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SMART FS SERIES Laser Cutting Machines



MODEL	SMART 3015 FS		
Cutting Area (L×W)	3050mm x 1500mm		
Laser Source	Fiber & 3000W – 6000W		
CNC System	FSCUT		
Max Moving Speed	120m/min, Acceleration is 1.0G		
Position Accuracy (X and Y axis)	0.05mm		
Reposition Accuracy (X and Y axis)	0.03mm		
Power Supply Requirement	380V 50/60Hz		



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.



High Speed

The light crossbeam can ensure the machine have high moving speed and improve the processing efficiency.





High strength machine bed

The machine bed is processed with a stress relief annealing method at 600°C, which ensures a strong structure rigidity



Small Deformation



Low Vibration



High Precision



OPTIONAL



Higher photoelectric conversion efficiency

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





Partition dust removal

6

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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

– open

6

– closed

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Automatic lubrication system

Automatic lubrication system provides timing and ration lubricating oil for equipment to ensure its normal and high speed operation, and owns functions of abnormal alarm and liquid level alarm. The system greatly enhances cutting accuracy and effectively extends service life of transmission mechanism.



Hgstar





Independent control cabinet (equipped with air conditioning



TECHNICAL SPECIFICATIONS

Machine Model	SMART3015FS-6000W		
Cutting Area (L×W)	3050mm×1500mm		
Laser Source	Raycus Fiber & 6000W		
Transmission system	Dual sides driven gantry structure		
CNC System	FSCUT 4000E		
Servo Motor	YASKAWA		
Laser Cutting Head	Raytools BM06K		
Display	27" Industry LCD		
Max Moving Speed	120m/min, Acceleration is 1.0G		
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		
Max loading (KG)	1000 KG		
Machine weight	≤6500 Kg		
Appearance size	5500mm×2450mm×2200mm		
Working environment	Temp:5- 35 ℃,humidity:≤70%		

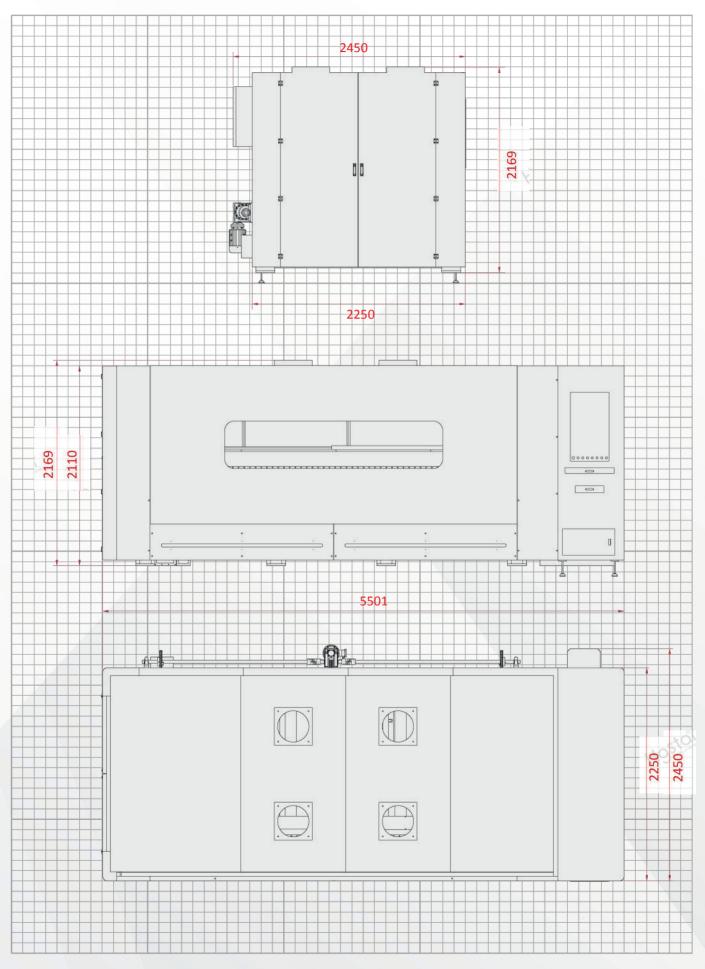


MACHINE CONFIGURATION

NO.	Model	Name	Quantity	Remarks
1	SMART3015FS	Fiber laser cutting machine (3048mm*1524mm)	1 set	OMNITEC
2	6000W	Laser generator	1 set	RAYCUS
3	Water chiller	Special water chiller for fiber laser generator	1 set	HANLI
4	Laser head	High accuracy professional fiber laser head	1 set	Swiss Brand Raytools Auto Focus BM06K
5	Control system	FSCUT4000E	1 set	FSCUT4000E
6	Software	CYPCUT	1 set	CYPCUT
7	Driving system	High speed servo motor	4 set	YASKAWA
8	Reducer	imported	4 set	Motovario Franch
9	Electric components	imported	1 set	Chint/Schneider
10	Guide rail	imported	1 set	APEK
11	Rack	imported	1 set	T-win Taiwan

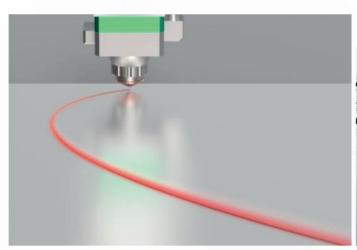


MACHINE OCCUPATION MAP



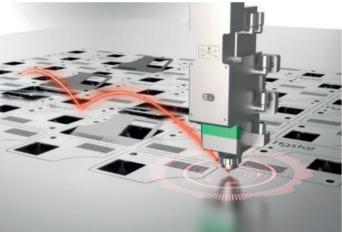


EXCELLENT FUNCTION



Vibration Suppression

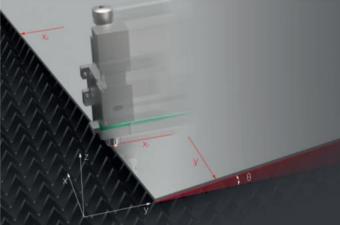
One key quick setting can easily solve the vibration problem of thick plate processing



