



- 未绷紧的薄钢片切割
- 已绷紧的模板切割
- 其它种类的薄金属片切割
- 功率均衡控制 (选项): 具有独特的功率均匀模糊逻辑控制方法, 提升切割质量。
- 在线检测功能 (选项): 具备在线检测和测量功能。
- 支持自动上料 (选项): 对较长网版, 自动进料、对位。
- Cutting of thin steel sheet without stretching the net
- Template cutting of stretched net
- Other kinds of thin metal sheet cutting
- Power balance control (optional): It has a unique power uniform fuzzy logic control method to improve cutting quality.
- Online detection function (option): with online detection and measurement functions.
- Support automatic feeding (option): for longer screens, automatic feeding and registration.

本机采用高精度、高刚性特种导轨, 高加速度的直线电机, 高精度编码器位置反馈, 解决传统的伺服电机加滚珠丝杆结构存在的刚性不足、空回及死区等问题, 速度更快、精确度更高。加工过程自动对焦, 无需焦距调整。具有自主知识产权的软件系统智能激光微加工应用平台, 是在 PowerCAM 基础上发展的激光微加工平台, 功能强大, 操作简捷, 兼容各种设计文件格式。

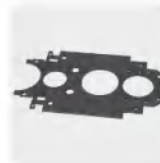
This machine adopts high-precision, high-rigidity special guide rail, high-acceleration linear motor, high-precision encoder position feedback, and solves the problems of insufficient rigidity, empty return and dead zone in the traditional servo motor plus ball screw structure, and the speed is faster, higher accuracy. Auto focus during processing, no need to adjust focus. The software system with independent intellectual property rights, is a laser micromachining platform developed on the basis of PowerCAM. It has powerful functions, simple operation, and compatibility with various design file formats.

性能 / 型号	Performance/model	SK-LC600
加工速度	Processing speed	15000Hole/h or 22000Hole/h
X/Y 轴行程	X/Y axis travel	500*500mm 可定制 (Customizable)
钢片厚度	Steel sheet thickness	0.02~0.6mm
定位精度	Positioning accuracy	±3μm (X & Y)
重复精度	Repeat accuracy	±1μm (X & Y)
激光波长	Wavelength	1070nm
激光频率	Laser frequency	0~50KHz
供电电源	Power supply	AC220V±10%/1PH/50Hz
机器尺寸 (长 * 宽 * 高)	Machine size (L*W*H)	1150*1200*1670mm
机器重量	Machine weight	2500Kg

本机主要针对薄板的高速高精度激光加工，整机运行稳定，技术成熟，切割效率高，设备主机整体刚性好，强度高，具备良好的加速性能，有效的防止结构变形。

This machine is mainly for high-speed and high-precision laser processing of thin plates. The whole machine runs stably, mature technology, high cutting efficiency, nice overall rigidity of the equipment host, high strength, good acceleration performance, and the structural deformation is effectively prevented.

- 支持加工次序浏览，支持断点记忆，允许对部分图形加工，支持圆管切割和平面切割。
- 支持多种图形数据，可进行自动优化，自动区分内外模和排序等，也可手动执行操作。
- 强大的料库功能，可保存工艺参数供相同材料反复使用。
- Support processing order browsing, support break point memory, allow partial graphics processing, support round tube cutting and plane cutting.
- Support a variety of graphic data, can be automatically optimized, automatically distinguish between internal and external modes and sorting, etc.
- Powerful library function that saves all process parameters for repeated use of the same material.



广泛应用于首饰珠宝、钟表眼镜、灯饰、厨卫产品、数码产品、汽车配件、精密仪器仪表、电子元件、家电、医疗器械、手机通讯、五金结构件等行业。

Widely used in jewelry, watch and glasses, lighting, kitchen and bathroom products, digital products, auto parts, precision instruments and meters, electronic components, household appliances, medical devices, mobile phone, hardware structure and other industries.

适用于多种金属板材、管材，不锈钢、碳钢、锰钢、铜板、铝板、镀锌板、各种合金板、稀有金属等材质的快速切割。It is suitable for fast cutting of various metal plates, pipes, stainless steel, carbon steel, manganese steel, copper plate, aluminum plate, galvanized sheet, all kinds of alloy plates, rare metals and other materials.

性能 / 型号	Performance/model	SK-FQCW150	SK-FQCW300	SK-FQCW450
最大输出功率	Max.Output power	150W	300W	450W
XYZ 轴有效行程	XYZ axis effective area	600(X)*600(Y)*100(Z)mm 可定制 (Customizable)		
最大加速度	Max. acceleration	1.5G		
XY 轴快速移动速度	XY axis fast moving speed	60m/min		
定位精度	Positioning accuracy	±0.02mm		
重复定位精度	Repetition precision	±0.005mm 配直线电机 (With linear motor)		
供电电源	Power supply	AC220V±10%/1PH/50Hz		
机器尺寸 (长 * 宽 * 高)	Machine size (L*W*H)	1800*1430*1880mm		
机器重量	Machine weight	1500Kg		

高速振镜激光切割机

HIGH-SPEED SCAN LASER CUTTING



本机采用高精度直线电机平台，确保整机高速高精度稳定运行；可选配 CCD 视觉定位功能，可简化加工工艺；专业的激光切割软件，具有图形排样及尖角平滑处理功能，精度高、热影响小，可实现高速切孔及标刻功能。

This machine adopts marble gantry structure and high-precision linear motor platform to ensure high-speed and high-precision operation of the whole machine. CCD visual positioning function can simplify the processing technology; professional laser cutting software, with graphic layout and sharp corner smoothing function, high precision, small heat impact, high-speed punching and marking function.

- 高精度直线电机平台，实现高速、高效运行，有效提高生产效率。
- 一体化结构设计，整体布局紧凑合理、占地面积小。
- 可选配 CCD 视觉定位功能，简化加工工艺。
- High-precision linear motor platform, to achieve high-speed and efficient operation, effectively improving production efficiency.
- Integrated structural design, compact overall layout, and reasonable, small floor space.
- Optional CCD visual positioning function, simplify the processing technology.

广泛应用于精密机械五金，微电子等对精度要求高的行业切割标刻加工工艺。

Widely used in precision mechanical hardware, microelectronics and other industries with high precision requirements for cutting and marking process.

适用于铜箔、铝箔、不锈钢薄板、金、银、碳钢、铬、镍等多种超薄金属材料的高速精加工。

It is suitable for high-speed finishing of various ultra-thin metal materials such as copper foil, aluminum foil, stainless steel sheet, gold, silver, carbon steel, chromium, nickel, etc.

性能 / 型号	Performance/model	SK-GCW500	SK-GCW600	SK-GCW700	SK-GCW1000
最大输出功率	Max.Output power	500W	600W	700W	1000W
激光波长	Wavelength	1070-1080nm			
最大加速度	Max. acceleration	1G			
加工幅面	Processing area	400(X)*400(Y)mm			
切割缝宽	Cutting width	0.05-0.12mm			
供电电源	Power supply	AC220V±10%/1PH/50Hz			
机器尺寸 (长 * 宽 * 高)	Machine size (L*W*H)	1300*1800*2150mm			
机器重量	Machine weight	500Kg			

本设备主要对超硬材料刀具复合片、陶瓷、单晶等对切割面质量要求较高的产品进行激光切割,可选配 CCD 同轴监视器。精密三轴运动工作台和工业控制计算机系统组成。自行研制新版软件系统,功能强大,也可用 CAD 图形自动编程,切面光滑,装夹方便。

This machine mainly performs laser cutting on products with high requirements on the quality of cutting surfaces such as super-hard material tool composite sheets, ceramics, single crystals, etc., within CCD coaxial monitor. It consists of a precision three-axis motion table and an industrial control computer system. The new version of the software system is developed by itself, and it can be automatically programmed with CAD graphics. The cutting surface is smooth, the clamping is convenient.

- 光束质量好,加工效率高,切缝精细。
- 垂直度好,切割面垂直度小于 1.5°。
- 切缝窄、良品率高,切缝边棱平直,热损伤小。
- Good beam quality, high processing efficiency, the cutting slits are fine.
- Good verticality, and the perpendicularity of the cutting surface is less than 1.5°.
- The cutting slit is narrow, high yield, the edge of straight cutting slit, small thermal damage .

广泛应用于磨具、刀具等行业。

Widely used in abrasives, cutting tools and other industries.

适用于 PCD 拉丝模、PCD 复合片、CVD、各种 PCBN、单晶钻石、陶瓷、硅片、硬质合金、薄钢板等各种材料的高效切割和精密加工。

It is suitable for high efficient cutting and precision machining of PCD drawing die, PCD laminate, CVD, various PCBN, single crystal diamond, ceramics, silicon wafer, cemented carbide, thin steel plate and other materials.



