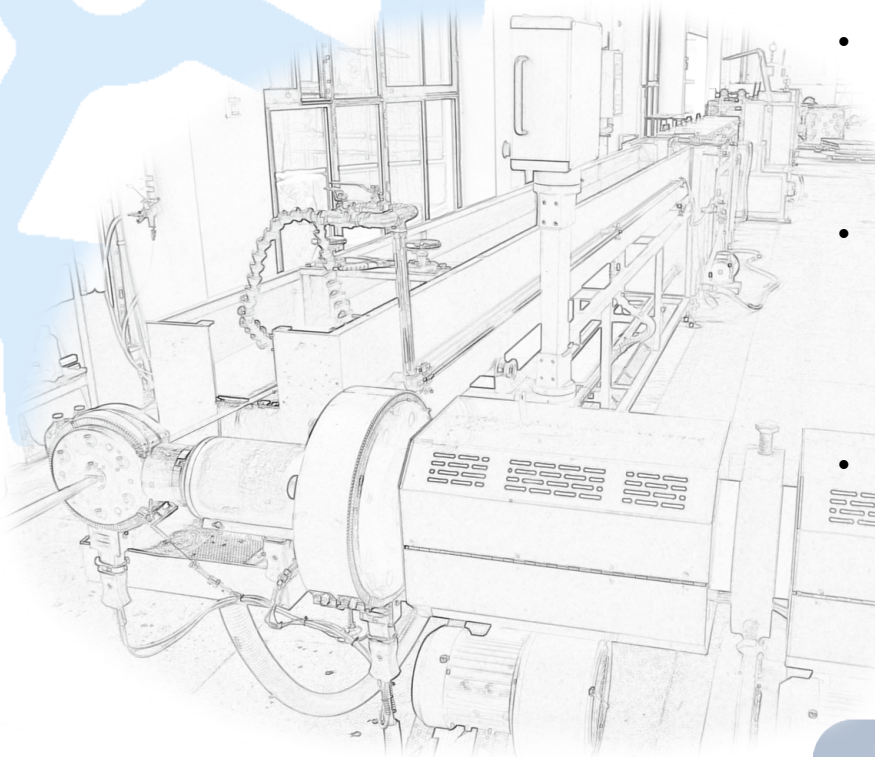


条带挤出机的特点 / Characteristics of strip extruder

- **调节挤压范围：**具有调节组件，可根据不同规格调整挤压范围，提高适用性和生产效率。
- **高效生产能力：**通过自动化控制系统，能够连续生产土工格栅条带，提高生产效率，减少人工成本。
- **精确的控制系统：**配备有先进的控制系统，可以精确控制挤出速度、温度和压力，确保产品质量的一致性。
- **节能环保：**采用节能技术，减少生产过程中的能耗和废弃物排放。
- **多功能性：**不仅可以生产土工格栅，还可以通过更换模具和调整参数来生产其他类型的土工合成材料，增加了设备的多功能性。
- **提升产品性能：**通过优化挤出和冷却工艺，挤出机可以生产出具有更好机械性能和耐久性的土工格栅，满足不同工程项目的需求。



- **Adjusting the extrusion range:** With adjustment components, the extrusion range can be adjusted according to different specifications to improve suitability and production efficiency.
- **Efficient production capacity:** With adjustment components, the extrusion range can be adjusted according to different specifications to improve suitability and production efficiency.
- **High-Precision Control System:** Equipped with an advanced control system, you can precisely control the extrusion speed, temperature and pressure to ensure the consistency of product quality.
- **Energy saving and environmental protection:** The use of energy-saving technology to reduce energy consumption and waste emissions in the production process.
- **Versatility:** Not only can geogrid be produced, but also other types of geosynthetics can be produced by changing the mold and adjusting the parameters, increasing the versatility of the equipment.
- **Improved product performance:** By optimizing extrusion and cooling processes, extruders can produce geogrids with better mechanical properties and durability to meet the needs of different engineering geogrid.



