

Fiber Laser Cutting Machine

Applicable industries

Metal Cutting, Electrical switch manufacturing, Elevator Manufacturing, Household Appliances Manufacturing, Kitchenware Manufacturing, Tooling etc.

Applicable material

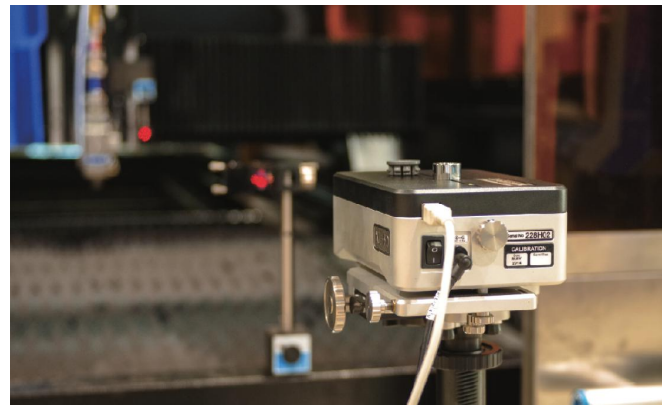
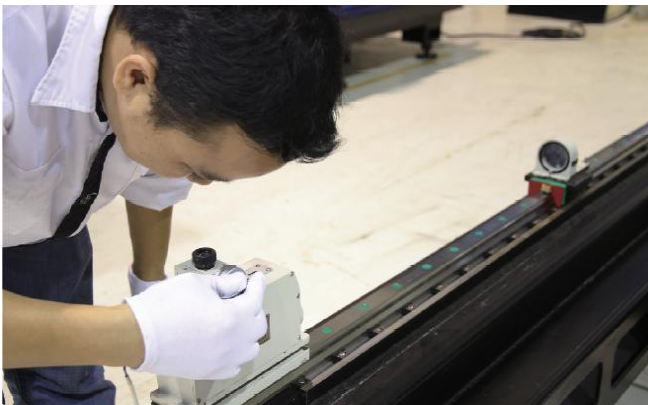
0.5~8.0mm carbon steel and stainless steel sheet, also galvanized sheet, electrolytic plate, silicon steel, etc.

Feature

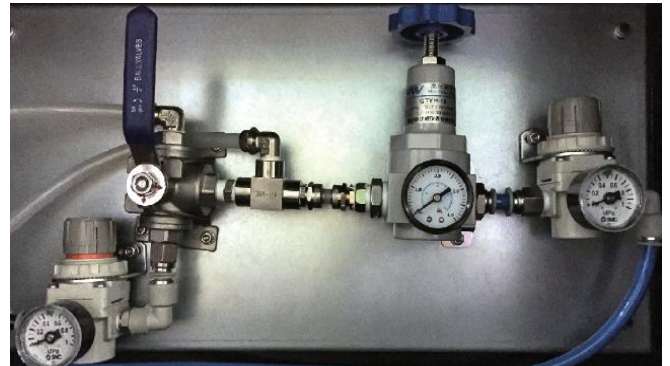
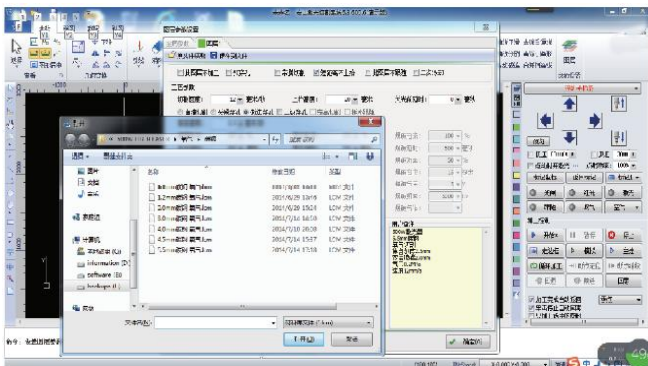
- A. 600°C heat treatment, 24 hours cooling in the oven, 12 meters gantry milling, accurate argon shielded arc welding, to make sure 20 years usage without deformation.



- B. Auto Collimator: To test guide rail straightness, assuring the accuracy for each set of machine. UK original Laser Interferometer: To test machine precision, make compensation and adjust error.



- C. Expert cutting parameters database, different cutting parameters will be applied for different kinds of metal sheets at different thickness automatically, minimizing operator jobs. Domestic initiative Gas Pressure Auto-checking, Low Pressure Piercing, Gas Auto-switching.



