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Fiber Laser Cutting Machine

光纤雷射切割机

TE Series

TE3015/4020/6020

专利科技！顶尖技术！
专为高品质、高精度雷射切割而打造

High-Tech !
Ultimate Performance !
Built for high speed, high accuracy laser cutting

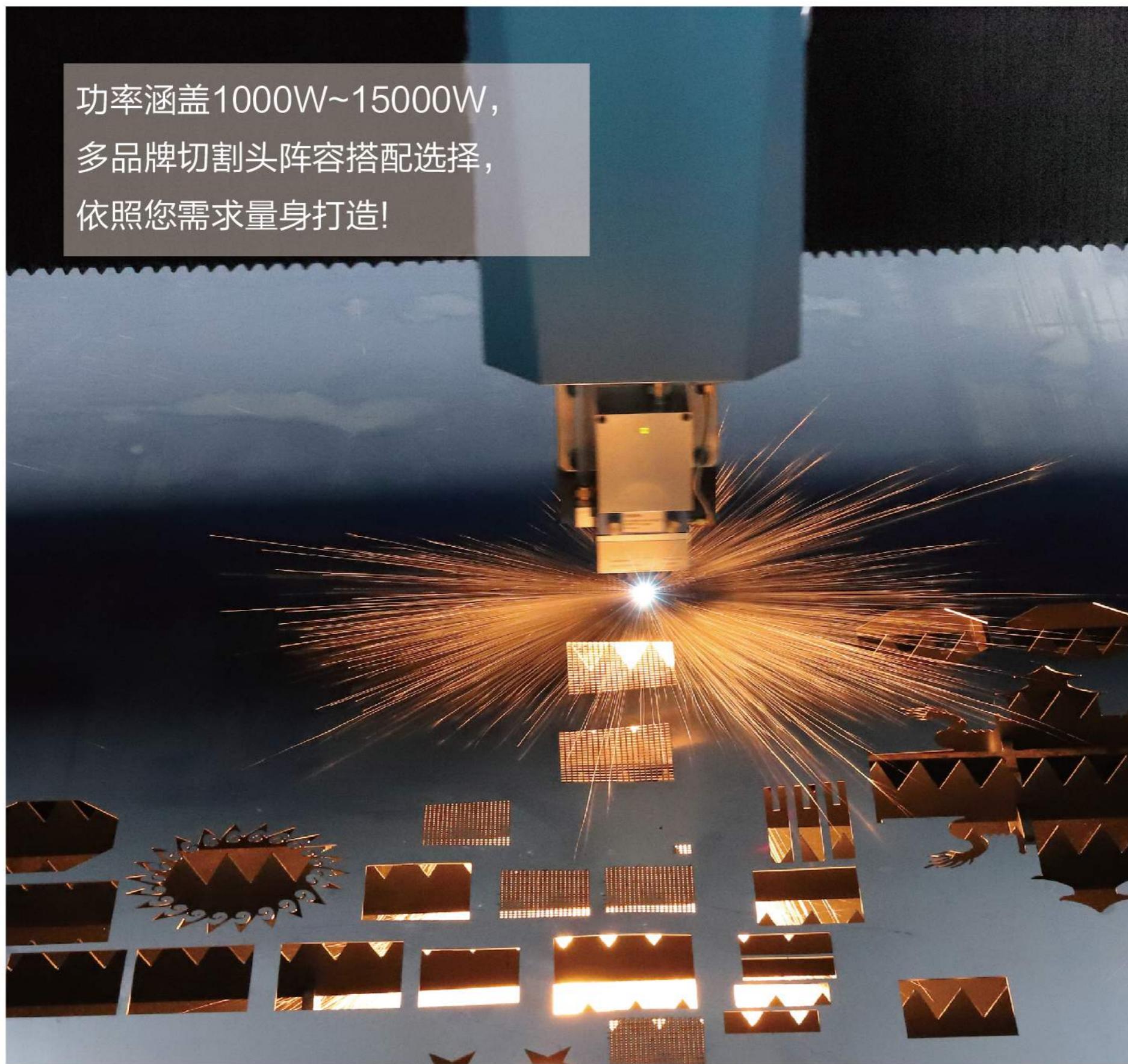
光纤雷射切割机 Fiber Laser Cutting Machine

BENEFIT

- PC-BASE架构的控制系统，提供直观方便的操作环境，大幅缩短设备上线的训练期。
 - 特别加入“单件断点续割”功能，任何断点都能轻松续割，并完成工件，减少不良品产生。
 - 切割辅助气体多种选择，适应各种加工需求，提高工作效率。
 - 下压式风压设备，减少粉尘对切割头污染，提升工作环境质量。
 - 独有环境控制，发振器不结露，长时间加工不停机。
 - 红光轮廓投影，快速标定加工范围，提高板材利用率。
 - 操作面板与机身一体式设计，减少场地占用面积。
- The PC-BASED control system provides, an intuitive and convenient operating environment, which significantly shortens the processing time.
- New function "continuous cutting", at any breakpoint with the use of ABS and complete the work-piece to reduce the product defective rate.
- Multiple choices for Auxiliary gas, to comply with different processing requirement in order to improve work efficiency.
- Down-stroke suction type wind pressure design, to reduce the cutting head being polluted and provide dust-free working environment.
- Eco-friendly design, with non-condensing resonator and uninterrupted processing.
- Red light contour projection, Rapid calibration processing range, improves sheet utilization.
