GEARMAX PRO

CORTE
LÁSER

POWER
YOUR NEXT MOVE!

QLTEK®

GI SERIES

HIGH POWER FIBER LASER CUTTING MACHINE

Note:The appearance of the pictures in this solution is for reference only, and the actual equipment shall prevail.

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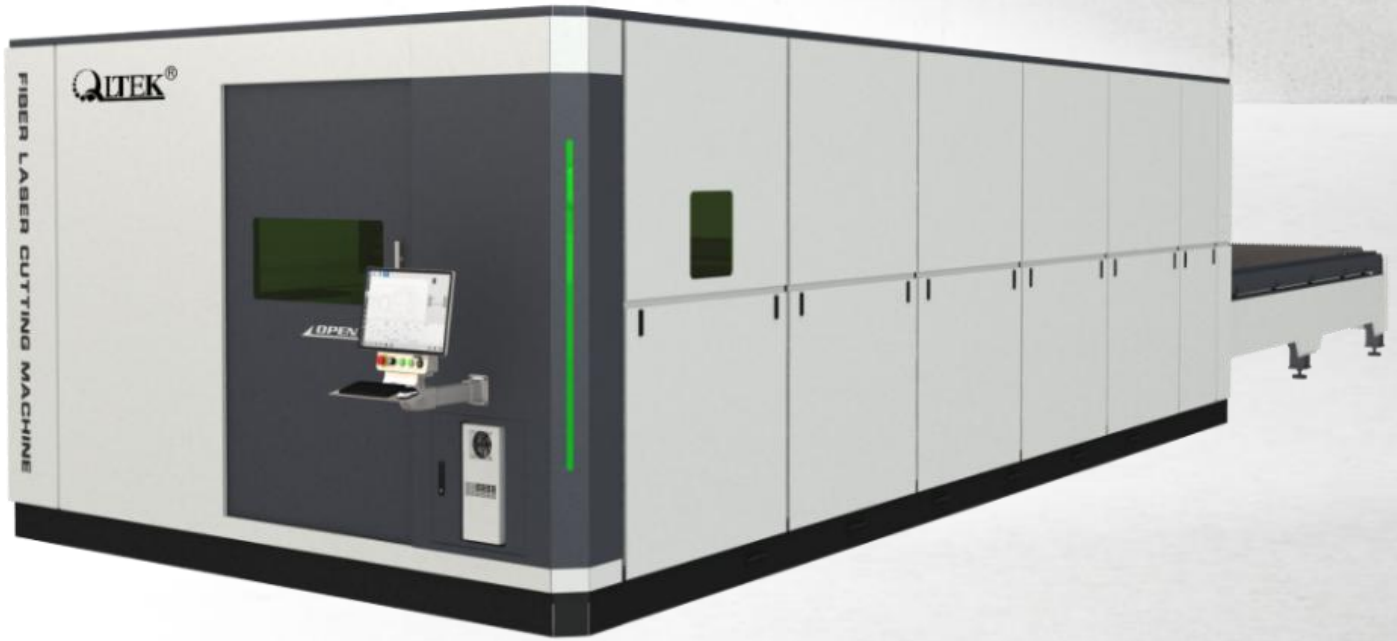


Ultra-High Speed **High Precision** **High Quality** **High Safety** **Intelligentization**

Factory

QLTEK®

400,000
400,000+m² Production Area

1,500
1,500+ Employees

8,000
8,000+ alta potencia

QLTEK®

Quality Control

At QLTEK, quality isn't a goal,it's a comprehensive system.

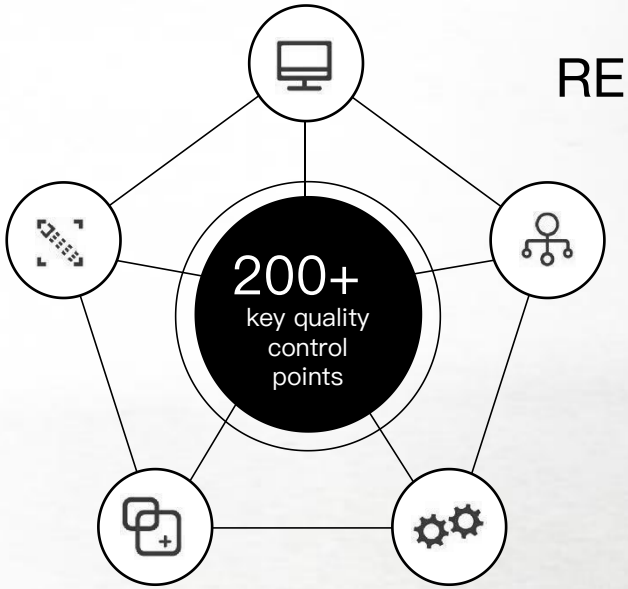
Thanks to our QSB (Quality System Benchmarking) end-to-end process management system and 5200 Grid quality control, we guarantee excellence at every stage of manufacturing.

SYSTEM

Operating and programming software.

REINFORCED STRUCTURE

Bed, beams and base.



OPTICAL MODULE

Laser and cutting head.

DRIVE UNIT

Guide rails, racks and gears.

Each module is designed to deliver precision, reliability, and optimal performance in demanding industrial environments.

