

# TECHNICAL **PROPOSAL**

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# CONTENTS

Founded in 2004, we are a high-tech enterprise specializing in the R & D, production and sales of large and medium power laser equipment.

Production meets the European standards and international quality control.

P1 PRODUCT OVERVIEW

P2 PRODUCT CONFIGURATION

P3 TECHNICAL PARAMETERS

P4 PROCESSING CAPABILITY

P5 PROCESSING COST

P6-11 PRODUCT ADVANTAGES

P12-13 INSPECTION & ASSEMBLY

P14 SERVICE SYSTEM

**P15-16** ABOUT US

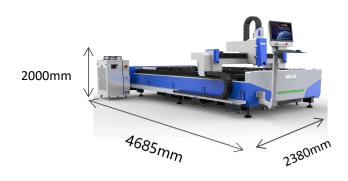
# **PRODUCT OVERVIEW**





#### F3015KE

#### FIBER LASER CUTTING MACHINE



#### Work size:

3000\*1500mm

#### Dimensions(L\*W\*H):

4685\*2500\*1800mm

#### Weight:

1823kg

#### **Cutting Thickness:**

CS: 0.5-16mm

SS:0.5-6mm

# TECHNICAL PARAMETER

Configuration	Brand / Specification	Place of Origin
F3015KE-1500W	3000mm*1500mm	China
Control System	Cypcut brand FSCUT1500	China
Fiber Source	Raycus	China
Cutting Head	WSX/Raytools	China
Servo Motor	Delta	China
Gear And Rack	Gear:KH Rack:KI	Taiwan,China
Guide	CSK/PMI/LAPPING/ROUST	Taiwan,China
Inlet Pneumatic Proportional Valve	SMC	Japan
Speed Reducer	Motoreducer	France
Monitor	BSL19.5 inches	China
Industrial Control Computer	BSL	China
Water Chiller	Hanli / S&A	China
Exhaust Fan	BSL 1.5KW 50HZ	China
Sliding Part	BSL	China

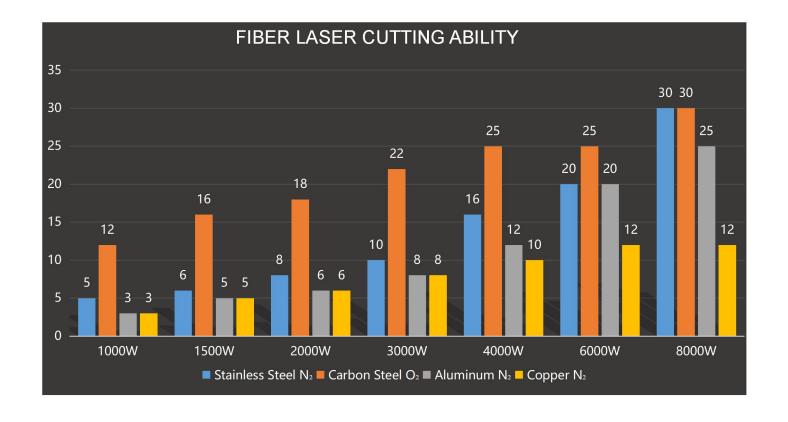
Processing Format & Working Range				
Processing Area( L × W )	3000mm×1500mm			
X-axis Stroke	1500mm			
Y-axis Stroke	3000mm			
Z-axis Stroke	100mm			
Accuracy				
X/Y Axis Positioning Accuracy	±0.05mm/m			
X/Y Axis Repositioning Accuracy	±0.03mm/m			
Speed				
Max. Moving Speed	70m/min			
Max. Acc. Speed	0.8G			
Power Parameters				
Phase	3			
Rated Voltage	380V			
Protection Grade	ip54			
Weight & Size				
Max Worktable Loading	800kg			
Weight	1823KG			
Dimension (L×W×H)	4685*2500*1800mm			

#### Note:

- 1: To a certain extent, the accuracy depends on the type of workpiece, the pretreatment, the size of the plate and the position of the plate in the working area.
- 2. The above parameters are subject to change without notice. The final technical parameters are subject to the actual order agreement.

