

高端激光玻璃加工设备

全面的激光技术应用解决方案

Excellent Laser Machines And Comprehensive Laser Technology Application Solutions For Glass Processing.



科猛技术，与您胜创未来!
QOMOTECH-Win The Future With You!



科猛技术，与您胜创未来!
QOMOTECH-Win The Future With You!

佛山市科猛创易科技有限公司

地址：广东省佛山市南海区狮山镇招大创业园招北工业区2号-7号
电话：0757-6322 3096 传真：0757-6322 3097
售后服务专线：13726661258
网址：http://www.qomotech.com

QOMOTECH-INNOVATIONS

Add: NO.2-7, zhaobei industrial zone, zhaoda pioneer parkshishan town, nanhai district, foshan city, guangdong province
Tel: 0757-6322 3096 Fax: 0757-6322 3097
After-sales service: 13726661258
Web: http://www.qomotech.com



COMPANY PROFILE

企业简介

佛山市科猛创易科技有限公司是为玻璃、钻石、PCD等各种透明晶体类特殊材料的切割、打磨加工和制造提供全面技术解决方案的高端激光技术应用的企业，是国内最早一批透明型材类激光切割与加工设备技术和产品的开发公司，尤其为玻璃打砂、开孔、裂片以及CVD、HPHT人造钻石和天然钻石的切割、打磨提供完整且不断发展的激光应用硬件及系统。

公司在各种透明型材的激光加工应用上钻研、深耕多年，具有多项相关的技术发明和专利，接连开发出了激光玻璃打砂机、激光玻璃开孔机、激光玻璃切裂一体机以及应用于钻石和半导体晶体加工领域的激光钻石切片机、取芯机、4P机、晶圆片打薄机与激光金属专用小幅面高精度加工设备等尖端技术应用领域的系列化激光加工装备产品，对红外和绿光的各种应用场景提供一系列成熟且专业的技术方案，公司正在研发的水导激光技术与相关应用硬件正在快速沉淀和发展。

科猛创易，正在中、高端激光技术应用领域潜心前行、卓越成长，我们定将成为比肩全球高端激光技术与装备产品的中国顶尖技术力量！

Foshan QOMOTECH Innovations Co., Ltd. is an excellent enterprise specializing in laser technology applications, offering comprehensive technical solutions for the cutting, grinding, and manufacturing of various transparent crystalline materials such as glass, diamonds, and PCD. It is one of the earliest companies in China to develop laser cutting and processing equipment and technology for transparent materials, particularly providing complete and evolving laser application hardware and systems for sandblasting, hole drilling, and slicing of glass, as well as cutting and polishing of CVD, HPHT synthetic diamonds, and natural diamonds. The company has spent many years deeply engaged in research and development on laser processing applications for various transparent materials, holding multiple related technical inventions and patents. It has successively developed a series of high-tech laser processing equipment products including laser glass sandblasters, laser glass hole drilling machines, integrated laser glass slicing machines, and laser diamond slicing machines, coring machines, 4P machines, wafer thinning machines, and small-format high-precision processing equipment for laser-specific metals. It provides a range of mature and professional technical solutions for various applications of infrared and green light, and the company's developing water-guided laser technology and related hardware are rapidly evolving and maturing. QOMOTECH Innovations is dedicated to advancing in the mid to high-end laser technology application fields, striving for excellence. We are set to become a top Chinese technological force comparable to global leaders in the very excellent laser technology and equipment products!



站在中国同行业的制高点，比肩世界一流
同类设备的技术和性能！

Our goal is to stand in the commanding heights of the same industry in China, and to stand shoulder to shoulder with the world-class technology and performance of similar equipment!

