FHBS

TECHNICAL PROPOSAL

Laser Welding Fiber Laser Cutter Laser Cleaning

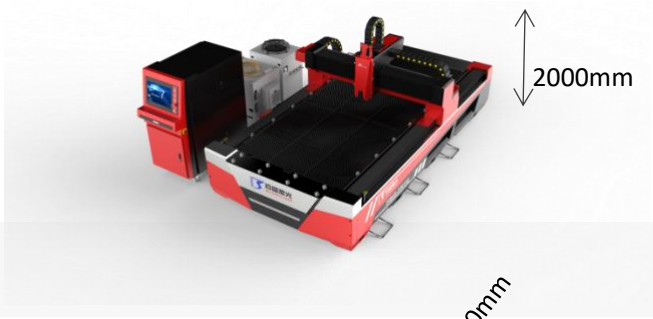
CONTENTS

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.

PRODUCT OVERVIEW

F3015E

FIBER LASER CUTTING MACHINE



Work size :

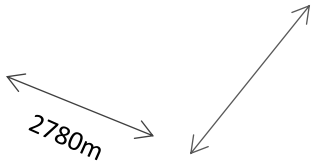
3000*1500mm

Dimensions(L*W*H):

4600*2780*2000mm

Weight:

2657kg



PRODUCT CONFIGURATION

Configuration	Brand / Specification	Quantity	Place of Origin
F3015E-1500W	3000mm*1500mm	1	China
Control System	Cypcut	1	China
Fiber Source	IPG/RAYCUS	1	Germany
Cutting Head	WSX/Raytools/Precitec	1	China / China / Germany
Servo Motor	Schneider/Yaskawa/Panasonic	4	France/Japan/Japan
Gear And Rack	KH/YYC/DEKANI/LEITESEN	3	Taiwan,China
Guide	CSK/PMI/LAPPING/ROUST	4	Taiwan,China
Inlet Pneumatic Proportional Valve	SMC/Aventics	1	Japan / Germany

Speed Reducer	Motoreducer	3	France
Monitor	BSL19.5 inches	1	China
Industrial Control Computer	BSL	1	China
Water Chiller	Hanli / S&A	1	China
Exhaust Fan	BSL 5.5KW 50HZ	1	China
Sliding Part	BSL	1	China

