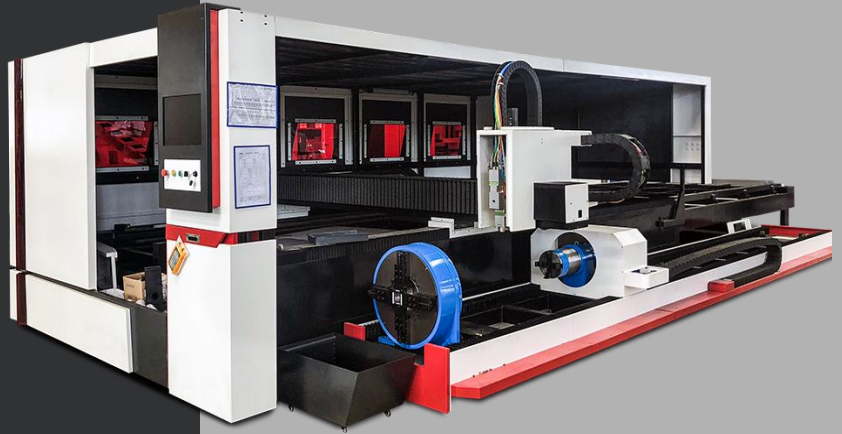


QUOTATION SHEET

2022.3



ITEM: FIBER LASER CUTTING MACHINE
WITH PIPE CUT

MODEL: ULET- 4020 3000W & 6000w



ULET Series

Fiber Laser Cutting Machine with Pipe Cut

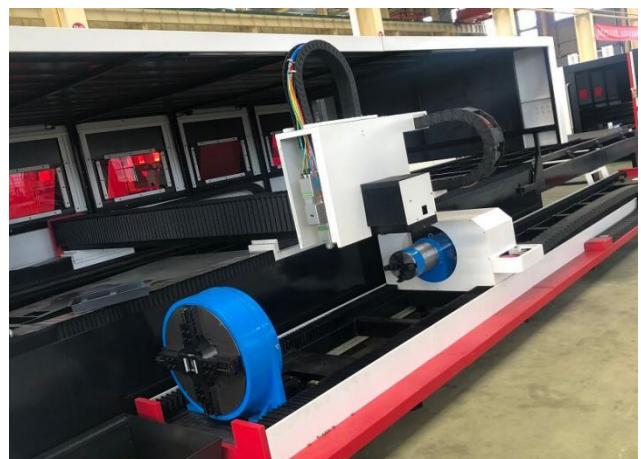
The high advanced solution.

- Model: ULET
- Cutting Area: 4000*2000mm
- Power: 3000W & 6000W
- Laser Source: Raycus
- Control System: Cypcut

01 General Features

The integrated design for the cutting of the plate and tube. The single piece of equipment perfectly realizes the cutting process of the flat plate, the round pipe and the square pipe, with high degree of refinement, high speed, small slit, smooth section, simple operation and low energy consumption, and is suitable for continuous processing in large quantities.

- Bigger adjustment range: Focus on cutting carbon steel plate and tube within 15mm thickness, and stainless steel plate and tube within 8mm thickness .
- Less power consumption: Fiber laser technology improves the power efficiency and greatly reduces the power consumption of the system, no laser maintenance is needed.
- More Efficiency: Servo motor bilateral drive, bilateral dust removal, dual-working table reduce loading and unloading time.
- High Speed: Without manual operation, it can focus automatically, greatly increase the processing speed.
- Multiple Uses: This fiber laser cutting machine is designed for pipes and sheets, it can save more than half of the space and cost, which effectively improve the production efficiency and ROI.
- High precision: Clamps can position the sheet to prevent the moving of the sheet which will ensure the accuracy of the processing
- Fractional support installation: Solve the deformation problems in the process of long tube cutting



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	ULET - 4020
Processing area and working range	
Cutting area	4000*2000mm
Laser power	3000W & 6000W
X axis stroke	2020mm
Y axis stroke	4050mm
Z axis stroke	220mm
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	110m/min
X, Y axis maximum linkage positioning speed	140m/min
X, Y axis Max Acceleration Speed	1.3G
Cutting capacity for 3000W	
Maximum cutting thickness of carbon steel	22mm
22 mm carbon steel cutting speed	0.5--0.7 m/min
Maximum cutting thickness of stainless steel	10mm
10 mm stainless steel cutting speed	0.5-0.6 m/min
Maximum cutting thickness of Aluminum	8 mm
8 mm Aluminum cutting speed	0.6-0.8 m/min

03 Technical Parameters - 2

Maximum cutting thickness of Brass	6mm
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6 mm Brass cutting speed	0.8-1 m/min
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Cutting capacity for 6000W

Maximum cutting thickness of carbon steel	25mm
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25 mm carbon steel cutting speed	0.4--0.5 m/min
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Maximum cutting thickness of stainless steel	20mm
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20 mm stainless steel cutting speed	0.2-0.35 m/min
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Maximum cutting thickness of Aluminum	16 mm
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16 mm Aluminum cutting speed	0.3-0.4 m/min
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Maximum cutting thickness of Brass	13mm
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12 mm Brass cutting speed	0.6-0.7 m/min
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Max pipe dia.

