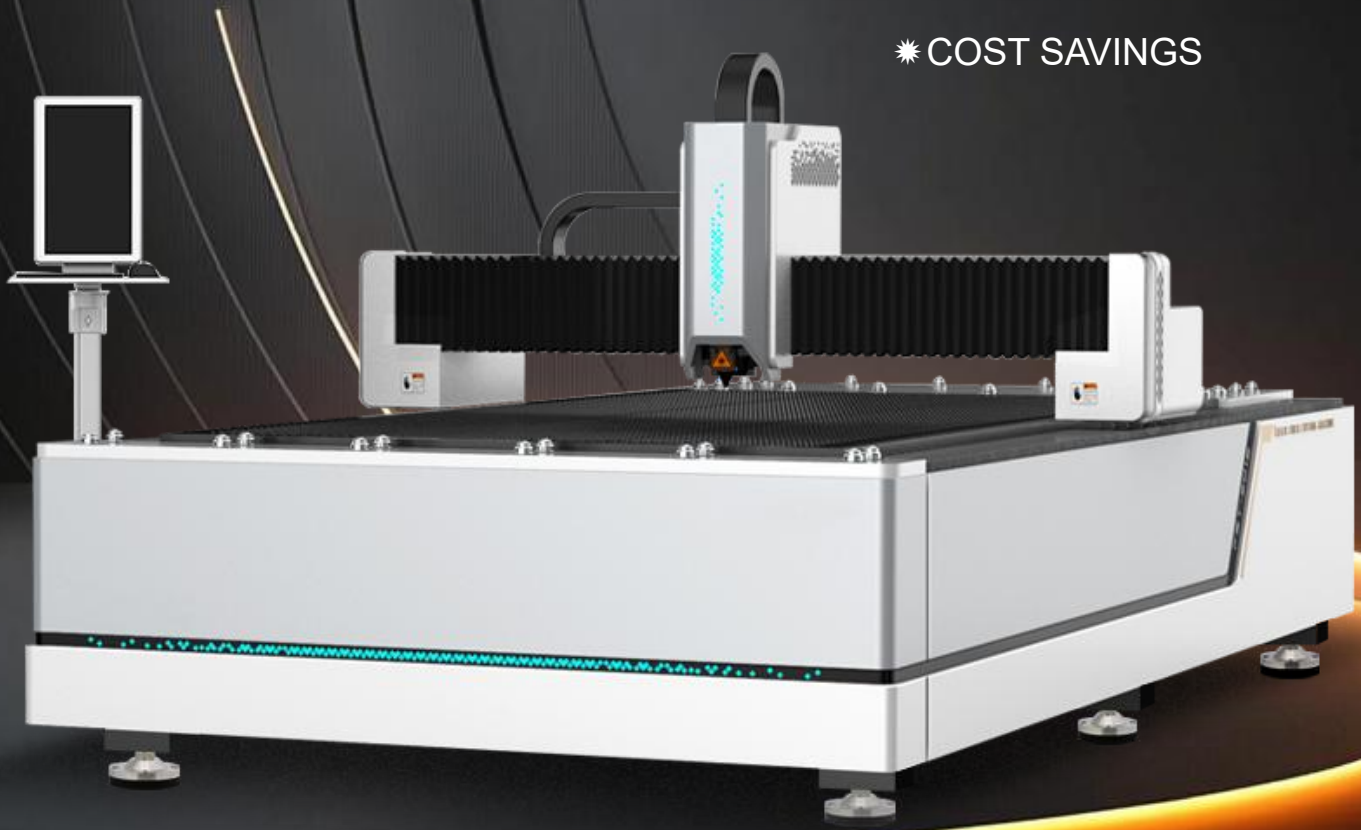
4020 INTEGRATED
FIBER LASER CUTTING MACHINE

- FAST CUTTING SPEED
- HIGH EFFICIENCY
- LOW MAINTENANCE
- COST SAVINGS



OEM/ODM

PRODUCT ADVANTAGES

HIGH EFFICIENCY PRODUCTION

Utilizes advanced fiber laser technology for rapid cutting speeds and efficient production capabilities.

FLEXIBLE PROCESSING

Equipped with an automatic exchange table system for continuous processing, enhancing productivity and supporting rapid cutting of multiple materials.

ASSEMBLED DELIVERY

Without disassembly, it can be directly loaded into the container. It greatly shortens the installation and debugging time of customers, and facilitates the use experience of customers.

