

# **SMART LA** Laser Cutting Machines



OOMNITEC

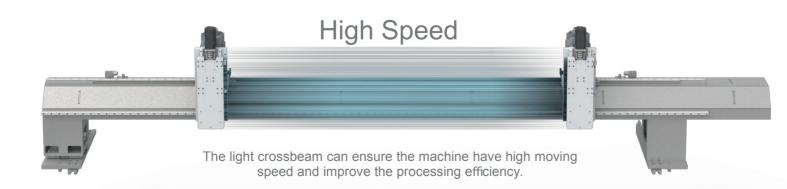


MODEL	SMART-LA 12025					
Cutting Area (L×W)	12200mm x 2570mm					
Laser Source	Fiber & 30000W					
CNC System	HYPCUT					
Max Moving Speed	100m/min, Acceleration is 1G					
Position Accuracy (X and Y axis)	0.05mm					
Reposition Accuracy (X and Y axis)	0.03mm					
Power Supply Requirement	380V 50/60Hz					



# Aviation Aluminum Alloy Beam

It is manufactured with aerospace standards and fomed by 4300 tons press extrusion molding. After aging treatment, its strength can reach 6061 T6 which is the strongest strength of all beams. Aviation aluminum has many advantages, such as good toughness, light weight, corrosion resistance,anti-oxidation, low density, and greatly increase the processing speed.



# Super heavy welded bed

It is welded by heavy steel plate, the current mainstream bed structure, high stability. The plate welding bed is subjected to stress relief annealing treatment on the basis of heavier, so that the bed is not easy to deform.





# Higher photoelectric conversion efficiency

Second generation optical fiber transmission system Better and more stable beam quality





High electro-optical conversion efficiency \_\_\_\_\_(>40%)\_\_\_\_\_

Good beam quality

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High energy density Wider modulation







frequency

High reliability

Long service life

Maintenance free operation

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# Partition dust removal

Details Structure

Through fine setting, the dust removal tuyere can be opened and closed with the movement of the cutting head. Under the same fan configuration, the dust removal effect is effectively enhanced



# **TECHNICAL SPECIFICATIONS**

Machine Model	SMART-LA 12025 30000W					
Cutting Area (L×W)	12200mm×2570mm					
Laser Source	Raycus Fiber & 30000W					
Transmission system	Dual sides driven gantry structure					
CNC System	HYPCUT					
Servo Motor	INOVANCE					
Laser Cutting Head	ProCutter / BLT					
Display	32" Touch Screen					
Max Moving Speed	100m/min, Acceleration is 1G					
Position Accuracy (X and Y axis)	0.05mm					
Reposition Accuracy (X and Y axis)	0.03mm					
Lubrication system	Full-automatic					
Power Supply Requirement	380V 50/60Hz					
Working environment	Temp:5- 35 ℃,humidity:≤70%					

