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West District, Sucheng Economic Development Zone, Sucheng District, Suqian City

INTE LASER

SINCE
2013

致力于激光应用新智造

COMMITTED TO NEW LASER

APPLICATION FOR INTELLIGENT MANUFACTURING



INSPIRE THE FUTURE ERA OF LASER

激未来时代之光

用技术，赋能千行百业！
EMPOWER INDUSTRIES WITH ADVANCED TECHNOLOGY

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关于韵腾 About INTE

2013 韵腾激光，是一家激光应用技术驱动型企业，致力于激光应用新智造，提供前沿的加工技术、激光
公司成立 器及光学系统、激光应用专用设备、技术支持与服务等激光微纳加工应用解决方案，为用户创造价值。

INTE Laser has been a technology-driven laser application company since 2013. INTE Laser specializes in laser applications and automatic manufacturing, providing cutting-edge processing technology, manufacturing optimization, specialized laser application machines, as well as technical support and services to help our customers build extra creative value.



平台技术型公司 Platform Technology Company

韵腾是一家以自主研发激光发生器、光学器件、设备应用工艺与技术、自动化系统整合集成的四维一体装备制造技术型企业。

INTE Laser is a technology-oriented enterprise that specializes in the independent research and development of laser generators, optical devices, equipment application processes and technologies, and the integration of automation systems. It is a four-dimensional integrated equipment manufacturing company.



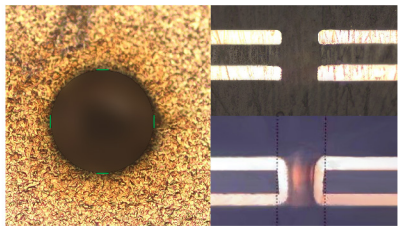
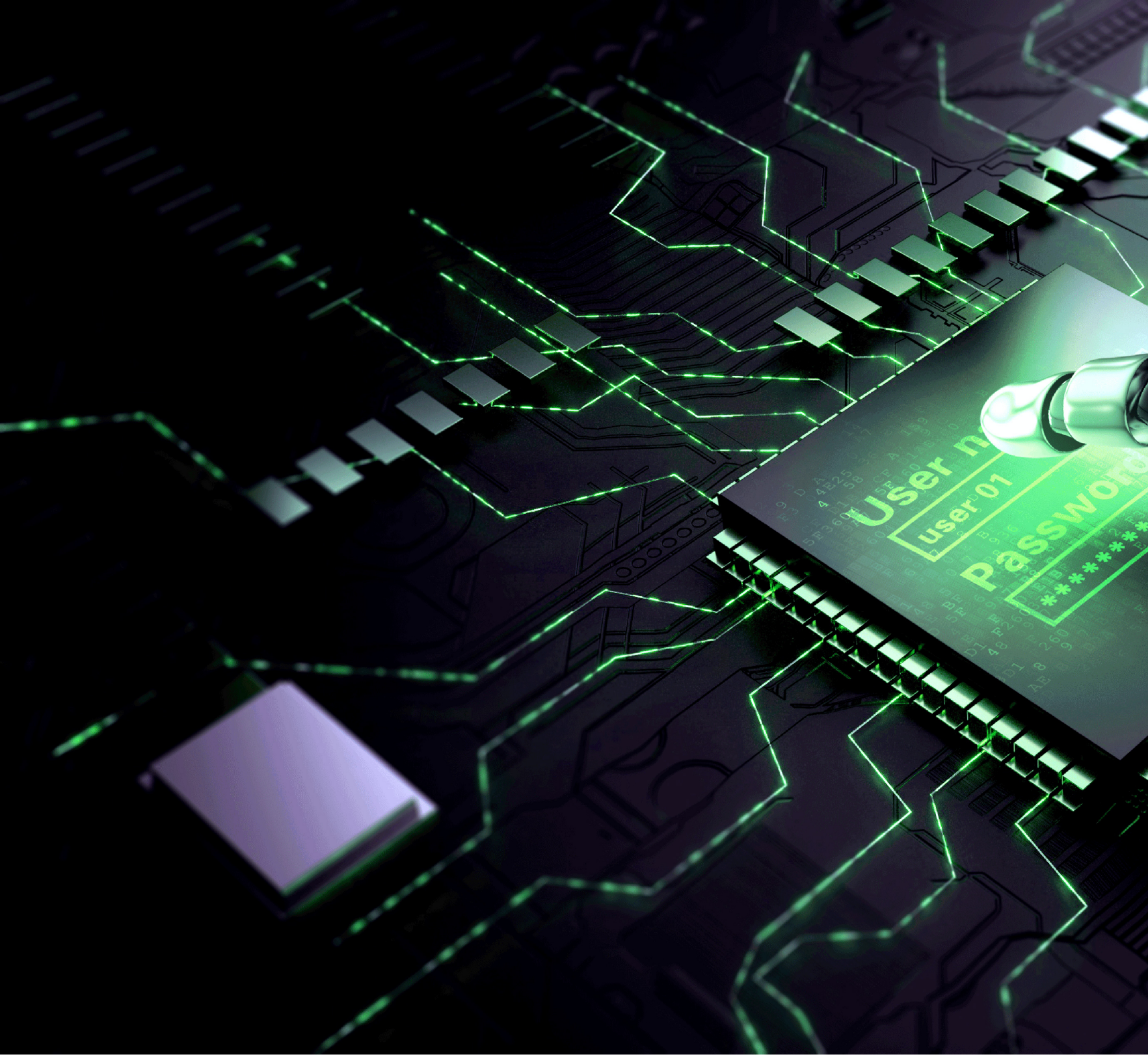
技术深度赋能 Technology Empowerment

提供创新的：加工技术、加工工艺，激光器及光学系统、应用设备、技术支持与服务等激光微纳加工应用解决方案。We provide innovative solutions for laser micromachining applications, including processing technology, processing techniques, laser sources and optical systems, application equipment, technical support, and services.



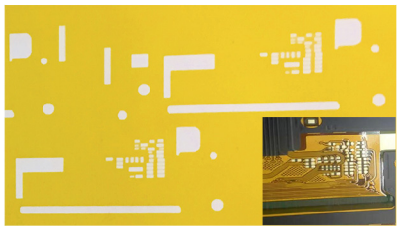
聚焦行业，用价值立世 Focus on the industry, establish oneself with values.

为线路板、消费电子、半导体、玻璃行业、新能源动力电池、太阳能等行业客户创造价值。Create value for clients in industries such as printed circuit boards, consumer electronics, semiconductors, glass, new energy power batteries, and solar energy.

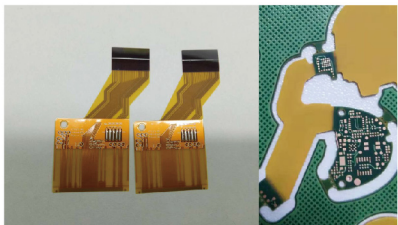


FPC 激光钻孔 FPC laser drilling

PCB 激光钻孔 PCB laser drilling

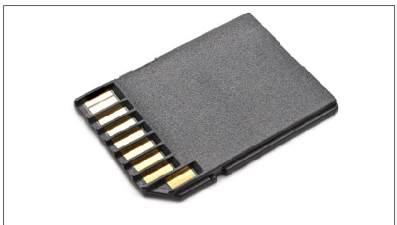


覆盖膜切割 Cover Film Cutting



FPC 切割、软硬结合板开盖
Opening of Flexible-Rigid Hybrid Board

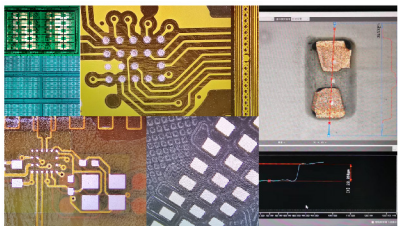
PCB 和 PCBA 分板
PCB and PCBA Depanelization



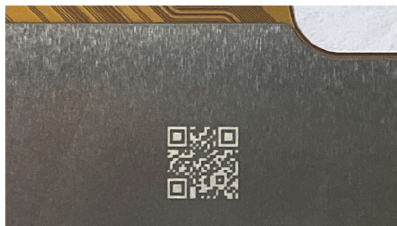
SD 卡切割 SD Card Cutting/

摄像头模组切割 Camera Module Cutting/

5G 天线模组切割 5G Antenna Module Cutting



FPC 开窗设备
FPC Window cutting Equipment



激光打标 Laser Marking
(FPC PCB FPCA PCBA)

随着智能终端、集成电路、航空航天等应用领域的不断发展，线路板作为电子产品中不可或缺的组成部分，其需求在持续增长，且对线路板产品的性能也在不断提升，因此，高精密集集成的线路板在激光加工需更高的技术要求。韵腾激光深耕激光领域，为线路板行业提供自动化、智能化的激光加工应用解决方案。

With the continuous development of smart terminals, integrated circuits, aerospace and other application fields, the demands for circuits as an indispensable part continues to grow. Therefore, high performance laser processing machine is required for the demands of integrated circuit boards. Inte Laser as a leading laser machining company in China, keeps providing automatic and intelligent application leading laser processing solutions for this industry.