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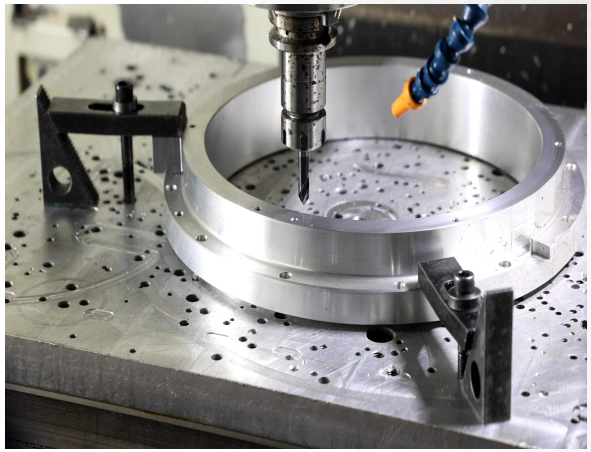
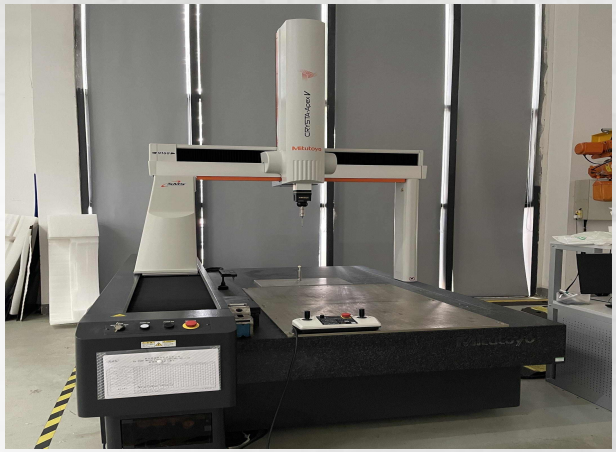
Quality Control





Technical Parameter

GI SERIES	GI6025 alta velocidad
Working range (Length*Width)	6000*2500mm (19.69'*8.20')
Z-axis travel	380mm(1.25')
X/Y axis positioning accuracy	±0.03mm/m
X/Y axis re-positioning accuracy	±0.02mm
Max. linkage speed	200m/min(≈656ft/min)
Max. linkage acceleration	2.5G
Overall capacity/current	55KW/110A
Max. loading weight	≈4600kg(311kg/m²)
Overall dimensions	15210*4210*2650mm(49.90'*13.81'*8.69')
Machine weight (excluding auxiliary machines)	14.5 toneada
Power	12KW

Note: The data in this table are standard configuration technical parameters, and can also be customized according to the technical requirements.

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Configuration List

No.	Item	Brand / Specification	Remarks
1	Laser cutting machine	GI series	QLTEK
2	Laser cutting head	QLTEK	QLTEK
3	Fiber laser	RAYCUS	China
4	X and Y high-precision reducer	MOTOREDUCER	China
5	X and Y high-precision helical rack	SOTER/JT	China
6	X, Y linear guide rail	ROUST	China
7	X and Y-axis servo motors	INOVANCE	China
8	CNC control system	BECKHOFF	Germany
9	Nesting software	LANTEK	Spain
10	Proporational valve	HOERBIGER	Germany
11	Water chiller	TONGFEI	China
12	Drag chain	IGUS	Germany
13	Main low-voltage electrical components	SCHNEIDER	France

Note: The above table is standard configuration, for reference only, subject to the actual signed contract configuration.

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12kw Cutting Speed

Parameter- m/min	1mm	2mm	3mm	4mm	5mm	6mm	8mm	10mm	12mm	14mm	16mm	18mm	20mm	25mm	30mm	35mm	40mm	50mm
Carbon Steel (O_2)	9-10.5	5.5-6.5	3.8-4.5	3.3-3.8	3.0-3.4	2.8-3.2	2.4-2.8	2.1-2.3	1.8-2.0	1.7-1.9	1.5-1.8	1.3-1.6	1.2-1.5	0.8-1.2	0.4-0.9	0.3-0.8	0.2-0.5	0.1-0.3
Carbon Steel Fast								3.1-3.5	3-3.2	2.8-3.2	2.5-3.1	1.8-2.4	1.6-2.2	0.9-1.4				
Carbon Steel (Air)	40-50	30-40	23-28	21-25	16-18	11-16	8.0-10	6.5-8	4.2-5.5	2.2-3.5								
Carbon Steel (N_2)	40-50	30-40	23-28	21-25	16-18	11-16	8.0-10	6.5-8	4.2-5.5	2.2-3.5								
Stainless Steel (N_2)	40-50	30-40	23-28	19-23	17-19	10-14	7.0-10	4.5-7.0	3.8-5.5	3.0-4.5	2-3.0	1.5-2.3	1-1.9	0.6-1.0	0.3-0.7	0.15-0.3	0.15-0.2	
Stainless Steel (Air)	40-50	27-40	22-28	19-23	16-20	12-15	8-12	5.0-7.0	4.5-6.0	3.5-4.5	2.3-3.2	1.6-2.3	1.3-1.8	0.7-1.2	0.3-0.7			
Aluminum (N_2)	40-50	25-35	20-25	18-21	14-17	10-13	7.5-8.5	4-5.2	2.3-3.5	1.8-2.4	1.6-2.0	1.3-1.6	0.8-1.2	0.6-0.9	0.5-0.7	0.25-0.4		
Aluminum (Air)	40-50	25-33	20-25	18-20	14-16	9.0-10	6.0-8.5	4.5-6.5	3.5-5.0	1.5-2.8	1.3-2.0	1-1.6	0.8-1.2	0.5-0.75	0.4-0.5	0.25-0.3		
Brass (N_2)	40-50	20-30	15-20	12-15	9-11	8.5-9.5	5.5-6.5	4.0-5.0	2.5-3.5	1.8-2.7	0.8-1.0							
Copper (O_2)	30-40	20-25	15-18	10-14	7-9	4-6	3-4.0	2.5-3.0	1.0-2.0									