INTELLIGENT OPERATION

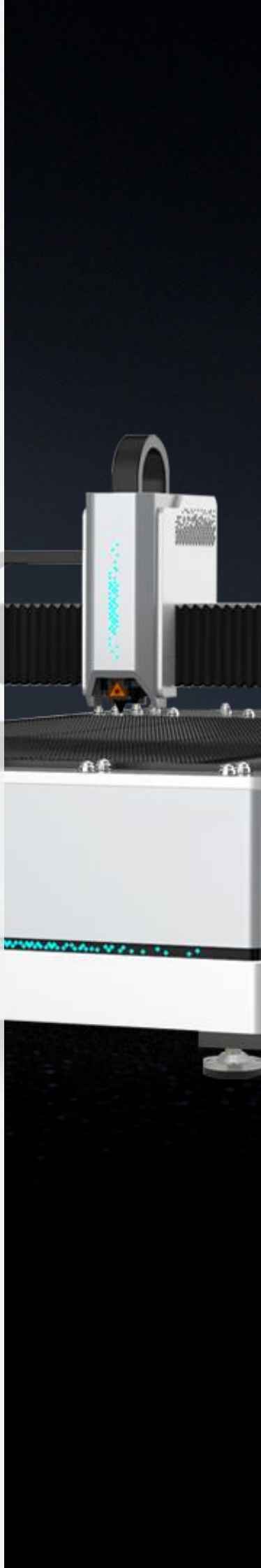
User-friendly interface and intelligent control system make operation simple and easy to master.

ENERGY-SAVING AND ENVIRONMENTALLY FRIENDLY

Fiber laser technology eliminates the need for chemical agents, resulting in no emissions of exhaust gases or wastewater, meeting environmental requirements.

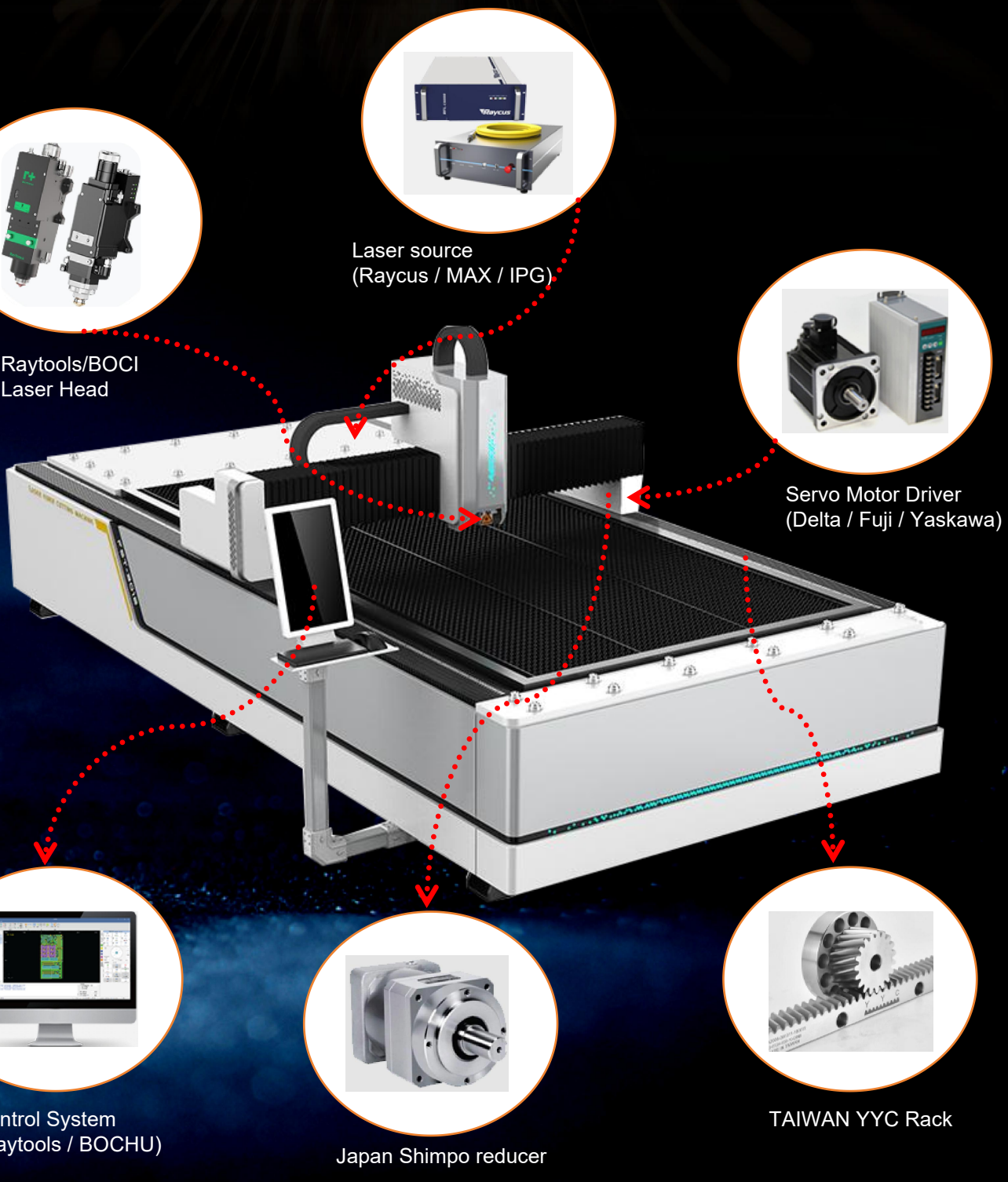
DURABLE AND STABLE

Robust structure and high stability ensure long-term continuous operation with minimal risk of failure, extending the equipment's lifespan and reliability.