检测
自动系统

40项
国家专利

欧盟
CE 认证

专利证书 / CERTIFICATE OF PATENT OWNERSHIP



科猛玻璃激光打砂机 1313系列设备

QOMO glass laser sandblasting machine 1313 series equipment



产品特点 /Product Features

- 一机多用，可实现无缝打砂/除漆/打孔等工艺；
Multi-purpose machine, can achieve seamless sand/paint removal/drilling and other processes;
- 可免费在线升级；
Free online upgrades are available;
- 清理吸收切割碎渣，干净环保；
Clean up and absorb cutting debris, clean and environmentally friendly;
- Z轴伺服自动对焦，精准、快速、高效；
Z axis servo autofocus, accurate, fast and efficient;
- 断电保护，断电后用户仍然可以找到原来的断点位置；
Power-off protection, after power-off users can still find the original location of the breakpoint;
- 多机模拟操作，不占用机器；
Multi-machine simulation operation, do not occupy the machine;
- 运行环境：Windows10
Line Environment: Windows 10

技术参数

参数名称	性能参数
结构型式	龙门式
机器外形尺寸	2080*2080*1100mm
平台尺寸	1300*1300mm
有效加工尺寸	1200*900mm
伺服驱动系统	采用总线绝对值，伺服电机意外断电或停机都可以记录精准位置。
传动系统	横/纵梁:40丝杆/20导轨
激光输出功率	120W
激光器类型	红光光纤激光器
振镜范围	100*100mm
冷却系统	水冷
激光调Q频率	2KHz-2000KHz
整机功率	3000W
最小线宽	0.01mm
重复定位精度	±0.02mm
工作电源	AC 220V/50Hz

TECHNICAL PARAMETERS

Parameter Name	Performance parameters
Structure type	Gantry style
Dimensions of the machine	2080*2080*1100mm
Platform dimensions	1300*1300mm
Effective machining dimension	1200*900mm
Servo drive system	With bus absolute value, the precise position can be recorded even if the servomotor is cut off or shut down unexpectedly.
Transmission system	Transverse/longitudinal beam: 40 Screw/20 guide rail
Laser output power	120W
Laser type	Red fiber laser
Scope of vibrating mirror	100*100mm
Cooling system	Water-cooling
Q-switched laser frequency	2KHz-2000KHz
Whole machine power	3000W
Minimum line width	0.01mm
Repeat positioning accuracy	±0.02mm
Working Power Supply	AC 220V/50Hz

科猛玻璃激光打砂机 1325系列设备

QOMO glass laser sandblasting machine 1325 series equipment



产品特点 /Product Features

- 一机多用，可实现无缝打砂/除漆/打孔等工艺；
Multi-purpose machine, can achieve seamless sand/paint removal/drilling and other processes;
- 可免费在线升级；
Free online upgrades are available;
- 清理吸收切割碎渣，干净环保；
Clean up and absorb cutting debris, clean and environmentally friendly;
- Z轴伺服自动对焦，精准、快速、高效；
Z axis servo autofocus, accurate, fast and efficient;
- 断电保护，断电后用户仍然可以找到原来的断点位置；
Power-off protection, after power-off users can still find the original location of the breakpoint;
- 多机模拟操作，不占用机器；
Multi-machine simulation operation, do not occupy the machine;
- 运行环境：Windows10
Line Environment: Windows 10

技术参数

参数名称	性能参数
结构型式	龙门式
机器外形尺寸	2080*3850*1100mm
平台尺寸	1300*2500mm
有效加工尺寸	1200*2400mm
伺服驱动系统	采用总线绝对值，伺服电机意外断电或停机都可以记录精准位置。
传动系统	横/纵梁:40丝杆/20导轨
激光输出功率	120W
激光器类型	红光光纤激光器
振镜范围	100*100mm
冷却系统	水冷
激光调Q频率	2KHz-2000KHz
整机功率	3000W
最小线宽	0.01mm
重复定位精度	±0.02mm
工作电源	AC 220V/50Hz

TECHNICAL PARAMETERS

Parameter Name	Performance parameters
Structure type	Gantry style
Dimensions of the machine	2080*3850*1100mm
Platform dimensions	1300*2500mm
Effective machining dimension	1200*2400mm
Servo drive system	With bus absolute value, the precise position can be recorded even if the servomotor is cut off or shut down unexpectedly.
Transmission system	Transverse/longitudinal beam: 40 Screw/20 guide rail
Laser output power	120W
Laser type	Red fiber laser
Scope of vibrating mirror	100*100mm
Cooling system	Water-cooling
Q-switched laser frequency	2KHz-2000KHz
Whole machine power	3000W
Minimum line width	0.01mm
Repeat positioning accuracy	±0.02mm
Working Power Supply	AC 220V/50Hz