电子电路产品线
ELECTRONIC CIRCUIT PRODUCT LINE

FPC 激光钻孔设备

Flexible Printed Circuit Laser Drilling Machine



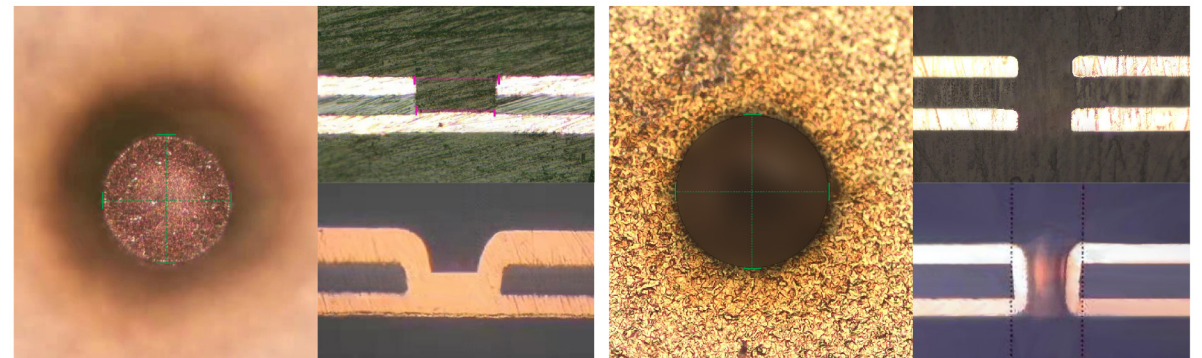
加工优势

Advantages

- 高精度、高性能、稳定量产;
- 可实现卷对卷、片对片的加工方式;
- 采选五轴联动, 可加工通孔、盲孔, 精准而高效;
- 可选上下料方式, 自动放板或人工放板。
- High precision, high performance, stable mass production;
- Capable of roll-to-roll and sheet-to-sheet processing modes;
- Utilizes five-axis linkage for processing through-holes and blind holes with precision and efficiency;
- Offers optional loading and unloading methods, with automatic or manual loading.

样品展示

Sample Display



技术参数

Technical Parameters

激光类型 Laser type	纳秒紫外 Nanosecond UV/Picosecond UV
加工幅面 Processing area	650mm×550mm (可定制) (customized)
设备尺寸 Machine size	1600mm×1600mm×1810mm (以实物为准) (Prevail in kind)
设备精度 Machine processing accuracy	±0.02mm
整机功率 Electric power loading	4KW
设备重量 Machine weight	2200KG
环境要求 Environment requirements Temperature/Humidity	湿度: 30% ~ 60%无结露 温度: 22°C±2

双头卷对片（卷对卷）覆盖膜激光切割设备

Dual-Head Roll-to-Sheet (Roll-to-Roll) Coating Film Laser Cutting machine



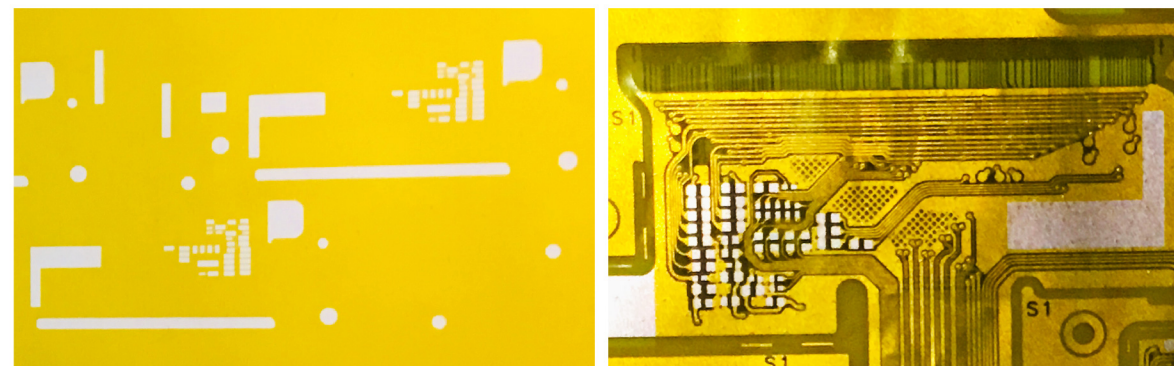
加工优势

Advantages

- 激光切割代替覆盖膜冲模 + 防焊回填工艺;
- 自动进料、切割、自动计数和更换料号、自动裁切、收料等;
- 高品质，边缘整齐无毛刺发黑，50um 以上密集线路无微短;
- 内置功率自动量测优化系统，可以保证加工时的功率稳定。
- Laser cutting replaces traditional overlayer punch die and solder mask backfill process;
- Automatic feeding, cutting, counting and automatic part numbers replacement, trimming and product collection, etc;
- High cutting quality, neat edges without burrs and blackening, no shortness of line spacing over 40um;
- The built-in power automatic measurement and optimization ensures power stability during processing.

样品展示

Sample Display



技术参数

Technical Parameters

激光类型 Laser type	纳秒紫外、皮秒紫外、皮秒绿光 Nanosecond UV, Picosecond UV, Picosecond green laser
加工幅面 Processing area	2×250mm×500mm (可定制) (customized)
设备尺寸 Machine size	2350mm×1450mm×2500mm (含收料盒) (Including debris dump box)
设备精度 Machine processing accuracy	±0.02mm
整机功率 Electric power loading	3KW
设备重量 Machine weight	2000KG
环境要求 Environment requirements Temperature/Humidity	湿度: 30% ~ 60%无结露 温度: 22°C±2

单双平台激光切割设备

Single Platform/Dual Platform Laser Cutting Machine



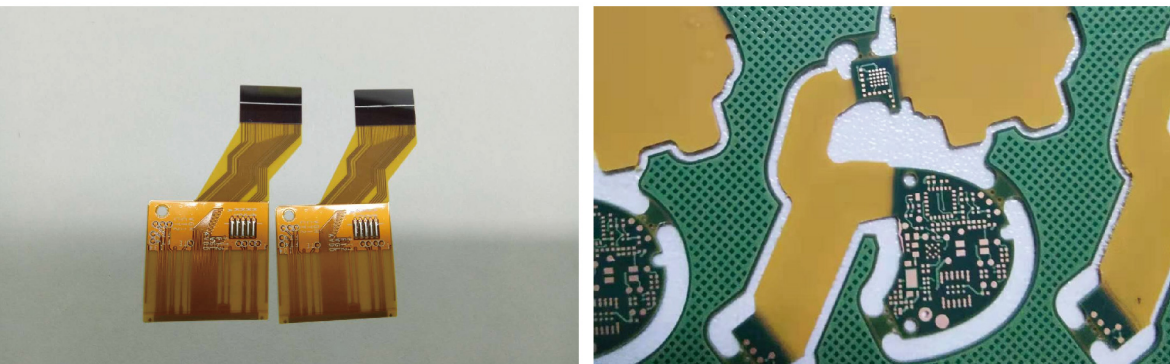
加工优势

Advantages

- 双平台交互式加工，提升加工效率；
- 可实现设定任意标靶点及巡边切割功能，自动涨缩补偿，实现高精度加工；
- 可选上下料方式，自动放板或人工放板。
- Dual platform machine to improve efficiency;
- Can realize arbitrary fiducials setting and automatic target finding, automatic expansion compensation for high process precision;
- Optional automatic loading and unloading method.