- The control panel is integrated with the machine body to reduce the occupied area.



功率涵盖1000W~15000W,
多品牌切割头阵容搭配选择,
依照您需求量身打造!



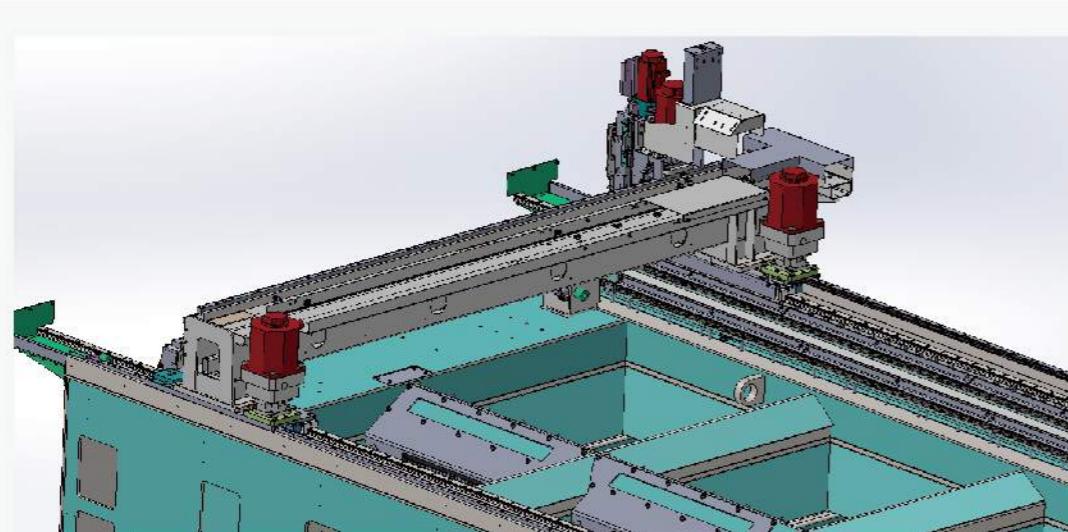
- 激光头内部构造完全密封，避免切割时光学部件沾尘。
- 凸轮式调焦设计，调节精确又方便。
- 保护镜片抽换式设计，更换便利。

- The internal structure of the cutting head is completely sealed to avoid dusting of the optical components during cutting.
- Cam type focusing design, precise and convenient adjustment.
- Protective lens replacement design, easy to replace.

切割头和高度传感器 Cutting head and height sensor

激光切割头采用德国技术光纤激光机专用切割头，精确的高度传感器有利于高速移动切割运作时确保质量稳定，独立的焦距跟随设计，可在材料表面不平整下仍能稳定运行，完整切割。

The laser cutting head adopts the German technical Fiber Laser cutting head . The precise height sensor is beneficial to ensure stable cutting quality during high-speed cutting operation. The independent focal length following design can be keeps the uniform cutting GAP in deformed surface sheet metal also.



雷射切割机结构形式 Laser cutting machine structure

龙门数控激光切割机，其中X、Y 轴联动实现平面切割进给龙门移动式结构。是两轴联动，Z 轴浮动跟踪工件表面；机架采用钢构精密焊接、整机高温退火、应力时效处理；导轨面与齿排安装面使用专业自动龙门铣一刀加工，能保持长时间良好的稳定性。

Minimal modular design, the Laser modules can be replaced at the customers factory, this reduces the machine down time.