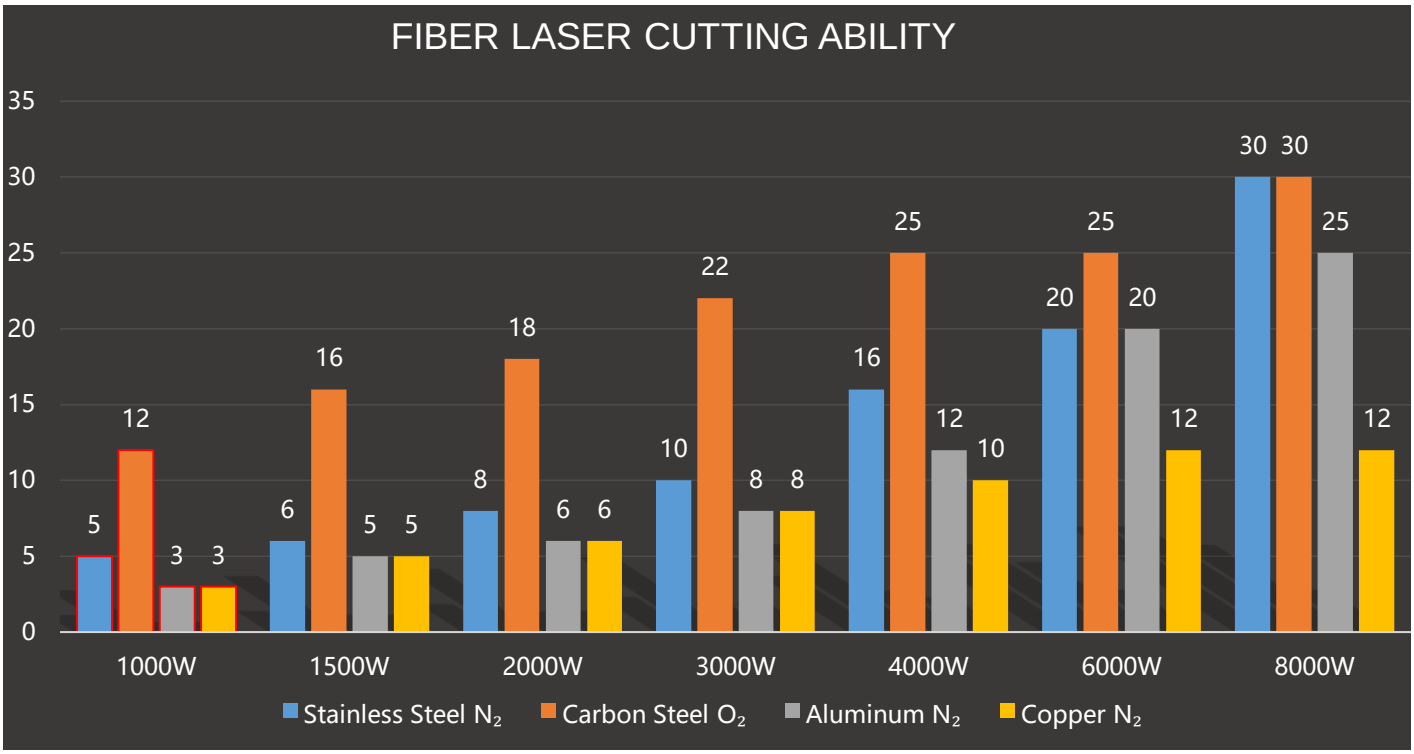
TECHNICAL PARAMETER

Processing Format & Working Range	
Processing Area(L × W)	3000mm×1500mm
X-axis Stroke	1520mm
Y-axis Stroke	3050mm
Z-axis Stroke	100mm
Accuracy	
X/Y Axis Positioning Accuracy	±0.03mm/m

X/Y Axis Repositioning Accuracy	±0.03mm/m
Speed	
Max. Moving Speed	100m/min
Max. Acc. Speed	0.8G
Power Parameters	
Phase	3
Rated Voltage	380V
Protection Grade	ip54
Weight & Size	
Max Worktable Loading	1000kg
Weight	2657KG
Dimension（L×W×H）	4600*2780*2000mm

Note:

PROCESSING CAPABILITY



F3015E

CUTTING SAMPLES

Note:

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

PROCESSING COST

Items		Air	Oxygen	Nitrogen
Power Consumption (Peak Power Consumption)	**Laser**	3.6KW	3.6KW	3.6KW
	Water Cooling	3KW	3.5KW	3.5KW
	Air Compressor	7.5KW	/	/
	Machine Main frame	6.5KW	6.5KW	6.5KW
	Dust Removal Equipment	1.5KW	1.5KW	1.5KW
Consumable parts		RMB 0.5/H	RMB 0.5/H	RMB 0.5/H
Gas consumption		0	RMB 15/H	RMB 55/H
Total power		≈22.1KW	≈14.6KW	≈14.6KW
Total Power Consumption (75% Actual Power Consumption)		≈16.6KW	≈11KW	≈11KW
Total operating cost (1RMB/kwh)		16.6+0.5≈21.1RMB/h **≈3.3 USD/h**	11+15+0.5≈26.5 RMB/h **≈4.14 USD/h**	11+55+0.5≈66.5 RMB/h **≈10.39 USD/h**

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.

PRODUCT ADVANTAGES

WELDING OF MAIN BODY

The main body frame is welded with across-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.