样品展示

Sample Display



技术参数

Technical Parameters

激光类型 Laser type	纳秒紫外、皮秒紫外、皮秒绿光、纳秒绿光 Nanosecond UV, Picosecond UV, Picosecond green laser Nanosecond green
加工幅面 Processing area	单平台Single Platform: 550mmx650mm 双平台Dual Platform: 250mmx500mm (可定制) (customized)
设备尺寸 Machine size	1700mm×1650mm×1850mm (以实物为准) (Prevail in kind)
设备精度 Machine processing accuracy	±0.02mm
整机功率 Electric power loading	2.5KW
设备重量 Machine weight	2000KG
环境要求 Environment requirements Temperature/Humidity	湿度: 30% ~ 60%无结露 温度: 22°C±2

全自动 SO 卡激光切割设备

Automatic laser SO card cutting machine



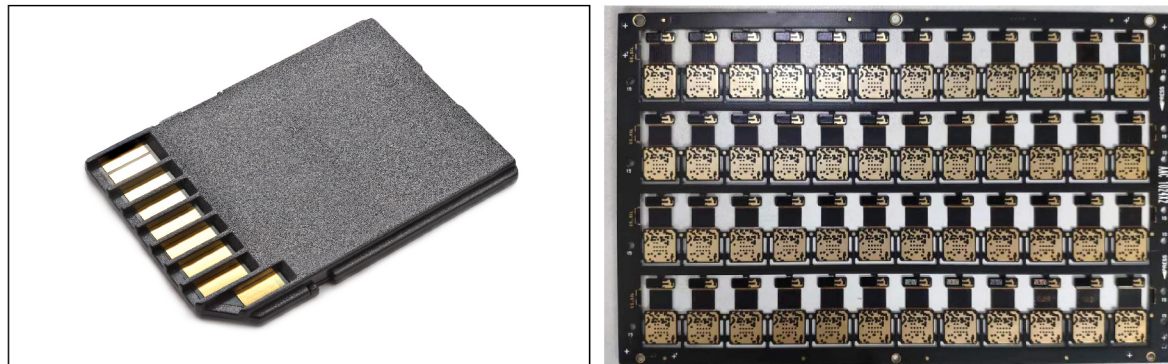
加工优势

Advantages

- 双光路系统同步作业，切割效率高，加工精度更精准;
- 精密型设备，占地空间小，性能稳定，功耗低
- 可实现产品自动上料，检测，切割，下料等功能
- 智能 CCD 视觉系统，光束质量好，产品断面效果好。
- Dual optical path system adopted with high cutting efficiency and high accuracy;
- Stable, compact system with low power consumption;
- Automatic product feeding, detection and cutting;
- Intelligent CCD vision system, good beam quality and good product cutting surface.

样品展示

Sample Display



技术参数

Technical Parameters

激光类型 Laser type	纳秒绿光 Nanosecond green laser
加工幅面 Processing area	250mmx100mm (可定制) (customized)
设备尺寸 Machine size	2040mmx1400mmx1700mm (以实物为准) (Prevail in kind)
设备精度 Machine processing accuracy	±0.02mm
整机功率 Electric power loading	1.5KW
设备重量 Machine weight	2500KG
环境要求 Environment requirements Temperature/Humidity	湿度: 30% ~ 60%无结露 温度: 22°C±2

FPC 开窗设备

FPC Window Cutting Equipment



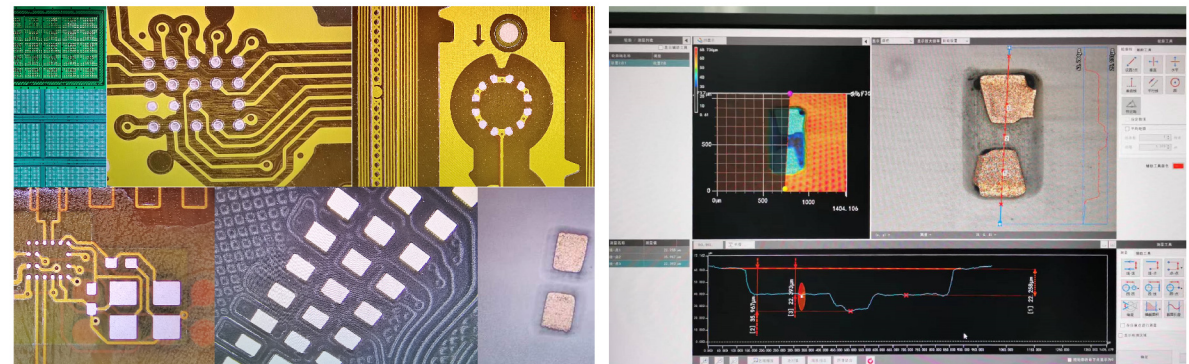
加工优势

Advantages

- 提升加工效率, 良率可以做百分百;
 - 可以改善传统工艺的溢胶缺陷;
 - 开窗精度高, 可以避免出现传统制程的焊盘偏位问题;
 - 最小可以做 0.15mm 的焊盘。
- Improved processing efficiency with the potential for achieving a 100% yield rate;
 - Can enhance the issues of excess adhesive in traditional processes;
 - High window accuracy, which can prevent the problem of pad misalignment in conventional procedures;
 - Can achieve a minimum pad size of 0.15mm.

样品展示

Sample Display



技术参数

Technical Parameters

激光类型 Laser type	皮秒紫外、纳秒紫外 Picosecond UV/Nanosecond UV
加工幅面 Processing area	500mmx680mm (可定制) (customized)
设备尺寸 Machine size	1700mm×1650mm×1850mm (以实物为准) (Prevail in kind)
设备精度 Machine processing accuracy	±0.02mm
整机功率 Electric power loading	3.5KW
设备重量 Machine weight	1700KG
环境要求 Environment requirements Temperature/Humidity	湿度: 30% ~ 60%无结露 温度: 22°C±2

全自动激光打标设备

Fully Automatic Laser Marking Machine



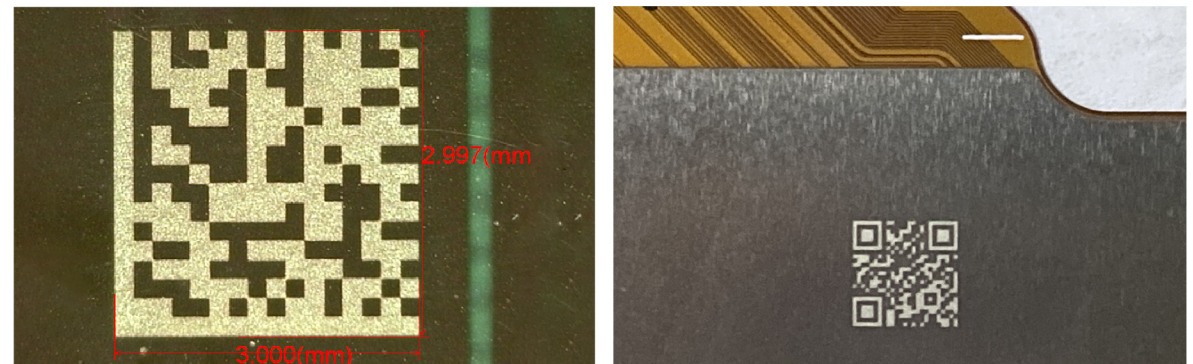
加工优势

Advantages

- 可实现超精细正、背面标刻;
 - 光束质量稳定, 速度快, 精度高;
 - 双平台作业, 全自动上下料, 提升效率;
 - 自动检测、自动防反识别、一键抽检等功能。
- Suitable for fine marking on front and back;
 - High beam quality, fast processing speed and high position accuracy;
 - Dual platform system, automatic loading and unloading;
 - Automatic fault detection, automatic pattern recognition, -one click sampling, etc.