List of accessories and Gas use

Catagoryes	Name	Qty/Pcs
Kits de accesories	Protective lens	≥10
	Nozzles	≥10
	ceramic ring	≥1
	Tool Box	1 set
	Fiber Protective Glass	1 set
	glasses scarf	1 set
	RFC Cable	1
	Bottom protection seal	1
	ceramic body	1
	Isopropanol	1
	Lens Cleaning Tissue	1 set
	Laser dimming photo paper	1
	Dust-free cotton swab	1
	Dust-free cloth	1

GAS	Gas pressure	Consumption(L/H)
Nitrogen (can cut stainless steel, aluminum, brass.)	1.4~1.8MPA	120-240 L/H
Oxygen (can cut carbon steel and copper)	0.5MPA~0.8MPA	30-80 L/H
Compressed air (more economical, can cut carbon steel, stainless steel, aluminum, and brass)	1.6MPA	120-240 L/H

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Typical customer

Customer-centric, practical, customer problem solving, customer value maximization

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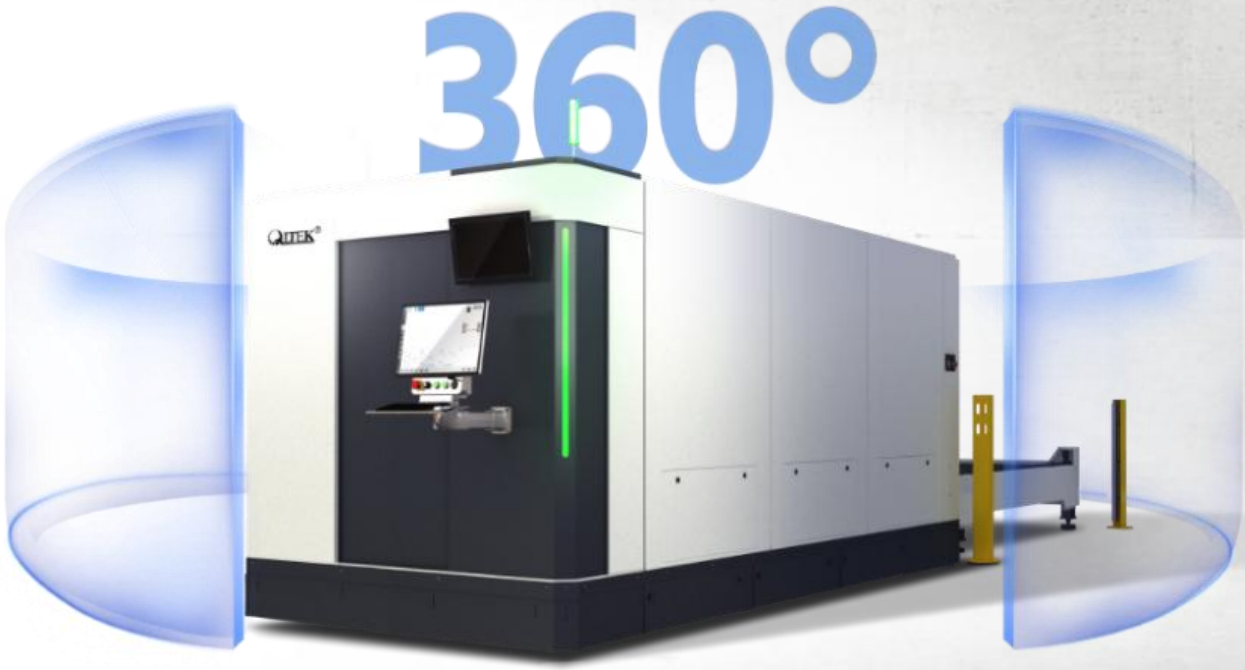
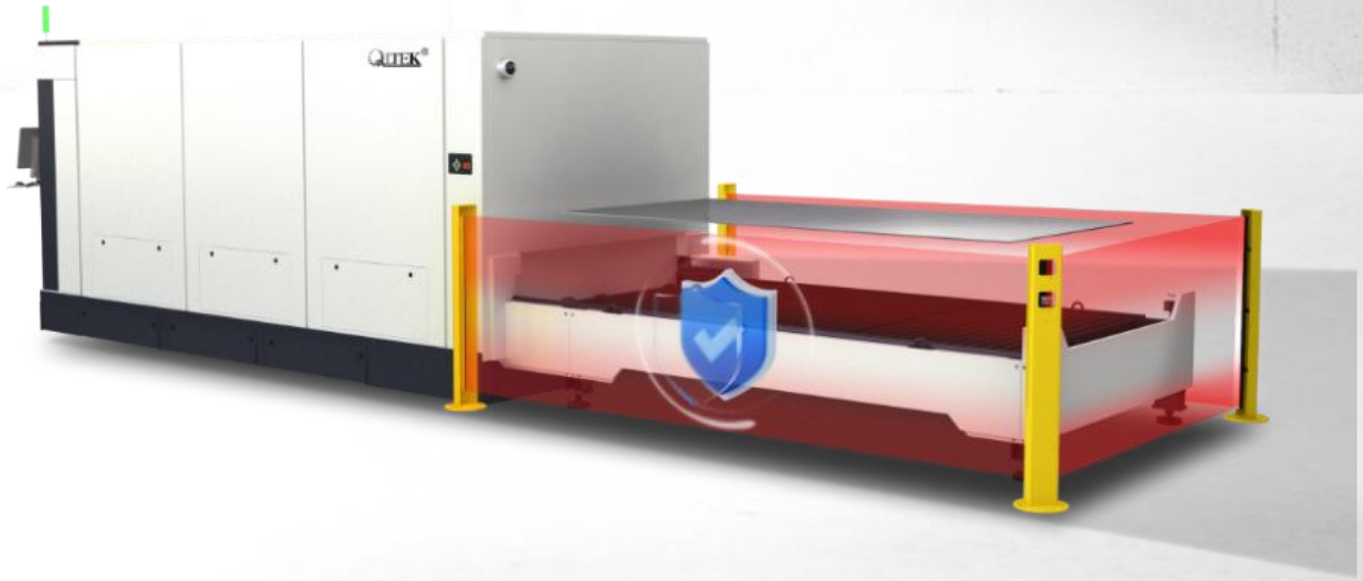
Laser Radiation-Proof