20-320mm

Pipe types



Machine Weight

11.5 Ton

Machine overall dimensions

10757*3500*2300mm(Without
dismounting)
7000*950*650mm(Pipe cutting device)

Laser power supply parameters

Working Voltage

380V/50HZ/3PH
(As customer requirement)

Cooling

Water
(Use pure water, deionized water or distilled
water)

Working environment

-5°C-40°C

Surroundings

Ventilation, no large vibration, no strong
electromagnetic interference

Continue working time

24 hours

03 Technical Parameters - 3

Other configuration

Exchange platform	Yes
Closed protection enclosure	Yes
Automatic Lubrication System	Yes
Nozzle Cleaning & Calibration	Manual

Packing list

Dust Exhaust Fan	1 set
Laser Protective Glasses	1 set
Remote Control	1 set
Tool Box	1 set

	1kw	1.5kw	2kw	3kw	4kw	6kw
Protective Lens	3Nos	5Nos	5Nos	5Nos	5Nos	10Nos
	1kw	1.5kw	2kw	3kw	4kw	6kw
Nozzles (Depending on Power)	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	ADH from China
Machine beam	Annealing stress relief treatment, precision machining after roughing and vibration aging, light weight and good dynamics	ADH from China
Work table	Annealing to eliminate internal stress, good rigidity	ADH from China
CNC system	• 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
Transmission system	liner guider	HIWIN from Taiwan
	Gear rack	YYC from Taiwan
	Reducer	DESBOER from Japan
	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

ADH from China

Circulation chiller

Dual temperature and dual
control 2HP

Hanli from China

Slag removal system

Chip removal trolley

ADH from China



China Raycus Laser Source

Fiber laser has 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 laser only requires electrical energy during operation, no additional gas to generate the laser, and has the lowest operation and maintenance costs



Switzerland RAYTOOLS laser cutting head

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 liner guider and Taiwan YYC gear rack to make sure the machine can move in short time and 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 on the electrical box

The air conditioning is used for heat dissipation inside the machine

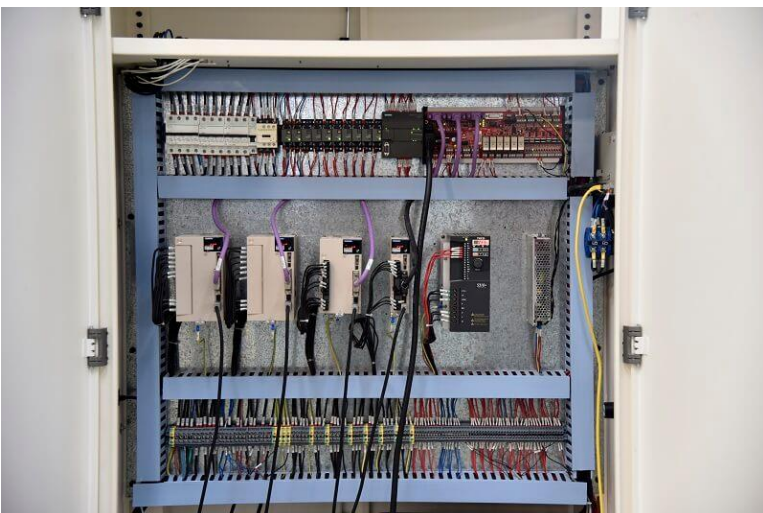


China Automatic lubrication



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**



Delta servo motor from Taiwan China



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)

The most obvious point of the function of the voltage stabilizer is that it can control the output voltage of electrical appliances with large current fluctuations within a fixed value range to ensure the smoothness of the circuit and the normal use of electrical appliances.