样品展示

Sample Display



技术参数

Technical Parameters

激光类型 Laser type	纳秒紫外 Nanosecond UV
加工幅面 Processing area	(可定制) (customized)
设备尺寸 Machine size	1008mmx1700mmx1900mm (以实物为准) (Prevail in kind)
设备精度 Machine processing accuracy	±0.02mm
整机功率 Electric power loading	2KW
设备重量 Machine weight	2000KG
环境要求 Environment requirements Temperature/Humidity	湿度: 30% ~ 60%无结露 温度: 22°C±2

全自动激光分板设备

Fully automatic laser splitting Machine



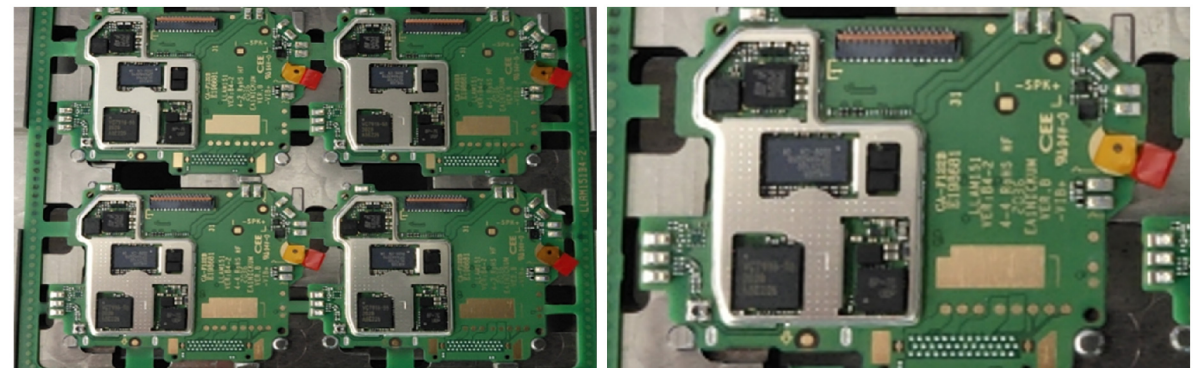
加工优势

Advantages

- 操作简单 CAD 图档一键导入；
 - 可实现自动化连线一站式服务；
 - 设备切割精度高，无应力接触，无耗材，无粉尘，异型产品随意切割；
 - 定制化 MES 端接口，追溯到每个产品；
 - 切割精度 $\pm 0.03\text{mm}$ 。
- Easy operation with one-click import of CAD drawings;
 - Capable of achieving automated inline connection for a one-stop service;
 - The equipment offers high cutting precision, stress-free contact, no consumables, no dust, and the ability to cut various shapes of products;
 - Customized MES interface for product traceability down to each individual item;
 - Cutting precision up to 0.03mm .

样品展示

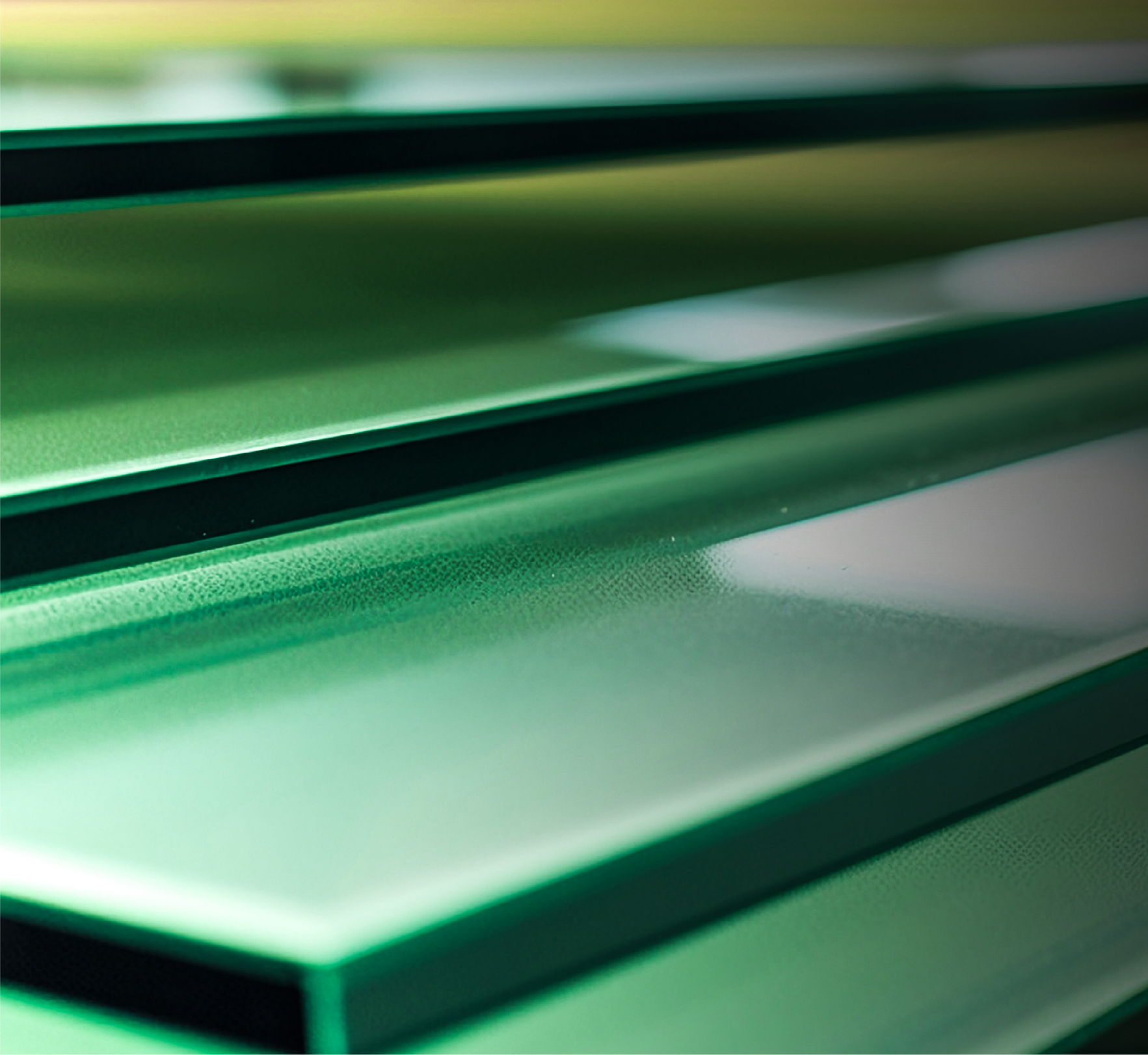
Sample Display



技术参数

Technical Parameters

激光类型 Laser type	纳秒紫外、纳秒绿光 Nanosecond UV/Nanosecond green
加工幅面 Processing area	350mmx350mm (可定制) (customized)
设备尺寸 Machine size	1300mmx1800mmx1800mm (以实物为准) (Prevail in kind)
设备精度 Machine processing accuracy	$\pm 0.02\text{mm}$
整机功率 Electric power loading	3.5KW
设备重量 Machine weight	1500KG
环境要求 Environment requirements Temperature/Humidity	湿度: 30% ~ 60%无结露 温度: $22^{\circ}\text{C}\pm 2$



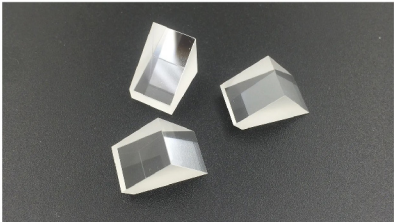
H·B·M·P

硬脆材料产品线

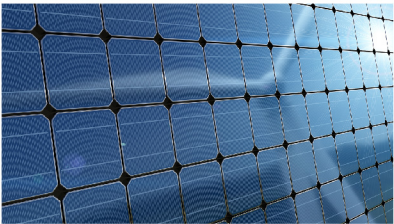
HARD AND BRITTLE MATERIAL PRODUCT LINE



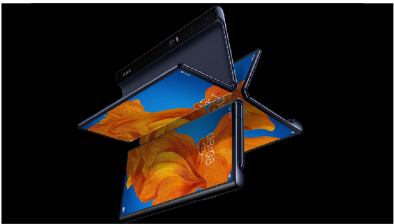
车载挡风玻璃
Automotive windshield
车载后视镜玻璃
Automotive rearview mirror glass
车载玻璃
Automotive glass