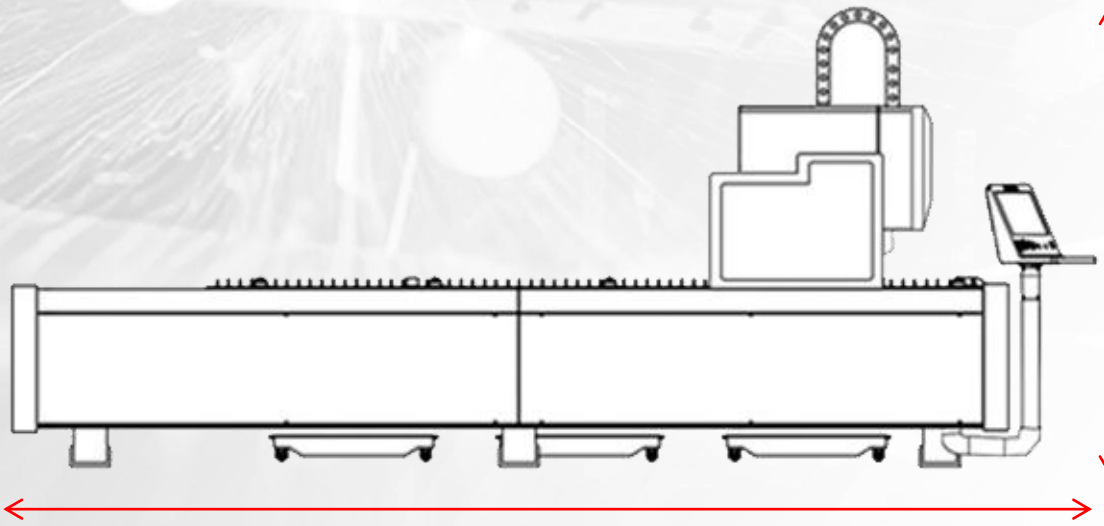
PRODUCT CONFIGURATION

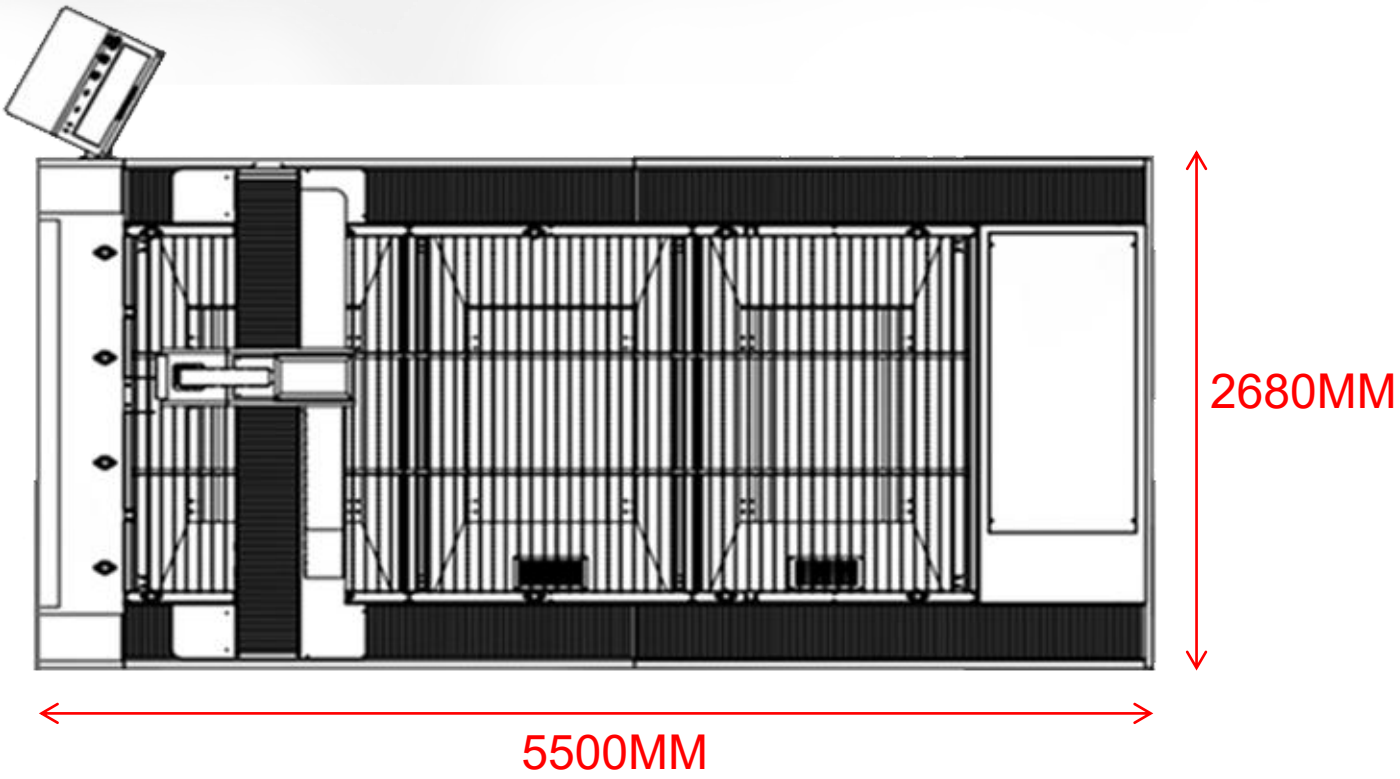
The 4020 fiber laser cutting machine adopts an optimized structural design, which reduces transportation costs. It features a single-platform open structure, allowing for multi-directional loading, high stability, fast cutting speed, and no deformation during longterm cutting, ensuring stable equipment operation. The laser diameter can be adjusted independently, with segmented dust removal, improving the efficiency of smoke and heat discharge, and achieving energy conservation and environmental protection.



