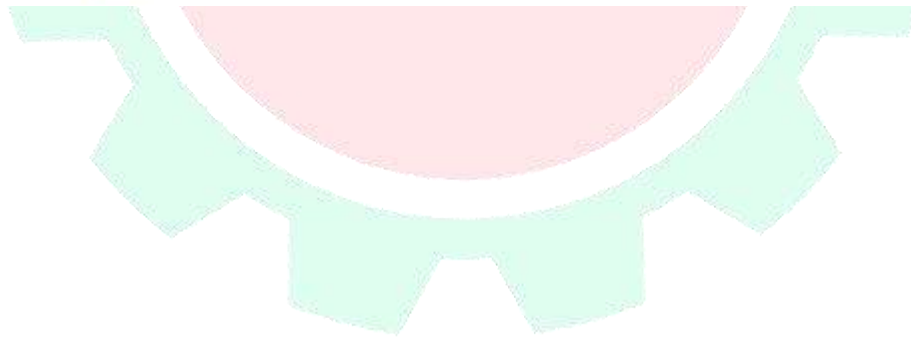




# Safeway Technologies Ltd.

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## **STL-3015-1500W Fiber Laser Cutting Machine**





## 1. MACHINE DESCRIPTION

### 1-1. Machine Detail

<i>STL-3015 1500W</i>	<i>Technical Specifications</i>
Machine frame	# New design of our company # CE standard Heavy duty Steel tube welded machine frame # Cast Aluminum gantry
Controller	# <b>Au3Tech Controller MCC3721H</b> # SC 2000 software # Industrial CPU + cantilever system # Independent controller box # DSP
Laser system	# Fiber Chinese best brand <b>1500W JPT</b> laser generator # <b>Wuhan Au3Tech laser cutting head A200MS</b>
Transmission system	# Taiwan LAPPING liner Square rails # Germany GARRETSON gear and rack # Z axis TBI ball screw transmission
Driver system	# <b>Z axis with Janpan Fuji Servo motors and drivers 400W</b> # <b>X,Y axis with Japan Fuji servo motors and drivers 750W</b> # <b>France MOTOVARIO Reducer</b>
Auxiliary equipment	# <b>1000W Hanli Water chiller</b> # Automatic lubrication system
Other important parts	# Proportional valve to control gas pressure # Solenoid valve, control gas switch # France Schneider Electric Device # Software Limited switch +Hard Limited switch # Other tools
Consumable parts	# Cutting nozzle*5 # Protective Mirrors*5
Service	# Manual +Video # <b>Three-year warranty</b> # 5 days' Free training # 24 hours online service



## 1-2. Parameter

No.	Items	Parameters	Unit
<b>Laser device</b>			
1	Type	Fiber laser	
2	Power	1.5	KW
<b>Body</b>			
4	Max.cutting speed	40	m/min
5	Fast moving speed	100	m/min
6	Max.load of worktable	500	kg/m <sup>2</sup>
7	X,Y axis max.acceleration	1	G
8	Machine occupy space	2500*4500	mm
9	Weight of machine tool	3500	kg
10	Motor	Japan Fuji motor	
<b>Accuracy</b>			
11	X,Y-axis positioning Accuracy	±0.02	mm
12	X,Y-axis repeat positioning accuracy	±0.01	mm
13	Voltage	380 V	
<b>Software</b>			
14	Controller	Au3Tech Controller MCC3721H	
15	Software	Au3Tech	
16	Graphic Format Supported	DXF/AI	



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Other			
17	Maximum acceleration	1G	
18	Work Environment	0-45°C, Moisture 45-85%	
19	Cutting Thickness	<b>1500w:</b> <b>≤ 16mm MS Material;</b> <b>≤ 8mm SS Material,</b> <b>≤ 4 mm Aluminum &amp; copper</b>	

Product model	STL-3015 1500W
Dimension (W*L*H)mm	2280*4850*2300mm
CBM(m3)/set	21CBM
N. W/Kg G. W(kg)	3500KG 3800KG
Packing one	20GP container

The STL-3015 plate fiber laser cutting machine : It adopts a rack and pinion drive system, and a professional cutting CNC system, and it is easy to operate and simple to maintain.

Besides that the strict assembly process ensures the stable operation of the CNC laser cutting machine with high precision. Optical fiber laser cutting machine with imported top-grade accessories, which provides users with powerful cutting ability and efficiency.