The working area of machine is completely protected by the cabinet, which is 360-degree radiation-proof, without any light leakage.

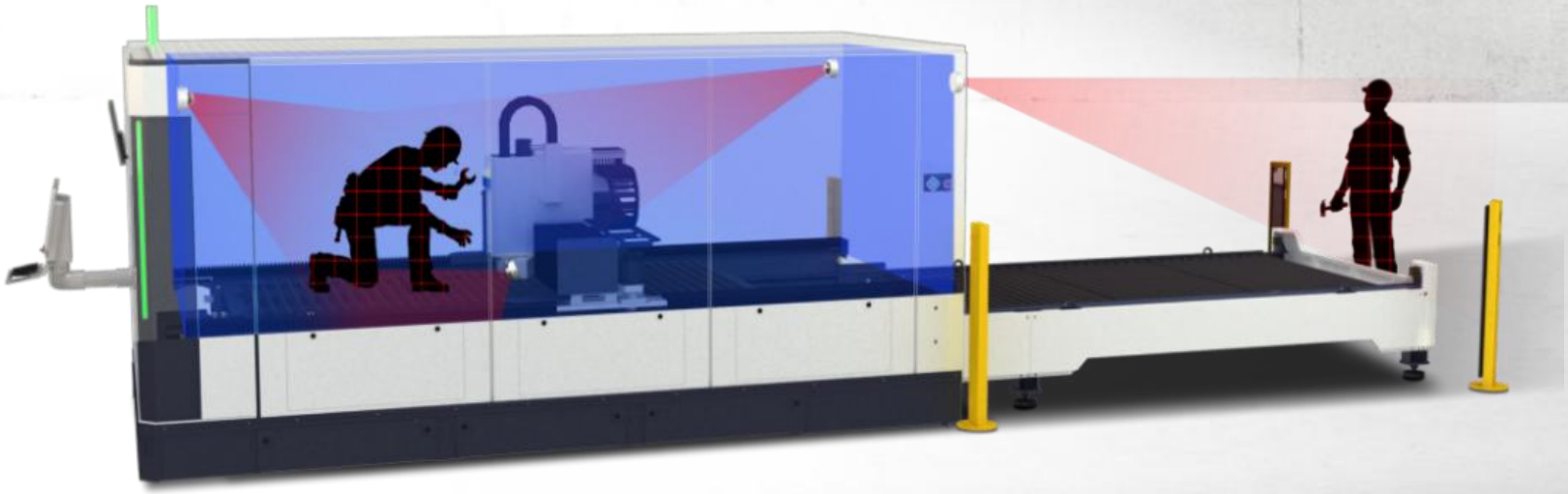
Note: Optional safety protection package to achieve

Protection of Loading Area (Optional)



The loading area is protected by omni-directional safety light curtain. If the loading area detects object, the equipment cutting workbench will be prohibited from working to ensure the safety of operator.

Omni-Directional Visual Monitoring Protection (Optional)



There are four monitoring cameras as standard, one at the back of machine, two inside the cabinet and one at the cutting head, to realize all-round safety protection.

Maintenance Safety Door

The maintenance safety door adopts manual lock structure, which can prevent the safety door from being opened at will when the equipment is working.