设备参数表 /Equipment parameter list

设备型号 Equipment type	SJ-75x30-1	SJ-75x30-2
适用电源 Applicable power supply	380V/3P/50Hz	
适用原料 Applicable raw material	PP/PE	
挤出产量 Extruding Output	140--150kg/h	100--120kg/h
制品规格 Product specifications	Width 10mm—16mm Thickness1.2-2.5mm	Width10-120mm Thickness1.2-2.5mm
最大生产速度 Maximum production rate	140m/min	≤ 120m/min ×1
挤出机中心高 Extruder center height	1000 mm	
操作方向 Direction of operation	Right-to-left 从右向左	
装机容量 Installed capacity	115kw	52kw
环境湿度 Ambient humidity	≤ 85%	
环境温度 Ambient temperature	0-40℃	
冷却循环水 Circulation cooling water	≤ 20℃ ≥ 0.3Mpa ~ 3T/h	
压缩空气 Compressed air	0.4m³/min > 0.5MPa	
生产线空间 Production line size	28×4×3.5m	15m×3.5m×2m

土工格室超声波焊接机 / Geocell ultrasonic welding machine



土工格室概述 / General information of geocell



土工格室是一种由高强度聚合物材料（如高密度聚乙烯 HDPE 或聚丙烯 PP 共聚料）制成的三维网状结构材料。它通常由宽带材通过强力焊接形成，具有伸缩自如的特性，便于运输和施工。在使用时，土工格室可以张开并充填土石或混凝土料，构成具有强大侧向限制和大刚度的结构体。土工格室的设计使得它能够在集中载荷作用下提高地基材料的抗剪力和摩擦力，减少或延缓地基材料在荷载作用下的移动，从而提高路基的承载能力和稳定性。

A geocell is a three-dimensional network structure material made of a high-strength polymer material such as high-density polyethylene HDPE or polypropylene PP copolymer. It is usually formed by a wide strip through strong welding, with flexible characteristics, easy to transport and construction. When in use, the geocell can be opened and filled with earth and rock or concrete to form a structure with strong lateral limitations and large stiffness. The design of geocell can improve the shear resistance and friction of foundation materials under concentrated load, reduce or delay the movement of foundation materials under load, and thus improve the bearing capacity and stability of the roadbed.

设备参数表 /Equipment parameter list

设备型号 Equipment type	RM15K-18T-7000
焊接头工位数 Number of welding head stations	18
底焊位数 Bottom weld number	36
最大输出功率 Maximum output power	2.6-57.2KW $\pm$ 5%
单头输出功率 Single head output power	2600W
设备外形尺寸 Overall dimensions of equipment	9.6*2.2*2.5m
设备重量 Equipment weight	7.25T
额定输入电压 Rated input voltage	AC380V $\pm$ 5% 50-60HZ $\pm$ 1HZ
额定输入压力 Rated input pressure	0.8~1.0MPa
空气压力容器 Air pressure vessel	$\geq$ 0.6~1.0m ³
气压流量 Barometric flow	2.5~3.0m ³
宽度焊接间距 Width welding spacing	50mm-200mm
长度焊接间距 Length welding spacing	1000mm-7000mm
焊距有效调节 Effective adjustment of welding spacing	320-600mm
可焊接材料 Weldable material	PP、PE、PVC
24 小时最大产量 24 hours maximum output	2000-4000 m ²

片材挤出机生产线 /Sheet extruder production line



土工格室片材挤出机的概述 /Overview of geocell sheet extruder

土工格室片材挤出机是一种专门用于生产土工合成材料中的格室片材的机械设备。这种设备通常由挤出机主机、模具、冷却系统、牵引装置、切割装置等组成，能够连续挤出具有一定规格和形状的塑料片材，这些片材经过后续的组装和焊接，形成用于土木工程中的土工格室结构。土工格室广泛应用于道路基础、护坡、排水系统等领域，以增强土壤的稳定性和承载能力。

Geocell sheet extruder is a kind of mechanical equipment specially used for the production of geocell sheet in geosynthetics. This equipment is usually composed of an extruder host, a mold, a cooling system, a traction device, a cutting device, etc., which can continuously extrude plastic sheets with a certain size and shape, which are subsequently assembled and welded to form a geocell structure for civil engineering. Geocell is widely used in road foundation, slope protection, drainage system and other fields to enhance the stability and bearing capacity of soil.