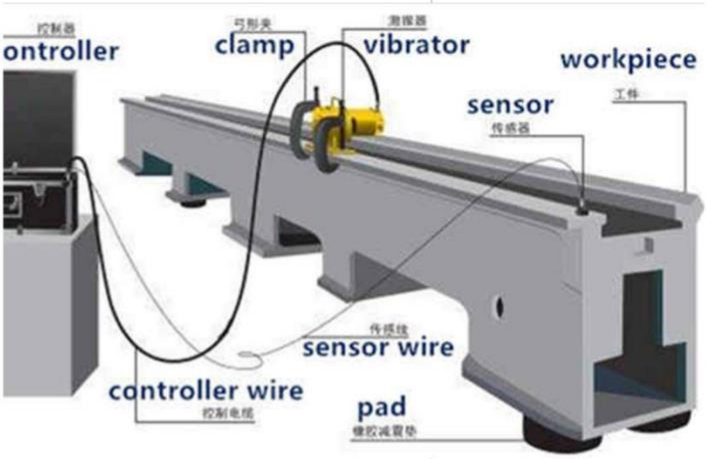
ROUGH MACHINING

The purpose of rough machining is to

PRODUCT ADVANTAGES

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.

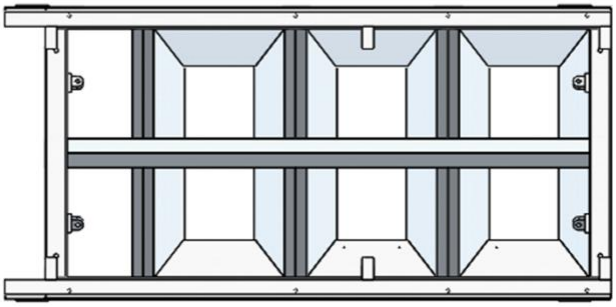
PRODUCT ADVANTAGES

OVERWEIGHT REINFORCED LONGITUDINAL WELDING MACHINE BED

The frame is made of cross stiffeners every 30cm, which has a stronger load-bearing capacity to ensure long-term stable operation of the equipment.

WELDING QUALITY INSPECTION

An infrared flaw detector is used to detect whether there are to false welding, missing welding and desoldering to ensure the welding quality.



LONG-TERM STABLE USE WITHOUT DEFORMATION

After strict production standards and inspections, the frames produced by FHBS Laser have high rigidity and precision, which can maintain long-term stable use without deformation.

PRODUCT ADVANTAGES

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.