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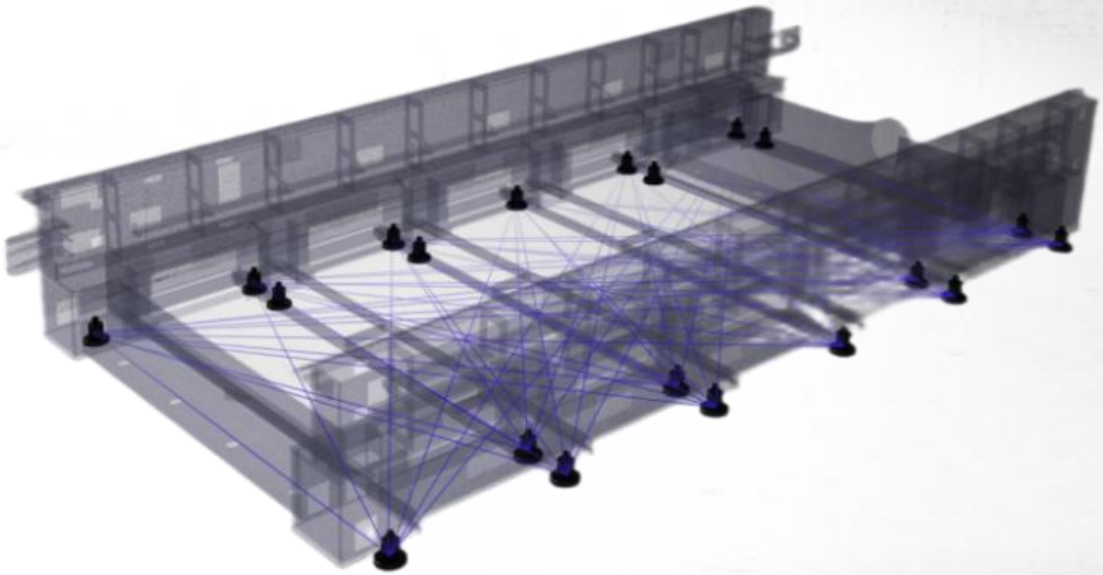
Self-Adaptive Combined Support Foot



The 2+4 layout is more stable and faster.

Double spherical gasket design reduces the impact and vibration of operation, making high-speed operation more stable.

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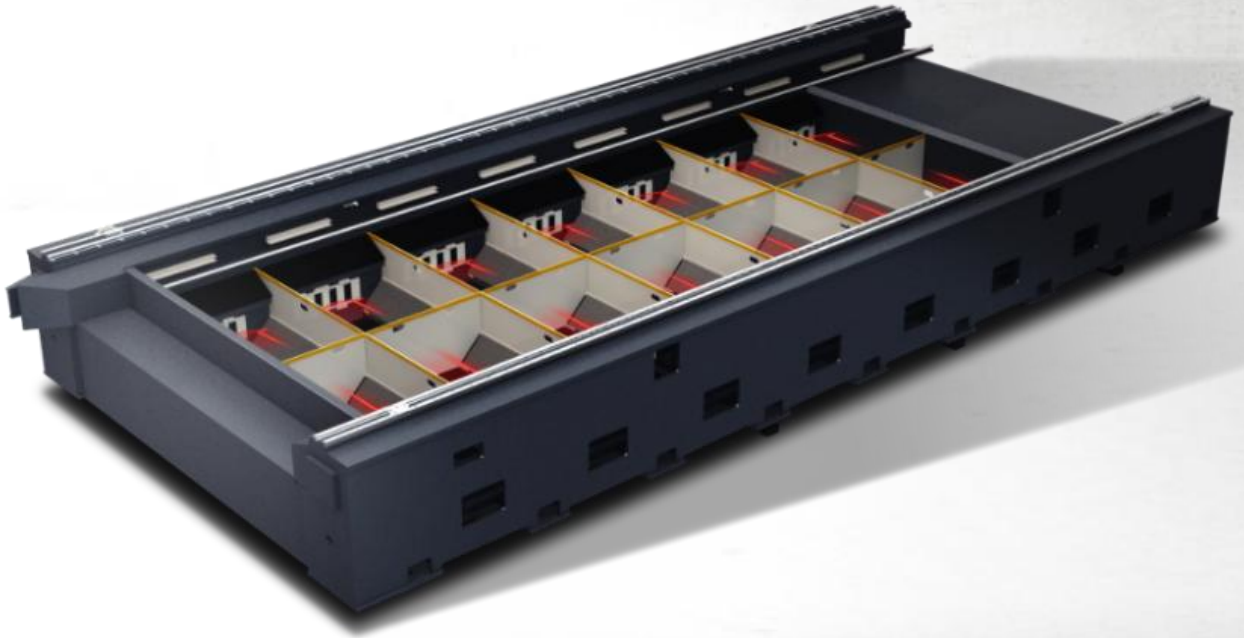
Efficient Dust Extraction Structure

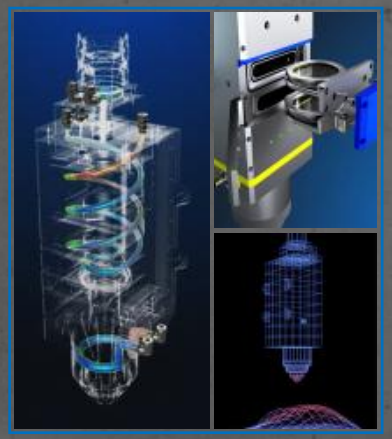


Heat extraction and environmental protection.