The X and Y axis synchronization achieves the maximum cutting feed of the gantry type structure. Z-axis moves down to track the surface of the work piece; the frame is precision welded by steel structure high-temperature annealing of the whole machine base, stress release treatment; the machine surface of the LM Guide and the Rack & Pinion are processed by CNC Milling machines, which ensure the machine flatness and accuracy for long time.

电机驱动 Motor driven

伺服电机具有精确的速度与位置控制能力，且运行稳定、高效率低耗能，进口品牌斜齿减速机，运行平稳，噪音低，性能可靠。

The servo motor has high speed and position control capability, stable operation, high performance and low energy consumption. The German brand Helical Gear Reducer runs smoothly, with low noise and high torque performance.

烟尘排除与集尘装置 Dust exhaust and collectors device

雷射切割的工作区域两侧对称设置烟尘排出风口，并配置风压下压式设计，搭配随动分区集尘装置（选配）更能有效排除切割时所产生的粉尘。

The ventilation of smoke and dust exhaust located on both sides of laser cutting working area, on which the wind pressure design is down-stroke style. It can efficiently eliminate the dust during cutting by follow-up type dust collection (option) function.

恩耐发振器 nLight Oscillator

- 来自美国同时为世界最大的雷射光源供应厂，独特的光路设计，即使在接近全反射的加工条件下依然能稳定的维持正常出光，完成加工。
- 零件最小化模块设计，包含光源在内90%的部品可于使用者端，现场更换。

· nLight's semiconductor laser are the industry's brightest and operate at unique wavelengths and power combinations. Our high-power continuous wave fiber lasers provide significant advantages over legacy fiber laser for Programmability,Serviceability and Reliability.

- Reflection Protection Hardware-based protection provides uninterrupted failsafe processing of reflective metals with no damage to the laser.
- Unparalleled Serviceability Modular design simplifies repairs maximizing uptime.



专业雷射切割CNC控制系统

- 易学习与操作，可在最短时间内投入工件的生产线上，提高最大化的生产效益。
- 具有远端异常排除与监控软件可安装于手机(安卓/IOS)与计算机(WINDOWS/MAC)上使用。

CNC Controller

- Easy for operation interface—user friendly
- Cutting Correction,burn correction,Punching correction at different processing component.
- Break point selection: unexpected power failure, or unplanned time,choose whether or not to reprocess the last processed.

IPG发振器 IPG Oscillator

- 结合高功率光纤激光器使用有源光纤和半导体二极管两制成设备的动态运行范围从10%至全功率，且在整个范围内光束发散角或光束剖面无变化，可有效降低光学器件的损坏。
- 最小模块化设计，采用多个可单独产生数百瓦特功率的光纤雷射模块输出技术，雷射源可自动互补，维持输出功率，使生产效能得以顺畅。
- 可在客户端单独更换设备，缩短停机维修等待时间。

Combine with high-power fiber laser with AOC (Active Optical Cable) and semiconductor diodes, the dynamic range is from 10% to full power. Invariant of beam divergence angle or the beam profile over the entire range, which can effectively reduce the damage of optics.

The smallest modular design adopt multiple fiber laser module output tech that can automatically complement each other to maintain the output power during the production process.