# **PROCESSING CAPABILITY**





**CUTTING SAMPLES** 

F3015KE



#### Note:

The above data are for reference only, not as acceptance criteria.

# **PROCESSING COST**

	Items	Air	Oxygen	Nitrogen
	Laser	6KW	6KW	6KW
Power  Consumption  (Peak Power  Consumption)	Water Cooling	3.5KW	3.5KW	3.5KW
	Air Compressor	7.5KW	/	/
	Machine Main frame	4.3KW	4.3KW	4.3KW
	Dust Removal Equipment	1.5KW	1.5KW	1.5KW
Co	nsumable parts	USD 0.10/H	USD 0.10/H	USD 0.10/H
Ga	s consumption	0	USD2.5/H	USD4.5/H
	Total power	≈22.8KW	≈15.3KW	≈15.3KW
Total Power Consumption (75% Actual Power Consumption)		≈17.1KW	≈11.48KW	≈11.48KW
	al operating cost 0.15USD/kwh)	2.57+0.1=2.67 <b>USD/h</b>	1.7+0.1+2.5=4.3 <b>USD/h</b>	1.7+0.1+4.5=6.3 <b>USD/h</b>

If the cutting gas is the dry treated compressed air, the cost is actual the air compressor operating electricity + machine power + consumables (protective lens, cutting mouth).

#### Note:

- 1. The electricity price and gas price in the above list are for reference only, and the prices will be different in different regions.
- 2. Auxiliary gas consumption varies when cutting plates of other thickness.

#### WELDING OF MAIN BODY

The main body frame is welded with cross-shaped reinforced iron plate on the side of the machine to effectively ensure the compression resistance and durability of the frame.





#### STRESS ANNEALING

We have our own three CNC high temperature annealing furnaces. During the welding process, all welding points will produce stress. With strict segmented intermittent annealing, our machine frames service life can be longer without deformation.





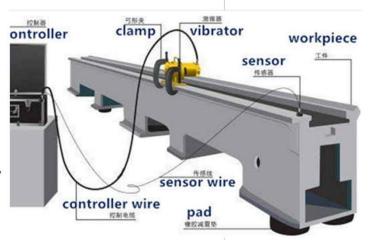
#### **ROUGH MACHINING**

The purpose of rough machining is to smooth the remaining machining surface of the machine frames, leaving a relatively uniform machining allowance on the machining surface of the workpiece, and provide the best machining conditions for high-speed cutting of finishing.



#### VIBRATORY STRESS RELIEF

Based on the weight of the piece, the VSR method introduces into it high amplitude and low frequency vibrations for a given period of time. This relieves residual stress without distortion or alteration of tensile strength, yield point or resistance to fatigue, and the static equilibrium is restored.





#### NATURAL AGING

Place the frames outdoors for more than one month. Eliminate the repetitive temperature stress caused for several times to relieve the residual stress, obtain the stable dimension accuracy, enhance the rigidity and the deformation resistant capacity, so as to ensure the dimension stability of the frames.



#### PRECISE PROCESSING

We have our own 5 large gantry milling machines, which is the only manufacturer in China with five gantry mills at the same time. They are used to machine the guide rail, rack, etc, which have high precision requirements to obtain the high quality installation base plane.





# EXTRUDING AND STRETCHING INTEGRATEDAVIATION ALUMINUM BEAM

The beams have the following advantages: light weight, small inertia, and high rigidity. It can ensure the high precision and stability of the beam during high-speed movement.

#### LASER SOURCE

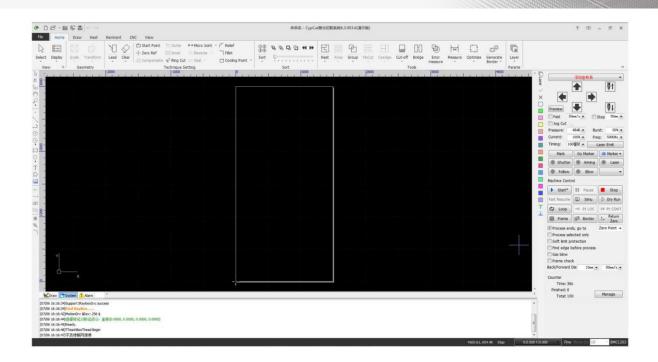
- ①Electro-optical conversion efficiency: >35%
- ②Service life >100,000 hours
- ③Maintenance-free.