片材挤出机的特点 / Characteristics of sheet extruder

- **高效率和高产量：**在确保物料均匀塑化的同时最大化产能。
- **精确的厚薄调整：**采用衣架式模具的双节流设计，使得片材的厚薄调整更加精确。
- **先进的冷却和定型系统：**挤出的热熔体片材会迅速通过冷却辊进行冷却定型，以保持片材的尺寸稳定性和表面质量。
- **自动化控制：**挤出机通常配备有变频控制牵引机和自动计米器等自动化装置，提高操作便利性和产品一致性。
- **优化的刀具设计：**切刀设计考虑到了材料的特性，确保切边时无翘曲、毛刺等问题，提高成品的外观质量。
- **环境友好：**采用内置的循环冷却系统，减少对外部水源的依赖，降低能耗，并减少环境污染。
- **高扭矩和高速率：**双螺杆挤出机设计具有高扭矩和高转速特性，适用于高性能塑料的加工，提高生产效率。
- **精确的温度控制：**温度控制系统的精确度高，有助于控制塑化过程和最终产品的质量。
- **多功能性：**片材挤出机不仅可以生产标准的片材，还可以通过更换模具和配置，适应不同类型和规格的塑料制品生产。
- **易于维护：**日常保养和故障排除变得更加容易。



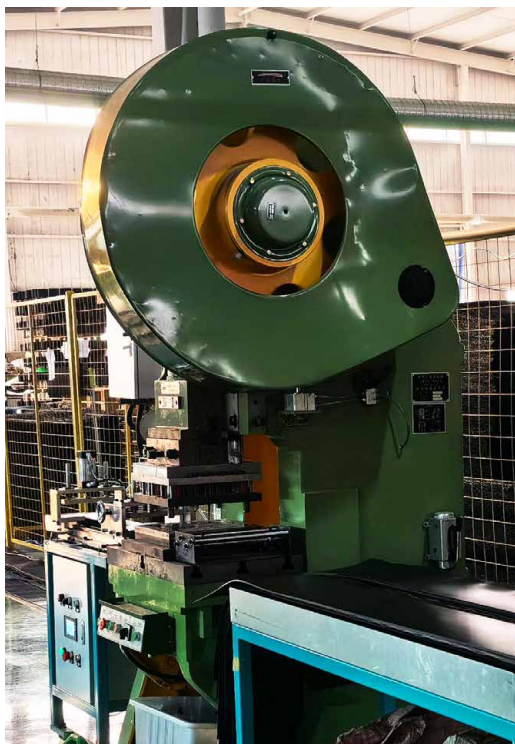
- **High efficiency and yield:** Maximize productivity while ensuring uniform material plasticization.
- **Precise thickness adjustment:** The double throttle design of the hanger mold makes the thickness adjustment of the sheet more accurate.
- **Advanced cooling and shaping system:** The extruded hot melt sheet is quickly cooled through the cooling roller to maintain dimensional stability and surface quality of the sheet.
- **Automatic control:** The extruder is usually equipped with automatic devices such as frequency conversion control tractor and automatic meter counter to improve operation convenience and product consistency.
- **Optimized blade design:** The cutting blade design takes into account the characteristics of the material to ensure that there is no warping, burr and other problems during cutting, and improve the appearance quality of the finished product.
- **Environmentally friendly:** The built-in circulating cooling system reduces dependence on external water sources, reduces energy consumption, and reduces environmental pollution.
- **High torque and high speed:** twin-screw extruders are designed with high torque and high speed characteristics for the processing of high-performance plastics and improve production efficiency.
- **Precise temperature control:** The high precision of the temperature control system helps to control the plasticizing process and the quality of the final product.
- **Versatility:** Sheet extruders can not only produce standard sheets, but also adapt to the production of different types and specifications of plastic products by changing molds and configurations.
- **Easy maintenance:** Routine maintenance and troubleshooting becomes easier.



设备参数表 /Equipment parameter list

设备型号 Equipment type	SJ-120X35
螺杆直径 Screw diameter	120mm
螺杆长径比 Maximum output powerLength- diameter ratio of screw	35:1-4500mm
驱动电机功率 Driving motor power	132Kw
驱动电机与减速机的传动方式 Drive motor and reducer transmission mode	皮带或直连连接 belt or directly connected
调速方式 Speed adjustment mod	变频调速 frequency control
螺杆转速 screw speed	5-80r/min
产量 Output	350-380Kg/h
真空泵 Vacuum pump	3KW
加热方式 Heating method	铸铝或陶瓷电加热器 Cast aluminum or ceramic electric
加热功率 Heating power	85Kw
温控方式 Temperature control type	全自动控温 fully automatic temperature control
上料量 Feeding volume	不低于 400-500Kg/h not less than 400-500Kg/h

冲孔机 /Punching machine



冲孔机的主要功能是在土工格室的片材上按照特定的图案和尺寸冲出孔洞，以便后续的焊接和组装。这些孔洞对于土工格室的结构完整性和功能性能至关重要，它们允许土体或其他填充材料进入格室内部，形成具有一定刚度和稳定性的结构体。

The main function of the punching machine is to punch holes in the sheet of the geocell according to a specific pattern and size for subsequent welding and assembly. These cavities are critical to the structural integrity and functional performance of the geocell, allowing soil or other filling materials to enter the interior of the geocell to form a structure with some stiffness and stability.