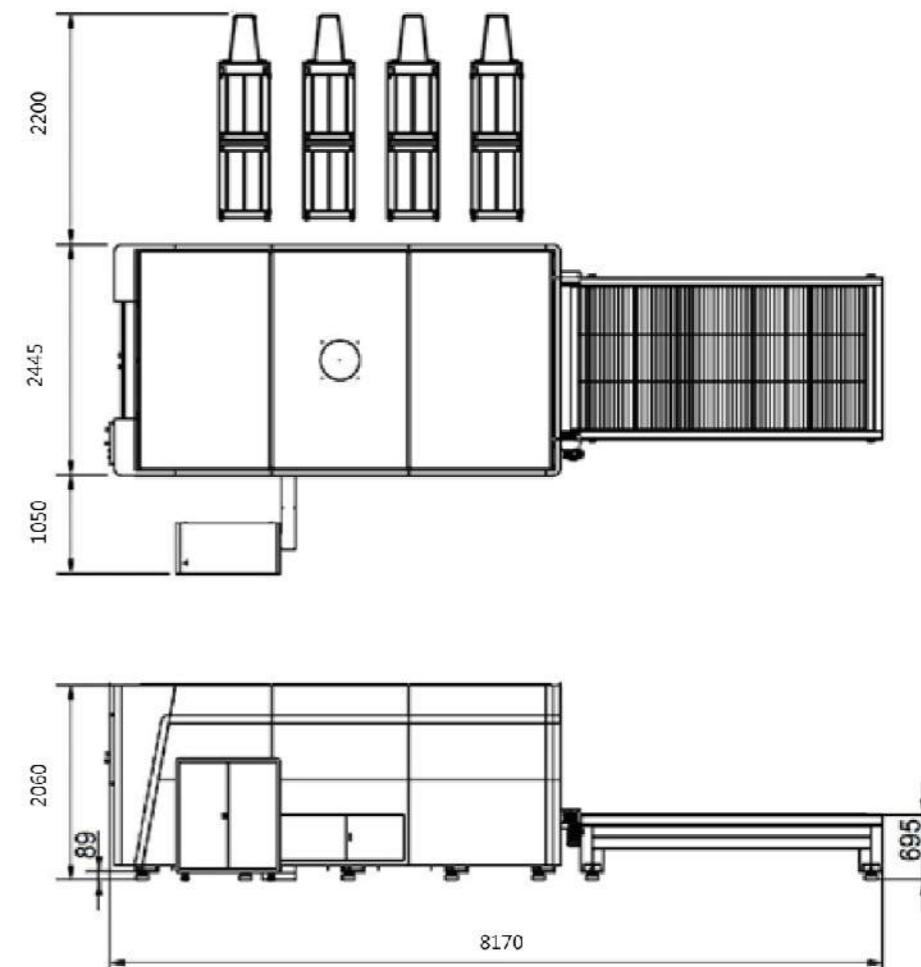
The users can replace the modules separately, to shorten the machine downtime.



TE3015设备配置图 / FLOOR PLAN

Specifications

项目	Model	单位	TE3015	
功率	Power	KW	1K、1.2K、2K、2.5K、 3K、4K	4K、5K、6K
移动量(X*Y*Z)	Travel(X*Y*Z)	mm	3050*1510*210	3050*1510*120
加速度	Acceleration		1.2G/1.5G(OP)	
重复定位精度	Repeatability accuracy	mm	$\pm 0.03/1000\text{mm}$	
加工范围	Machining range(X*Y)	mm	3050*1510	
最大工件承载重量	Max.workpiece load	kg	900	
工作台尺寸(X*Y)	Table size(x*Y)	mm	3100*1530	
上下工作台层高	Height distance between two pallet changer	mm	55	
工作台面型式	Table type		平行交换式 Chain pull parallel exchange workbench	爬坡式 Chain lifting system
机台长*宽*高	Approx.machine dimensions(L*W*H)	mm	8170*2445*2060	
预估机台重量	Approx. machine weight	kg	7000	
发振器型号	Resonator		nLight/IPG	
控制器	Control model		柏楚Advantech/PA(OP)	PA
切割用辅助气体	Auxiliary gas for cutting	Bar	氧气(Oxygen)10bar; 氮气(Nitrogen)20bar; 空气(Air)16bar	氧气(Oxygen)10bar; 氮气(Nitrogen)30bar; 空气(Air)16bar
同时控制轴数	Movement method		4	
总功率	Total power	KW	1.2G-16.5KW (不包含发振器、冷水机) (Without oscillator and water cooler)	
电力供应	Power source	KVA	380V/50Hz	