### 1-3. Laser Cutting Samples



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## 1-4. Machine Main Parts display

### Main Parts

<p>&gt;&gt; Heavy Machine frame</p>	<p>&gt;&gt;Aviation Aluminium gantry</p>	<p>&gt;&gt;Cutting head</p>
		
<p>&gt;&gt;Control system</p>	<p>&gt;&gt;Cooling system</p>	<p>&gt;&gt;Laser source</p>
		
<p>&gt;&gt;Transmission system</p>	<p>&gt;&gt;Driving system</p>	<p>&gt;&gt;lubrication system</p>
		
<p>&gt;&gt;DSP</p>	<p>&gt;&gt;Gear</p>	<p>&gt;&gt;Japan SMC proportional valve</p>
		
<p>&gt;&gt;Solenoid valve,control gas switch</p>	<p>&gt;&gt;Lens</p>	<p>&gt;&gt;Cutting nozzle*5</p>
		



## Machine detailed parts and feature description

**1.1500W JPT laser source** \*Modular design, stable performance.

The internal structure adopts the photoelectric module separation design, and the operating performance is more stable.

\*Easy to maintain and reduce downtime.

Optical modules, electrical modules, control units, and drive units can be directly replaced, upgraded, and maintained at the client.

\*Can be customized to meet a variety of needs.

According to different processing requirements, optical fibers with different core diameters can be selected to meet the needs of differentiated processing.

\*Spot energy distribution is uniform and stable processing.

Thick plate cutting ability is more stable.



**2. Au3Tech Controller MCC3721H**

\*Support two-level perforation \*Support flight cutting, leapfrog \*Support simple layout

\*Trajectory accuracy is 0.05mm, positioning accuracy is 0.01mm

\*Maximum cutting speed 100m/min, maximum moving speed 100m/min

\*Maximum acceleration 1G

\*Return to origin sampling limit signal

**3. SC 2000 software**

\*Auto Optimize Imported Drawing

Au3Tech will automatically optimize the errors when import drawing, delete duplicates and invisible graphic, smooth curve and join line segments etc.

\*Graphical Cutting Technique Setting

Graphical design of technique setting, quick and easy to finish setting of lead line, micro-joint and kerf width compensation etc. of single or large quantity parts.





### \*Flexible Production Mode

CypCut provides floating and workpiece coordinates for small and large quantity production.

### \*Statistic of Production

Thorough and timely statistic of machine production to help you manage the task schedule.



### 4. Wuhan Au3Tech laser cutting head A200MS

This cutting head adopts optimized optical design, extremely light weight, compact size, and simple to use. With a height sensor, it can make cutting more efficient. It has an extremely high cost performance. **It is the first choice for laser plane cutting equipment with a power of 2000W and below.**

### 5. Hanli 1000W water chiller

Ambient temperature  $\neq 45^{\circ}\text{C}$ , relative humidity

$\neq 95\% \text{RH}$ ;

Efficient and environmentally friendly;

Dual temperature and dual control;

Flow and over temperature alarm;

Press heat protection;

Leakage protection;

Stable and reliable performance, low failure rate,

energy saving and power saving.





## 6. Japan Fuji servo motor and driver

\*Excellent stability

Even if the machine is used for a long time, stable operation without oscillation can be achieved.

\*Built-in PTP positioning function



## 7. MOTOREDUCER

The French MOTOREDUCER planetary reducer is a special servo reducer for fiber laser. It has the characteristics of small size, light weight, high carrying capacity, long service life, stable operation, low noise, large output torque, large speed ratio, high efficiency and safe performance. It has the characteristics of power splitting and multi-tooth meshing.





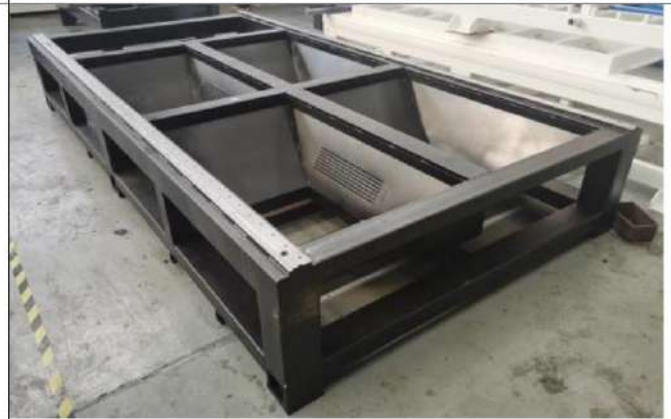


**8. Taiwan LAPPING linear guide** \*Modularize the design structure of its mechanical movement to make its moving parts reach the best condition. Under the condition of large stroke and high speed rotation, it is allowed to withstand large feed force and large load moment, **which fully makes the mechanical movement more stable.**

\*The roller surface of the guide rail adopts 4 rows of rolling arc grooves with a reasonable ratio. The contact stress is small, and the effect of automatic adjustment ability is obvious. The bearing capacity and rigidity are greatly improved compared with the plane and **really achieve no gap movement**

**9. 12mm plate tube welded heavy-duty bed** The machine is equipped with a heavy-duty bed, which can prevent the deformation of the machine bed during use, affect the cutting effect, enhance the stability of the machine, and extend the service life of the machine.