设备参数表 /Equipment parameter list

冲压机最大压力 Maximum pressure of punching machine	25T	工作电压 Working voltage	380V±7%
整机功率 Machine power	1.5KW	供电频率 Supply frequency	50HZ±0.5HZ
滑块地面尺寸 Slider ground dimension	200x300mm	工作气压 Working air pressure	0.5-0.8MPa
工作台面尺寸 Size of working plat	600x300mm	最大装模高度 Maximum die set height	150mm
装模高度调节 Mold Height Adjustment	50mm	滑块行程 Slide stroke	110mm
冲压速度 Punching Speed	47 times	牵引伺服电机 Traction servo motor	0.6KW
牵引滚筒 Traction rope	1200x100mm	牵引速度 Pulling speed	"47times/Min. 每分钟 47 次 "
牵引单位 Traction unit	mm	牵引最大距离 Maximum traction distance	"Within 500mm 500mm 内 "
片材牵引高度 Sheet traction height	50-200mm	最多打孔片数 Maximum number of perforated sheet	within 4 pcs 4 片内

土工格栅超声波焊接机 / Geogrid ultrasonic welding machine



设备参数表 / Equipment parameter list

传感器 Transducer	20khz 24 pcs
机器重量 Machine weight	5.7T
带厚度 Strips thickness	1~2.5mm
带宽度 Strips width	8~18.5 mm
模头材料 Horn material	CR12MOV
额定输入功率 Rated input power	38.5kw
焊接材料 Welded material	PP、PE、PVC
空气压缩 Air compress	0.6~0.80mpa
每日生产 24 小时 : Daily production 24hours:	8000-12000 SQM

超声波金属焊接机 /Ultrasonic metal welding machine

超声波金属焊接机是一种利用超声波技术实现金属材料焊接的专用设备。它通过将超声波振动传导到金属接头上，产生高频的摩擦热，从而使金属接头部分熔化并形成焊接。

Ultrasonic metal welding machine is a specialized equipment that utilizes ultrasonic technology to achieve metal material welding. It conducts ultrasonic vibration onto metal joints, generating high-frequency frictional heat, which partially melts the metal joints and forms welding.



超声波金属焊接机的特点 /Characteristics of ultrasonic metal welding machine

- 滚柱轴承滑块确保了系统顺畅的操作和极大的准确性;
- 焊头并选用低成本可替换焊嘴或一体式高硬度工具钢焊头，可以快速安装并使成本减少;
- 专用超声波焊接机独特的执行机构可以使超声波能量有效传递到焊头上，焊接品质有保障;
- 操作容易，内置电子保护电路，使用安全，用于金属的同类焊接，能对有色金属实施单点或多点焊接;
- The roller bearing slider ensures smooth operation and great accuracy of the system;
- Welding head and selecting low-cost replaceable welding nozzle or integrated high hardness tool steel welding head can quickly install and reduce costs;
- The unique actuator of the specialized ultrasonic welding machine can effectively transmit ultrasonic energy to the welding head, ensuring welding quality;
- Easy to operate, built-in electronic protection circuit, safe to use, suitable for welding of similar metals, capable of single or multiple point welding of non-ferrous metals;

设备参数表 /Equipment parameter list

型号 Model	RM-MW-40K
输入电压 Input Voltage	AC 110V or 220V +/-10%, 50/60Hz
最大功率消耗 Max. Power Consumption	2200W →可定制 can be customized
焊接区域 Welding Area	4mm(L) x 4mm(W) → 可定制 can be customized
焊接头 Welding Head	焊枪和焊接底座均包含在内，适用于从 2 层到 40 层的铝和铜电流收集器的焊接。The welding heads and welding base are included for welding both aluminum & copper current collectors from 2 to 40 layers
超声频率 Ultrasonic Frequency	40K Hz →可定制 can be customized
产品尺寸 Product Dimensions	1. 控制器 Controller: 360mm(L) x 480mm(W) x 200mm(H) 2. 焊机 Welder: 200mm(L) x 460mm(W) x 270mm(H)
净重 Net Weight	70kg