激光玻璃加工专用开孔机

Laser glass processing specialized drilling machine



产品特点 / Product Features

- 采用龙门式框架结构，设备稳定耐用；
Adopting gantry frame structure, the equipment is stable and durable;
- 采用总线绝对值伺服控制系统，丝杆导轨传动，精度高；
Adopt bus absolute value servo control system, lead-screw rail drive, high precision;
- 采购高功率脉冲激光器，性能稳定、光束质量好，切割玻璃崩边小，速度快；
High Power Pulse Laser, stable performance, good beam quality, cutting glass edge small, fast;
- 采用高精度振镜，搭配远心镜头，切割稳定，最大限度接近无锥度；
High-precision vibrating mirror, collocation telecentric lens, cutting stability, maximum close to no taper;
- 专业级的打孔控制软件，易学易用，满足各种应用需求；
Professional-grade drilling control software, easy to learn and use, to meet the needs of various applications;
- 配置随动吸尘系统，可快速随时清理吸收切割碎粉，干净环保；
Equipped with a follow-up dust removal system, can be quickly cleaned and absorbed at any time, clean and environmentally friendly cutting powder;
- 可选配自动对位CCD及视觉镜头，用于对位切割。
It can be equipped with auto-alignment CCD and visual lens, which is used for alignment cutting.

技术参数

参数名称	性能参数	
工作台面	800*600/1500*1000/3000*1500	
定位方式	机械靠边定位	
孔直径范围	φ2mm- φ80mm	
最大打孔厚度	15m	
激光类型	红光光纤激光器	绿光纳秒激光器
激光输出功率	120W	20W
崩边量	≤500μm	≤100μm

TECHNICAL PARAMETERS

Parameter Name	Performance parameters	
Table top	800*600/1500*1000/3000*1500	
Location mode	Mechanical Edge positioning	
Hole diameter range	φ2mm- φ80mm	
Maximum hole thickness	15m	
Laser type	Red fiber laser	Green light nanosecond laser
Laser output power	120W	20W
Collapse edge quantity	≤500μm	≤100μm



激光玻璃加工专用裂片机/裂孔机

Laser glass processing special crack machine/hole machine



产品特点 /Product Features

- 光源为高功率皮秒激光器;
The light source is a high power picosecond laser;
- 自研制玻璃切割头, 镜片全采用进口, 光斑细, 焦深长;
Self-developed glass cutting head, lenses are imported, thin spot, focal length;
- 支持切割裂片一体、单独切割、单独裂片;
Supports cutting lobes as one, separate cutting, separate lobes;
- X/Y轴电机采用高端直线电机、进口0.1um数字光栅尺;
X/y axis motor adopts high-end linear motor and imported 0.1 um digital grating ruler;
- 运动控制标配PSO功能, 均匀控制激光光斑点间距;
Motion control with PSO function, uniform control of laser spot spacing;
- 装置对位CCD及远心视觉镜头, 精确识别圆、十字等mark点;
The device can accurately identify mark points such as circle and cross by aligning CCD and Telecentric Vision Lens;
- 一刀可以切割15mm以内的厚度;
A single cut can cut up to 15mm in thickness;
- 电机平台、光学平台基座采用天然大理石, 精度更有保障。
Motor platform, optical platform pedestal using natural marble, precision more guarantee.

技术参数

参数名称	性能参数		
设备名称	双平台皮秒激光玻璃切割裂片一体机	双平台皮秒激光玻璃切割机	单平台皮秒激光玻璃切割机
切割激光源			
激光类型	红外皮秒脉冲激光器		
功率	70W(可选20W、30W、60W、80W等)		
波长	1064nm,光束质量M2<1.2		
脉冲宽度	<10PS; 脉冲频率:1Hz-1000kHz		
冷却方式	水冷		
切割性能			
驱动电机	XY直线电机+光栅尺, 定位精度 $\leq\pm 2\mu\text{m}$, 重复精度 $\leq\pm 1.5\mu\text{m}$, 加速度1G, 直线速度最大1000mm/s		
切割速度	0-500mm/s可调		
切割厚度	超白玻满一刀 $\leq 15\text{mm}$, 青板玻璃两刀 $\leq 15\text{mm}$ (根据产品材质、厚度、速度要求情况选择所需激光功率及切割头焦, 深材质可能影响加工厚度, 更厚可采取多刀切割)		
最小切割崩边	$\leq 15\mu\text{m}$		
切割精度	$\leq 0.01\text{mm}$		
X/Y切割行程	600x700mm	400x500mm, 600x700mm 600x900mm	400x500mm, 600x700mm 600x900mm
裂片激光源			
激光类型	RFCO2(射频二氧化碳)	不含裂片部分选配单/双平台 独立裂片机	不含裂片部分选配单/双平台 独立裂片机
功率	150W(250W/350W可选)		
波长	10.6um		
脉冲频率	1-100KHZ		
冷却方式	水冷		
功率、尺寸重量			
电压、功率	<8KW AC220V	<5KW AC220V	<4KW AC220V
重量	约3500KG/40000KG	约2000KG/3500KG/ 40000KG	约2000KG/2500KG/ 3000KG
底面承载	>700kg/m ²	>500-700kg/m ²	>500-700kg/m ²