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

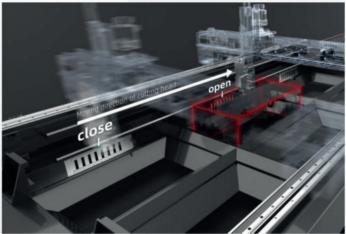
Three point edge finding

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



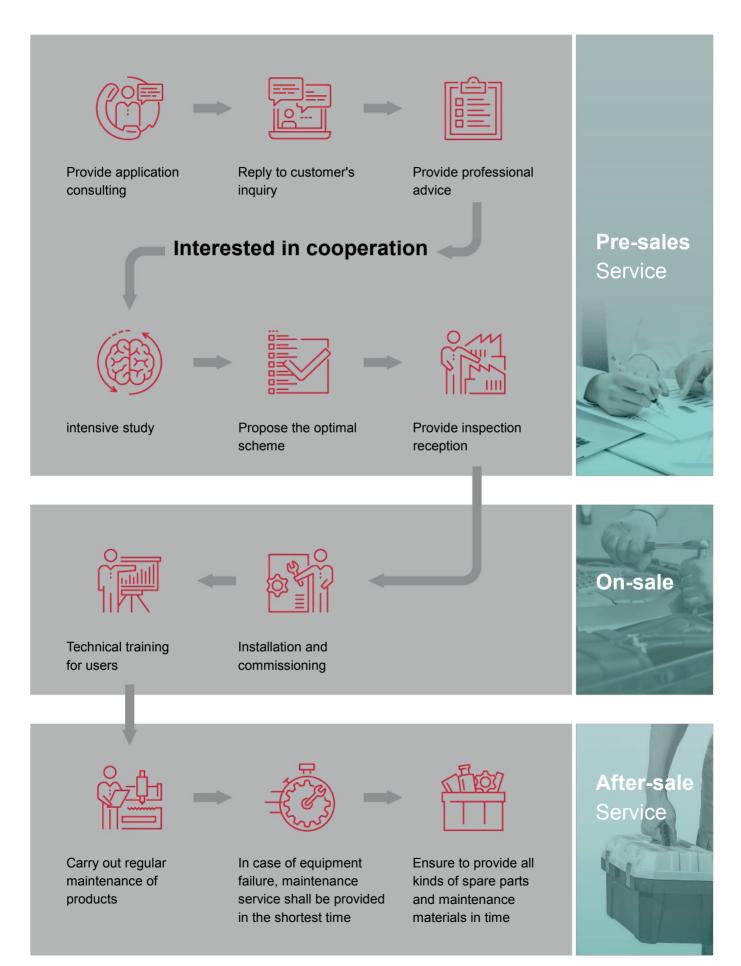
Cutting Samples

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



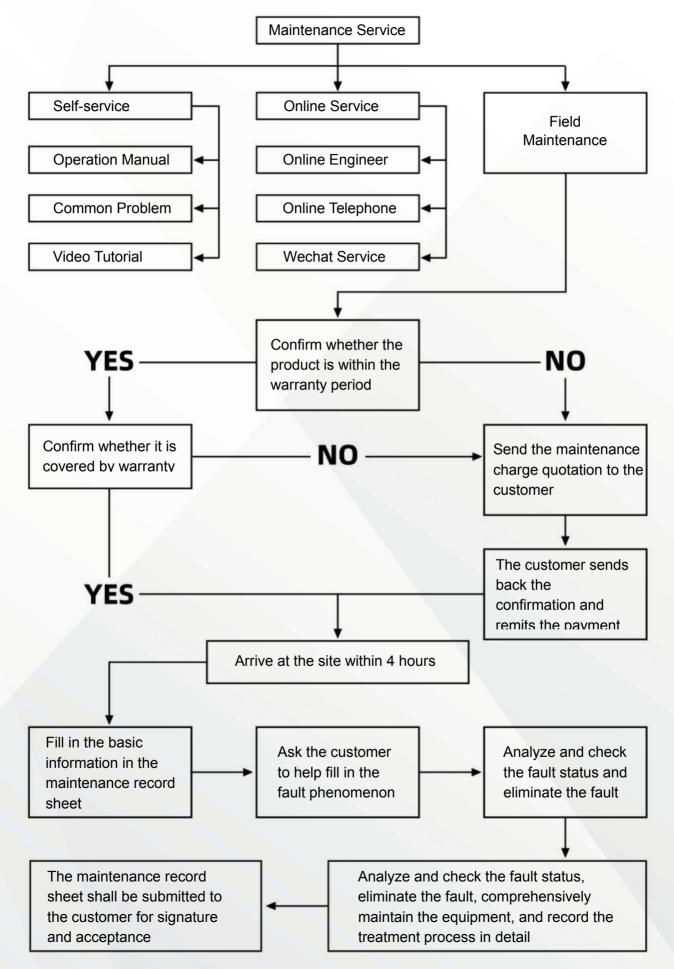


SERVICE PROCESS





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



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 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



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



Positioning Accuracy Inspection

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

5

Edge Reinforcement

6

Wooden Boxseal





Separate Packaging



7 Lifting Rail



Container Loading

8



9 Transportation





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