光学玻璃、家用玻璃
Optical glass/Household glass
灯饰玻璃、医疗玻璃
Decorative glass/Medical glass
安防玻璃
Security glass



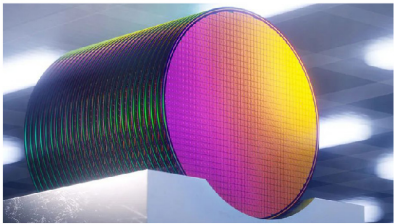
太阳能玻璃板
Solar glass panel



UTG 玻璃 / 面板玻璃
UTG glass (Ultra Thin Glass)
OLED 屏、智能穿戴
OLED screen/Smart wearables
摄像头窗口片
Camera lens window piece



Micro LED TGV 玻璃
Micro LED TGV glass



晶圆、晶圆 LOW-K 层、
Wafer/Low-k Dielectric Layer on Wafers
QFN/BGA/LGA 封装
QFN(Quad Flat No-Lead)Package/

玻璃已然是一种重要的产业材料，在汽车、医疗、电子产品等行业的应用日益广泛。目前，各行各业对于玻璃加工的要求越来越精细化、精密化，传统的加工已逐渐不能满足生产的要求，韵腾激光作为拥有前沿先进的激光加工应用技术，其替代了传统工艺，高效缩减加工作业流程，大幅提高产品质量与生产效率，真正为用户创造价值。

Glass is becoming an important industrial material, and is vastly used in automotive, medical, electronics and other industries. At present, the requirements for glass processing are becoming more and more precise and sophisticated, and traditional processing methods are gradually unable to meet the production needs. As a leading laser processing application company in China, Inte Laser has different laser processing models that replaced traditional processes and have high performance like reducing cost and labor, improving product quality and production efficiency, and we are truly creating values for our customers.

大幅面玻璃切割设备

Large format glass Laser Cutting Machine



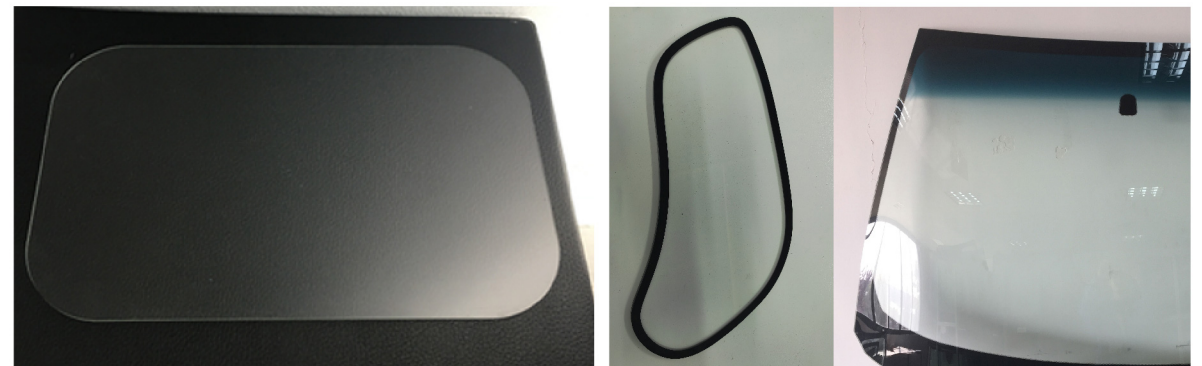
加工优势

Advantages

- 采选超快激光，可实现不同厚度的玻璃切割与异形切割；
- 智能 CCD 视觉系统，切割精度高，速度快，崩边小；
- 易操作的工控软件平台，大幅提升加工效率和质量。
- Ultra-fast laser system is used, can achieve different thickness cutting and special-shaped cutting of glass;
- High resolution CCD vision system is adopted for intelligent recognition for high cutting accuracy, fast speed, small edge collapse;
- Customized industrial control platform for handy operation and process developing for improved processing efficiency and quality.

样品展示

Sample Display



技术参数

Technical Parameters

激光类型 Laser type	皮秒红外 Picosecond Infrared
加工幅面 Processing area	1250mmx950mm (可定制) (customized)
设备尺寸 Machine size	3500mmx2850mmx1900mm (以实物为准) (Prevail in kind)
设备精度 Machine processing accuracy	±0.02mm
整机功率 Electric power loading	10KW
设备重量 Machine weight	7000KG
环境要求 Environment requirements Temperature/Humidity	湿度：30% ~ 60%无结露 温度：22℃±2

高精密玻璃钻孔设备

High-precision glass Laser Drilling Machine



加工优势

Advantages

- 非接触式加工，对材料损伤小，钻孔精度高；
- 高速钻孔，崩边小、效率高；
- CCD 拍照定位，精准可控。
- Non-contact processing, less material damage and high drilling accuracy;
- High drilling speed, small edge collapse and high efficiency;
- CCD camera positioning, precision controlled.

样品展示

Sample Display



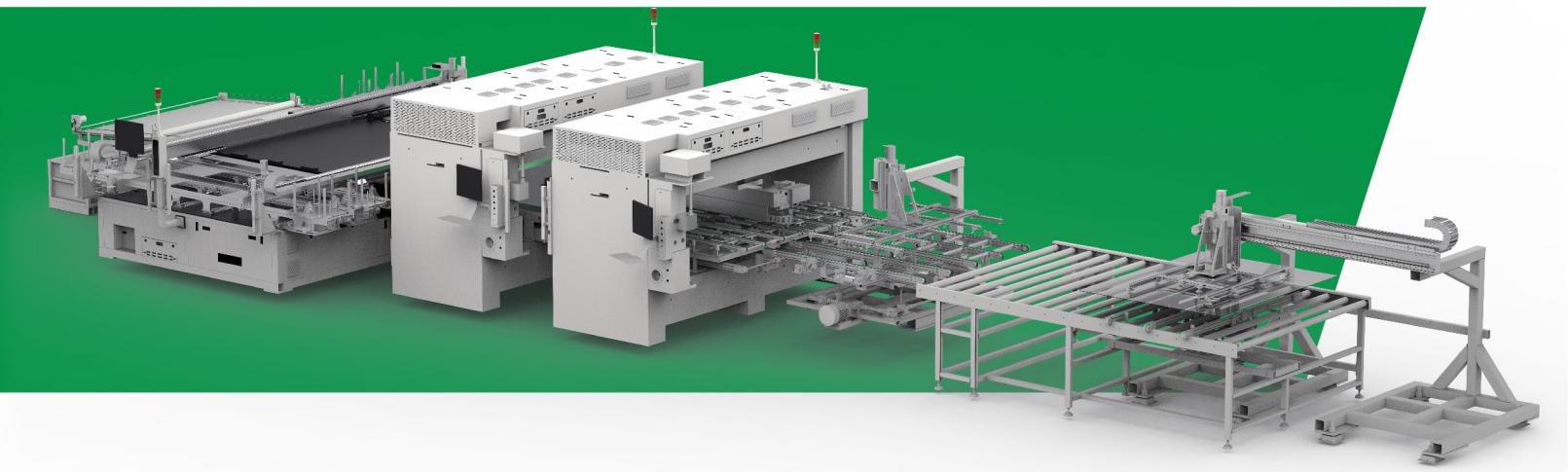
技术参数

Technical Parameters

激光类型 Laser type	纳秒红外/纳秒绿光 Nanosecond infrared/Nanosecond green laser
加工幅面 Processing area	650mmx550mm (可定制) (customized)
设备尺寸 Machine size	1800mmx1600mmx1850mm (以实物为准) (Prevail in kind)
设备精度 Machine processing accuracy	±0.02mm
整机功率 Electric power loading	4.5KW
设备重量 Machine weight	1400KG
环境要求 Environment requirements Temperature/Humidity	湿度：30% ~ 60%无结露 温度：22°C±2