The dust removal system will simultaneously work according to the working position of the laser head, which can achieve effective dust extract function.

Auto-Focusing Cutting Head

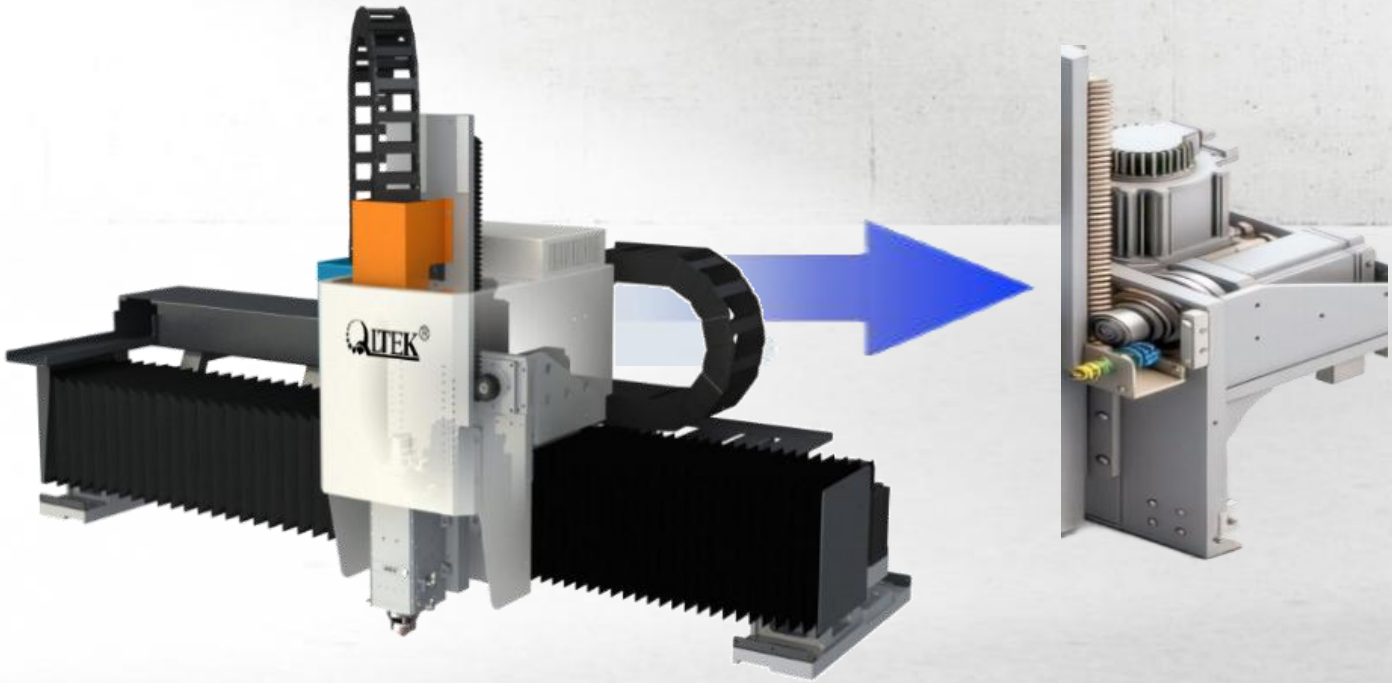
- Brand-new optical design, the water cooling area covered 90% of the laser cutting head, controlling heat.
- Multi-layer and drawer-type protective lens structure, simple maintenance and low cost.
- Multiple temperature detection, real-time monitoring of cutting head status.



Innovative Z-axis Structure

◎45° side-mounted cable chain: Better adapted to ultra-high-speed machines, it counteracts the motion inertia of the X and Y axes, reduces vibration, and improves durability.

◎High-speed Z-axis: Adopting rack-and-pinion transmission to achieve higher Z-axis dynamic performance and stability, while being more reliable and easier to maintain.



