SENFENG LEIMING LASER

Laser Cutting Equipment

Technical Solutions

SF3015G

1500W

I. Introduction of 3015G

1. Introduction

SF3015G fiber laser cutter reaches the top level in China, which is customers' best choice in metal industry. The bed is welded by precise welding process after annealing and aging treatment, and the beam is airborne aluminium castings. For the more, the running speed of the machine can reach 80 m/min.

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Technical Parameters

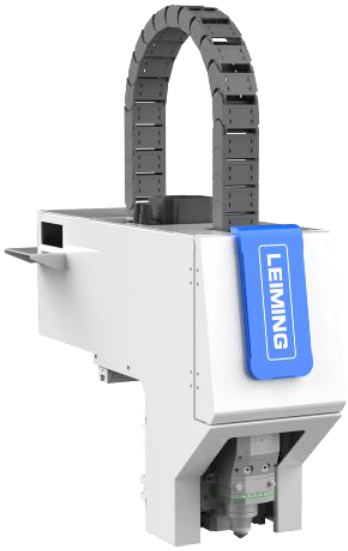
Model	SF3015G
Working size	3000mm*1500mm
X-axis travel	3000mm
Y -axis travel	1500mm
Z -axis travel	120mm
Laser power	1500W
X/Y Axis positioning accuracy	±0.05mm/m
X/Y Axis repeated positioning	±0.02mm
Maximum velocity of movement	80m/min
Machine weight	2200KG
Outline size	4600mm*2460mm*1360mm

2. Characteristics

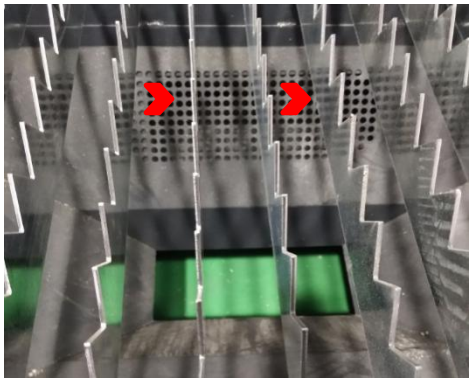
Strong Machine Bed
High temperature annealing to reduce internal stress and deformation

Structural optimization, the perfect integration of worktable and bed, knife directly mounted on the bed, integrated bed, avoid shaking

Stable Beam
Integral die-casting beam, high precision, not easy to deform, long life



The appearance of laser head cover is beautiful, which is helpful for observing red light and cooling, cleaning dust, avoiding long-term high temperature and damaging internal devices.



Exhaust Outlet
Push-pull partition
smoke, combined
with upper and lower exhaust

Installation of cutter blade dislocation insertion, firm installation, not easy to loosen and fall off

Application & Capability

1.Cutting materials: carbon steel, stainless steel, aluminum alloy, brass, galvanized steel;

2.Cutting range: 0.5-14mm carbon steel, 0.5-5mm stainless steel, 0.5-4mm aluminum alloy, 0.5-3mm brass;

3.Applied industries: rail transit, automobile, machinery, electrical manufacturing, elevator manufacturing, household appliances, kitchen and sanitary ware, advertising, and other machinery manufacturing and processing industries.

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Cutting Parameters

1500W cutting parameters				
Material	Thickness(mm)	Cutting Speed (m/min)	Gas	Note
Carbon Steel	1	15-20	N2	
	2	6.0-7.0	O2	
	3	4.0-4.5	O2	
	4	3.0-3.5	O2	
	5	2.2-2.8	O2	
	6	1.4-1.8	O2	
	8	1.2-1.6	O2	
	10	1.0-1.3	O2	
	12	0.8-1.2	O2	
	14	0.6-0.8	O2	
	16	0.5-0.6	O2	
Stainless Steel	1	20-25	N2	6mm cutting with oxygen
	2	7.0-9.0	N2	
	3	4.5-5.0	N2	
	4	2.5-3.3	N2	
	5	1.2-1.6	N2	
	6	0.8-1.0	O2	
Aluminium	1	15-21	N2	High anti-material Need to be cautious
	2	6.0-9.0	N2	
	3	2.0-4.0	N2	
	4	1.0-1.2	N2	
	6	0.6--0.9	N2	
	1	12.0-13.0	N2	High anti-material

BRASS	2	5.0-6.0	N2	Need to be cautious
	3	1.5-2.0	N2	
	4	0.5-0.7	N2	
Green means that it can be processed for a long time and in large quantities				
Orange means that it can be processed, but as the material temperature rises, the cutting air pressure fluctuates, the sheet composition is uneven and other factors fluctuate, the processing process is unstable, and a higher power laser is recommended.				

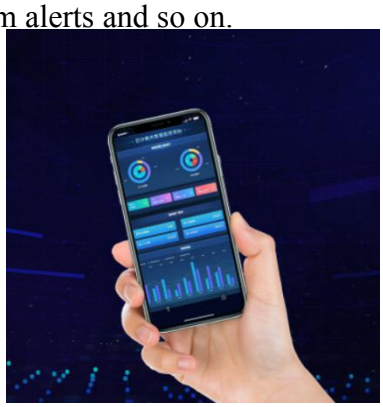
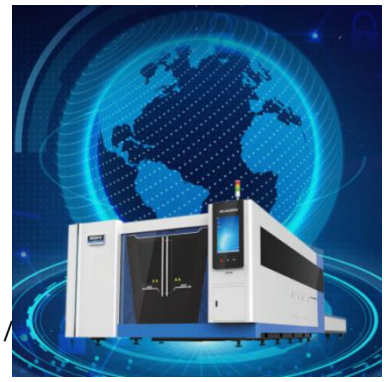
Configuration

Configuration list	
Model	SF3015G
Laser source	1500W Raycus
Laser head	SENFENG
Controlling system	CypCut
Machinery	LAPPING/SENFENG LMN
Cutting bed	SENFENG
Water cooling	Specialized
Dust exhausting fan	Specialized
Document	Operating Manual

Cost Analysis

Item		Air	Oxygen	Nitrogen
	Laser source	6KW	6KW	6KW
	Water cooling	3.3KW	3.3KW	3.3KW
	Air compressor	11KW		

Electrical consumption	Bed machinery	3KW	3KW	3KW
	Dust exhausting fan	1.5KW	1.5KW	1.5KW
Wearing parts		0.07$/H	0.07$/H	0.07$/H
Air consumption		0	2.17$/H	8.7$/H
Power		24.8KW	13.8KW	13.8KW
Total consumption （60% cutting efficiency）		15KW/H	8.3KW/H	8.3KW/H
Total cost （0.15$/kwh）		2.31$	3.55$	10.27$

Ⅱ. Feng Cloud

Client users display dynamic graphics of real-time data through browser, allowing to develop and maintain remote engineering in client if they have sufficient privileges. Customers use mobile phones, PAD and other devices, real-time display of monitoring interface and text mode to change data values, confirm alerts and so on.