性能 / 型号	Performance/model	SK-LC150	SK-LC300	SK-LC450
脉宽	Pulse width		0.05~20ms	
重复频率	Repeat frequency		1-3000Hz	
1.6mmPCD 切割速度	1.6 mm PCD cutting speed	≥120mm/min	≥240mm/min	
2.0mmPCD 切割速度	2.0mm PCD cutting speed	≥70mm/min	≥180mm/min	
切缝宽度	Kerf width	≤0.1mm		
热影响区	Heat influence range	≤0.05 mm		
PCD 单面最大切割厚度	PCD Max. thickness of single surface cutting	3mm	5mm	
PCD 双面最大切割厚度	PCD Max. thickness of double-sided cutting	5mm	8mm	
供电电源	Power supply	AC220V±10%/1PH/50Hz		
机器尺寸(长*宽*高)	Machine size (L*W*H)	1550*950*1750mm		
机器重量	Machine weight	300Kg		

高速振镜光纤激光焊接机

HIGH-SPEED SCAN LASER WELDING



本机具有高精度高速度等优势，配备专业的焊接软件，可选脉冲或连续两种工作模式，焊接重复性好、加工变形小、焊点无污染、焊缝无气孔，满足各类型金属薄板的焊接需求。

This machine has the advantages of high precision and high speed. It is equipped with professional welding software. It can choose pulse or continuous working mode. Good welding repeatability, small processing deformation, no pollution at the welding point, and no porosity on the welding surface, which can meet all types of thin metal plates.

- 振镜扫描速度快，范围大，无需直线运动轴。
- 可选配扩展 X、Y 水平移动电动工作台，适合在焊接区域超过振镜扫描范围的情况下使用。
- 振镜 Z 轴电动调整，方便焦点调节。
- 可选配 CCD 视觉系统，方便观察焊接效果。
- Fast scanning speed, large range, eliminating the need for a linear motion axis.
- Optional extended X, Y axis electric moving platform, suitable for use in welding areas beyond the scope of galvanometer scanning.
- The galvanometer Z-axis is electrically adjusted for easy focus adjustment.
- Optional CCD vision system for easy observation of welding results.

应用于新能源、医疗器械、航空航天、汽车配件、仪器仪表、3C、IT 电子、首饰珠宝、五金结构件等产品的高效率激光点焊或密封焊。

Widely used in new energy, medical devices, aerospace, auto parts, instruments 3C, IT electronics, jewelry, Hardware structural parts and other products.

适用于精密不锈钢、碳钢薄板、铜箔、铝箔、金、银等多种金属或合金；也可用于多种异种材料间的焊接。

It is suitable for welding of precision stainless steel, carbon steel sheet, copper foil, aluminum foil, gold, silver and other metals or alloys; also can be used welding between a variety of dissimilar materials.

性能 / 型号	Performance/model	SK-CW500 / 700 / 1000 / 1500	SK-QCW150 / 300 / 450
最大输出功率	Max.Output power	500W 700W 1000W 1500W	150W 300W 450W
最大峰值功率	Peak power	—	1500W 3000W 4500W
激光波长	Wavelength	1070±5nm	
冷却方式	Cooling	水冷 Water	风冷 Air
功率可调性	Power tunability	10-100%	
工作模式	Working model	脉冲 / 连续 Pulsed/CW	
供电电源	Power supply	AC220V±10%/1PH/50Hz	
机器尺寸 (长 * 宽 * 高)	Machine size (L*W*H)	1300*1800*2150mm	
机器重量	Machine weight	500Kg	

本机主要由专用激光焊接头，四轴运动控制软件，三轴机器人模组组成；采用全封闭防激光辐射一体化设计；具备连续轨迹示教和远程控制功能，可附加同轴温度控制系统，可靠识别焊线中的异常和焊接温度。

This machine is mainly composed of a dedicated laser welding head, four-axis motion control software, and a three-axis robot module; it adopts a fully enclosed laser radiation protection integrated design; it has continuous trajectory teaching and remote control functions, and can be added with coaxial temperature control. The system reliably identifies any abnormalities in the welding line and welding temperature.

- 焊接区域焊缝浅，外观精美；
- 可焊接外形复杂的产品，适用于 3D 零件焊接；
- 可通过 CCD 视觉系统和温度探头进行在线监控；
- 焊接过程无树脂降解，焊接后可直接使用，无需清洗。
- Shallow welding area and exquisite appearance;
- Suitable for welding complex products and 3D parts;
- Online monitoring can be carried out through CCD vision system and temperature probe;
- No resin degradation during welding, and it can be used directly after welding without cleaning.



	PP	POM	PBT	PBT/ASA	PA6	PA6.6	PES	PSU	ABS	ASA	SAN	MABS
PP	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
POM	Red	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
PBT	Red	Red	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red
PBT/ASA	Red	Red	Red	Green	Red	Red	Red	Red	Red	Red	Red	Red
PA6	Red	Red	Red	Red	Green	Red	Red	Red	Red	Red	Red	Red
PA6.6	Red	Red	Red	Red	Red	Green	Red	Red	Red	Red	Red	Red
PES	Red	Red	Red	Red	Red	Red	Green	Red	Red	Red	Red	Red
PSU	Red	Red	Red	Red	Red	Red	Red	Green	Red	Red	Red	Red
ABS	Red	Red	Red	Red	Red	Red	Red	Red	Green	Red	Red	Red
ASA	Red	Red	Red	Red	Red	Red	Red	Red	Red	Green	Red	Red
SAN	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Green	Red
MABS	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Green
ABS-PA	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
PS	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red

Legend: Green: Excellent, very good welding; Yellow: Good, better welding; Red: Not suitable, poor welding

广泛应用于医疗器械、塑料外壳、汽车塑料零部件、太阳能板、照明产品、进气歧管或液体容器等工件。

Widely used in medical equipment, plastic casings, automotive plastic parts, solar panels, lighting products, intake manifolds or liquid containers and other workpieces.

适用于 ABS、PP、PE、PA、PC、PS、PVC、PBT、POM、PET、PMMA 等热塑性材料及各种改性的工程塑料。

It is suitable for ABS, PP, PE, PA, PC, PS, PVC, PBT, POM, PET, PMMA and other thermoplastic materials and various modified engineering plastics.

性能 / 型号	Performance/model	SK-PLW50	SK-PLW100	SK-PLW200	SK-PLW400
最大输出功率	Max.Output power	50W	100W	200W	400W
激光波长	Wavelength	800-1000nm			
冷却方式	Cooling	风冷 Air		水冷 Water	
定位精度	Positioning accuracy	X/Y/Z 轴: ≤0.05mm; U 轴: ≤0.10			
运动速度	Movement speed	X/Y/Z 轴: 100mm/s; U 轴: 100rpm			
焊接线宽	Welding line width	0.5-3.0mm			
供电电源	Power supply	AC220V±10%/1PH/50Hz			
机器尺寸(长*宽*高)	Machine size (L*W*H)	1250*700*1700mm			
机器重量	Machine weight	250Kg			

多工位极耳焊接机

MULTI-STATION TAB WELDING



本设备主要功能为锂电池正负极片极耳成型加工，可配合自动化替换传统焊接设备；具有速度快、加工产品一致性好等特点，该设备采用模块化设计，用户可根据客户需要选配不同功能。

The main function of this machine is the polarity electrode forming process of the lithium battery, which can replace the traditional welding equipment. It has the characteristics of high speed, good processing product consistency. The equipment is modular design, and users can choose different functions according to the requirements of the customers.

- 焊接速度快，热影响区小，工件变形小，自动化程度高。
- 旋转多工位工作台，上料与焊接工位隔开，高效、安全。
- 可配高速振镜头和 CCD 同轴监视器，方便观察效果。
- 可配高效烟雾净化器，有效收集焊接烟尘。
- Fast welding speed, small heat affected zone, small deformation of workpiece, high degree of automation and good consistency.
- The rotary multi-station workbench is separated from the welding station for more efficient and safe.
- Optional high-speed vibrating lens and CCD coaxial monitoring for easy observation of welding results.
- Optional high-efficiency smoke purifier is available to efficiently collect welding fumes.

广泛应用于新能源锂电池、精密五金、仪器仪表、3C 等行业。

Widely used in lithium batteries, precision hardware, instrumentation, 3C and other industries.

适用于锂电池正负极片两侧极耳成型加工，可配合自动化，采用单工位或多工位激光同时焊接，可实现在线焊接。

It is suitable for shaping the two sides of anode and cathode of lithium battery, and can be weld online with automatic single station or multiple stations laser welding.