**The table top can carry 2000kg.**



**10. Aviation cast aluminum beam**

\*High precision

After artificial aging, solution treatment and finishing, the beam has good integrity, rigidity, toughness and ductility. \*High speed

Aluminum alloy has the metal characteristics of light weight and strong rigidity, which is conducive to high-speed movement during processing, and high flexibility is conducive to high-speed cutting of various graphics on the basis of high precision.

\*High efficiency

The lighter beam can ensure the rapid operation of the equipment, improve the processing efficiency, and at the same time ensure the processing quality.



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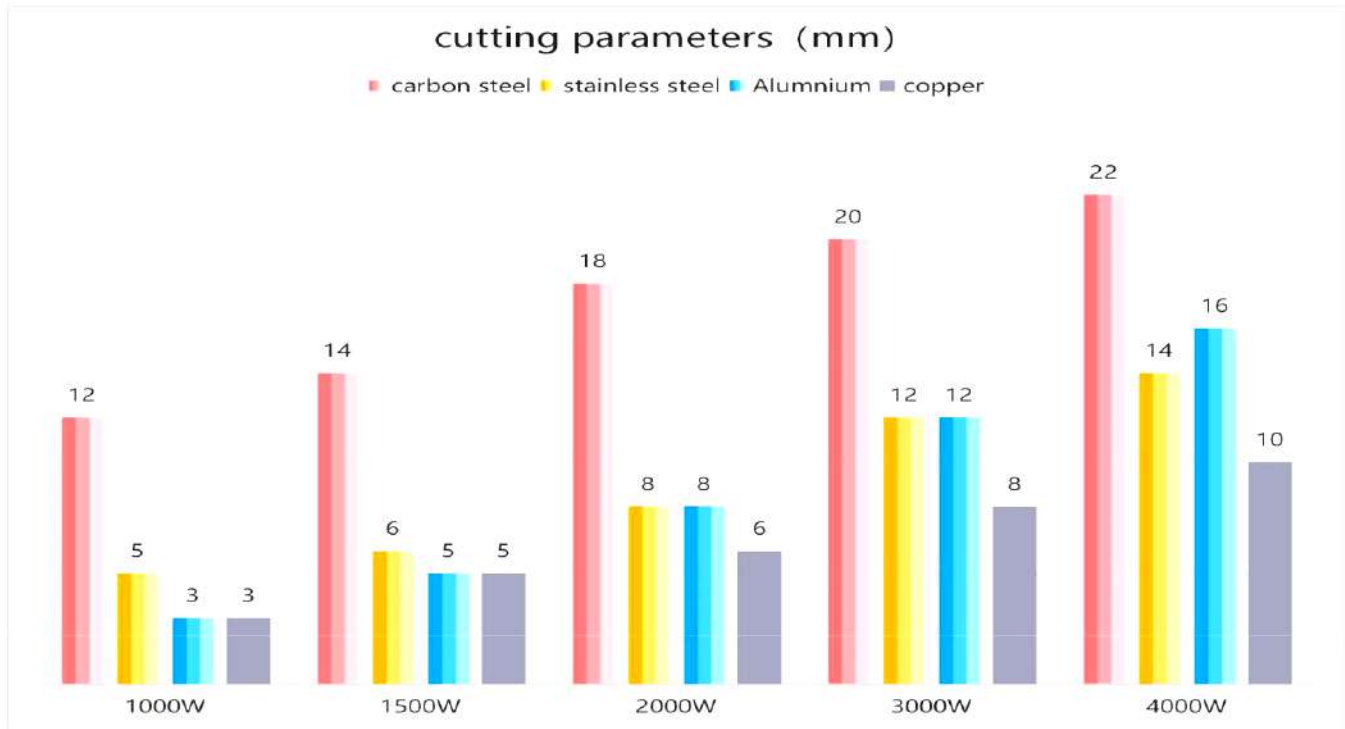
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**Real machine display**





## 1-6.Machine Cutting data



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**Thank You!**

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