Software Function

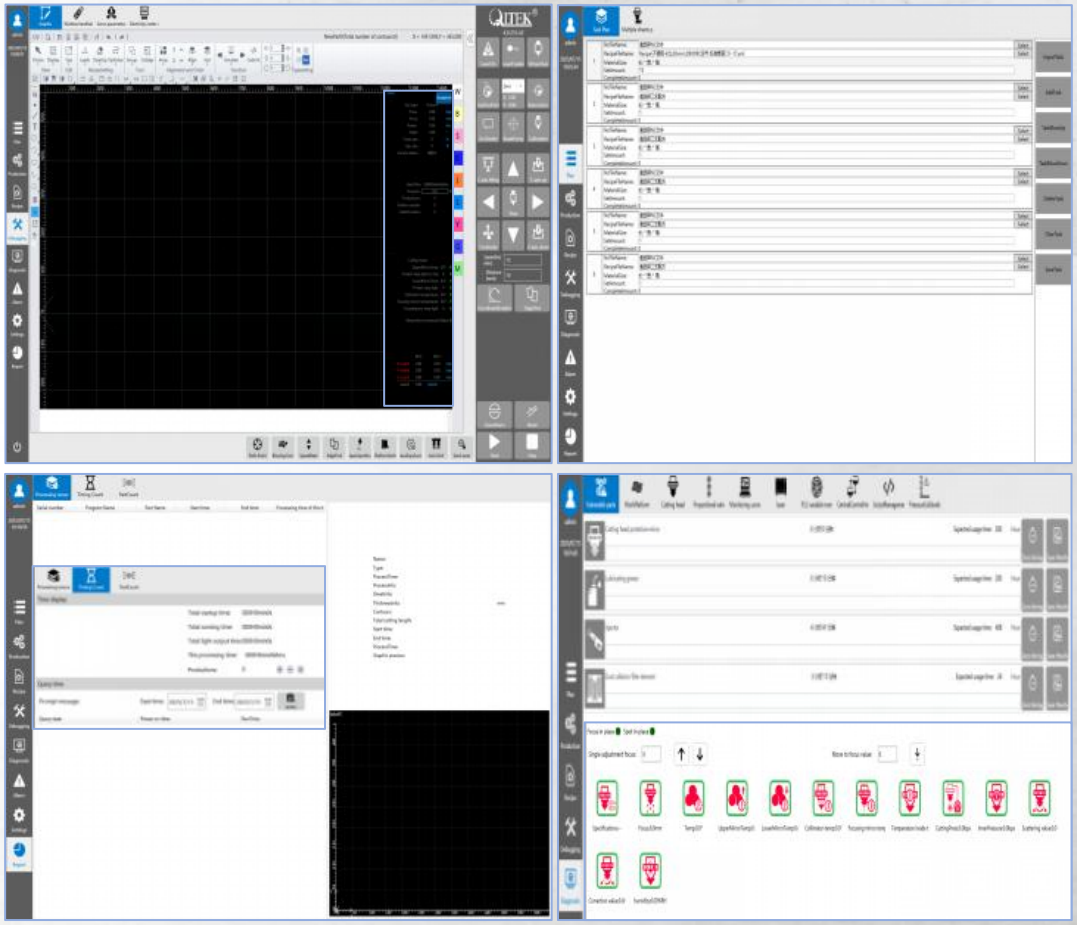
©CAM module: HMI software integrates CAM, which has the function of drawing and modifying machining files online.

©Task planning module: supports setting production tasks and automatic batch processing. Report processing module: it has the functions of processing records, operation logs and alarm logs.

©Real-time status monitoring: gas, gas pressure, focus, temperature, output power, processing time, processing progress, cutting head status, axis status, running speed

©Diagnostic maintenance： Vulnerable parts，WorkPlatform,Cutting head ,Proportional valve,PLC variable mon,Central ControlInt,ScriptManagemer,Pressure Calibration

©Authority management module: it has the functions of user management and role management.



Software Features

Easier Operating System

©The system has the characteristics of high reliability intelligence and networking, excellent performance, easy operation.

Extensibility: support external devices (such as loading and unloading, sorting machines, palletizing robots) or systems (such as central control system, MES, ERP) through OPC-UA, ADS and HTTP communication protocols.

Extensibility of Nesting Software

©Support all standard nesting software code formats in the industry.

Process Function

◎Automatic edge finding :circular edge finding and three-point edge finding

◎Extreme speed cutting function:greatly improving cutting efficiency

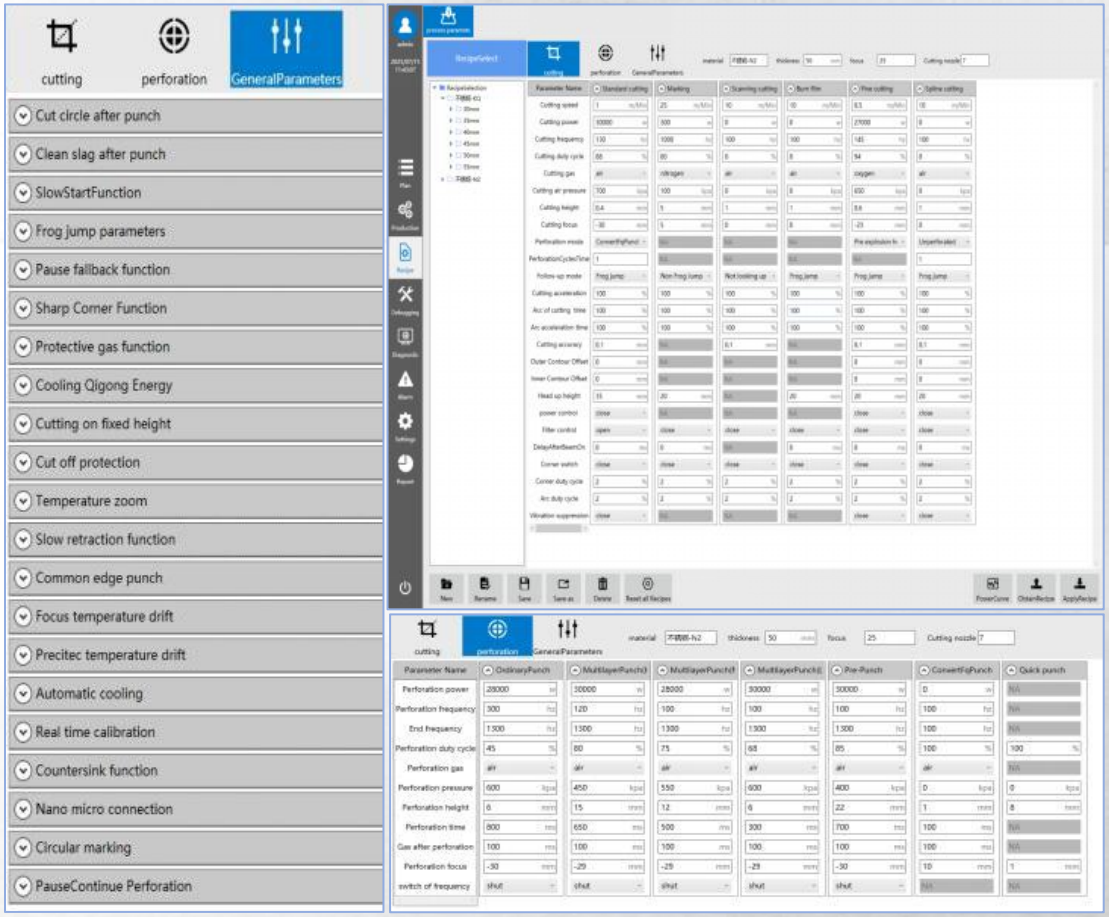
◎Extreme speed piercing function: improving hole opening efficiency