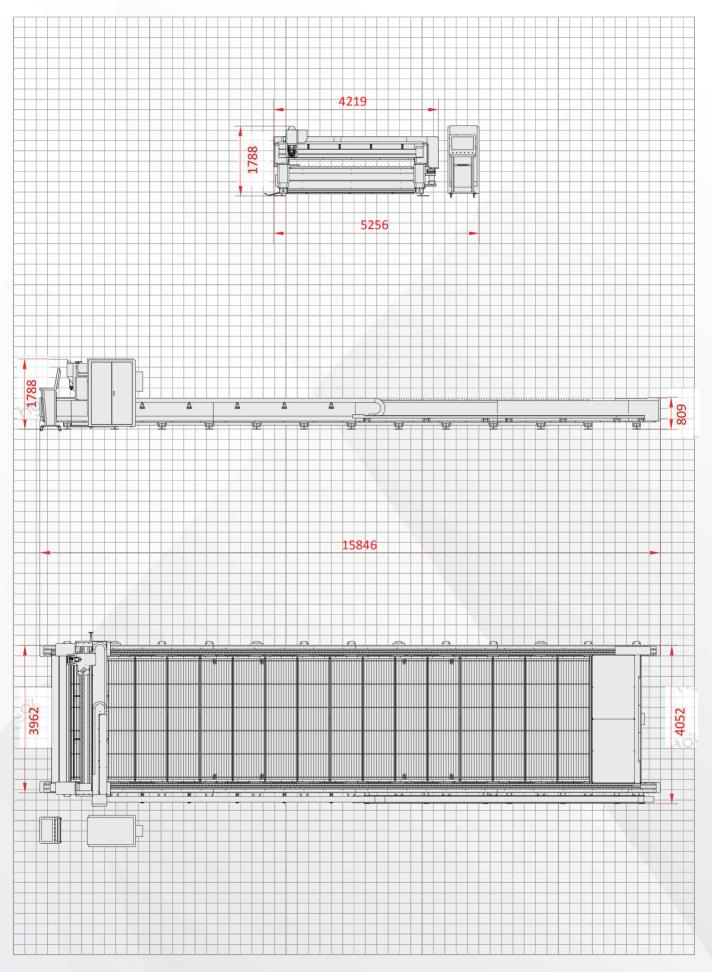


# **MACHINE CONFIGURATION**

NO.	Model	Name	Quantity	Remarks			
1	SMART-LA 12025 30000W	Fiber laser cutting machine (12200mm*2570mm)	1 set	HGSTAR			
2	30000W	Laser generator	1 set	RAYCUS			
3	Water chiller	Special water chiller for fiber laser generator	1 set	HANLI			
4	Laser head	2D Auto Focus Head	1 set	PRECITEC / BLT			
5	Control system	HypCut 8000	1 set	HypCut 8000			
6	Software	CYPNEST	1 set	CYPNEST			
7	Driving system	High speed servo motor	4 set	INOVANCE			
8	Reducer	imported	4 set	Japan Shimpo reducer			
9	Electric components	imported	1 set	Chint/Schneider			
10	Guide rail	imported	1 set	APEX			
11	Rack	imported	1 set	APEX			



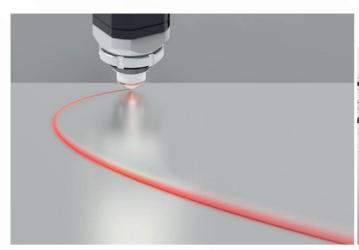
## **MACHINE OCCUPATION MAP**



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### **EXCELLENT FUNCTION**



Vibration Suppression

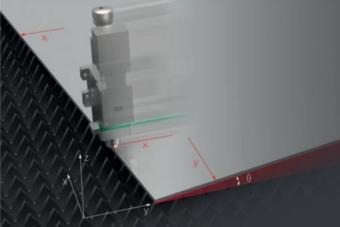
One key quick setting can easily solve the vibration problem of thick plate processing



Intelligent obstacle avoidance

Intelligently avoid random raised areas in the cutting process and reduce the risk of head collision



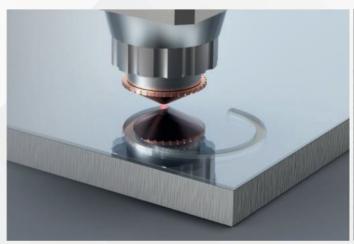


### Exclusive tuning database

All you need to do is a simple touch, and the complicated operations are handed over to us

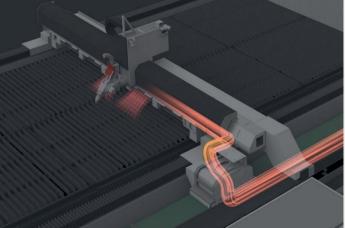
### Three point edge finding

The inclination angle and origin of sheet metal are sensed through automatic edge-finding to avoid waste and save time



### Membrane removal process

The sequence of film removal and pre perforation can be set flexibly and make workpiece cutting more perfect



### Partition dust removal

Through fine setting, the dust removal tuyere can be opened and closed with the movement of the cutting head. Under the same fan configuration, the dust removal effect is effectively enhanced