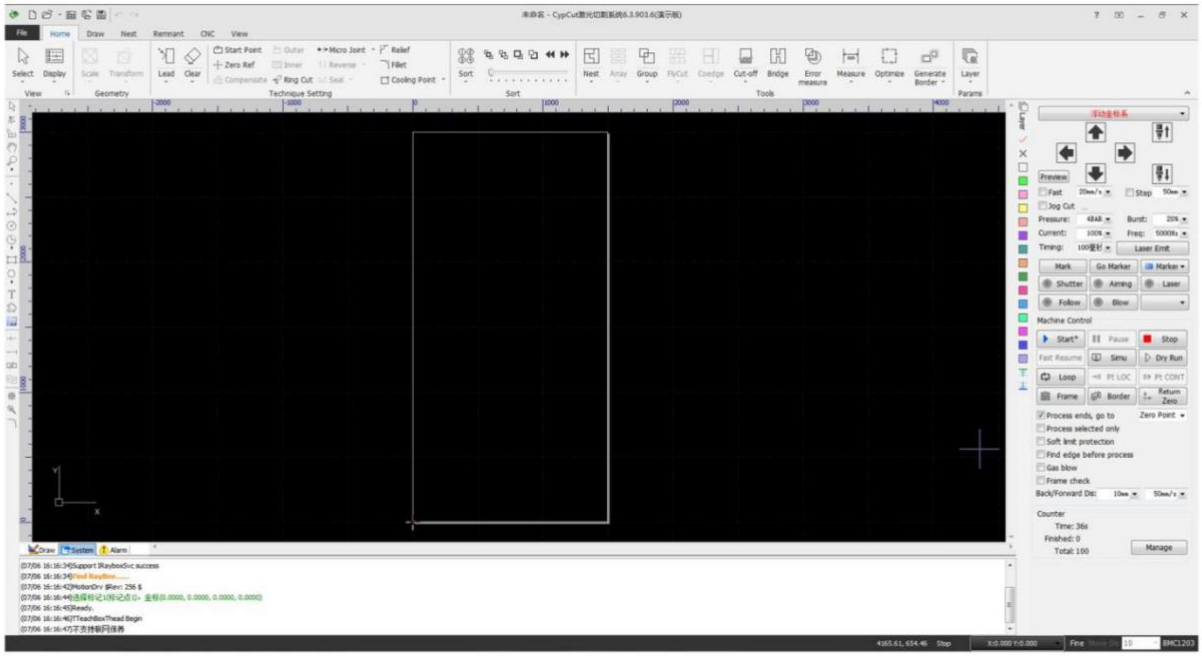
LASER SOURCE

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

CUTTING HEAD

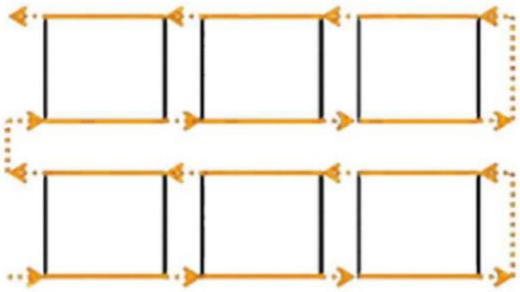
① European process technology, which is reliable and stable.
② Completely sealed internal structure can avoid optical part being polluted by dust.
③ It is modular design with high precision, easy to maintenance.

PRODUCT ADVANTAGES



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.



Fly Cutting

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.

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Leapfrog

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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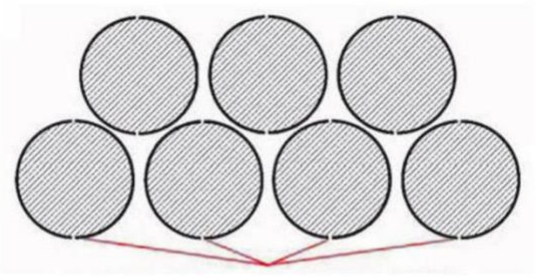
PRODUCT ADVANTAGES



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.

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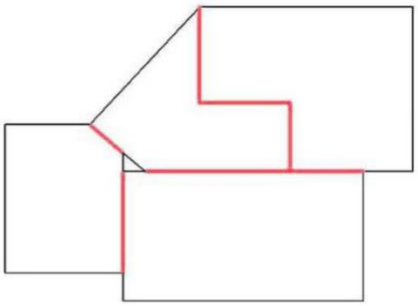

Common Edge Cutting

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.

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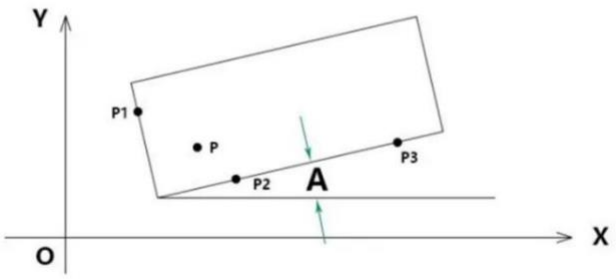


Automatic Edge-seeking

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.

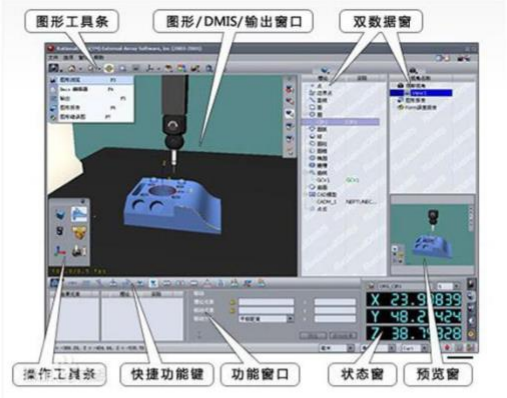
Click to View Video

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.

