

ITEM: FIBER LASER MACHINE

MODEL: ULE - 3015 1500W



ULE Series

Fiber Laser Cutting Machine

The high advanced solution.

- Model: ULE (Fix Table)
- Cutting Area: 3000*1500mm
- Power: 1500W
- Control System: Cypcut



01 General Features

Focus on carbon steel within 20mm, high-efficiency cutting of stainless steel, galvanized sheet, electrolytic board, silicon steel and other metal materials within 10mm.

- It is widely used in kitchen appliances, lighting hardware, cabinet, advertising signs, display equipment and sheet metal processing industries etc.
- Adopting floorstanding gantry dual-drives structure, which is compact and covers small area. It is easy for operation, maintenance and metal sheet handling
- Machine body is processed through plug welding and annealing, with aluminum beams to meet long-term high acceleration requirement.
- Equipping with imported servo unit from Japan and Germany reducer to ensure the accuracy of lasting stability
- Adopt high-performance fiber laser generator and features high photoelectric conversion efficiency, fast cutting speed, maintenance-free, low cost, and high stability

02 Main features and advantages

Main Features:

- The welded bed and machine beam is rough-processed after heat treatment, then vibrated and aged, and formed by high-precision processing. Good overall rigidity, high precision and stable performance
- Advanced high-precision dual-drive transmission system and advanced motion system ensure smooth operation, high precision and fast operation speed
- The dust removal system is an intermediate dust removal method. The dust removal ability is strong, and the pollution of the bed and the surrounding air and environment is avoided as much as possible
- The control system adopts a special system for laser cutting. The control system is powerful and has professional functions for laser cutting. The operation is simple and easy to master.
- Powerful control system and superior software combination, users can integrate their own PC software to maximize the effectiveness of machine tools
- Can realize interactive nesting, co-edge cutting, continuous cutting, and nesting of remaining steel plates
- Breakpoint memory cutting, users can easily control and operate

Advantages:

- high speed 1mm stainless steel cutting speed can reach 40m / min;
- High-performance optical fiber transmission and flexible processing, can achieve equal quality cutting at any point;
- high efficiency, fast cutting speed, high processing efficiency, low operating cost, and double return on your investment;
- high reliability The core components are original in Europe and America, with high reliability;
- no gas consumption No gas is generated when laser is generated, no protective gas N2 consumption of optical components;
- low energy consumption, energy saving and environmental protection, very low power consumption, 20% -30% of traditional CO2 laser cutting machine;
- Low maintenance No reflection lens, no need to adjust the optical path, basically maintenance-free.

03 Technical Parameters - 1

Model	ULE - 3015
Processing area and working range	
Cutting area	3000*1500mm
Laser power	1500W
X axis stroke	3020mm
Y axis stroke	1520mm
Z axis stroke	100mm
Machine tool accuracy	
X, Y axis positioning accuracy	±0.03mm
X, Y axis repeated positioning accuracy	±0.02mm
Machine tool speed	
X, Y axis maximum positioning speed	100m/min
X, Y axis maximum linkage positioning speed	130m/min
X, Y axis Max Acceleration Speed	1.2G
Cutting capacity	
Maximum cutting thickness of carbon steel	16mm
16mm carbon steel cutting speed	0.6-0.8m/min
Maximum cutting thickness of stainless steel	6mm
6mm stainless steel cutting speed	0.7-1.3m/min

03 Technical Parameters - 2

Max loading capacity	1200kg
Machine Weight	3800kg
Machine overall dimensions	5600*2500*1700mm

Laser power supply parameters

Laser center wavelength	1070P
Total power protection level	IP54
Working Voltage	380V/50HZ/3PH (As customer requirement)
Ground resistance of power connection	$\leq 3\Omega$
Cooling	Water (Use pure water, deionized water or distilled water)
Working environment	-5°C-40°C
Relative humidity	$\leq 80\%$
Surroundings	Ventilation, no large vibration, no strong electromagnetic interference
Continue working time	24 hours

Operating System - Cypcut

Drawing Nesting	Automatic
Cutting Abnormal Alarm	Automatic
Maintenance Reminder	Yes
Support Format	DXF \ DWG etc.

03 Technical Parameters - 3

Other configuration

Exchange platform	No
Closed protection enclosure	No
Automatic Lubrication System	Yes
Automatic Nozzle Changer	No
Nozzle Cleaning & Calibration	Manual

Packing list

Dust Exhaust Fan	1 set					
Laser Protective Glasses	1 set					
Remote Control	1 set					
Tool Box	1 set					
Protective Lens	1kw	1.5kw	2kw	3kw	4kw	6kw
	3Nos	5Nos	5Nos	5Nos	5Nos	10Nos
Nozzles (Depending on Power)	1kw	1.5kw	2kw	3kw	4kw	6kw
	11Nos	12Nos	14Nos	14Nos	16Nos	18Nos
Ceramic Ring	1Nos					

04 Standard Components - 1

Machine body	Steel plate welding, annealing to eliminate internal stress,Vibration aging after rough machining and then precision machining,thereby greatly improving the rigidity and stability of the machine tool,In the case of good stability and seismic resistance, the accuracy of the machine tool is ensured	from China
Machine beam	Annealing stress relief treatment, precision machining after roughing and vibration aging, light weight and good dynamics	From China
Work table	Annealing to eliminate internal stress, good rigidity	From China
CNC system	<ul style="list-style-type: none"> • A set of industrial control host, integrated communication interface, Ethernet, USB, etc. • Integrated CNC control software PLC program • The most advanced Windows operating system • 19 inch LCD panel 	Cypcut from China (FSCUT2000)
Transmission system	liner guider	HIWIN from Taiwan
	Gear rack	YYC from Taiwan
	Reducer	Desboer from Taiwan
	AC servo motor and drive	Delta from Taiwan
Z axis servo system	Z axis servo system	Cypcut from China
Cutting head	Integrated capacitive sensor, built-in amplifier	Raytools from China
Pneumatic component	Electronically controlled proportional valve, pressure reducing valve, throttle valve, check valve, non-returning valve, triple valve, cylinder	SMC from Japan