PRODUCT SIZE

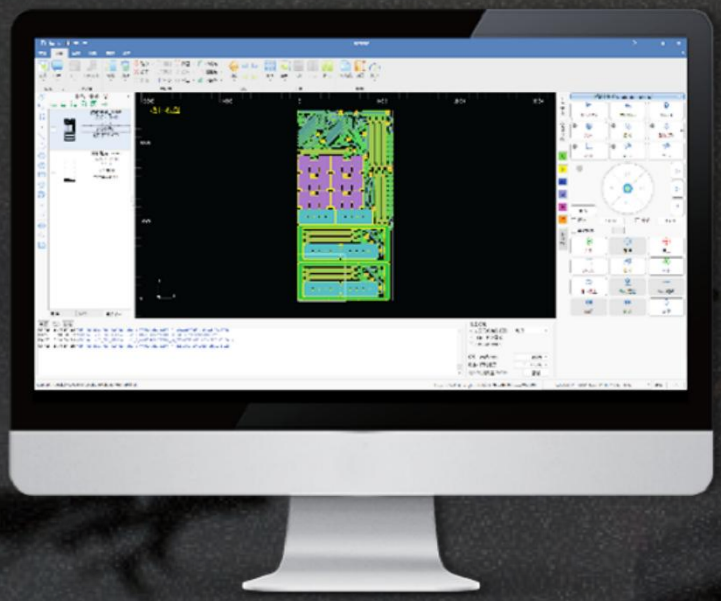
XIANMING LASER





PRODUCT PARAMETER

Model	4020 fiber laser cutting machine
Control System	Raytools / BOCHU
Drives and Motors	Japan Fuji Servo Motor System
Fiber Laser Head	Raytools / Boci
Fiber Source	Raycus or Max or IPG
Lubrication System	Electrical Motored
Guide Rails	Taiwan HIWIN Rails
Rack and Gear	Taiwan YYC Rac
Driver system power	X=0.75/1.3KW,Y=0.75/1.3KW,Z=400W
Reducer	Japan SHIMPO
Electron Component	DELIXI ELECTRIC
Chiller	HanLi /S&A
Machine Size	5500*2680*1775mm
Voltage	220V 1Ph or 380V 3Ph,50/60Hz



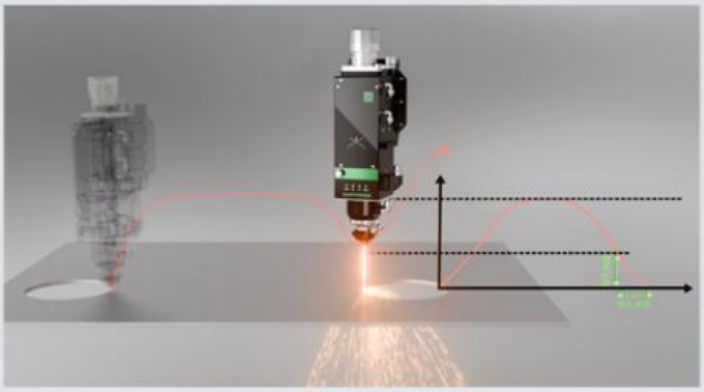
Raytools

Sheet Cutting Software

The system is a CNC software for planar laser cutting suitable for power ranges of 30kW and below, and it also supports EtherCAT bus servo and pulse servo.

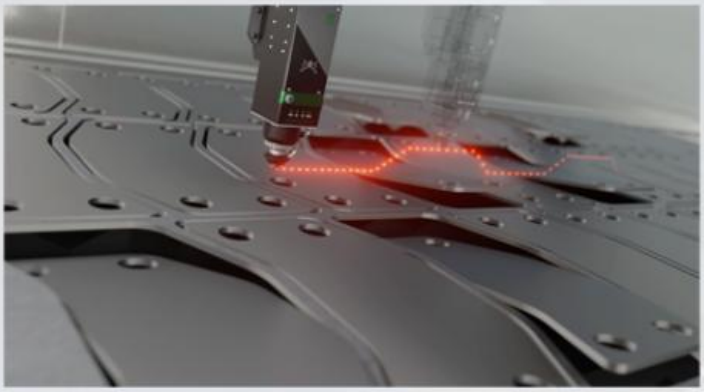
Easy to install, simple to debug, and fully functional, it is suitable for industries such as advertising machines and sheet metal processing.

