

MORN Promote MT-L1530F Fiber Laser Cutting Machine





Spare Parts (attached by free during promotion):

Spare Parts	Quantity	Normally lifetime
Protective lens	50 pcs	0.5-1 month/piece
Nozzle	50 pcs	0.5-1 month/piece
Ceramic rings	2 pcs	/
Focus lens	1 set	/
Collision lens	1 set	/
Dust covers	3 pcs	/

Gas Requirement to User:

Gas Type	Metal	Purity
O2	Mild steel/carbon steel/iron	99.6%
N2	Stainless steel/aluminum/brass	99.9%
The higher purity is, the better cutting quality will be.		

If equipped with air compressor (must include dry-clean system), then can use air gas instead of O2 and N2 to save operation cost.

Air gas suit to cut thin mild steel / carbon steel / iron / stainless steel / aluminum / brass, etc.

Machine Main Information:

Model	MT-L1530F	
Laser source	1000W IPG	1000W Raycus



Control system	FSCUT 2000	FSCUT 1000
Laser cutting head	Raytools laser cutting head	
Working Size	1500*3000mm	
Drive system	Japan Fuji servo motor and driver system	
Guide rail	Taiwan guide rail	
Transmission	XY by gear, Z by ball screw	

Technical Parameters:

Rack	Taiwan T-WIN/VASTUN rack
Reducer	France Motovario/Japan Shimpo reducer
Beam	Aviation aluminum
Electrical devices	America Honeywell
Min line width	≤0.02mm
Position accuracy	0.025mm
Compatible software	Coreldraw, Photoshop, AutoCAD, etc
Graphic format support	PLT, DXF, BMP, JPG ,AI ,ect
Working environment	0-45°C
Operating Humidity	5-95%
Power Supply	3phase 380V±10% 50Hz

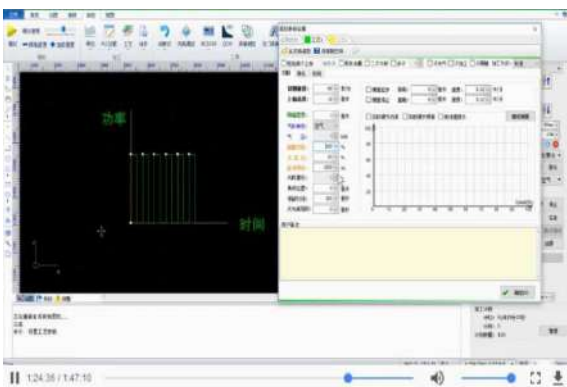


Main Parts:



IPG/Raycus laser source

1. Electro-optical conversion efficiency up to 35%.
2. They are excellent beam quality, high energy density, and reliability, a wide modulation frequency;
3. 100,000 hours of lifetime, free maintenance; Low energy consumption, only 20%-30% of the traditional CO2 machine



Control System and Software- FSCUT

1. Professional and easy-to-use FSCUT fiber cutting control system, it can well cut metal sheet. High cutting speed and perfect cutting edge with smooth plane and exquisite texture.
2. The cutting parameters of metals of various technologies are saved in the computer before shipment.



Raytools laser cutting head

1. Optimized design structure: modularization, easy maintenance, and reduced downtime.
2. Multiple protective lenses: protective lenses, efficient protection of collimating focusing lens.
3. Durable: 2-way optical water cooling, effectively extending continuous working time.
4. Highly dustproof: IP65 dustproof, patented protection lens holder cover, dustproof and no dead ends.



High precision lathe bed

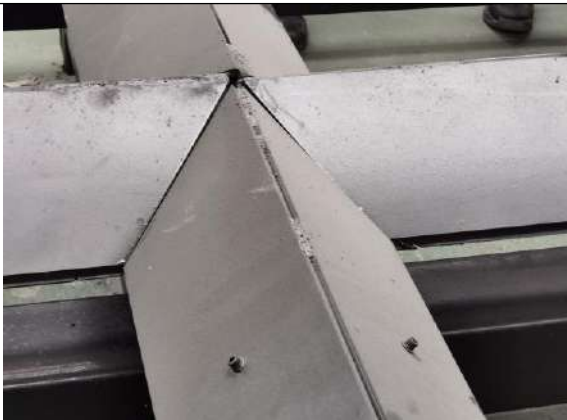
1. Fiber laser cutting machine lathe bed part completely independent research and development, by the party welding lathe bed base, through the large gantry milling machine.
2. For large machine tool lathe bed we have many years of experience in processing, each lathe bed will be placed 30 to 45 days after rough machining natural failure, the internal stress release completely again after finishing, ensure the machining accuracy. High strength, stability, ensuring 20 years of use without distortion.