性能	Performance	参数 Parameter
激光波长	Wavelength	1070-1080nm
冷却方式	Cooling	水冷 Water
正极：铝极耳	Anode: aluminum tab	厚度 Thickness:0.1~0.4mm
负极：铜镀镍	Cathode:Nickel plated copper	厚度 Thickness:0.1~0.4mm
功率可调性	Power tunability	10-100%
功率稳定性	Power stability	±0.5%
供电电源	Power supply	AC220V±10%/1PH/50Hz
机器尺寸(长*宽*高)	Machine size (L*W*H)	1450*760*2000mm
机器重量	Machine weight	250Kg

本机适合多种不同场合的应用，如广告、家具、温室搭建，在注塑机上的超大型模具、叉车、汽车上进行焊接等。

This machine is suitable for a variety of applications, such as advertising, furniture, greenhouse construction, welding on super-large molds, forklifts, and automobiles.

- 激光焊接头结构轻巧，内置冷水机一体式集成。
- 激光光束质量好，能量分布均匀，焊点大小均匀，深度一致。
- 使用激光功率实时反馈控制系统，性能稳定。
- 操作智能，仅对金属件出光，非金属件不出光。
- 可远距离操作，光纤折弯支撑防护，便于收纳。
- Compact laser welding head structure, integrated chiller integrated.
- Laser beam quality is good, energy distribution and welding spot size is uniform, consistent welding depth.
- Performance is stable, because we using a laser power real-time feedback control system.
- Intelligent operate, only for metal parts, do not emit light on non-metallic parts
- It can be operated from a long distance, and the fiber anti-bending support is easy to store.



广泛应用于不易用固定光路焊接机实现的大型、复杂工件焊接的行业。

Widely used in the industry of large and complex workpiece welding that is difficult to achieve with a fixed optical path welding machine.

适用于不锈钢、碳钢、普通合金钢、冷作高合金钢、热锻高合金钢、含镍工具钢、高级钢、高韧铝合金、铜合金、铍铜、紫铜和极硬合金材料，以及镍合金、冷锻钢等多种金属及其合金的搭焊、拼焊、叠焊、角焊等。

It is suitable for stainless steel, carbon steel, common alloy steel, cold work high alloy steel, hot forged high alloy steel, nickel-containing tool steel, high-grade steel, high-tough aluminum alloy, copper alloy, beryllium copper, red copper and extremely hard alloy materials, and lap welding, tailor welding, seam welding, fillet welding of various metals and alloys thereof such as nickel alloy and cold forged steel.

性能 / 型号	Performance/model	SK-CW500	SK-CW800	SK-CW1000	SK-CW1500	SK-CW2000
最大输出功率	Max.output power	500W	800W	1000W	1500W	2000W
激光波长	Wavelength	1070-1080nm				
冷却方式	Cooling	水冷 Water				
焊接速度	Welding speed	0-120mm/s				
焊接厚度	Welding thickness	0.5-3mm				
不锈钢焊接熔深	SS depth of fusion	0.8mm	1.2mm	1.5mm	2.5mm	3.5mm
碳钢焊接熔深	C.S depth of fusion	0.8mm	1.2mm	1.5mm	2.5mm	3.5mm
镀锌板焊接熔深	SGCC depth of fusion	0.8mm	1.0mm	1.2mm	2.5mm	2.5mm
供电电源	Power supply	AC220V±10%3KW		AC220V±10%5KW	AC220V±10%7KW	AC380V±10%9KW
机器尺寸(长*宽*高)	Machine size (L*W*H)	1200*600*1650mm				
机器重量	Machine weight	300Kg				



本机具有“能量负反馈技术”维持机器的稳定，该系列焊接机由焊接主机和多种不同的焊接工作台配套组成，通过内部灵活的光学组合实现分时、分能量、多工位同时焊接，能实现不同客户的需求。

This machine has an "energy feedback technology" to maintain the stable of the machine. This series of welding is composed of welding mainframe and a variety of different welding workbench. It realizes time-sharing, energy-dividing and multi-station simultaneous welding through flexible internal optical combination, which can realize the needs of different customers.

- “能量负反馈技术”，实时处理反馈控制性能及波形控制功能，激光输出功率稳定，降低产品不良率。
- 激光通过光纤后光斑更加均匀稳定，提升焊缝质量。
- 可选配普通焊接头、手持焊接头、振镜系统的组合。
- 可配机器人、悬臂、CCD 监视系统，实现特种焊接。
- “Energy Feedback Technology”, real-time processing of feedback control performance and waveform control functions to ensure stable laser output power and reduce product defect rate.
- The laser beam becomes more uniform and stable after pass through the fiber which improve the welding quality.
- Optional combination of ordinary welding head, hand-held welding and galvanometer system.
- Optional robot, cantilever, CCD camera monitoring system for special welding.

广泛应用于光通信器件、IT、医疗、电子、电池、光纤耦合器件、显象管电子枪、金属零件、手机振动马达、钟表精密零件、汽车车灯等的精密焊接。

Widely used in optical communication devices, IT, medical treatments, electronics, batteries, fiber coupled components, CRT monitor electron guns, metal parts, cell phone motors, clock precision parts, automobile lamps, etc.

适用于不锈钢、碳钢、铜、铝、金、银、铬、镍、钛、钽等多种金属或合金。

Applicable to stainless steel, carbon steel, copper, aluminum, gold, silver, chromium, nickel, titanium, tantalum and other metals or alloys.

性能 / 型号	Performance/model	SK-FW200	SK-FW300	SK-FW500	SK-FW600
最大输出功率	Max.Output power	200W	300W	500W	600W
激光波长	Wavelength	1064nm			
冷却方式	Cooling	水冷 Water			
最大单脉冲能量	Max.single pulse energy	60J	80J	100J	100J
功率稳定性	Power stability	< ±3%			
工作模式	Working model	脉冲 Pulse			
供电电源	Power supply	AC380V±10%, 50Hz			
机器尺寸(长*宽*高)	Machine size (L*W*H)	1360*660*1080mm			
机器重量	Machine weight	350Kg			

本机专门针对牙科义齿点焊、医疗器械精密点焊、珠宝首饰点焊、高校研究教学等行业而设计，系统稳定，操作方便，可用于金银首饰电子元器件补孔、点焊砂眼、焊镶口等。

This machine is specially designed for dental denture spot welding, medical equipment precision spot welding, jewelry spot welding, university research and teaching, etc. The system is stable and easy to operate. It can be used for gold and silver jewelry electronic components to fill holes and points. Welding sand holes, welding inserts, etc.

- 自动抽水一键操作。
- 风冷的冷却方式，降低使用和维护成本。
- 显微镜和内置摄像系统，观察方便。
- 体积小巧设计紧凑，节省空间。
- 彩色触摸屏，人机交互界面友好。
- Automatic pumping with one button operation.
- Air cooling reduces heat and maintenance costs.
- Microscope and built-in camera system for easy viewing.
- Small size and compact design save space.
- Color touch screen, friendly interface.



广泛应用于医疗器械点焊、假牙补砂眼、珠宝首饰点焊、钟表游丝、集成电路引线各种微小、热敏感零件的精密焊接，适于医疗器械、牙科义齿、珠宝首饰、高校研究所、电子、通讯等行业。

Widely used in precision welding of medical equipment spot welding, false teeth replenishing, jewelry spot welding, watch hairspring, integrated circuit lead, various tiny, heat sensitive parts, suitable for medical equipment, dental dentures, jewelry, university research institutes, electronics, communications and other industries.

适用于口腔义齿点焊、精密医疗器械点焊、金银首饰激光点焊加工，不锈钢激光焊接，各类激光点焊，以及精细金属零件手工激光焊接。

Applicable to dental denture spot welding, precision medical equipment spot welding, gold and silver jewelry laser spot welding, stainless steel laser welding, various types of laser spot welding, and manual laser welding of fine

性能 / 型号	Performance/model	SK-LSW40	SK-LSW60	SK-LSW80
最大激光功率	Max. laser power	40W	60W	80W
激光波长	Wavelength	1064nm		
冷却方式	Cooling	水冷 Water		
激光频率	Laser frequency	1.0-15.0Hz		
脉冲宽度	Pulse Width	0.1~10.0ms 分级可调 Adjustable		
光斑调节范围	Light spot range	0-0.3mm		
主机耗电功率	Power consumption	≤2KW		
操作方式	Operation method	触摸控制 Touch control		
供电电源	Power supply	AC220V±10%/1PH/50Hz		
机器尺寸(长*宽*高)	Machine size (L*W*H)	510*295*395mm		
整机净重	Net weight	28KG		



本机专门针对电子行业和首饰行业而设计，系统稳定，操作方便，可用于金银首饰电子元器件补孔、点焊砂眼、焊镶口等。

This machine is specially designed for the electronics industry and the jewelry industry. The system is stable and easy to operate. It can be used for gold and silver jewelry electronic components to fill holes, spot welding sand holes, welding inserts and so on.