04 Standard Components - 2

Electrical parts

Contactor, air switch,
photoelectric switch and other
low-voltage control components

Schneider from France

**Sealing protection
system**

Guide rail, rack dust shield

From China

Dust Exhaust Fan

Built-in pipes and fans

From China

Circulation chiller

Dual temperature and dual
control 2HP

Hanli from China

Slag removal system

Chip removal trolley

From China



IPG Fiber Laser Source

It with high electrical-optical conversion efficiency, and the conversion efficiency is more than 30%. The medium-power fiber laser uses water cooling, which can greatly save power consumption during operation, save operating costs, and achieve the highest production efficiency; The optical device only needs electric energy during operation, and does not need extra gas for generating laser, and has the lowest operation and maintenance cost



Switzerland RAYTOOLS laser cutting head

(BM109 Auto focus)

The nozzle and the cutting head body are connected by a screw thread, replacement the nozzle is very convenient; It adopts a flexible design, with a quick anti-collision protection function and a flexible automatic reset function. It can automatically stop cutting and flex deviation reset when an accidental collision occurs, and can automatically return to the original cutting point when cutting continues, the cutting work is not affected



Taiwan gear rack and liner guider

We use Best Brand Taiwan HIWIN 25MMX3MM, Taiwan gear rack YYC make sure the machine can move in short time and make sure the accuracy.



China Hanli Water Chiller

Using dual temperature and dual control high water quality fiber laser dedicated chiller cooling laser, equipped with low temperature water and normal temperature water two sets of cooling water, to meet the constant temperature needs of fiber laser cavity and light outlet. Highly clean circulating water system, supporting deionization device and water conductivity online monitoring system. The key components of the refrigeration system and electrical system are imported international famous brands.



China Air Conditioner

The air conditioning is used for heat dissipation inside the machine

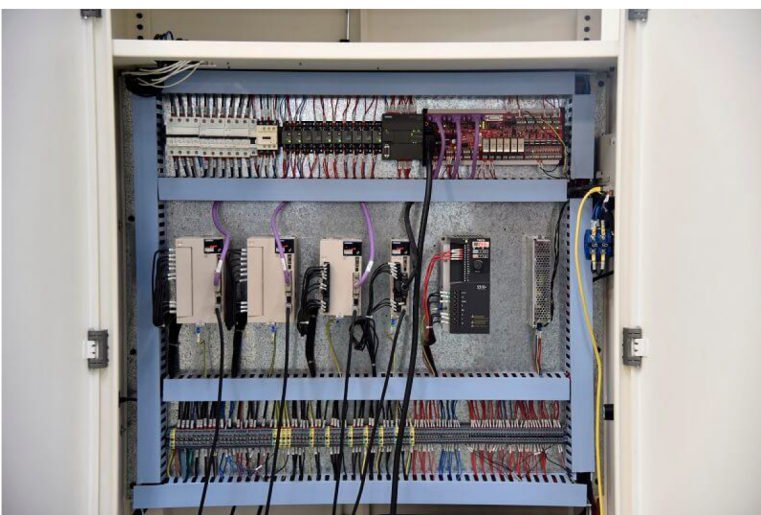


China Automatic lubrication



China Dust Exhaust Fan

Use dust suction design to remove dust, waste gas and other substances in the production process, and filter and discharge treatment to make the working environment achieve a comfortable effect



**International standard specifies for
circuit boards**



Taiwan Delta servo motor



China Cypcut system

Open dedicated laser cutting CNC system , it is also the system supplier with the highest in the Chinese market, can provide graphics processing, parameter setting, custom cutting process editing, simulation and sorting etc



Regulator Transformer
(Optional device)



Air Compressor
(Optional device)



Dust Remove Device
(Optional device)

05 Installation requirements

No.	Content
1	Power supply capacity: not less than 50KVA
2	Power supply requirements: (1) Three-phase voltage stability is less than $\pm 5\%$ (2) Unbalance degree of three-phase power supply is less than 2.5% (3) It is recommended to use a regulated power supply if the above power requirements are not met.
3	Auxiliary gas for cutting Auxiliary gas: oxygen (O ₂) / nitrogen (N ₂): purity above 99.9%
4	Cutting plate: black skin, smooth, smooth, no rust, even rolling, reaching ISO standard.
5	Ground and environment requirements for laser installation: (1) Temperature requirement: $-5^{\circ}\text{C} \sim 40^{\circ}\text{C}$ (2) Humidity requirement: <80% (non-condensing and non-condensing) (3) The site should fully meet the equipment placement
6	Equipment operators should have experience in operating computers and general CNC machine tools, should be equipped with a programming computer

06 After-sales services

The warranty period is 12 months after the machine arrive at the customer 's side. For laser source, we give the warranty time is 24 months. Due to excessive power cutting, improper cutting process settings and because of the coolant is dirty, the damage caused by user use or improper maintenance is not covered by the warranty. Focusing lens, collimating lens, protective lens, optical fiber, cutting nozzle, ceramic ring and other components are not guaranteed.

During the warranty period, under normal conditions of use, our company will repair and replace the components free of charge. If the user causes damage to the equipment, we will charge the cost price for it.