◎Intelligent tool retraction mode:abnormal re-cutting

◎Nano micro-connection:efficient and traceless

◎Cyclone slag cleaning technology: improving cutting stability

◎Layer definition:deep engraving, scribing and cutting completed in one go

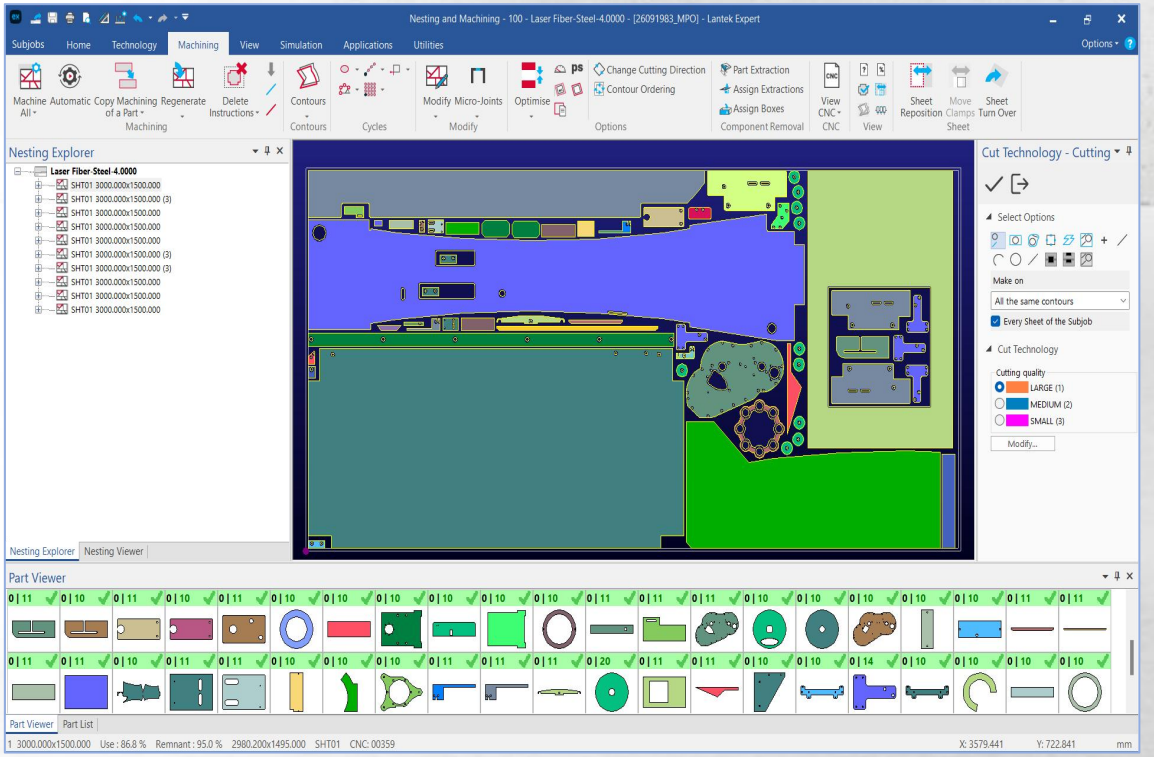


Automatic Nesting

©Parametric Parts - The library solution has a rich library of parametric parts.

©Open Database - Users can access the database through materials and dates to find information such as parts and orders.

©2D Design - Intelligent Import/Export - Connected with (DXF, DWG, IGES, DSTV, etc., nc1).



Cutting the Sample






QLTEK®

Suzhou Quick Laser Technology Co., Ltd.

+52 8110060826

liuxin2@quicklaser.com

www.quicklaserglobal.com

Gear Max S.A. DE. C.V.

+1 (915) 343-9246

sales@gearmaxpro.com

https://www.gearmaxpro.com