超声波塑料焊接机 /Ultrasonic plastic welding machine



超声波焊机是一种超声波焊机，用于焊接各种塑料（PVC、PP、PE、ABS 等）和织物（聚酯、非织造等）。它广泛用于焊接塑料产品，包括 LED 灯罩、充电器、反光镜、塑料口哨、枕头、被子、滤纸、过滤袋和其他塑料 / 织物产品。

Ultrasonic Welding Machine is an ultrasonic welder designed for welding various plastics (PVC, PP, PE, ABS, etc.) and fabrics (Polyester, nonwoven, etc.). It is widely used in welding plastic products, including LED lampshades, chargers, reflectors, plastic whistles, pillows, quilts, filter paper, filter bags, and other plastic/fabric products.

超声波塑料焊接机的特点 /Characteristics of ultrasonic plastic welding machine

- 滚柱轴承滑块确保了系统顺畅的操作和极大的准确性；
- 焊头选用低成本可替换焊嘴或一体式高硬度工具钢焊头，可以快速安装并使成本减少；
- 专用超声波焊接机独特的执行机构可以使超声波能量有效传递到焊头上，焊接品质有保障；
- 操作容易，内置电子保护电路，使用安全，用于塑料的同类焊接，能对塑料实施单点焊接；
- The roller bearing slider ensures smooth operation and great accuracy of the system;
- Welding head and selecting low-cost replaceable welding nozzle or integrated high hardness tool steel welding head can quickly install and reduce costs;
- The unique actuator of the specialized ultrasonic welding machine can effectively transmit ultrasonic energy to the welding head, ensuring welding quality;
- Operation is easy, equipped with built-in electronic protection circuits, safe to use, suitable for homogenous welding of plastics, capable of performing single-point welding on plastics.

设备参数表 /Equipment parameter list

品牌 Brand	RuiMin
尺寸 Dimensions	1060*820*1800MM
产品特性 Product Features	自动频率追踪 Automatic frequency tracking
工艺 Craft	机床加工 Machine tool processing
形状 Shape	不规则的 Irregular
材质 Material	钢 Steel
表面处理 Surface Treatment	镍镀层 Nickel plating
技术 Technics	超声波焊接 Ultrasonic welding
应用 Application	塑料焊接 Plastic welding
重量 Weight	200KG

超声波裁切（绗缝）机 /Ultrasonic cutting (Quilting) machine



配有专业的花纹辊水平调节器，可快速自由地调整其水平度。使用独特的无线绗缝技术，省去了传统缝纫的针线麻烦。压花宽度从最小值到 3000mm 不等，只需更换图案辊即可创建任何图案。采用整体原装进口超声波换能器，声波强大，绗缝效果突出。狭缝织物平整而精确；尺寸可自由调节；最小切割宽度为 100mm。复卷装置可配备单/双辊（以均匀速度同步复卷）或单空气轴（磁粉离合器张力控制），从而可调节复卷织物的松紧度。

Equipped with professional level adjuster for pattern roller, which can quickly and freely correct its levelness.

Save the trouble of needles and threads of traditional sewing by using the unique no-thread quilting technique.

The embossing width varies from the minimum value to 3000mm, and any pattern can be created simply by replacing the pattern roller.

Adopting the overall original imported ultrasonic transducer with powerful sound wave, the quilting effect is outstanding.

The slit fabric is flat and precise; the size can be freely adjusted; the minimum cutting width is 100mm.

The rewinding device can be equipped with single/double rollers (synchronous rewinding at a uniform speed) or single air shaft (magnetic powder clutch tension control), so that the tightness of the rewinding fabrics is adjustable.

设备参数表 /Equipment parameter list

电源供应 Power supply	380V 3phase
输出 Output	8KW
容量宽度 Capacity width	0~2000MM
容量长度 Capacity length	200~3000MM
工作速度 Working speed	20m/min
尺寸（长 × 宽 × 高） Dimension (L×W×H)	4500*4000*2000mm
净重 N. W	3000KG
气源电力 Gas source electricity	0.1-0.5MPa
频率 Frequency	20KHZ



<https://ruimin.co/>