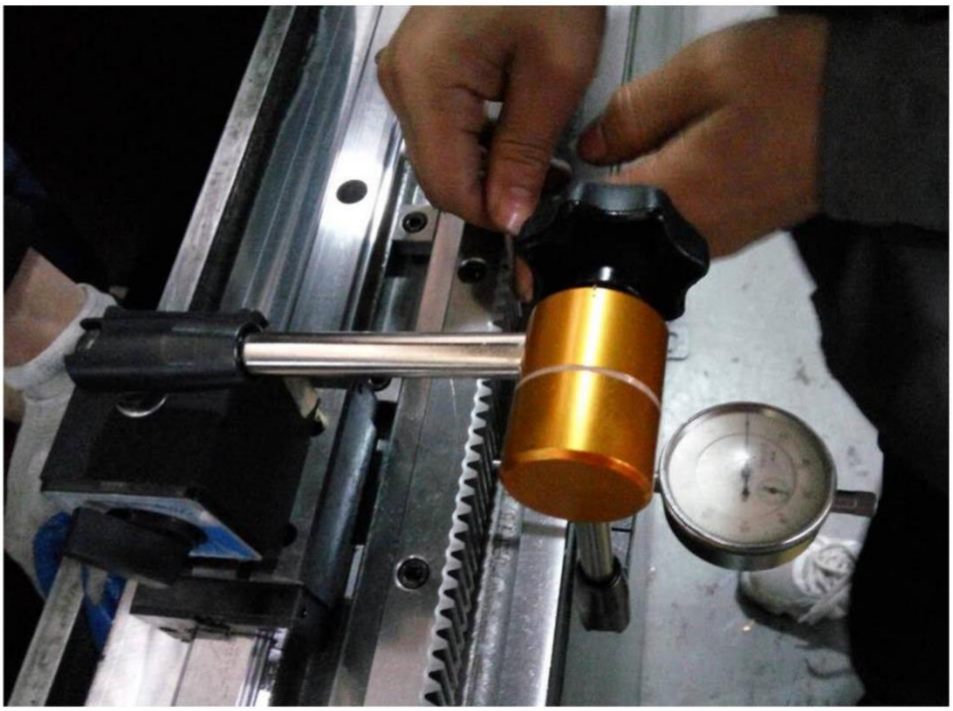


The bed beam collimator detects the guide rail surface - measures the straightness of the guide rail to ensure the accuracy of each equipment.