1 NON-REACTIVE PERFORATION



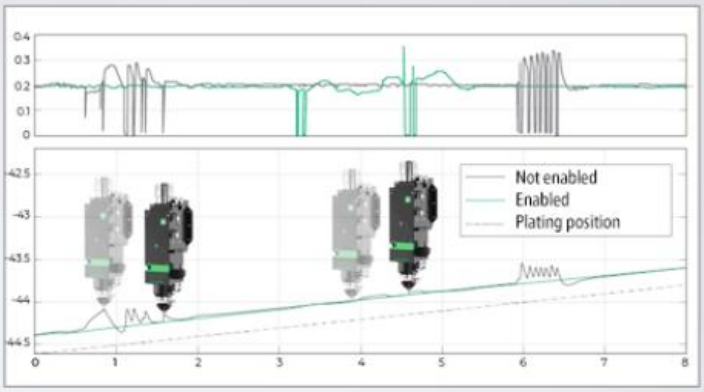
The perforation efficiency is high and the processing speed is fast.

2 INTELLIGENT OBSTACLE AVOIDANCE



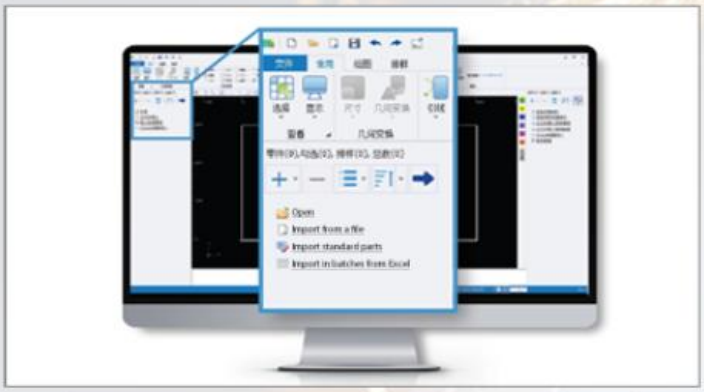
Effectively prevent the laser head from colliding.

3 VIBRATION SUPPRESSION



Reduced vibration for thin plates/ thick plates, resulting in more stable processing.

4 SUPPORT BATCH IMPORT



Supports NC batch import and processing of ducts.

LASER CUTTING HEAD



Multiple Protection

3 protective lenses , highly effective collimating focus lens protection.2-way optical water cooling extends the continuous working time effectively.

High-precision

To successfully avoid step loss,a closed-loop stepping motor is used.The repetition accuracy is 1M and the focusing speed is 100mm/s. Dust-proof to IP65,with a patent-protected mirror cover plate and no dead angle.

Various Brands Of Laser Head Are Available

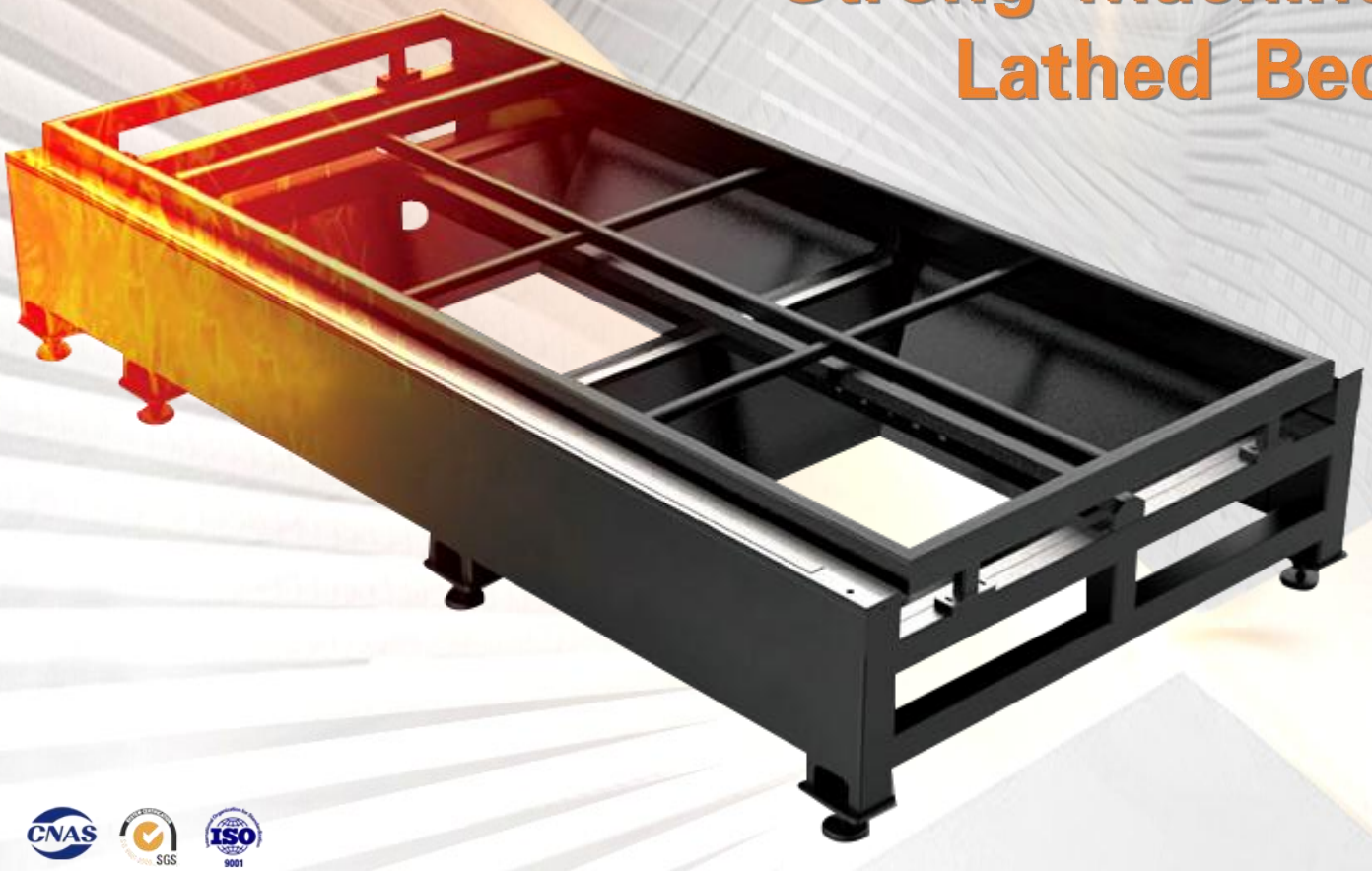
We can provide all high quality laser heads . It has been tested by us for a long time.