# **CUTTING PARAMETER**

Laser Source	0mm 5mm	10mm	15mm 	20mm 	25mm 	30mm	35mm 	40mm	45mm 	50mm 	55mm 	60mm 	65mm 	70mm	75mm 
40000W			_		-										-
30000W												-			
20000W							7	1							
12000W					7	-							Mild S Stainl Alumi	ess Ste	eel
6000W			_									•	Brass		

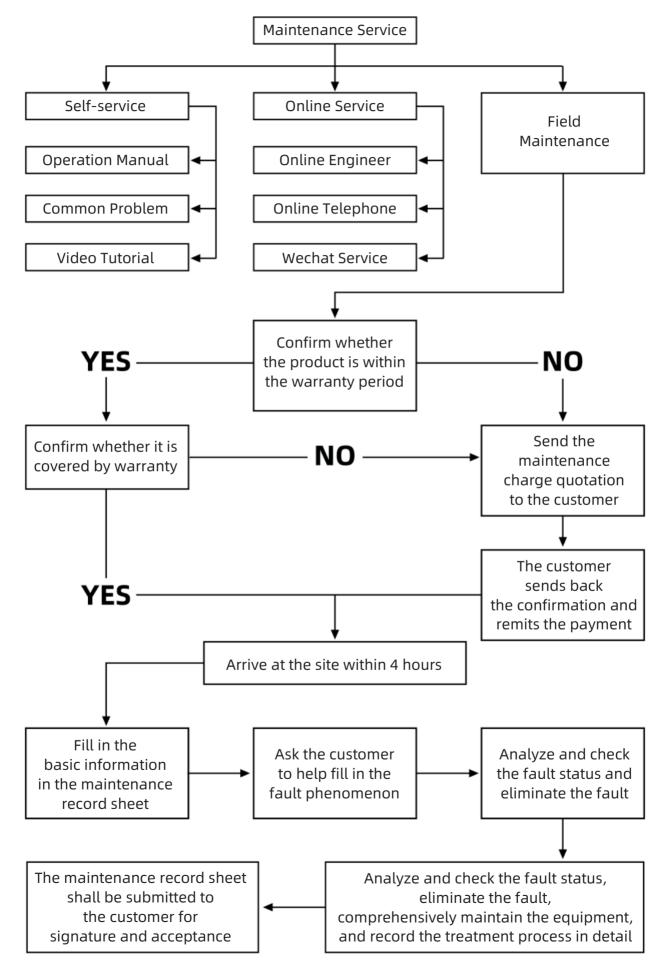
# Cutting Samples

Applicable to cutting carbon steel, stainless steel, aluminum, brass, alloy metals, etc.





# SERVICE MAINTENANCE PROCESS





### SERVICE QUALITY INSPECTION



Adjust the height of the feet according to the test results of the strip level to ensure the accuracy of subsequent installation



Use photoelectric autocollimator to detect the straightness and flatness of the guiderail to ensure that the detection value is within the standard range



The relative position of the guide rail and the guide rail is locked and clamped by the measuring rod. Statistics and analysis of measurement data to ensure that they are parallel



After the beam is installed . use a three -coordinate measuring instrument to check the coaxiality to ensure the relative perpendicularity of the X / Y / Z three-axis



The laser interferometer tests the Xaxis positioning accuracy to ensure the accuracy of the whole machine



The laser interferometer tests the Yaxis positioning accuracy to ensure the accuracy of the whole machine



The laser interferometer tests the Zaxis positioning accuracy to ensure the accuracy of the whole machine



Simulate the high-intensity test of various harsh conditions in the actual use of the equipment , and at the same time , according to the requirements of use , rationalize the improvement to ensure the factory pass rate and improve the reliability of the equipment



Adopt sealed composite aluminum foil moisture-proof low-pressure packaging and thick wooden boards to protect the fuselage to prevent bumps and collisions during shipping , and minimize unnecessary mechanical losses that may occur during transportation



# **SERVICE DELIVERY PROCESS**

1

**Machine Inspection** 

**2** Component Fixing 3

Protective Film Wrapping







**4** Wooden Boxseal



Edge Reinforcement

5



Separate Packaging

6



**7** Lifting Rail Transfer







**9** Transportation





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