全自动大幅面玻璃切割裂片设备

Fully Automated Large-Format Glass Cutting and Splitting Equipment



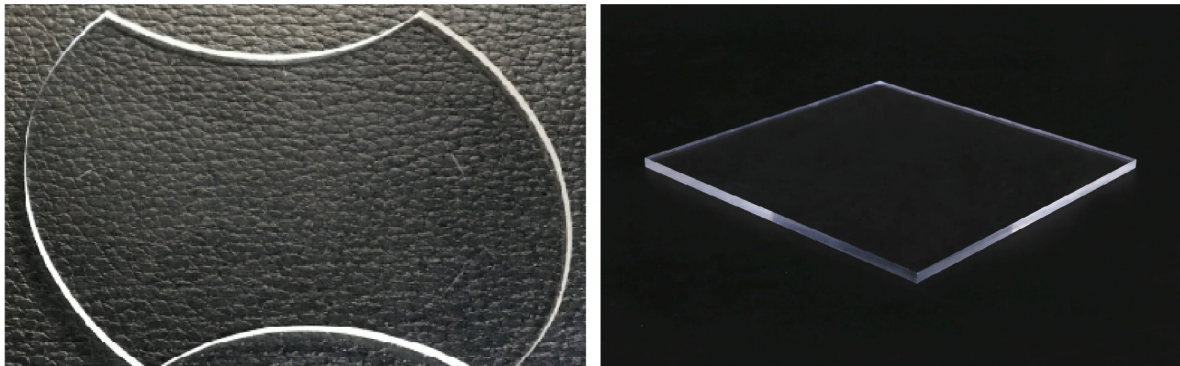
加工优势

Advantages

- 采用超快激光，可实现不同厚度的玻璃切割与异形切割；
 - 智能 CCD 视觉系统，切割精度高，速度快，崩边小；
 - 易操作的工控软件平台，大幅面提升加工效率和质量；
 - 加工范围大，最大加工范围为1900x1500mm；
 - 自动上料、收料及自动收集废料。
- Utilizing ultrafast laser technology, it can achieve glass cutting of different thicknesses and intricate shapes.
 - Intelligent CCD visual system ensures high cutting accuracy, speed, and minimal chipping.
 - User-friendly industrial control software platform significantly enhances processing efficiency and quality.
 - Wide processing range, with a maximum processing area of 1900x1500mm.
 - Automatic loading, unloading, and waste material collection.

样品展示

Sample Display



技术参数

Technical Parameters

激光类型 Laser type	皮秒红外 Picosecond Infrared
加工幅面 Processing area	1900mmx1500mm (可定制) (customized)
设备尺寸 Machine size	15000mmx5000mmx2100mm (以实物为准) (Prevail in kind)
设备精度 Machine processing accuracy	±0.02mm
整机功率 Electric power loading	50KW
设备重量 Machine weight	20000KG
环境要求 Environment requirements Temperature/Humidity	湿度：30% ~ 60%无结露 温度：22°C±2

微晶玻璃 / TGV 玻璃诱导蚀刻设备

TGV Glass/Alumina Glass Inductive Etching Machine



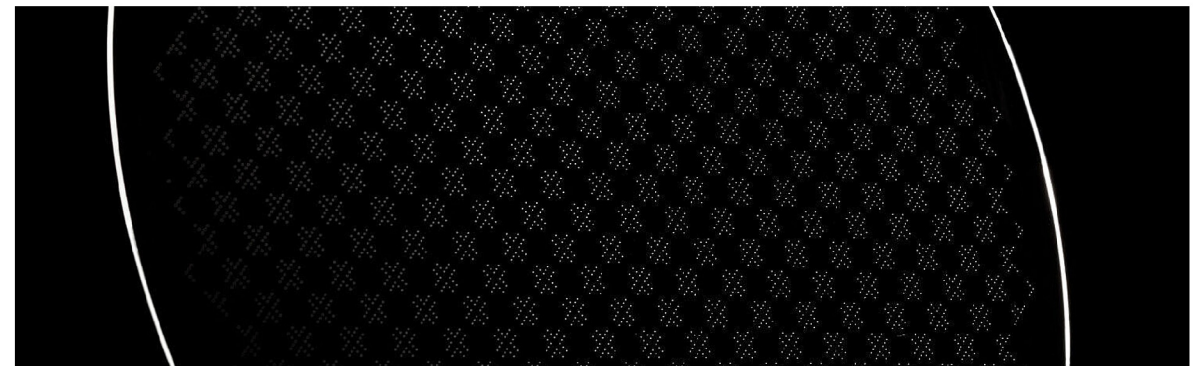
加工优势

Advantages

- 采选超快激光，可实现不同厚度的玻璃切割与异形切割；
- 智能 CCD 视觉系统，切割精度高，速度快，崩边小；
- 易操作的工控软件平台，大幅提升加工效率和质量。
- Ultra-fast laser system is used, can achieve different thickness cutting and special-shaped cutting of glass;
- High resolution CCD vision system is adopted for intelligent recognition for high cutting accuracy, fast speed, small edge collapse;
- Customized industrial control platform for handy operation and process developing for improved processing efficiency and quality.

样品展示

Sample Display



技术参数

Technical Parameters

激光类型 Laser type	皮秒红外 Picosecond Infrared
加工幅面 Processing area	1250mmx950mm (可定制) (customized)
设备尺寸 Machine size	3500mmx2850mmx1900mm (以实物为准) (Prevail in kind)
设备精度 Machine processing accuracy	±0.02mm
整机功率 Electric power loading	10KW
设备重量 Machine weight	7000KG
环境要求 Environment requirements Temperature/Humidity	湿度：30% ~ 60%无结露 温度：22°C±2

UTG 玻璃切割设备

UTG glass Laser Cutting Machine



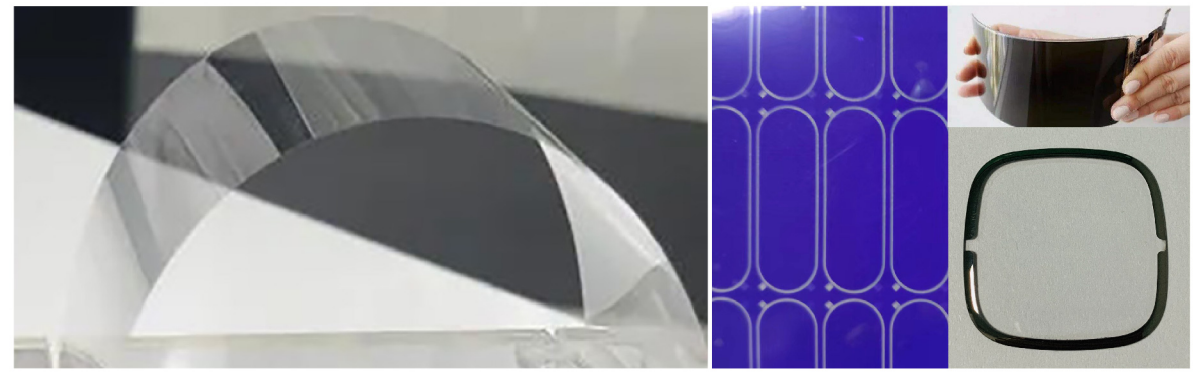
加工优势

Advantages

- 高精度、高性能、稳定量产;
- 实现 UTG 超薄柔性玻璃切割;
- 采用超快激光器, 速度快, 切割效果好;
- 采用精密模组, 运动位置更精确, 定位更精准。
- High precision with stable mass production;
- Enable ultra-thin UTG glass cutting;
- Ultrafast laser for high processing speed and good quality;
- Using precision positioning modules for high position accuracy and fast CNC movement.