D. Adopt Japan originally imported servo motor and driver, the top quality GUEDEL rack & pinion and speed reducer in the world, guarantee usage for 6 years, maximum cutting speed reaches 80m/min, acceleration rate 1.2G.



E. Class-leading high cutting speed: cutting 400 circles per minute



Class-leading high precision: cutting bicycle as small as 1/5 of a coin, reaching ±0.05mm high precision.



Technical Parameters

Model	MY-FC1530	
Laser Power	1000W	
Laser wavelength	1064nm	
Working area (W × L)	1500mm * 3000mm	
X/Y/Z axis route	1500mm/3000mm/50mm	
Cutting thickness	0.5-12mm (Depends on Material)	
Min. line width	<0.1mm	
X/Y Axis positioning accuracy	0.05mm/m	
X/Y Axis repeatability	+0.05mm	
Max. speed	40m/min	
Operating temperature	0°C -40°C	
Max. table load	600kg	
Machine Power consumption	≤10kw	
The demand for electricity	380V / 50Hz / 3Ph	
Cold system	Water Chiller	
Environment	clean, no dust or less dust	
Humidity	5% to 75% non-condensing water	
Dimensions (L × W × H)	4600mm × 2570mm × 1600mm	
Package Size (L × W × H)	4800*2650*1800	Package for machine
	2160x1060x1700	Package for accessories
Gross Weight	5000Kg	

Main Configurations

Number	Item	Manufacturer	Place of Origin	Quantity
1	Laser source	IPG	Germany	1 pc
2	Laser head	Germany technology	China	1 pc
3	Precis Rack and Pinion	GUDEL	Switzerland	2 units
4	Speed Reducer with pinion	GUDEL	Switzerland	2 units
5	Control system	BC CypCut	China	1 unit
6	AC Servo Motor & Driver	SANYO/Panasonic	Janpan	1 set
7	High-precision ballscrew and guiderail	HIWIN	Taiwan	3 sets
8	Industrial Control Computer	DELL	USA	1 unit
9	Electric Control System	Omron, Schneider	Japan/France	1 unit
10	Gas Circuit Control System	SMC, CKD	Japan/Germany	1 unit
11	Machine Tool Platform and	WISELY	China	1 set
12	Chiller	DOLUYO	China	1 pc

Cutting Parameters

Thickness (mm)	Material	Max. Cutting Speed (m/min)	Gas Needed
0.8	Carbon Steel	24.0-30.0	N2
1.2		12.0-15.0	
0.5	Carbon Steel	9.0-10.0	O2
1.2		7.0-8.0	
2		5.0-6.0	
3		2.5-3.5	
4		2.0-3.0	
5		1.4-1.8	
6		1.2-1.5	
8		0.9-1.2	
10		0.6-0.8	
12		0.4-0.6	
0.5	Stainless Steel	40.0-50.0	N2
0.8		25.0-30.0	
1.2		12.0-15.0	
2		4.5-5.5	
3		2.0-2.8	
4		1.0-1.5	
5		0.4-0.6	
6		0.2-0.4	
1	Brass	14.0-18.0	N2
1.5		5.0-7.0	
2		3.0-4.0	
3		1.0-1.4	
1	Copper	7.0-8.0	O2
2		1.2-1.5	
1	Aluminum	10.0-12.0	N2
1	Aluminum	25.0-30.0	O2
2		6.0-7.0	
3		2.5-3.5	

Remarks: All the above parameters are for reference purposes only.
The material quality, cutting pressure, cutting graphic are all affecting the cutting speed and cutting quality.

Equipment Power Consumption

Number	Item	Power consumption (kw/h)	Full Load	Factor Analysis	Finally
1	Laser source	1.2	10KW	5 × 68% = 3.4	3.4KW/H
2	Host machine	2			
3	Chiller	1.8			

Operating Cost

Number	Item	S.S. Cutting (1mm)	Carbon Steel Cutting (5mm)
		N2	O2
1	Power consumption	USD1.46 / H (10KW * USD0.146 / KW.H)	
2	Consumption of laser source	0	
3	Consumption parts	USD0.06 / H	USD0.07 / H
4	Assistant gas consumption	USD2.34 / H	USD1.46 / H
Totally (USD/H)		3.86	2.99

Consumables

Reflecting mirror, focal lens and spray nozzle.

Shipment

Within 14 working days after receiving your payment.

Payment

By T/T or L/C.

Packaging

International Standard Packing--Plywooden Case--free of fumigation.

Warranty

Whole machine has a warranty period of 12 months since the delivery.

Training

3-10 working day training free of charge in our factory.

Service

Oversea service is available, but the buyer should pay the cost including the tickets, hotel, taxi, food and so on.