TECHNICAL PARAMETERS

Parameter Name	Performance parameters		
Device Name	Dual platform picosecond laser glass cutting and cracking integrated machine	Dual platform picosecond laser glass cutting machine	Single platform picosecond laser glass cutting machine
Cutting laser source			
Laser type	Infrared picosecond pulse laser		
Power	70W (optional for 20W, 30W, 60W, 80W, etc.)		
Wavelength	1064nm, optical quality M2<1.2		
Pulse width	<10PS; Pulse frequency:1Hz-1000kHz		
Cooling method	water-cooling		
Cutting performance			
Drive motor	XY linear motor with grating ruler, positioning accuracy $\leq \pm 2\mu\text{m}$, repetition accuracy $\leq \pm 1.5\mu\text{m}$, acceleration 1G, maximum linear speed 1000mm/s		
Cutting speed	0-500mm/s adjustable		
Cutting thickness	Ultra white glass with one cut $\leq 15\text{mm}$, blue plate slope glass with two cuts $\leq 15\text{mm}$ (Select the required laser power and cutting head focus according to the material, thickness, and speed requirements of the product. Deep materials may affect the processing thickness, and thicker materials can be cut with multiple passes)		
Minimum cutting edge collapse	$\leq 15\mu\text{m}$		
Cutting accuracy	$\leq 0.01\text{mm}$		
X/Y cutting stroke	600x700mm	400x500mm, 600x700mm 600x900mm	400x500mm, 600x700mm 600x900mm
Splitting laser source			
Laser type	Radio frequency carbon dioxide	No-splinter parts are optional with single/double-platform independent splitter	No-splinter parts are optional with single/double-platform independent splitter
Power	150W(250W/350W Optional)		
Wavelength	10.6um		
Pulse width	1-100KHZ		
Cooling method	Water-cooling		
Power, size, weight			
Voltage, power	<8KW AC220V	<5KW AC220V	<4KW AC220V
Weight	About 3500KG/40000KG	About 2000KG/3500KG/ 40000KG	About 2000KG/2500KG/ 3000KG
Bottom bearing capacity	>700kg/m ²	>500-700kg/m ²	>500-700kg/m ²