Monolithic Cast Aluminum Beam

- No deformation, light weight, high strength Light cross beams allow equipment to operate at a faster rate, boosting processing efficiency and quality.
- The light crossbeam allows the machine to move at a faster rate and enhance cutting eficiency.
- The aerospace industry's aluminum profile beam ensures that the equipment has efficient dynamic performance .considerably increasing processing efficiency whilemaintaining processing quality.

Strong Machine Lathed Bed



The lathed bed is after aging treatment: 1600℃ high temperature heat treatment, 24 hours with furnace cooling and precise co2 protection welding, which ensures along-term stability and no deformation.



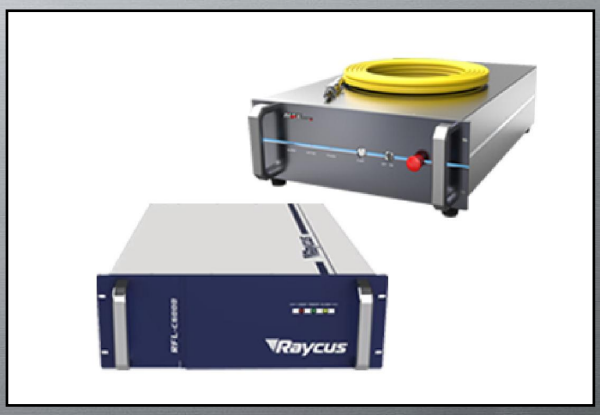
VOLTAGE STABILIZE

Stable voltage to ensure smooth operation of equipment.(Optional)



AIR COMPRESSOR

It is a essential tool for cutting stainless steel and thin carbon steel materials. More cost saving. (Optional)



Laser source

With high-quality beam quality,high light conversion efficiency, the light emilting mode is more conducive to achieving a good and stable cutting effect with high quality.

Water chiller

1. Specifically developed for fiber laser equipment, compatible with various brands of laser devices.
2. Complete series of environmentally friendly refrigerants, ensuring smooth export.
3. Stable and reliable performance, low failure rate, energy-saving and power-efficient.





Servo driver and servo motor

Servo motors stabilise and drive the beam to control the movement of the XYZ axis according to the programmed instructions to complete the cutting operations with complex precision and the user can adjust the parameters according to their needs.

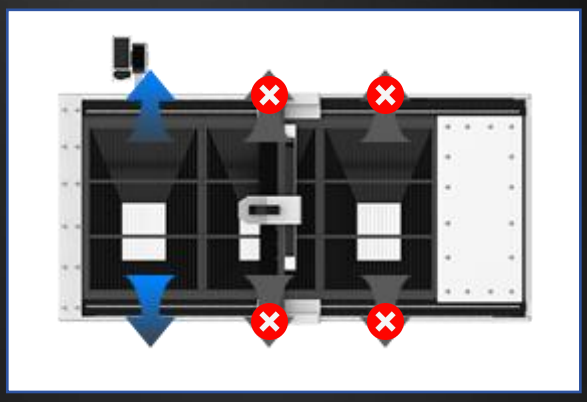
Reducer

High precision and high rigidity
Using a helical gear structure, it effectively reduces operating noise.
Use high-grade lubricating grease, with a maintenance period of up to 20,000 hours.