- 单脉冲能量高，功耗低，热影响低，焊接时不烫手。
- 高能量的 YAG 脉冲光源，光束质量高。
- 无需填充焊料，焊接速度快，焊接点可靠，工件变形小。
- 水冷一体激光焊接系统，结构紧凑，体积小。
- 稳定的激光电源，系统能够 24 小时不间断运行。
- High single-pulse energy, low power consumption, low heat effect, and it is not hot when soldering.
- High efficiency YAG crystal to ensure the best beam quality and energy.
- No need to fill the solder, high welding speed, reliable joint, small workpiece deformation, good molding.
- The water-cooled integrated laser welding system is compact and small in size.
- Stable laser power supply to ensure the system able to operate in 24 hours.

广泛应用于珠宝首饰、假牙补砂眼、钟表游丝、集成电路引线各种微小、热敏感零件的精密焊接，适于光电器件、电子、通讯、机械、汽车、黄金首饰等行业。

Widely used in the precision welding of jewelry, dentures, sand watches, hairsprings, integrated circuit leads, various tiny, heat-sensitive parts, suitable for optoelectronic devices, electronics, communications, machinery, automotive, gold jewelry and other industries.

适用于金、银、铝、铜、不锈钢、碳钢、铬、镍、钛、钽等多种金属或合金。

It is suitable for gold, silver, aluminum, copper, stainless steel, carbon steel, chromium, nickel, titanium, tantalum and other metals or alloys.

性能 / 型号	Performance/model	SK-LSW100	SK-LSW150	SK-LSW200
最大输出功率	Max.output power	100W	150W	200W
激光波长	Wavelength	1064nm		
冷却方式	Cooling	水冷 Water		
激光斑点直径	Focal diameter	0.1-2mm		
最大脉冲能量	Max. pulse energy	40J	60J	60J
焊接深度	Welding depth	≤2.5mm		
供电电源	Power supply	AC220V±10%/1PH/50Hz		
机器尺寸 (长*宽*高)	Machine size (L*W*H)	918*480*1138mm		
机器重量	Machine weight	180Kg		

本机通过激光瞬间产生的高热能将专用焊丝熔接到模具的破损部位，与原有模具基材牢固熔接，焊后磨削加工成光面，可有效的修补砂眼、裂痕、崩角及磨损的模边、密封边等微小部位。

This machine fuses the special welding wire to the damaged part of the mold through high thermal energy generated by laser instantaneously, and is firmly welded to the original mold base material, and is ground and polished into a smooth surface after welding, and is effective. Repairs sand holes, cracks, chipping and worn edges, sealing edges and other tiny parts.

- 激光焊点直径小，受热范围小、焊后无气孔、无凹陷，不会导致精密模具变形。
- 焊接深度大、焊接牢固、溶化充分、无明显修补痕迹。
- 焊接头可 360 度旋转，工作台可电动升降，三维移动平台适合不同大小模具的修补。
- The laser welding spot has a small diameter, a small heat receiving range, no pores after welding, no depression, and does not cause deformation of the precision mold.
- Deep welding depth, the welding is firm, the melting is sufficient, and there is no obvious repairing trace.
- The welding head can be rotated 360 degrees, the worktable can be electrically lifted, and the 3D mobile platform is suitable for repairing different sizes of molds.

广泛应用于手机、数码产品、汽车及摩托车等模具制造和成型行业。

Widely used in mould making and molding industries such as 3C, digital products, automobile and motorcycle etc.

适用于 S136, SKD-11, NAK80, 8407, 718, 738, H13, P20, W302, 2344 等模具钢、碳钢、普通合金钢、不锈钢、铍铜、紫铜和极硬合金材料的塑胶模具、铸造模、锻造模、冲压模、压铸模等。

It is suitable for S136, SKD-11, NAK80, 8407, 718, 738, H13, P20, W302, 2344, etc., such as die steel, carbon steel, common alloy steel, stainless steel, beryllium copper, copper and hard alloy materials. Plastic molds, casting molds, forging dies, stamping dies, die-casting dies, and the like.



性能 / 型号	Performance/model	SK-MW200	SK-MW300
最大输出功率	Max.Output power	200W	300W
激光波长	Wavelength	1064nm	
冷却方式	Cooling	水冷 Water	
脉冲宽度	Pulse width	0.1-20ms	
光斑调节范围	Laser spot adjustment range	0-0.3mm	
最大焊接深度	Max.welding depth	2.0mm	3.5mm
供电电源	Power supply	AC220V±10%/1PH/50Hz	AC380V±10%
机器尺寸(长*宽*高)	Machine size (L*W*H)	1400*550*1200mm	
机器重量	Machine weight	220Kg	

手持式激光清洗机

HANDHELD LASER CLEANING



本机是新一代表面清理的高科技产品。易于安装、操控和实现自动化。可进行无化学试剂、无介质、无尘、无水的清洗，表面洁净度高，能够清除物件表面树脂、油污、污渍、污垢、锈浊、涂层、镀层、油漆。

This machine is a new type of high-tech products for cleaning the surface, can be cleaning without chemical reagent, medium, dusty and water, and the surface clearness is quite good, also can remove the resin, grease, stains, dirt, embroided turbidity, coating, paint from the products surface.

- 无研磨、非接触，高效环保、无化学污染，几乎无损伤基材表面。
- 可设置出光宽度，清洗精准。
- 操作方便，通电即用，无耗材。
- 可调激光参数，适用多种环境，效果更佳。
- No grinding, non-contact characteristics, efficient and environmentally friendly, no chemical pollution, almost without damage to the surface of the substrate.
- Can set the light width, cleaning accuracy.
- Easy to operate, use when powered on and no consumables.
- Adjustable laser parameters for a variety of environments, better results.

广泛应用于模具行业、汽车制造、船舶业、食品加工、污水处理、橡胶轮胎、石油化工等行业。

Widely used in mold industry, automobile manufacturing, shipbuilding industry, food processing, wastewater treatment, rubber tires, oil, chemical industry, etc.

适用于金属表面除锈、表面除漆脱漆处理、表面油污、污渍、污垢清洗、表面镀层、涂层清除、焊接面预处理、喷涂面预处理、石像表面灰尘及附着物清除、橡胶模具残留物清理。

It is suitable for removal the rust of the metal, oil, dirt, removal the coating of the products, removal the welding surface, removal the painting surface, removal the dust of the statues, removal the residue of the rubber molds.

性能 / 型号	Performance/model	SK-CL100
最大输出功率	Max.Output power	100W
激光波长	Wavelength	1064nm
冷却方式	Cooling	风冷 Air
焦深	Focal depth	±2.5mm
机型选配	Model	手持式 Handheld
供电电源	Power supply	AC220V±10%/1PH/50Hz
机器尺寸(长*宽*高)	Machine size (L*W*H)	500*230*520mm
整机重量	Weight	35KG

本机是新一代表面清理的高科技产品。易于安装、操控和实现自动化。可进行无化学试剂、无介质、无尘、无水的清洗，表面洁净度高，能够清除物件表面树脂、油污、污渍、污垢、锈油、涂层、镀层、油漆。

This machine is a new type of high-tech products for cleaning the surface, can be cleaning without chemical reagent, medium, dusty and water, and the surface clearness is quite good, also can remove the resin, grease, stains, dirt, embrodered turbidity, coating, paint from the products surface.

- 无研磨、非接触，高效环保、无化学污染，几乎无损伤基材表面。
- 可设置出光宽度，清洗精准。
- 操作方便，通电即用，无耗材。
- 可调激光参数，适用多种环境，效果更佳。
- No grinding , non-contact characteristics , efficient and environmentally friendly , no chemical pollution , almost without damage to the surface of the substrate.
- Can set the light width, cleaning accuracy.
- Easy to operate, use when powered on and no consumables.
- Adjustable laser parameters for a variety of environments , better results.

广泛应用于模具行业、汽车制造、船舶业、食品加工、污水处理、橡胶轮胎、石油化工等行业。

Widely used in mold industry, automobile manufacturing, shipbuilding industry, food processing, wastewater treatment, rubber tires, oil, chemical industry, etc.

适用于金属表面除锈、表面除漆脱漆处理、表面油污、污渍、污垢清洗、表面镀层、涂层清除、焊接面预处理、喷涂面预处理、石像表面灰尘及附着物清除、橡胶模具残留物清理。

It is suitable for removal the rust of the metal, oil, dirt, removal the coating of the products, removal the welding surface, removal the painting surface, removal the dust of the statues, removal the residue of the rubber molds.