INSPECTION & ASSEMBLY

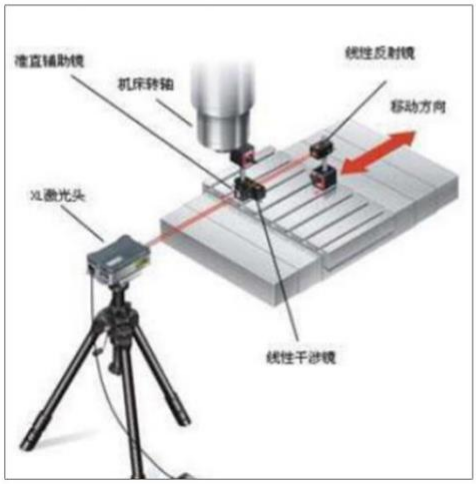
DURING ASSEMBLY

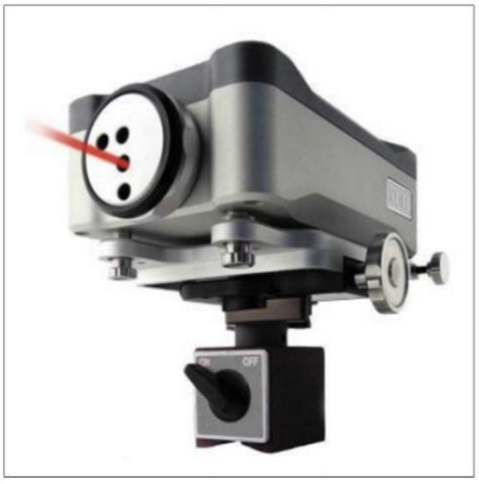
Installation detection and fixation of guide rail and rack. The professional technicians assemble such important precision parts such as guide rail and rack and adjust them with a dial indicator so as to ensure rack&pinion is assembled properly.

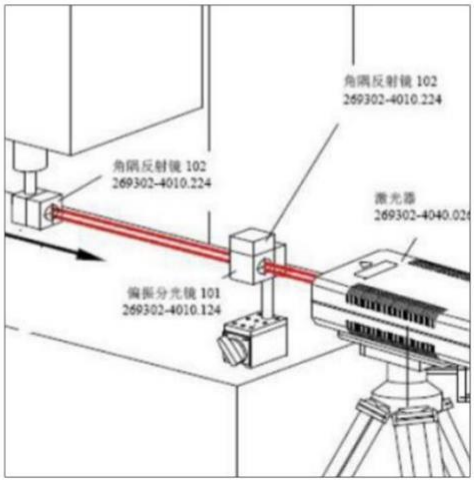


ASSEMBLY COMPLETION DETECTION

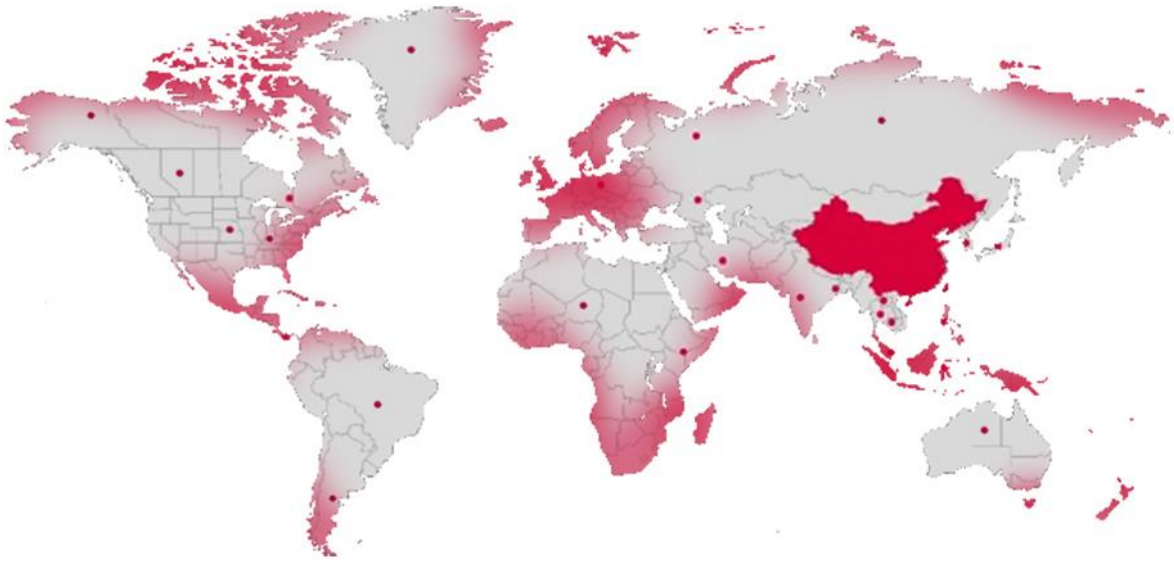
Laser interferometer-It has such advantages as high measurement accuracy and speed,etc Interferometer,mainly laser as light source, constitutes a measuring system withinterference. A laser interferometer with various refractive mirror to the linear position, speed, angle, flatness,straightness, parallelism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