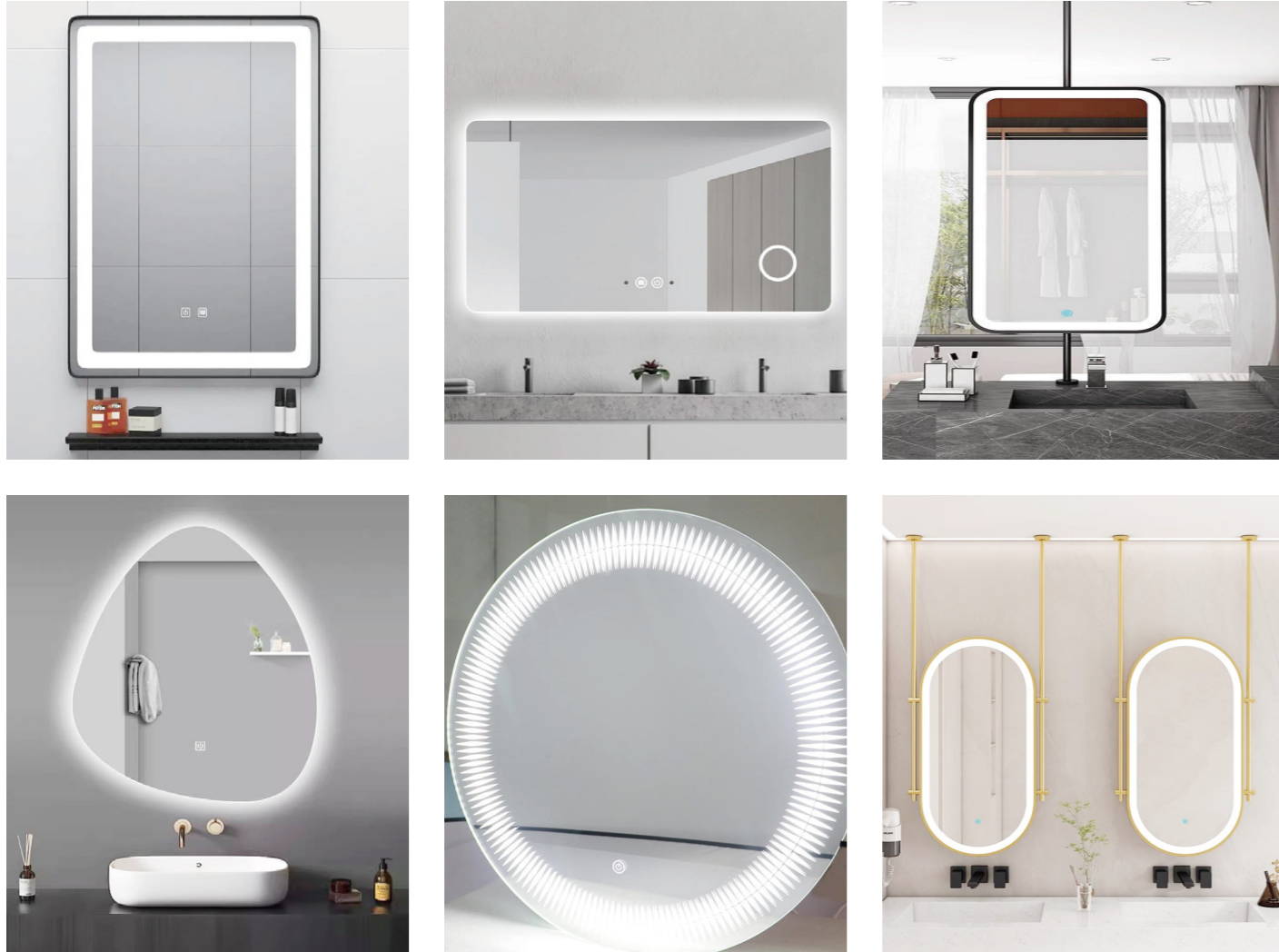
配件介绍 /Accessories Introduction

配件图片 Accessory images	配件名称 Accessory Name	单位 Unit	数量 Quantity	规格说明 Description
	激光器 /Laser	台	1	120w红光光纤激光器 /120W red fiber laser
	控制系统 /Control system	只	1	大幅面打砂专用控制系统 /Large format sanding dedicated control system
	振镜 /Galvanometer	套	1	高速2D振镜 /High speed 2D galvanometer
	传动系统 /Drive system	套	1	40丝杆, 20导轨 /40 screw, 20 guide rail
	伺服驱动系统 /Servo drive system	套	1	总线绝对值伺服驱动系统 /Bus absolute value servo drive system
	机床床身 /Machine bed	台	1	焊接+退火+精密加工高强度 高精度钢构床身 /Welding+annealing+precision machining high-strength and high-precision steel structure bed body