性能 / 型号	Performance/model	SK-CL200	SK-CL300	SK-CL500
最大输出功率	Max. Output power	200W	300W	500W
激光波长	Wavelength	1064nm		
冷却方式	Cooling	水冷 Water		
焦深	Focal depth	±5mm		
机型选配	Model	自动化 Automation		
供电电源	Power supply	AC220V±10%/1PH/50Hz		
机器尺寸(长*宽*高)	Machine size (L*W*H)	1300*750*1200mm		
整机重量	Weight	150-200Kg		



本机是针对实验室压力试验课题专业定制的一款高精度激光设备，具有兼容铼片加压前后的各种打孔、切割的特点。

This machine is a high-precision laser equipment customized for laboratory pressure testing. The device is compatible with various punching and cutting features before and after the rhenium sheet is inserted.

- 设备体积小，解决了个别科室空间狭小问题。
- 精密度高，最小孔可达到 0.005mm。
- 设备操作简便，更易上手。
- 可根据不同材料更换光源，兼容性能更强。
- 热影响区域小，小孔周边的氧化成分较少。
- The size of equipment is small , which solves the problem of small space in individual departments.
- High precision, the smallest hole can reach 0.005mm.
- The equipment is easy to operate and easier to use.
- The light source can be replaced according to different materials, and the compatibility is stronger.
- Small heat-affected zone , and the oxidized components around the small holes are less.

广泛应用于金刚石拉丝模、消声器小孔、针头小孔、宝石轴承等多种打孔的行业。

Widely used in drilling the diamond wire drawing dies, the muffler holes , needle holes , and jewel bearings etc.

适用于对天然金刚石、聚晶金刚石、红宝石、紫铜、陶瓷、不锈钢、碳钢、合金钢等超硬、耐高温材料进行不同形状、直径、深度和锥度打孔。

It is suitable for drill holes of different shapes, diameters, depths and tapers on super-hard and high temperature resistant materials, such as natural diamond, polycrystalline diamond, ruby, copper, ceramic, stainless steel, carbon steel, alloy steel and so on.

性能 / 型号	Performance/model	SK-MS1
输出功率	Output power	20W
激光波长	Wavelength	1064nm
脉冲频率	Pulse frequency	1.6-1000kHz
最小光斑直径	Min. spot diameter	0.005mm
重复精度	Repeat accuracy	±0.001mm
加工范围	Processing range	50*50mm
供电电源	Power supply	AC220V±10%/1PH/50Hz
机器尺寸 (长*宽*高)	Machine size (L*W*H)	700*450*750mm
机器重量	Machine weight	75Kg

本机由高性能激光器、CCD 同光路监视器、精密四轴运动工作台和自行研发软件控制系统组成,自动完成拉丝模小孔成形,对孔形编程,可打多层直线喇叭孔、直孔,特殊设计软件还可打出轴向内壁圆弧形及其它任意曲线孔形。

This machine is composed of the high-performance laser, CCD optical television surveillance, precise 4 axis movement workbench and software control system. It automatically completes the drilling of wire drawing dies. The hole shape can be programmed, so it can punch not only multilinetrumpet holes, straight holes, but also axial inner wall arc and strange or arbitrary curve shape holes through special software. The wall of drilled holes is smooth and the ablation zone is small.

- 更短的波长, 更小的激光焦点, 烧蚀区少, 孔内壁光滑。
- 可打反口, 装夹方便, 打孔速度快, 长期工作稳定可靠。
- 自行研制新版软件系统, 自动完成拉丝模小孔成型。
- Shorter wavelengths, smaller laser focus, less ablation zones, and smoother inner walls.
- Also can drill from back, the clamping is convenient, the drilling speed is fast, and the long-term work is stable and reliable.
- The new version of the software system has been developed by ourself, automatically completes the drawing of small holes in the wire dies.

广泛应用于金刚石拉丝模、消声器小孔、针头小孔、宝石轴承等多种打孔的行业。

Widely used in drilling the diamond wire drawing dies, the muffler holes, needle holes, and jewel bearings etc.

适用于对天然金刚石、聚晶金刚石、红宝石、紫铜、陶瓷、不锈钢、碳钢、合金钢等超硬、耐高温材料进行不同形状、直径、深度和锥度打孔。

It is suitable for drill holes of different shapes, diameters, depths and tapers on super-hard and high temperature resistant materials, such as natural diamond, polycrystalline diamond, ruby, copper, ceramic, stainless steel, carbon steel, alloy steel and so on.



性能 / 型号	Performance/model	SK-DRILLING				
最大输出功率	Max. Output power	3W	5W	20W	50W	100W
激光波长	Wavelength	355nm	532nm	1064nm		
打孔孔径	Drilling aperture	0.006-1mm		0.05-1mm	0.1-3mm	0.1-5mm
打孔厚度	Perforation thickness	0.01-1mm		0.05-2mm	1-6mm	1-10mm
旋转速度	Rotation speed	<2000 转 /min				
初始定位精度	Initial positioning accuracy	±0.003mm				
重复定位精度	repetition precision	±0.002mm				
供电电源	Power supply	AC220V±10%/1PH/50Hz				
机器尺寸(长*宽*高)	Machine size (L*W*H)	1100*1000*1600mm				
机器重量	Machine weight	400Kg				



广泛应用于太阳能电池等行业。

Widely used in solar cells and other industries.

适用于单晶硅、多晶硅、非晶硅太阳能电池划片，陶瓷、金刚石的切割，硅、锗、砷化镓和半导体基片、半导体器件和集成电路的氧化陶瓷基片（如陶瓷基板）划片；薄金属模板的精密切割、打孔，SMT贴片机模板的切割。

It is suitable for monocrystalline silicon, polycrystalline silicon, amorphous silicon solar cell dicing, ceramic, diamond cutting, oxide ceramics for silicon, germanium, gallium arsenide and semiconductor substrates, semiconductor devices and integrated circuits substrate (such as ceramic substrate) dicing; precision cutting and punching of thin metal template, SMT stickers cutting of the tablet template.

本机切缝细、热影响区小、切口边缘平整光滑、无裂纹。

可以在 AutoCAD、CorelDRAW 中绘制图形导入后进行加工；专用控制软件使程序的编辑和修改简便，实时显示运动轨迹。配备吸尘、CCD 监视系统及真空吸附系统。

This machine with small slits, small heat affected zone, slit edge smooth, no cracks. Can be drawn in AutoCAD, CorelDRAW after importing graphics processing; dedicated control software makes editing and modification of the program easy, real-time display show the motion track. Equipped with vacuum, CCD monitoring and vacuum adsorption system.

- 激光划线宽度细，切割断面整齐，边缘平整光滑。
- 可选配高精度 CCD 视觉定位系统，高速振镜划片，划片速度快。
- 可选配料盒自动传输、电池片自动上料、自动定位、自动划片、成品自动装盒等系统，自动化程度高。
- Small scribing width, the cut section of the cell sheet is more neat, and the edge is smoother.
- Optional high-precision CCD visual positioning system, high-speed galvanometer dicing, fast dicing speed.
- Automatic transfer of optional ingredient boxes, automatic feeding of battery sheets, automatic positioning, automatic dicing, automatic loading of finished tablets Such as the system, High degree of automation.

性能 / 型号	Performance/model	SK-SCF20	SK-SCF30	SK-SCUV3	SK-SCUV5
最大输出功率	Max.Output power	20W	30W	3W	5W
激光波长	Wavelength	1064nm		355nm	
冷却方式	Cooling	风冷 Air		水冷 Water	
最大划片速度	Max.scribing speed	200mm/s			
划片精度	Scribing accuracy	±0.5%			
划片线宽	Scribing line width	≤30μm		≤15μm	
供电电源	Power supply	AC220V±10%/1PH/50Hz			
机器尺寸 (长*宽*高)	Machine size (L*W*H)	1250*700*1700mm			
机器重量	Machine weight	200Kg			

本机主要功能为激光全息幻彩雕刻工艺，它是通过使用高能激光束，在模具表面蚀刻出高精度的线条，使纪念币表面呈现出多层次光效，色彩绚丽，形象逼真，立体感强。

This machine is laser color carving technology, it is the use of high-energy laser beams, etched on the surface of the mold high-precision lines, so that the commemorative coin surface presents a multi-level light effect, colorful, vivid image, three-dimensional sense.

- 激光全息折光技术可对七彩光进行定色、定向雕刻。
- 图案颜色呈现彩虹效果，防伪级别高。
- 全息幻彩激光雕刻模具后转印至产品表面，形成幻彩效果。
- 自主研发设计结构及运动平台，重复精度高，稳定性好。
- 自主知识产权软件控制系统，操作界面人性化。
- Laser engraving holographic refraction technology enables color and directional laser engraving can be realized.
- The color of the pattern has a rainbow effect, high anti-counterfeiting level.
- It can be engraved on the mold and transferred to the surface of the product, forming a magic effect.
- Self-developed design structure and motion platform solution with high repeatability and good stability.
- Independent intellectual property rights software control system, humanizing operation interface.