样品展示

Sample Display



技术参数

Technical Parameters

激光类型 Laser type	超快激光 Ultrafast laser
加工幅面 Processing area	400mmx400mm (可定制) (customized)
设备尺寸 Machine size	1800mmx1700mmx1900mm (以实物为准) (Prevail in kind)
设备精度 Machine processing accuracy	±0.02mm
整机功率 Electric power loading	3KW
设备重量 Machine weight	2500KG
环境要求 Environment requirements Temperature/Humidity	湿度: 30% ~ 60%无结露 温度: 22°C±2

全自动晶圆打标设备

Fully Automatic Laser Wafer Marking Machine



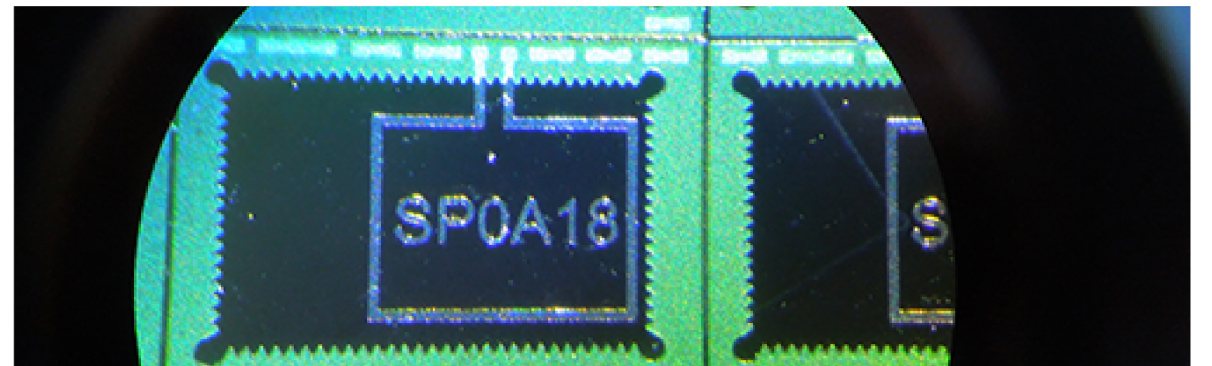
加工优势

Advantages

- 可实现超精细正、背面标刻;
 - 光束质量稳定, 速度快, 精度高;
 - 双平台作业, 全自动上下料, 提升效率
 - 自动检测、自动防反识别、一键抽检等功能。
- Suitable for fine marking on front and back;
 - High beam quality, fast processing speed and high position accuracy;
 - Dual platform system, automatic loading and unloading;
 - Automatic fault detection, automatic pattern recognition, -one click sampling, etc.

样品展示

Sample Display



技术参数

Technical Parameters

激光类型 Laser type	纳秒紫外 Nanosecond UV
加工幅面 Processing area	(可定制) (customized)
设备尺寸 Machine size	1008mmx1700mmx1900mm (以实物为准) (Prevail in kind)
设备精度 Machine processing accuracy	±0.02mm
整机功率 Electric power loading	2KW
设备重量 Machine weight	2000KG
环境要求 Environment requirements Temperature/Humidity	湿度: 30% ~ 60%无结露 温度: 22°C±2



光伏：激光掺杂
Photovoltaic: Laser Doping



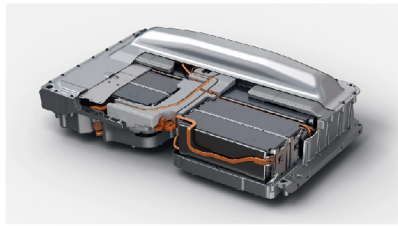
光伏：激光开膜
Photovoltaic: Laser Patterning



方形铝壳电池
Square Aluminum Casing Battery,
整线解决方案
Comprehensive Assembly Solution



圆柱锂电池
Cylindrical Lithium Battery
整线解决方案
Integrated Assembly Solution



动力软包电池
Power Soft Pack Battery
整线解决方案
Comprehensive Assembly Solution



电池包精密结构件
Battery Pack Precision Structural Components
激光焊接解决方案
Laser Welding Solution

太阳能光伏行业作为新能源产业的重要行业领域之一，在国家对新能源产业重视与日俱长的大环境下，其行业持续出现了需求的增长，同时，也迎来了激光应用在太阳能光伏行业的加工技术更迭。

In new energy industry, solar photovoltaic industry continues growing as the requirements of clean and green energy. Inte Laser is involved in this field with our laser processing technology for the industry innovation.

全自动激光硼掺杂设备

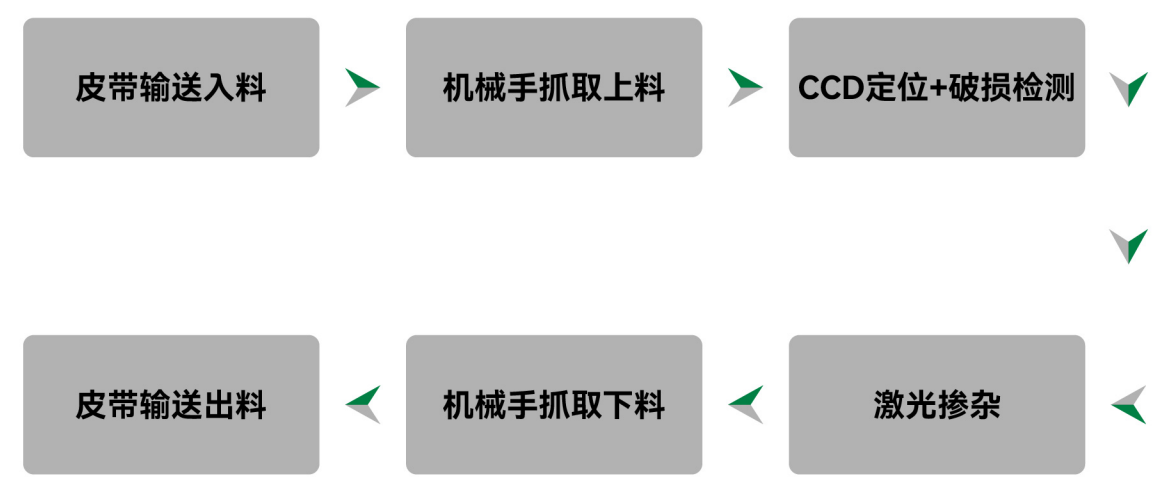
Fully Automated Laser Boron Doping Machine



加工优势

Advantages

- 调整了激光脉冲的空间和时间分布，对绒面损伤更低；
 - 激光直掺，无需二次扩散；
 - 更精细的激光功率控制方法，细致优化掺杂效果；
 - 高速高精度的扫描系统，帮助栅线进行完美套印；
 - 上下料双检测系统，助力生产高品质电池片；
 - 可选手动 /AGV 自动上下料。
- Adjusted spatial and temporal distribution of laser pulses for lower damage to the surface;
 - Laser direct doping eliminates the need for secondary diffusion;
 - Finer laser power control methods for meticulously optimized doping effects;
 - High-speed and high-precision scanning system for precise alignment of gridlines;
 - Dual detection system for loading and unloading, enhancing the production of high-quality battery cells;
 - Optional manual or AGV automated loading and unloading.