Machine architecture:

1. Blade height: 55mm, blade thickness: 3.75mm.
2. Reinforcement of the bed blade support: in the horizontal and vertical directions, there are two blade ties (thickness 15mm). Convenient to disassemble and assemble, high safety.
3. The design of the metal strip on the edge of the bed: the function is to fix the knife strip. When the machine is cutting, ensure that the blade does not shake, so as to ensure the accuracy of cutting. The metal bars are fixed with screws, supported in sections, and easy to replace.
4. The beam is supported in two sections, with even force, which can withstand high pressure. At the same time, it also strengthens the bed.





Carbon steel plate protection

1. Thickness of carbon steel plate: Use carbon steel plate with a thickness of more than 10mm
2. Protect the bed: avoid aging of the bed under long-term cutting work.
3. Good heat dissipation: The hollow design between the carbon steel protective plate and the bed can avoid thermal deformation of the bed.



HANLI Water Chiller

1. Automatically adjust the temperature according to different working environment, no need to change settings parameters. Reduce the temperature of the laser source and the laser head through water circulation, thereby protecting these two main parts.
2. The chiller has functions such as water flow protection and water temperature protection. If the chiller is not opened or the water flow is insufficient, the laser will not be generated when the water temperature is too high, so as to protect the laser.



Japan Fuji servo drive system

Y axis: Double sets Germany Lead-motion Servo motors and drivers

X axis: 1 set Germany Lead-motion Servo motor and driver

Our X Y axis structure increases machine speed and precision and more stable for machine working

Z axis: Germany Lead-motion Servo motor and driver



France Motovario/Japan Shimpo reducer

1. High precision: the backlash is less than 3 arc minutes, and the positioning is accurate.

2. High rigidity, high torque: The use of integral roller bearings greatly improves the rigidity and torque. Adapter and bushing method can be installed on any motor .

3. Convenient maintenance: No need to replace grease during the life of the product, making installation more convenient.



Taiwan rail guide

The rack has high precision, the standard grinding accuracy can reach DIN6, and the straightness is within 0.03.



Taiwan VASTUN/T-WIN rack

(high precision, long life)

Rigorous support for quenching helical gears and grinding helical gears, so that the load drive structure is compact, can effectively reduce the driving torque.



Automatic lubrication system for X and Y

Axis rack pinion and linear guide
You can set its time in FSCUT software



O2 Automatic pressure regulation

It should be integrated into the machine. When cutting with oxygen, the device can adjust and maintain the air pressure to ensure the best cutting quality.



Nitrogen meter and oxygen meter

We provide nitrogen meter and oxygen meter to adjust the gas pressure, but we do not provide gas and container

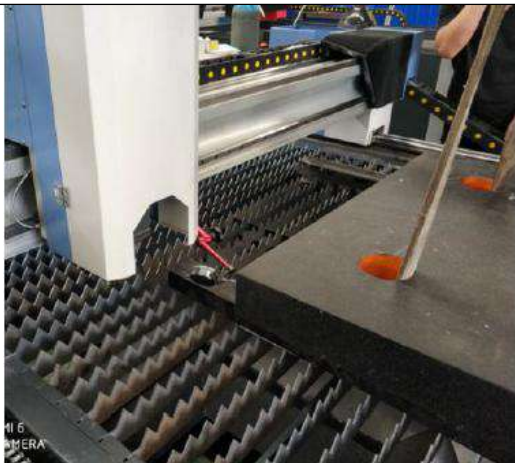


Toolbox

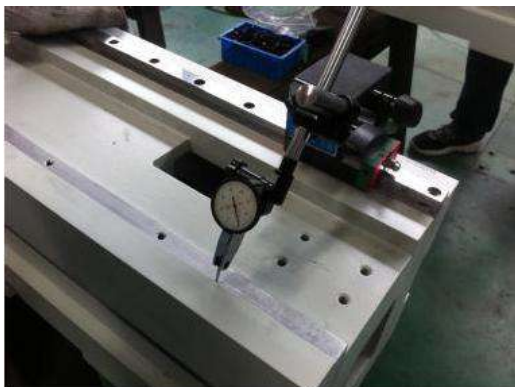
Included laser goggles, standard number of nozzles, protective glasses, nitrogen meter, oxygen meter, U disk, wrench.



Remote control handle



Accuracy test





Cutting parameters for reference:

1000W					
Metal	thickness (mm)	speed (m/min)	power (W)	gas	pressure (bar)
MS mild steel	0.8	18	1000	N ₂ /	10
	1	10		Air	10
	2	4	1000	O ₂	2
	3	3			0.6
	4	2.3			0.6
	5	1.8			0.6
	6	1.5			0.6
	8	1.1			0.6
	10	0.8			0.6
	SS stainless steel	0.8			20
1		6	3		
2		3	1		
3		1	0.6		
4		0.6	0.6		
AL aluminum	0.8	18	1000	N ₂	10
	1	5			1.5
	2	9			0.8
	3	2			0.8
brass	1	9	1000	N ₂	2
	2	2			0.8
	3	0.8			0.8

Note 1: Air or nitrogen cutting is recommended for carbon steel 1-6mm. The cutting speed is faster than that with oxygen, and there will be slight dross.