广泛应用于全息防伪标签、高档汽车部件 LOGO 标识、高档 3C 通讯产品、高档礼品定制、高档五金卫浴、电梯等行业。
Widely used in holographic anti-counterfeiting label, high grade auto parts LOGO, high grade 3C communication products, high-end gift customization, high grade hardware bathroom, elevator industry.

适用于全息（幻彩）金银币、激光模压全息印刷、贵金属金银钞 / 卡、金章、金条、银章、银条、模具、邮票等贵金属或珠宝首饰。

It is suitable for holographic (magic color) gold and silver coins, laser embossed holographic printing, precious metal gold and silver banknotes / cards, gold stamps, gold bars, silver stamps, silver bars, molds, Stamps, such as precious metals or jewelry industry.

项目	Project	SK-MARKER
整机功耗	Power consumption	1000W
激光波长	Wavelength	1030-1064nm
冷却方式	Cooling	水冷 Water
光束质量 M ²	Beam quality M ²	≤1.2
工作温度	Working temperature	20-28°C
存储温度	Storage temperature	0-50°C
供电电源	Power supply	AC220V±10%/1PH/50Hz
机器尺寸 (长 * 宽 * 高)	Machine size (L*W*H)	1600*1800*2150mm
机器重量	Machine weight	1500Kg



本机适合于大弧面高落差的三维产品雕刻，搭载三轴控制“3-AXIS”自由控制焦距，在任何形状上均可高精度刻印，可应对各种阶梯面，实现各种形状的无差别打标。切换设定就可应对不同产品的焦距、位置和形状变化。无需移动工件即可完成切换工作。可选用 3D 曲面标刻、浮雕、视觉定位系统、动态流水线打标等多种功能。

This machine is suitable for three-dimensional product engraving with large arc surface height drop. It is equipped with three-axis control "3-AXIS" to control the focal length freely. It can be printed with high precision in any shapes. It can cope with various step surfaces and realize various shapes in differential marking. Switch settings to handle changes in focus, position and shape for different products. Switching can be done without moving the workpiece. 3D surface marking, embossing, visual positioning system, dynamic pipeline marking and many other functions are available.

- 高精度三维定位技术，高速聚焦与扫描系统。
- 三维图形处理技术，适用于 dxf、plt、cnc、step、iges 等多种格式文件。
- 不同高度平面标记和浮雕功能，打标速度快，加工效率高。
- High precision of 3D positioning technology, high-speed focusing and scanning system.
- 3D graphics processing technology, it is suit for many file formats, such as dxf, plt, cnc, step, iges, etc;
- Different height flat marks and embossing functions, fast marking speed and high processing efficiency.

广泛应用于手机制造、立体电路、医疗器械、模具、3C 电子、汽车零部件、电子通讯等行业产品的激光三维打标。Widely used in industries which demand finer effects, higher speed and greater depth, such as electronics components, electrical appliances, jewelry, glasses, hardware, auto parts, communications products, plastic buttons, integrated circuit (IC) and so on.

适用于三维曲面的各种金属或非金属材料。

It is suitable for metal, alloy and its oxide, ABS, epoxy resin, printing ink, etc.

性能 / 型号	Performance/model	SK-3DF50	SK-3DF100	SK-3DC100	SK-3DC-150
最大平均功率	Max.Average power	50W	100W	100W	150W
激光波长	Wavelength	1064nm		9300/10200/10600nm	
冷却方式	Cooling	风冷 Air		水冷 Water	
光束质量 M ²	Beam quality M ²	<1.3		<1.8	
标记范围	Marking scope	100*100*20 mm~600*600*80mm			
打标方式	Marking mode	XYZ 三轴动态聚焦 /XYZ three-axis dynamic focus			
供电电源	Power supply	AC220V±10%/1PH/50Hz			
机器尺寸 (长*宽*高)	Machine size (L*W*H)	1420*1400*1832mm			
机器重量	Machine weight	300Kg			

本机采用半导体端面泵浦激光器，经过三倍频产生 355nm 紫外激光。光电转化率高，设备稳定性好，振镜式高精度打标头，效果精细，355nm 输出波长，减少对加工工件的热影响。

This machine uses a semiconductor end-pumped laser to generate 355nm ultraviolet laser after triple frequency. It boasts high conversion rate between laser and electricity. High stability and it adopts galvo marking head with super precision. Output wavelength is 355nm. It boasts small heat affection.

- 效率高，打标效果好，整机小巧，运输便捷。
- 电光转换效率高，激光器脉宽窄，峰值功率高。
- 热影响区域小，适合高精度加工的划线及各种复杂图案打标，速度快，整机稳定性好。
- High efficiency and good marking effect, small volume, and the transportation is convenient;
- High electro-optic conversion efficiency, narrow laser pulse width, high peak power.
- Small heat affected area, suitable for high-precision machining of scribing and various complex pattern marking fast, good stability.



广泛应用于食品、药品、化妆品、电线等高分子材料的包装瓶（盒）表面打标，打微孔（孔径 $D \leq 10\mu\text{m}$ ）柔性 PCB 板、LCD、TFT 打标、划片切割等金属或非金属镀层去除硅晶圆片微孔、盲孔加工。

Widely used in marking on packing materials of food, medicines, cosmetics and wire, drilling tiny hole (hole diameter $D \leq 10\mu\text{m}$) Flexible PCB, LCD, TFT marking and slicing. Metallic and non metallic materials thin film removal. Silicon wafer tiny hole and dead hole processing.

适用于玻璃、高分子材料等物体表面打标，微孔加工。

It is suitable for the surface marking of glass, polymer materials, etc., micro-hole processing.

性能 / 型号	Performance/model	SK-UV3	SK-UV5	SK-UV10
激光器功率	Laser power	3W	5W	10W
激光波长	Wavelength	355nm		
冷却方式	Cooling	风冷 / 水冷 Air/Water	水冷 Water	
标记范围	Marking scope	100*100/150*150/200*200mm 可定制 (Customizable)		
重复精度	Repeat accuracy	<2 μrad		
光束质量 M^2	Beam quality M^2	<1.2		
供电电源	Power supply	AC220V \pm 10%/1PH/50Hz		
机器尺寸 (长 * 宽 * 高)	Machine size (L*W*H)	950*675*1500mm		
机器重量	Machine weight	150Kg		

CO2激光喷码机

CO2 LASER MARKING



本机采用 CO2 射频激光器和高速扫描振镜系统。整机系统打标精度高、速度快、性能稳定，可应用于大批量在线加工流水线生产线上。

This machine uses a CO2 RF laser and a high-speed scanning galvanometer system. The marking system of the whole machine has high precision, high speed and stable performance, and can be applied to large-scale online processing flow production line.

- 高性能 CO2 激光器，标刻质量好，加工速度快，产能高。
- 可配高精度 CCD 实现自动定位、读码。
- 机身结构紧凑，升降平台稳定，占地面积小。
- 光斑质量好，光功率密度均匀，输出光功率稳定，出现异常自动报警和暂停作业。
- High performance import CO2 laser source, good marking quality, fast processing speed and high productivity.
- It can be equipped with high-precision CCD to realize automatic positioning and reading.
- The structure of the fuselage is compact, the lifting platform is stable, small footprint.
- Good spot quality, uniform optical power density, stable output optical power, abnormal automatic alarm and pause operation.

广泛应用于食品饮料、化妆品、医药、香烟、电子元件、服装、工艺礼品等行业领域。

Widely used in food and beverage, cosmetics, medicines, cigarettes, electronic components, clothing, craft gifts and other industries.

适用于亚克力、有机玻璃、竹木器、树脂、塑料、橡胶、纸张、布料服装、皮革、陶瓷、人造石等材质的打标、雕刻、镂空。

It is suitable for marking plexiglass, bamboo and wood, resin, plastic rubber, paper, cloth clothing, leather, ceramics, artificial stone and other materials.

性能 / 型号	Performance/model	SK-C10	SK-C30	SK-C60	SK-C100
最大平均功率	Max.Average power	10W	30W	60W	100W
激光波长	Wavelength	9300/10200/10600nm			
冷却方式	Cooling	风冷 Air			水冷 Water
光束质量 M ²	Beam quality M ²	<1.2			
标记范围	Marking scope	110*110/140*140/200*200/400*400mm 可定制 (Customizable)			
最小线宽	Min. line width	0.1mm			
供电电源	Power supply	AC220V±10%/1PH/50Hz			
机器尺寸 (长 * 宽 * 高)	Machine size (L*W*H)	900*450*1400mm / 1000*600*1450mm			
机器重量	Machine weight	70Kg / 150Kg			

本机采用高度集成的光纤激光器、高速扫描振镜。输出功率稳定，光学模式好，适用于精细、精密打标，体积小、全风冷、无耗材、免维护、满足工业化连续工作要求；可根据要求选配进口或国产激光器。

This machine adopts highly integrated fiber laser and high speed scanning galvanometer. Output power is stable, optical mode is good, suitable for precision marking; small size, all air-cooled, consumable, maintenance-free, can meet the needs of industrial continuous work; can be matched according to the requirements of imported or domestic laser.