Air Compressor

(Optional device)

Power – 15 kW,
Voltage – 380V,
Maximum pressure – 16 Bar,
Weight – 620 kg



Dust Remove Device

(Optional device)

With filter system, the filter element adopts American HV filter element, quick release design, efficient and convenient installation; Stable operation, low noise, high efficiency, low energy consumption and long working time. No need for regular maintenance, lower cost; High negative pressure, high suction power, higher filtration rate

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

07 Machine in Production





Dependability: heat treatment for machine body



Flatness: heavy duty 4+1 axis machining center



Straightness: using auto collimator to check frame



Straightness: using clock gauge to recheck guide line



Flatness: using plug gauge to check the rack and gear



Straightness: using auto collimator to check beam



Straightness: using clock gauge to recheck guide line on beam



Flatness: using plug gauge to check the rack and gear on beam



Precision: using interferometer to check X/Y stroke



Stableness: dry cut running for 72 hours



Stableness: cutting test before shipment



Safeness: prompt delivery

Employees: 400

First-line Workers: 297

R&D Technician: 43

About **ADH**

Founded in March 2002, Anhui Donghai Machine Tool Co., Ltd. (Brand: ADH) is a high-tech enterprise specializing in the production of press brake, hydraulic guillotine, fiber laser cutter etc.

ADH is a comprehensive leading enterprise in the machine tool industry in China, which integrates automatic control system design, new product research and development, and equipment manufacturing innovation platform formation.

Our factory is located in Bowang District, Ma'anshan City, Anhui Province, only 30 kilometers away from Nanjing Lukou International Airport and can be reached within 30 minutes by car.



SERVICE ▼

Anhui Donghai Machine Tool has a huge global customer source market, has a good basic service network and efficient service capabilities for modern sales, has a core position of customer service in a central city, has efficient information diffusion and demonstration effects, and has become a zoning.

Focus on sales layout. Strengthen different forms of customer care, strengthen customer care through related theme services, continue to form a good reputation, and quickly improve brand reputation and customer satisfaction.



IMPROVE SERVICE QUALITY

Donghai Machine Tool makes full use of the advantages of more than 60 offices, combines actual conditions, builds unique service brands, promotes the promotion of new products, strengthens in-terminal management, improves service processes, improves technical level and service quality, improves customer experience, and customer satisfaction.

FAST RESPONSE

We require all service points to provide 24-hour fast service support and ensure service resources: personnel, spare parts, tools, etc.

STRENGTHEN TRAINING

In order to improve the overall quality of the service network, we will formulate corresponding training plans and training support for service stations to improve service quality, maintain technical level and customer satisfaction from all aspects.





CERTIFICATION ▼

شهادة - 증명서 - 證明書 - Сертификат - Certificat - Certificate

Certificate of Compliance

No. 3N190909.ADMQN45
Test Report no. MICEZ-0901-090901-MD+LVD



Certificate's Holder:

Certification ECM Mark:

Product Model(s):

Verification to:

ANHUI DONGHAI MACHINE TOOL CO., LTD.
Bowang Industrial Zone, Ma' anshan City, Anhui Province, China



Type
Approved

Fiber Laser Cutter
ULF/LFD(1010~14025) ULE/LFPH(1010~10025)
ULE/LFH(1010~10025) ULFT(1010~8020)
ULET (1010~8020) UFMS(1010~8020)

Standard:
EN ISO 12100:2010, EN 60204-1:2018,
EN ISO 11252:2013, EN ISO 11553-1:2008

related to CE Directive(s):
2006/42/EC (Machinery)
2014/35/EU (Low Voltage)

Remark: The product(s) has been verified on a voluntary basis. The product(s) satisfies the requirements of the Certification Mark of ECM, in reference to the above listed Standard(s). The above Compliance Mark can be affixed on the product(s) accordingly to the ECM regulation about its release and its use. The regulation can be found at www.entecerma.it. This Certificate of Compliance can be checked for validity at www.entecerma.it.
This verification doesn't imply assessment of the production of the product(s).

CE

Additional information, clarification about the CE Marking:
We attest that a TCF for the CE Marking process is in place. Whereas the Manufacturer is Responsible to start the CE Marking Certification Procedure and to perform all the necessary activities, as required by the Directive before placing the CE Mark on the product(s).

Date of issue 09 September 2019

Expiry date 08 September 2024

Chief Manager
Michele Morini



Deputy Manager
Amanda Payne



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THE ADH PARTNER



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PMI Linear Motion Systems

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Rexroth
Bosch Group

nLIGHT

Why Us?

Our processing equipment including the heady duty shot blasting machine, 5-axis machining center, large grinding machine, floor type boring & milling machine, large annealing temper furnace, cnc machining center etc.

Competitive pricing (Compared to those who has the same quality)

Technical support (We will send engineers to your site if required anytime)

Critical components & worn spare parts are offered to avoid unplanned stops.

On-time delivery as agreed in the contract



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