技术参数

Technical Parameters

激光类型 Laser type	紫外激光/绿光激光/红外激光 Ultraviolet Laser/Green Laser/Infrared Laser
加工幅面 Processing area	166mmx166mm——230mmx230mm (可定制) (customized)
设备尺寸 Machine size	5200mmx2740mmx2200mm (以实物为准) (Prevail in kind)
设备精度 Machine processing accuracy	≤0.02mm
整机功率 Electric power loading	3KW
设备重量 Machine weight	4000KG
环境要求 Environment requirements Temperature/Humidity	湿度：30% ~ 60%无结露 温度：22℃±2

全自动激光磷掺杂设备

Fully Automated Laser Phosphorus Doping Machine



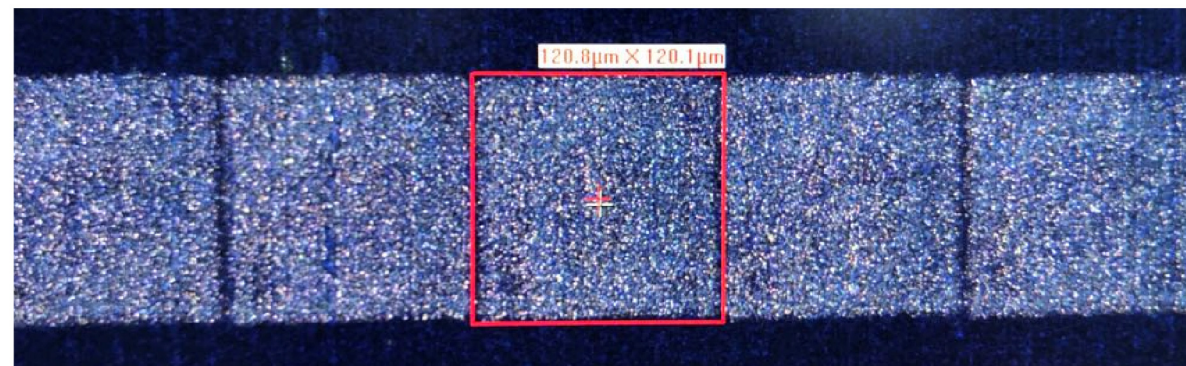
加工优势

Advantages

- 方形平顶掺杂光斑，尺寸 80-120μm 可选；
 - 高速高精度的扫描系统，帮助栅线进行完美套印；
 - 上下料双检测系统，助力生产高品质电池片；
 - 可选手动 /AGV 自动上下料。
- Square Top-Hat Doping Spot, Optional Size 80-120μm
 - High-speed and high-precision scanning system for precise alignment of gridlines;
 - Dual detection system for loading and unloading, boosting the production of high-quality battery cells;
 - Option for manual or AGV automated loading and unloading.

样品展示

Sample Display



技术参数

Technical Parameters

激光类型 Laser type	紫外激光/绿光激光/红外激光 Ultraviolet Laser/Green Laser/Infrared Laser
加工幅面 Processing area	166mmx166mm——230mmx230mm (可定制) (customized)
设备尺寸 Machine size	4500mmx1300mmx2200mm (以实物为准) (Prevail in kind)
设备精度 Machine processing accuracy	≤0.02mm
整机功率 Electric power loading	3KW
设备重量 Machine weight	4000KG
环境要求 Environment requirements Temperature/Humidity	湿度：30% ~ 60%无结露 温度：22℃±2

全自动钝化层激光开膜设备

Fully Automated Laser Passivation Layer Delamination Machine



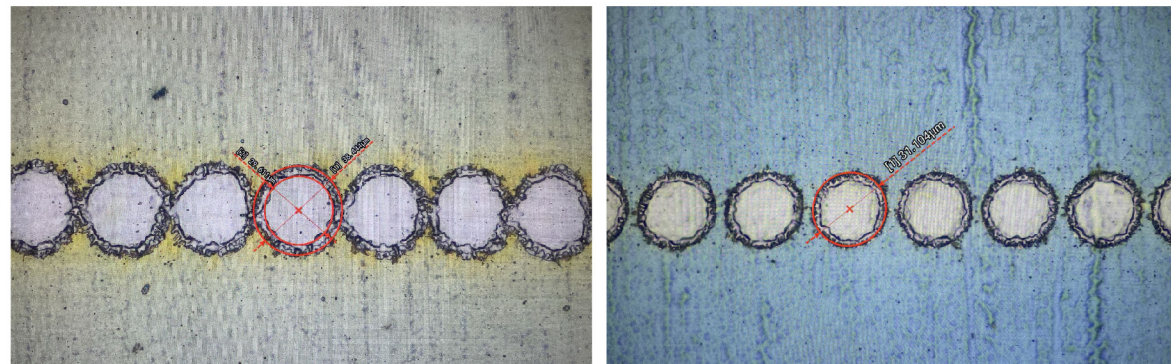
加工优势

Advantages

- 划线图形化功能完备，对齐方式、虚实比可实时调整；
 - 良好的光束质量 + 多脉冲加工，开膜效果更优异；
 - 高速大幅面扫描系统,兼容更大尺寸电池片；
 - 主机、上下料机构分离，灵活选择在线 / 离线方式；
 - 可选手动 /AGV 自动上下料。
- Comprehensive graphical function for line drawing, with real-time adjustment of alignment and dash-to-gap ratio;
 - Excellent beam quality and multi-pulse processing for superior delamination results;
 - High-speed and large-format scanning system, compatible with larger-sized battery cells;
 - Separation of main unit and loading/unloading mechanism, offering flexible online/offline options;
 - Option for manual or AGV automated loading and unloading.

样品展示

Sample Display



技术参数

Technical Parameters

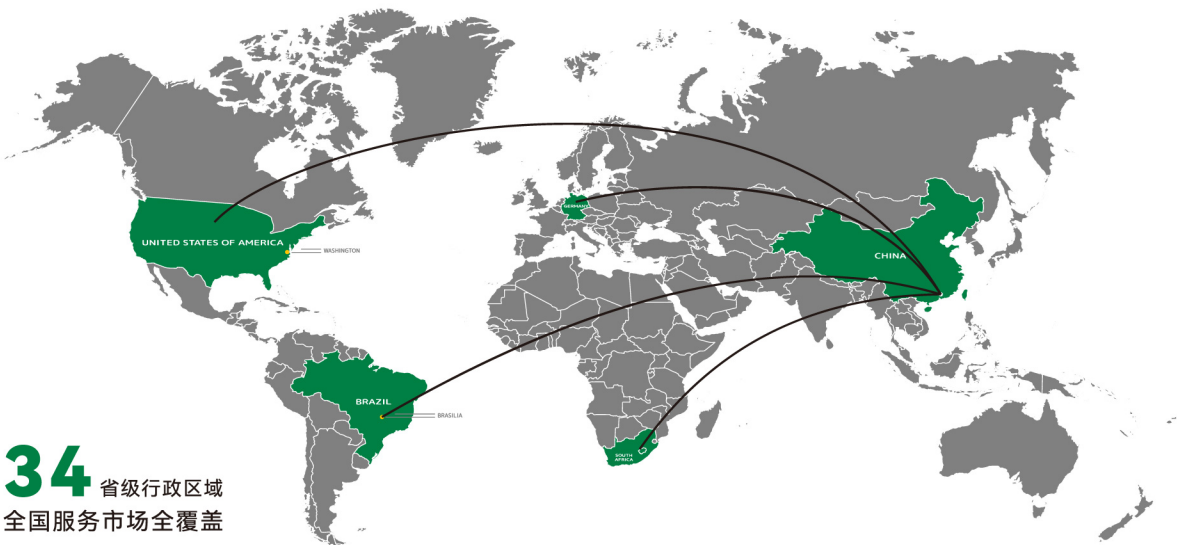
激光类型 Laser type	紫外激光/绿光激光/红外激光 Ultraviolet Laser/Green Laser/Infrared Laser
加工幅面 Processing area	166mmx166mm——230mmx230mm (可定制) (customized)
设备尺寸 Machine size	4500mmx1300mmx2200mm (以实物为准) (Prevail in kind)
设备精度 Machine processing accuracy	≤0.02mm
整机功率 Electric power loading	3KW
设备重量 Machine weight	4000KG
环境要求 Environment requirements Temperature/Humidity	湿度: 30% ~ 60%无结露 温度: 22°C±2

创新研发

Innovative
R&D

公司从2013年成立至今，规模逐步扩大，其中研发人员占比达41%以上，且均为激光行业的资深工程师和专家。

Since its establishment in 2013, the company has gradually expanded its scale. Among them, research and development personnel account for more than 41%, all of whom are senior engineers and experts in the laser industry.



34 省级行政区域
全国服务市场全覆盖

5A 全国技术服务完善体系

24th 市场服务响应机制

企业荣誉

COMPANY
Honors

公司已注册韵腾激光商标，申请多项专利，发明专利38项，实用新型专利80项，软件著作权11项，外观设计3项，多项发明专利、实用新型和软件著作权正在申报过程中.....

The company has registered the Yunteng Laser trademark, applied for multiple patents, including 38 invention patents, 80 utility model patents, 11 software copyrights, and 3 design patents. Several invention patents, utility model patents, and software copyrights are currently in the application process...



合作共创美好未来
Collaborate to Create a Better Future