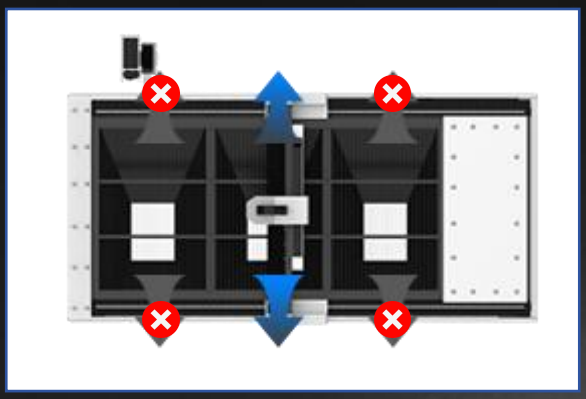
INTELLIGENT REGIONAL SMOKE EXHAUST (OPTIONAL)

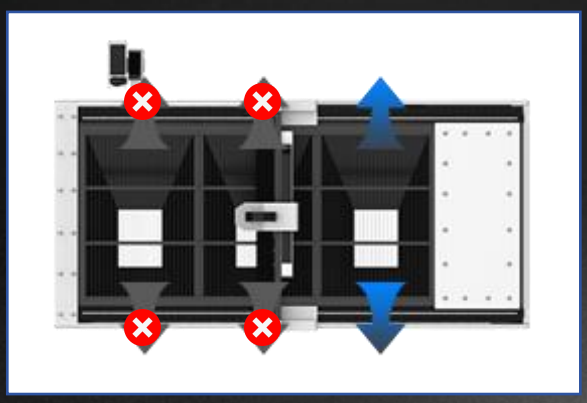
The laser machine working area is divided into three exhaust zones. This system is designed to automatically open and close the exhaust ports in different zones according to the position of the laser head.



• When the laser head is working in Zone 1, only the exhaust port of Zone 1 is open, while the ports in Zone 2,3 remain closed.

• When the laser head is working in Zone 2, only the exhaust port of Zone 2 is open, while the ports in Zone 1,3 remain closed.





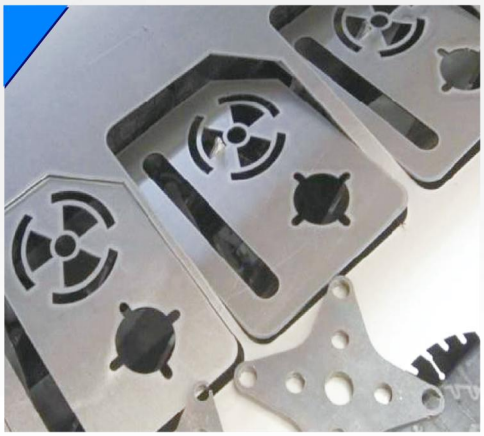
• When the laser head is working in Zone 1, only the exhaust port of Zone 1 is open, while the ports in Zone 2,3 remain closed.

PRODUCT APPLICATION

The Fiber laser cutting machine are good at processing common metal items in daily life such as advertising metal characters, kitchen utensils, sheet metal decoration, metal plates, etc., The Fiber laser cutting machine are widely used in electronics, electrical, mechanical hardware, new energy, packaging, solar energy, LED, automobile and other industries and also Widely used in cutting stainless steel, carbon steel, alloy steel, copper, brass, silicon steel, galvanized steel, nickel titanium alloy, Inconel, titanium alloy and other metal materials.