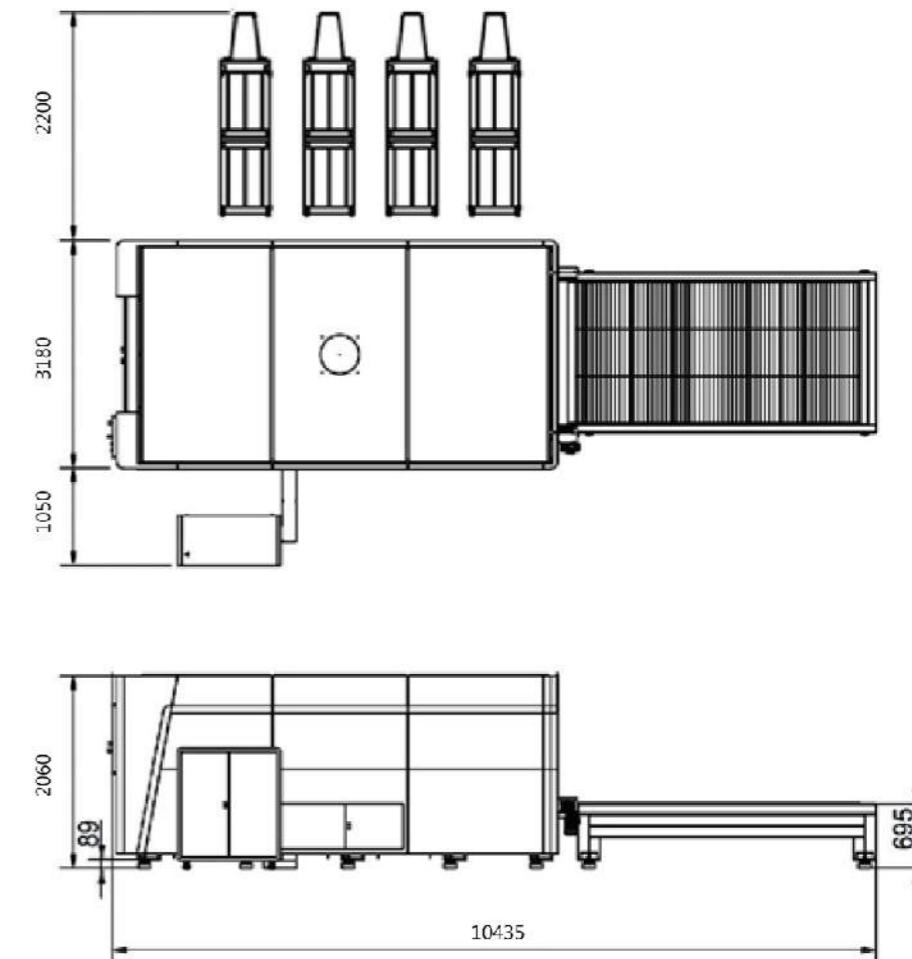
- 产品规格若有变更，恕不另行通知。
- 依据选用的焦距、光纤码、搭配形式不同，切割速度会有所差异。
- Specifications are subject to change without prior notice.
- Cutting speed may vary with the selected focus, fiber code and equipment.

单位/unit: mm

TE4020设备配置图/ FLOOR PLAN

Specifications

项目	Model	单位	TE4020	
功率	Power	KW	1K、1.2K、2K、2.5K、 3K、4K	4K、5K、6K
移动量(X*Y*Z)	Travel(X*Y*Z)	mm	4050*2020*210	4050*2020*120
加速度	Acceleration		1.2G/1.5G(OP)	
重复定位精度	Repeatability accuracy	mm	± 0.03/1000mm	
加工范围	Machining range(X*Y)	mm	4100*2050	
最大工件承载重量	Max.workpiece load	kg	900	
工作台尺寸(X*Y)	Table size(x*Y)	mm	4100*2050	
上下工作台层高	Height distance between two pallet changer	mm	55	
工作台面型式	Table type		平行交换式 Chain pull parallel exchange workbench	爬坡式 Chain lifting system
机台长*宽*高	Approx.machine dimensions(L*W*H)	mm	10435*3180*2060	
预估机台重量	Approx. machine weight	kg	8100	
发振器型号	Resonator		nLight/IPG	
控制器	Control model		柏楚Advantech/PA(OP)	PA
切割用辅助气体	Auxiliary gas for cutting	Bar	氧气(Oxygen)10bar; 氮气(Nitrogen)20bar; 空气(Air)16bar	氧气(Oxygen)10bar; 氮气(Nitrogen)30bar; 空气(Air)16bar
同时控制轴数	Movement method		4	
总功率	Total power	KW	1.2G-16.5KW 1.5G-22.5KW (不包含发振器、冷水机) (Without oscillator and water cooler)	
电力供应	Power source	KVA	380V/50Hz	



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- Cutting speed may vary with the selected focus, fiber code and equipment.