Note 2: The power used for debugging and the speed of debugging will be different depending on the gas purity and plate quality on site.

Note: The **red-labeled** parameters in the table are proofing parameters, which are greatly affected by various factors in actual processing. They are only suitable for small batch production. Mass production and processing are not recommended. Higher power lasers are recommended.

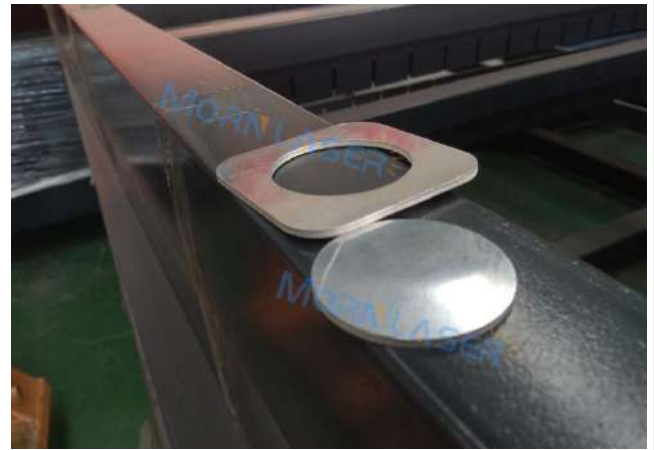
7. Applicable industry and material:

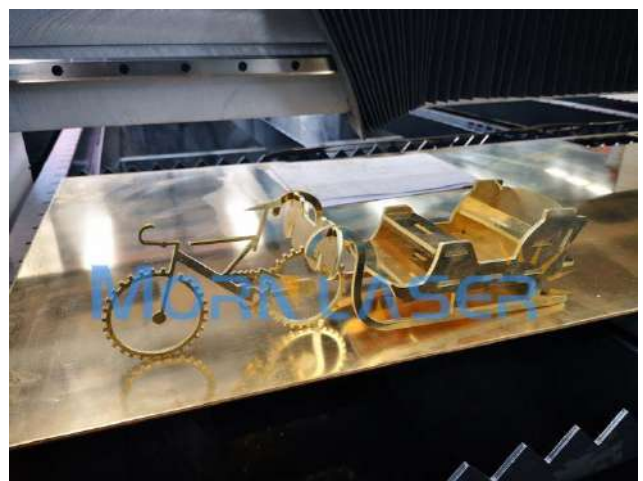
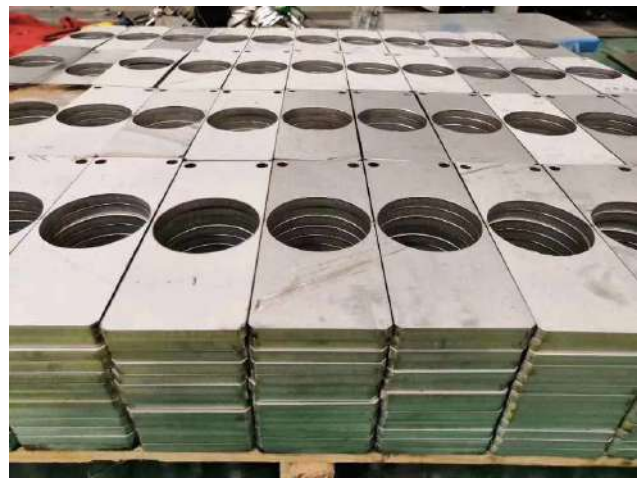
Application Materials: Fiber Laser Cutting Equipment is suitable for metal cutting like Stainless Steel Sheet, Mild Steel Plate, Carbon Steel Sheet, Alloy Steel Plate, Spring steel Sheet, Iron Plate, Galvanized Iron, Galvanized Sheet, Aluminum Plate, Copper Sheet, Brass Sheet, Bronze Plate, Gold Plate, Silver Plate, Gold plate, Titanium Plate, Metal Sheet, Metal Plate, Tubes and Pipes, etc.

Application Industries: Fiber Laser Cutting Machines are widely used in manufacture Billboard, Advertising, Signs, Signage, Metal Letters, LED Letters, Kitchen Ware, Advertising Letters, Sheet Metal Processing, Metals Components and Parts, Ironware, Chassis, Racks & Cabinets Processing, Metal crafts, metal art ware, elevator panel cutting, hardware, auto parts, Glasses Frame, Electronic Parts, Nameplates, etc.



8. SAMPLE PICTURES:





MORN LASER
MORN LASER, MAGIC LASER.



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Production workshop



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