- 可对多种金属、非金属材料进行标刻。
- 属于非接触加工、不损坏产品、无刀具磨损、标记质量好。
- 光束质量好、损耗低、加工热影响区小。
- 加工效率高、采用计算机控制、易于实现自动化。
- It can process a variety of metal and non-metal materials.
- Non-contact processing, no damage to the product, no tool wear, good marking quality.
- Good beam quality, less material loss, and the processing heat affected zone is small.
- High processing efficiency, computer control, easy to achieve automation.



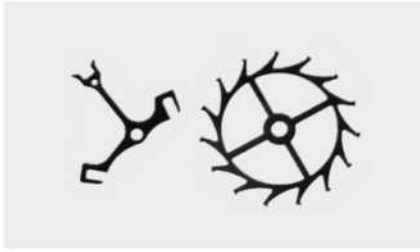
广泛应用于塑胶透光按键、集成电路 (IC)、数码产品部件、精密机械、珠宝首饰、洁具、量具刀具、钟表眼镜、电子元器件、五金饰品、五金工具、手机通讯部件、汽摩配件、塑胶制品、医疗器械、建材管材等高精度产品标识行业。
Widely used in mobile communications, electronic components, household appliances, watch glasses, aerospace, auto parts, precision instruments, medical devices, jewelry, hardware and other industries.

适用于高硬合金、电镀产品、镀膜产品、ABS、环氧树脂、油墨涂覆产品，陶瓷、工程塑料等。
It is suitable for hard alloys, plated products, coated products, ABS, epoxy resin, ink coated products, ceramics, engineering plastics and so on.

性能 / 型号	Performance/model	SK-F20	SK-F30	SK-F50	SK-F100
最大平均功率	Max.Average power	20W	30W	50W	100W
激光波长	Wavelength	1064nm			
冷却方式	Cooling	风冷 Air			
光束质量 M ²	Beam quality M ²	<1.3			
最小线宽	Min. line width	0.03mm			
标记范围	Marking scope	100*100/150*150/200*200mm 可定制 (Customizable)			
供电电源	Power supply	AC220V±10%/1PH/50Hz			
机器尺寸 (长*宽*高)	Machine size (L*W*H)	750*600*1388mm / 700*240*620mm			
机器重量	Machine weight	100Kg / 30Kg			

样品展示

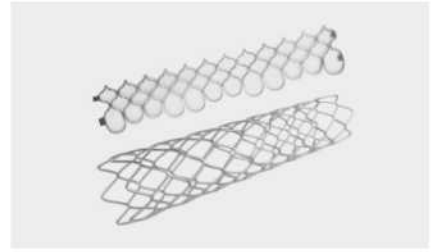
SAMPLES



手表机芯切割 Watch movement cutting



海波管切割 Hypotube cutting



心脏支架切割 Heart stent cutting



陶瓷片切割 Ceramic slice cutting



金属箔切割 Metal foil cutting



电池软包切割 Battery cutting



钣金切割 Sheet metal cutting



超硬材料切割 Superhard material



微米级切割 Micron cutting



电池极柱焊接 Battery post welding



极耳焊接 Tab welding



不锈钢焊接 Stainless steel welding



车灯焊接 Lamp welding



密封焊 Hermetic welding



精密焊接 Precision welding



义齿点焊 Denture spot welding



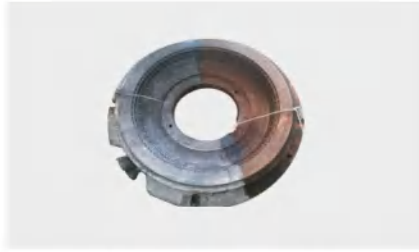
手术钳焊接 Surgical forceps welding



胎压测试仪焊接 Plastic welding



油污清洗 Oil cleaning



锈层清洗 Rust cleaning



油漆清洗 Paint cleaning



锥形拉丝模 Tapered drawing die



精密打孔 Precision drilling



手机扩音孔打孔 Amplifier hole drilling



黄铜模具打孔 Brass mould drilling



拉丝模打孔 Drawing die drilling



精密打孔 Precision drilling



多晶硅划片 polycrystalline silicon



多晶硅划片 polycrystalline silicon



单晶硅划片 Monocrystalline silicon



3D 激光标刻 3D Laser mark



全息幻彩雕刻 Rainbow engraving



包装盒标记 QR Code mark



竹木雕刻 Wood mark



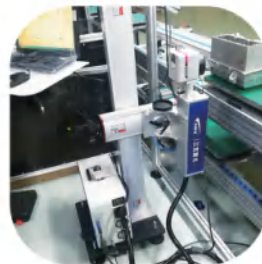
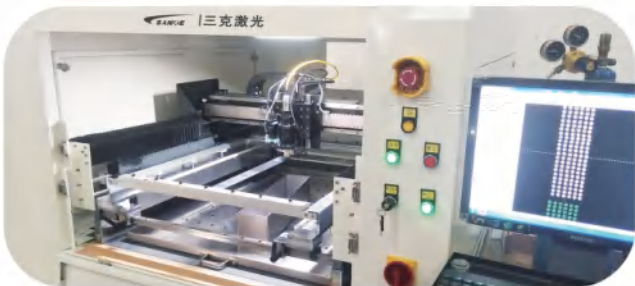
锥形灯罩雕刻 Pattern mark

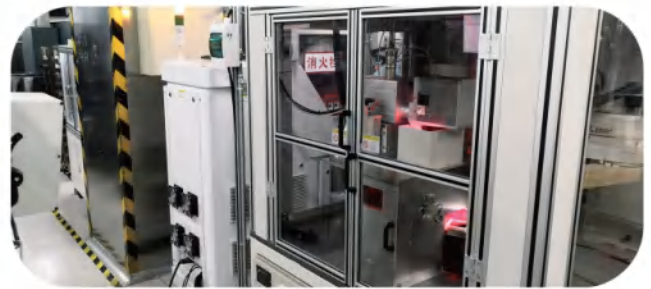


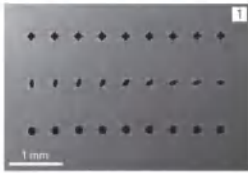
刻度标记 Meter mark

案例展示(部分)

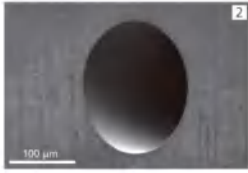
PARTS OF CASE



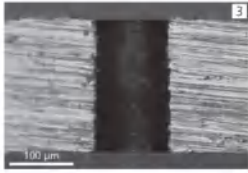




厚度为 300 μm 薄板的灵活几何形状 (SEM 图像, 出口侧)
Flexible geometries in 300- μm -thick steel (SEM image, exit side)



理想的圆形单孔圆孔 图 1 的直径为 200 μm 放大 (SEM 图像)
Ideally-formed round single bore hole with
200 μm diameter from figure 1 magnified (SEM image)



直径为 100 μm 的孔的横截面, 垂直壁厚为 200 μm 的钢轮廓 (零锥度), 处理时间 1 s
Cross section of a 100- μm bore hole in 200- μm thick steel with perpendicular wall
contour (zero taper), process time 1 s



图 1 的细节: 椭圆孔, 长 190 μm , 宽 110 μm (SEM 图像)
Detail of figure 1: Elliptical bore hole, 190 μm long, 110 μm wide (SEM image)

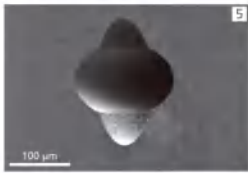
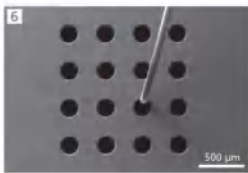


图 1 的细节: 复杂几何图案
通过两个重叠的椭圆实现, 各自长 190 μm , 宽 110 μm (SEM 图像)
Detail of figure 1: Geometric flexibility
achieved by two overlapping ellipses, 190 μm long and 110 μm wide, each (SEM image)



钢中的 200 μm 钻孔, 与头发丝对比, 固定工件位置, 无 XY 平移台 (SEM 图像)
200- μm bore holes in steel - compared to a human hair, fabricated with fixed workpiece
position, without an XY translation stage (SEM image)