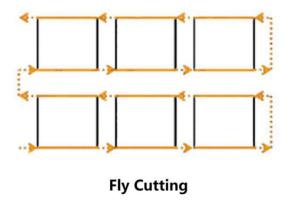
#### CUTTING HEAD

- ① European process technology, which is reliable and stable.
- ② Completely sealed internal structure can avoid optical part being polluted by dust.
- ③ It is modular design with high precision, easy to maintenance.



#### CONTROL SYSTEM

The system we used is a special CNC system developed by the domestic top CNC system developers, which has high integration, improved functions, simple operation, high stability and leading technology.

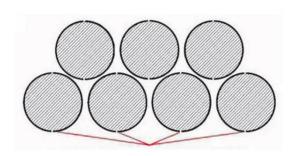


Leapfrog

Fly cutting works by software analyzing the nest, identifying grids and lines of holes, and then splitting the cutting into separate short line or arc segments that lie on the same line or circle. In this way, it can improve the production efficiency of the thin material.

The efficiency of the fiber laser cutting machine can be increased by cutting the idle time. If the three completed actions in a row are completed "simultaneously", the idle time can be shortened: when moving from point A to point B, the cutting head rises at the same time; when it approaches point B, it drops simultaneously.

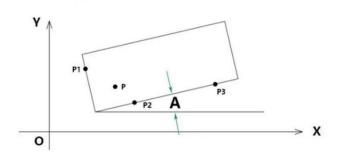
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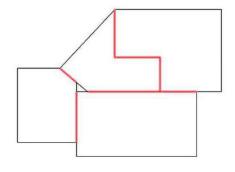


**Bridge (Micro-joint)** 

The bridge connects the part to the surrounding material, so that the waste of the bridge is not dropped, and the part of the bridge position is adhered to the base material without falling, thereby eliminating the need to Sorting work.







**Common Edge Cutting** 

Co-edge cutting reduces the length of the cut and reduces the number of perforations, which can significantly improve efficiency. Besides, it can reduce processing time, minimize material waste, save cutting gas and reduce wear on machine parts.

Click to View Video

#### **Automatic Edge-seeking**

With the automatic edge finding function, the angle and origin of the sheet tilt can be sensed. The cutting process can be adjusted to suit the angle and position of the sheet to avoid waste. The time to adjust the workpiece is reduced, the work intensity is reduced, and the cutting efficiency is improved.

Click to View Video

# **INSPECTION & ASSEMBLY**

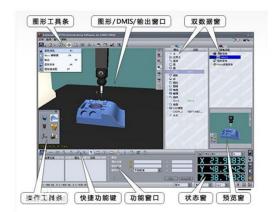
#### **DURING ASSEMBLY**

Check whether the beam machining form and position tolerance is within the design scope to ensure the equipment quality.



# THREE COORDINATE INSPECTION OF BEAM

Three coordinate measuring machine (CMM)is a kind of instrument that can calculate all kinds of geometric shapes and dimensions according to the point data returned by the probe system in three-dimensional measurable space. It is also called three-dimensional element.



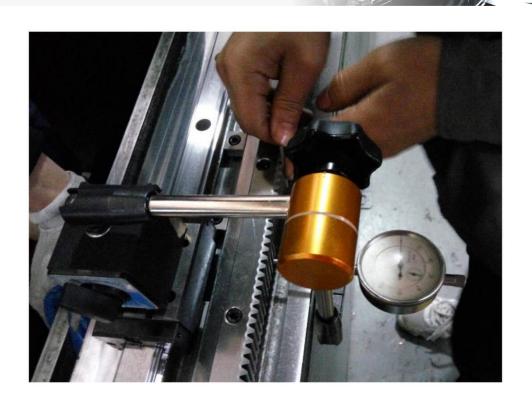
The bed beam collimator detects the guide rail surface - measures the straightness of the guide rail to ensure the accuracy of each equipment.