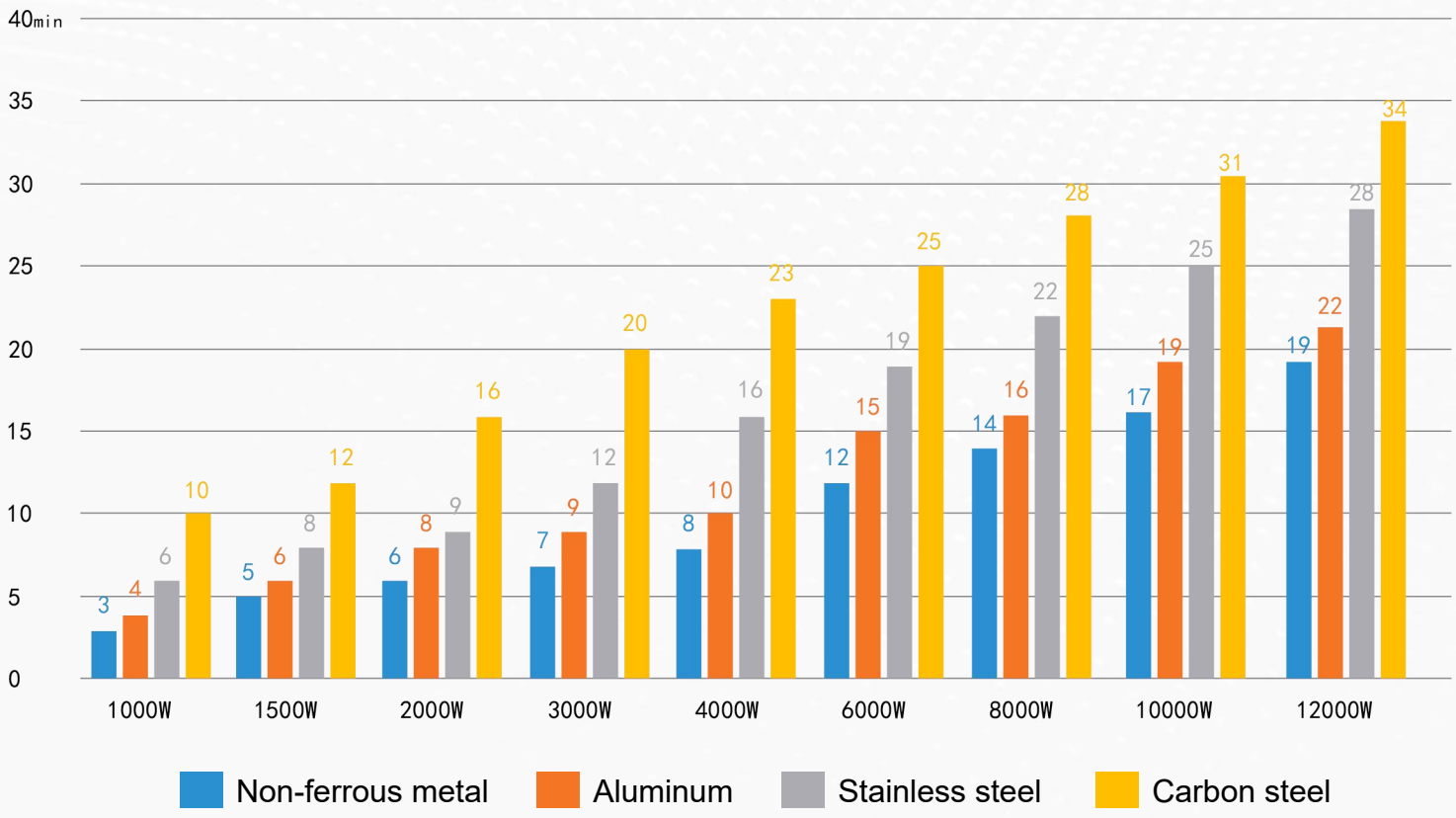








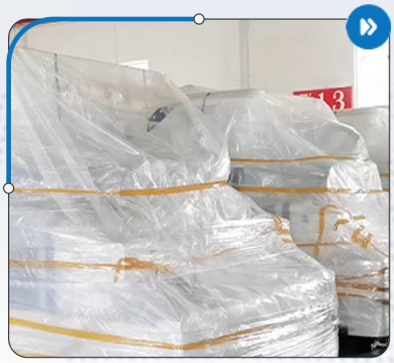
CUTTING PARAMETERS



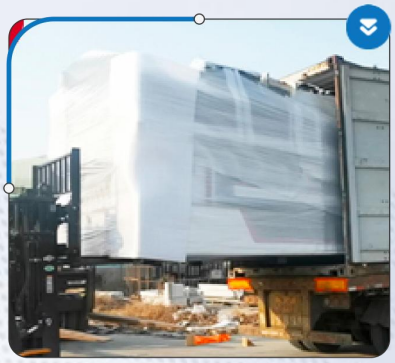
PACKAGE DELIVERY



Machine cleaning and Protective oil processing



Wrapping with protective film



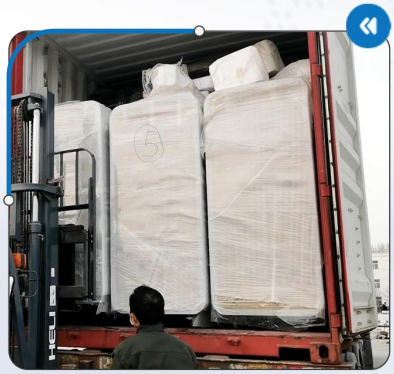
Forklift moving goods



Transportation



Container Sealing



Container loading

COMMON PROBLEM

Q: How can I choose the most suitable machine?

A: In order to recommend you the most suitable machine model, please let us know the following details:
1.What is your material? 2.The size of material? 3.The thickness of material?

Q:When I got this machine,but I don't know how to use it. What should I do?

A:We will send operation video and manual for the machine. Our engineer will do training online. If needed, we can send our engineer to your site for training or you can send the operator to our factory for training.

Q:If some problems happen to this machine, what should I do?

A:We provide two years machine warranty. During the two-year warranty, in case any problem for the machine, we will provide the parts free of charge (except for artificial damage). After the warranty, we still provide whole lifetime service. So any doubts, just let us know, we will give you solutions.

Q:What is the payment terms?

A:The payment terms we accept include:Western Union,T/T,VISA,Onlina Bank Payment.

Q:How about the shipping ways?

A:Transport by sea is the normal way;If special requirement,need to be final confirmed on both sides.