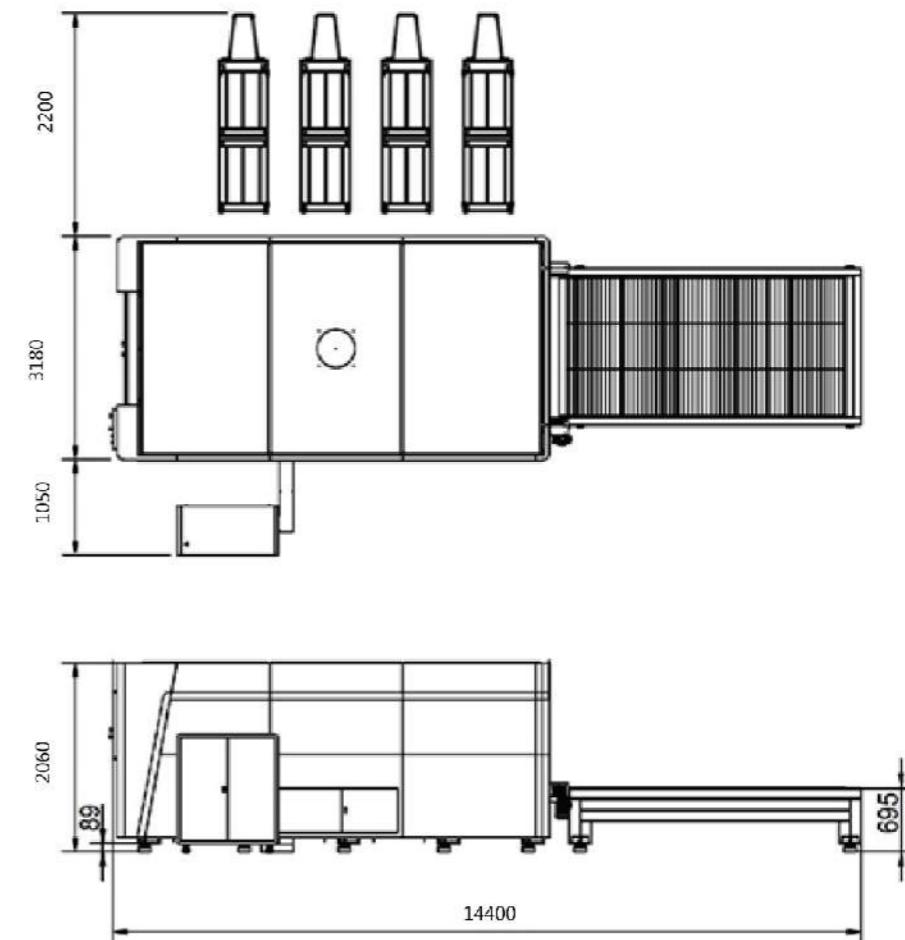
单位/unit: mm

TE6020设备配置图/ FLOOR PLAN

Specifications

项目	Model	单位	TE6020	
功率	Power	KW	1K、1.2K、2K、2.5K、 3K、4K	4W、5W、6K
移动量(X*Y*Z)	Travel(X*Y*Z)	mm	6050*2020*210	6050*2020*120
加速度	Acceleration		1.2G/1.5G(OP)	
重复定位精度	Repeatability accuracy	mm	$\pm 0.03/1000$ mm	
加工范围	Machining range(X*Y)	mm	6000*2000	
最大工件承载重量	Max.workpiece load	kg	1100	
工作台尺寸(X*Y)	Table size(x*Y)	mm	6100*2050	
上下工作台层高	Height distance between two pallet changer	mm	55	
工作台面型式	Table type		平行交换式 Chain pull parallel exchange workbench	爬坡式 Chain lifting system
机台长*宽*高	Approx.machine dimensions(L*W*H)	mm	14400*3180*2060	
预估机台重量	Approx. machine weight	kg	11000	
发振器型号	Resonator		nLight/IPG	
控制器	Control model		柏楚Advantech/PA(OP)	PA
切割用辅助气体	Auxiliary gas for cutting	Bar	氧气(Oxygen)10bar; 氮气(Nitrogen)20bar; 空气(Air)16bar	氧气(Oxygen)10bar; 氮气(Nitrogen)30bar; 空气(Air)16bar
同时控制轴数	Movement method		4	
总功率	Total power	KW	1.2G-16.5KW 1.5G-22.5KW (不包含发振器、冷水机) (Without oscillator and water cooler)	
电力供应	Power source	KVA	380V/50Hz	

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单位/unit: mm