# **INSPECTION & ASSEMBLY**

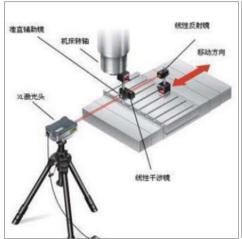
#### **DURING ASSEMBLY**

Installation detection and fixation of guide rail and rack. The professional technicians assemble such important precision parts such as guide rail and rack and adjust them with a dial indicator so as to ensure rack&pinion is assembled properly.

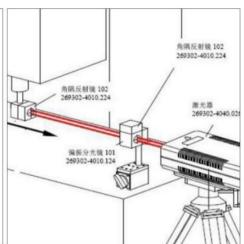


#### ASSEMBLY COMPLETION DETECTION

Laser interferometer-It has such advantages as high measurement accuracy and speed, etc Interferometer, mainly laser as light source, constitutes a measuring system withinterference. A laser interferometer with various refractive mirror to the linear position, speed, angle, flatness, straightness, parallelism and perpendicularity measurement work, and can be used as calibration of precision machine tool or measuring instrument.

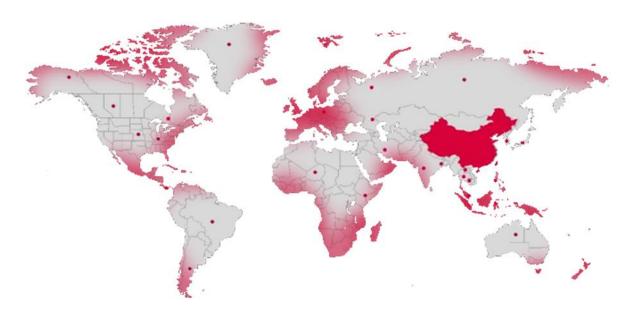






## **SERVICE SYSTEM**





### PRE-SALE SERVICE

- Provide technical guidance, equipment solutions and other information services according to your needs.
- Welcome you to visit our company and equipment exhibition hall. And our engineers will offer the
  best explanation and demonstration. If you can't come to us, we will do a live broadcast to show you
  our factory and machine.
- Provide free proofing service.

## **SELLING SERVICE**



Technicians would offer field installation, debugging and training when they come to



Ensure the equipment is delivered on time.



Train customer operators in strict accordance with the equipment operation process to ensure that they are proficient in the operation, maintenance and safe use of the

#### AFTER-SALE SERVICE

- Baisheng provides professional door to door installing and training service, and daily online after sale service and technical advisory.
- We will establish communication group including technicians, after-sales managers, salesmen and operators of customers.

# **ABOUT US**



#### WHOLE INDUSTRIAL CHAIN LAYOUT





- The 100000m2 plant area covers sheet metal machining, spray painting, turning, milling, planing, grinding, fine finishing, machine assembly, and process debugging workshops.
- Baisheng Laser has the largest self-owned super-heavy gantry milling and full-temperature CNC
  high-temperature annealing furnace processing base in the China, ensuring independent production
  from each piece of sheet metal to the complete machine equipment, and a strict self and mutual
  inspection process for each process.
- We use superior materials, constantly improve and optimize the process, so that we can win by quality.

# **ABOUT US**



- Foshan Huibaisheng Laser Technology Co., Ltd. (Baisheng Laser), founded in 2004, is a high-tech enterprise integrating laser, precision machinery, numerical control, software development and modern management, specializing in the R & D, production and sales of large and medium power laser equipment.
- Since establishment, Baisheng Laser has developed rapidly. As one of the few laser cutting machine manufacturers in China with the ability to independently produce beams, sheet metal and machine tool frames, Baisheng Laser's Foshan headquarters has a plant area of about 100000 square meters, with 200+ sets of precision machining equipment, 500+ employees, 40+ R & D team and 100+ after-sales engineers.
- With strong enterprise strength and strong manufacturing strength, Baisheng Laser has become a leading and world-famous large and medium power laser equipment manufacturer and solution provider in China, and its marketing network covers more than 60 countries and regions around the world.



# YOUR TRUST OUR RESPONSIBILITY



## Since 2004



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