4 x 4 方孔阵列的细节在陶瓷中 - 方形几何尺寸: 30 μm x 30 μm
- 深度: 300 μm - 长宽比: 1:10 - 垂直壁轮廓 - 圆角半径: < 4 μm - 壁厚: 10 μm (SEM 图像)
Detail of a 4 x 4 square hole array in ceramic - Square geometry: 30 μm x 30 μm
- Depth: 300 μm - Aspect ratio: 1:10 - Perpendicular wall contour
- Corner-rounding radius: < 4 μm - Wall thickness: 10 μm (SEM image)



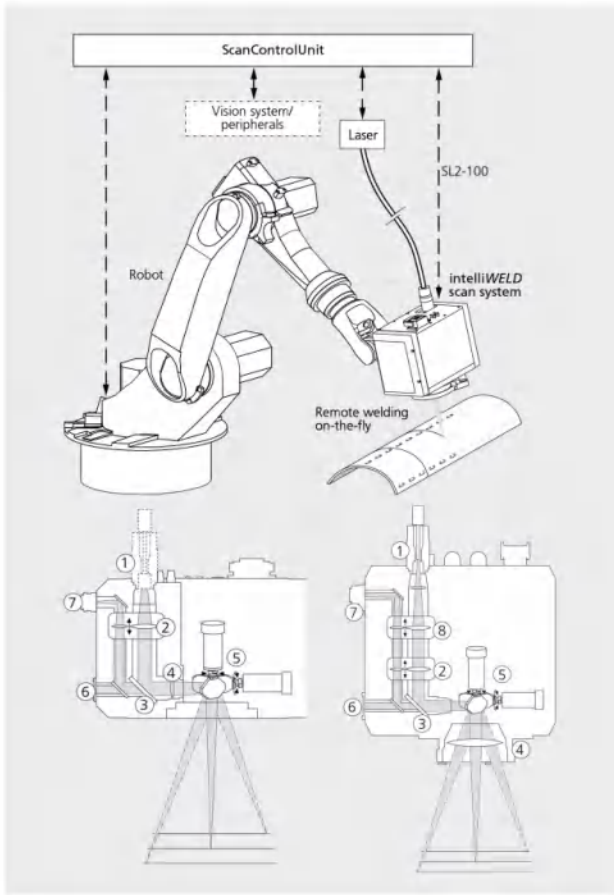
300 μm 厚钢中的 200 μm 钻孔 (入口侧), 通过工件制造, 用 XY 平移台定位 (SEM 图像)
200- μm bore holes in 300- μm thick steel (entrance side), fabricated via workpiece
positioning with an XY translation stage (SEM image)



垂直切割的切割应用, 边缘轮廓采用 200 μm 厚的黄铜 (SEM 图像)
Cutting application with perpendicular cutting
edge contour in 200- μm thick brass (SEM image)



标记图案 - 字符: 0.5 毫米字体, 字体: SimpleStraight3
- 圆形直径: 0mm, 0.1mm, 0.5mm, 1.0mm, 1.5mm, 2.0mm, 2.5mm
Marking pattern for labeling - Characters: 0.5 mm font size, SimpleStraight3 font
- Circle diameters: 0 mm, 0.1 mm, 0.5 mm, 1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm



前聚焦 intelliWELD PR

- 针对视觉应用进行了优化（例如角焊）
- 高透射率的 Vis/NIR 波长，适合同轴传感器照明和观察
- 观察点与处理点之间无差异（无色差）
- 扫描角度宽，图像范围大
- 高成像质量，单模式下也可与高光束质量的激光器使用
- 无需物镜，紧凑轻巧的扫描系统

intelliWELD PR with prefocus

- optimized for vision applications (e.g. fillet welding)
- High transmission of Vis/NIR wavelengths, ideal for coaxial sensors, illumination and observation
- No divergence between observation points and processing points (no chromatic aberration)
- Wide scan angles possible, large image field
- High imaging quality, also usable with lasers of high beam quality, even in single mode
- No objective required, compact and lightweight scan system

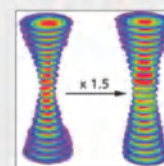
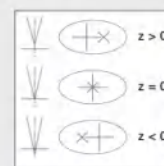
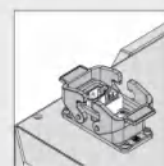
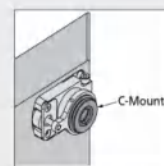
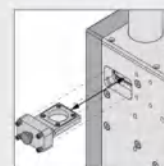
intelliWELD II FT (带 F-Theta 物镜)

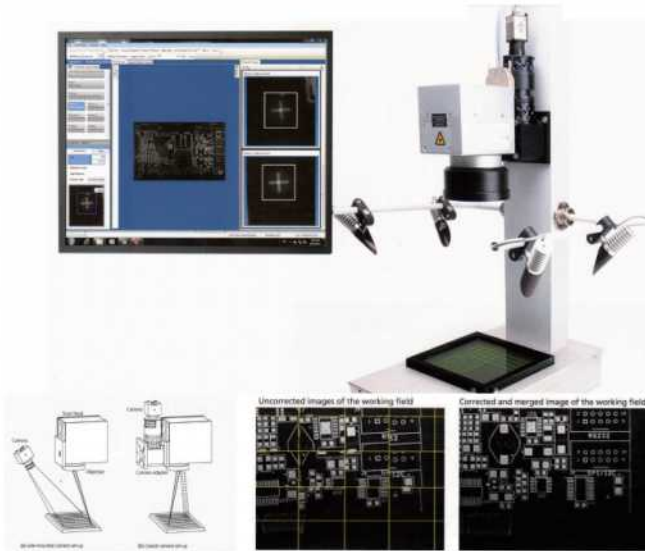
- 针对重叠焊接进行了优化
- 额外的变焦轴：最大光斑可放大至 x 1.5，动态，除散焦外可连续调整接缝
- 恒定光斑大小，同时在整个可访问体积中的所有缩放设置下改变 x, y 和 z
- 纵横比小，即使光束质量低或光纤直径大也能产生小光斑
- III 系列振镜，漂移较低
- 新型防护窗传感器：软件控制的增益，大大缩短了激光开启时间，<1 秒，集成照明，可目视检查防护窗
- 在所有 xyz 缩放设置下，改进了视觉端口，更明亮的图像，更清晰的相机成像

intelliWELD II FT (with F-Theta objective)

- optimized for overlap welding
- Additional zoom axis: enlarges spot size up to x 1.5, dynamic, continuous intra-seam adjustability, independent of/in addition to defocusing
- Constant spot size while varying x, y and z at all zoom settings throughout the entire accessible volume
- Small aspect ratio, therefore small spots even with low beam quality or large fiber diameter
- Lower drift, thanks to III-series galvos
- New protective window sensor: software-controlled gain, significantly shorter laser-on time < 1 second, integrated illumination for visual inspection of protective window
- Improved vision port, brighter image, sharp camera imaging at all xyz zoom settings

Features





自动对焦激光加工

SCANalign 是专门针对用户的完整易用的视觉解决方案，为激光扫描系统而开发。SCANalign 扩展您的扫描系统对整个工作领域进行高精度校准的系统，激光的自动过程对准和视觉质量控制处理结果。

self-aligned laser processing

SCANalign is a complete, easy-to-use vision solution specifically, developed for laser scan systems.

SCANalign extends your scan system with highly precise calibration of the whole working field, automatic process alignment and visual quality control of laser processing results.

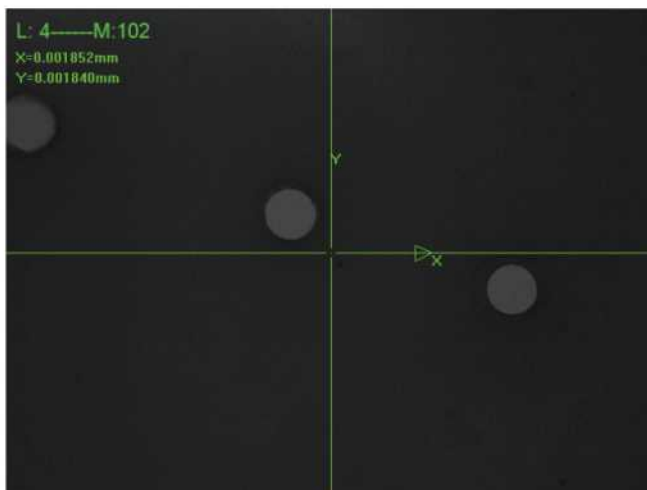


相机适配器

摄像机适配器可以通过摄像机观察振镜扫描头的工作平面。这使其适用于过程控制或激光加工过程中工件位置和方向的检测。

Camera Adapter

The camera adapter enables process observation of a galvanometer scan head's working plane via a camera. This makes it suitable for process control or detection of workpiece positions and orientations during laser processing.



0.5mm 厚度高温共烧陶瓷 (HTCC)

0.5mm thickness high temperature co-fired ceramics (HTCC)