SERVICE SYSTEM

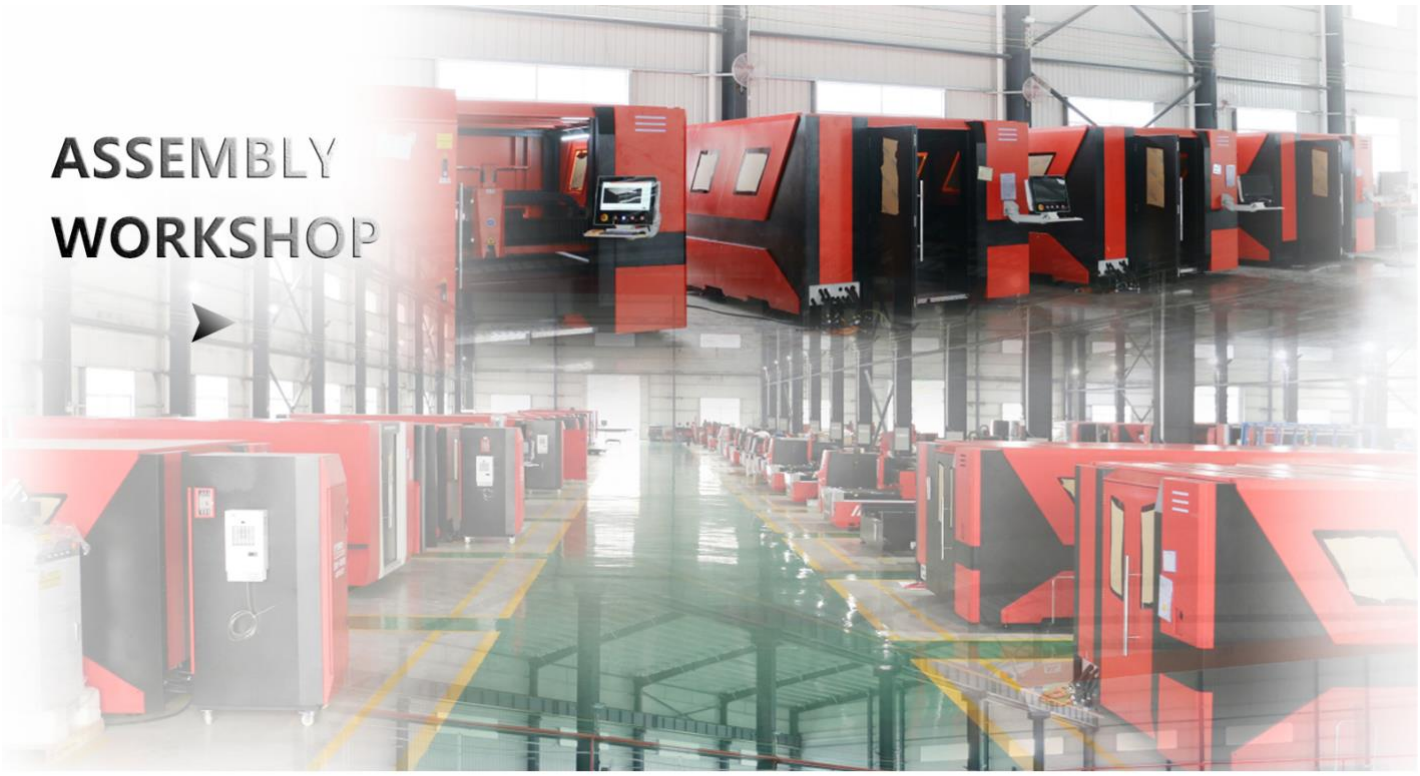


PRE-SALE SERVICE

- Provide technical guidance, equipment solutions and other information services according to your

ABOUT US

ASSEMBLY WORKSHOP



WHOLE INDUSTRIAL CHAIN LAYOUT

- The 10000m2 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

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

FOSHAN HUIBAISHENG LASER TECHNOLOGY CO.,LTD.

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