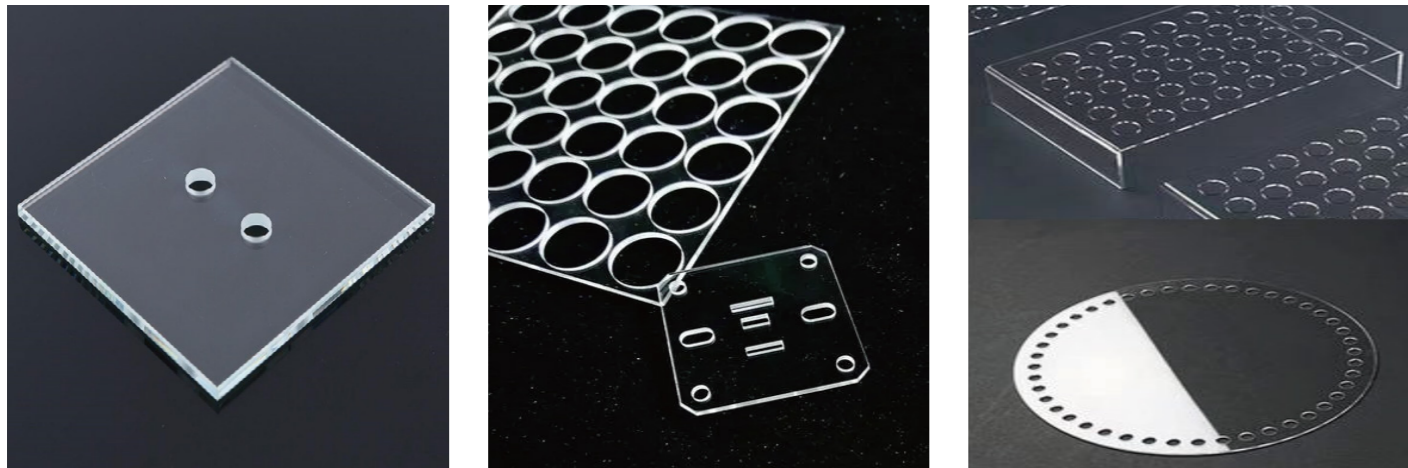
型材和应用场景案例和图例

PROFILE AND APPLICATION SCENARIO CASES AND LEGENDS

• 玻璃打砂机应用案例 /Application Case of Glass Sander



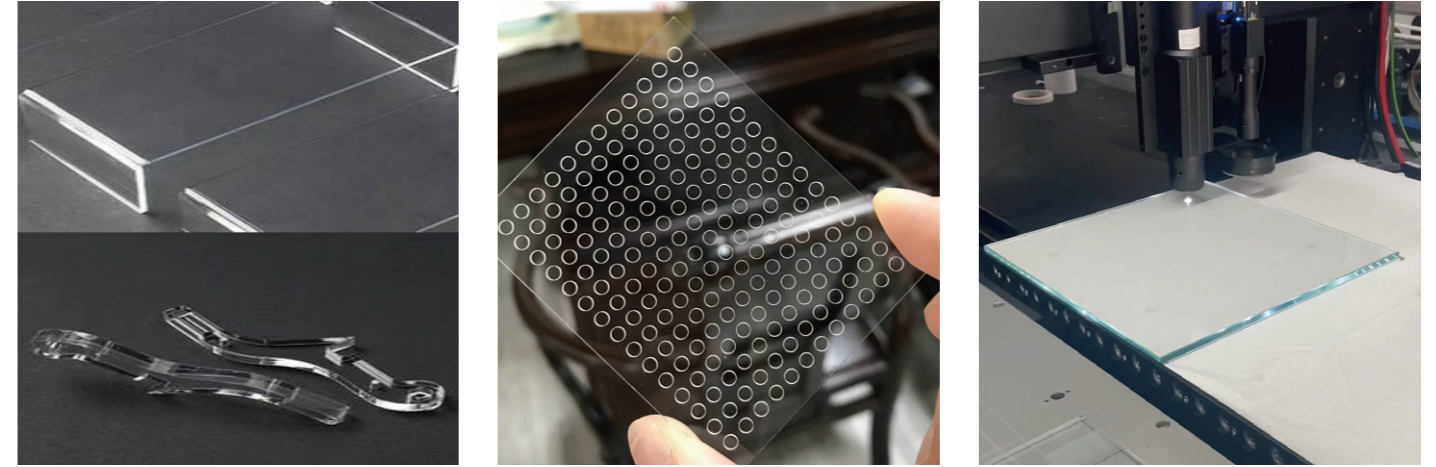
• 玻璃开孔机应用案例 /Application Case of glass perforator



型材和应用场景案例和图例

PROFILE AND APPLICATION SCENARIO CASES AND LEGENDS

• 玻璃开孔机应用案例 /Application Case of glass perforator



• 玻璃裂孔/裂片机应用案例 /Application Case of Glass Crack/Fragmentation Machine

