

FLY3015

Sheet Fiber Laser Cutter

QUALITY ENDORSE **EXCELLENT**
INTELLIGENT MANUFACTURING

Content

01

Company info

02

Product info

03

Core parts introduction

04

Application show

05

Supply scope and lead time

Han' s Songu Company Info

Suzhou Han's Songu Intelligent Equipment Co.,Ltd. a subsidiary of Shenzhen Han's Laser Technology Co., Ltd(stock code:002008), locate in Taicang, Suzhou, close to Shanghai, is a high-tech enterprise which integrates laser, precision machinery, numerical control technology and modernization management system. Songu Intelligent Equipment focus on high-end, high-power 2D laser cutter, 3D laser cutting/welding system, advanced automatic metal-tube laser cutter and offer package automation solution.

The Plant one has 10,000m² production floor area and 1000m² showroom, Plant two will have 60,000m², which is under preparation.

With the advantages of superior high-tech talents, sophisticated modernization management experience, advanced laser technology and a comprehensive quality management system, it has developed a sound R&D, manufacturing, sales and service team to offer high-end intelligent laser cutting and welding equipment to domestic and global customers.



CERTIFICATION

管理体系认证注册证书

苏州大族松谷智能装备股份有限公司

ISO 9001:2015

Certificate of Compliance

Product: MACH (FWD) Series Laser Cutting Machine

Standard: EN ISO 12100:2010, EN 60204-1:2018, EN 60205:2014, EN 55022:2012-AC:2013, EN 61223:5:2014, EN 61000-3-3:2013, EN 55024:2010

国家火炬计划重点高新技术企业证书

广东大族粤激光科技股份有限公司

为 国家火炬计划重点高新技术企业

VERIFICATION OF MD & LVD COMPLIANCE

OMA Testing Certification

Product Description: LASER CUTTING (ENGRAVING) AND MARKING MACHINE

EN ISO 12890-1:2002, EN ISO 12100-2:2010, EN 60204-1:2008, EN ISO 14121-1:2007, EN 60205-1:19AC, EN 38525-4:2006

QUALIFICATION & CERTIFICATION

Certificate - Сертификат - 證明書 - Certificat - 증명서 - شهادة

Certificate of Compliance

No. 00180327-HS0ND4
Test Reports no. DFU181 03-H10175, DEU1181 03-H1017E, DEU1181 03-2399A

Certificate's Holder: HAN'S SONGU INTELLIGENT EQUIPMENT CO., LTD.
No.189 Changjiang Rd. Taicang Port Economic & Technological Development Zone, Suzhou, Jiangsu, China

Certification ECM Mark: 

Product: MACH /WIND series Laser Cutting Machine
Trade Mark: SONGU
Model(s): MACH6025, MACH4020, MACH3015, WIND4025, WIND4020, WIND3015

Verification to: Standard:
EN ISO 12100:2010,
EN 60204-1:2006+A1:2009+AC:2010,
EN ISO 13849-1:2015, EN 60959-1:2014,
EN 55032:2012+AC:2013, EN 61000-3-2:2014,
EN 61000-3-3:2013, EN 55024:2010.
related to CE Directive(s):
2006/42/EC (Machinery)
2014/53/EU (Low Voltage)
2014/30/EU (Electromagnetic Compatibility)

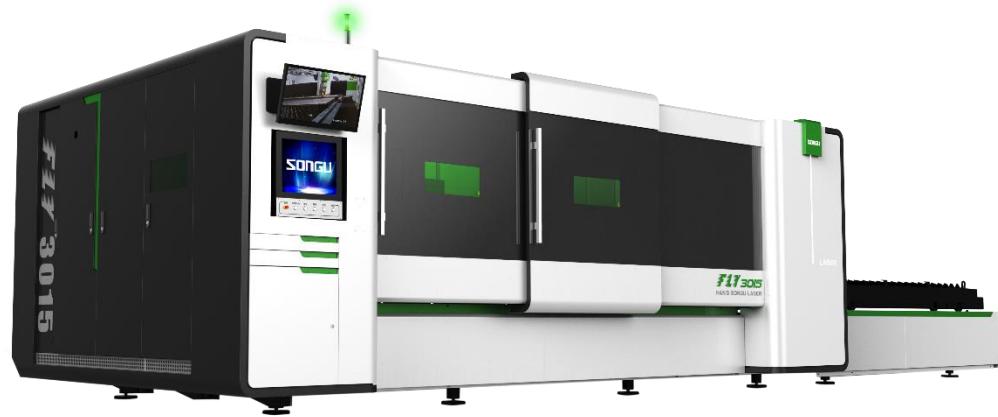
Remark: the product(s) has been verified on a voluntary basis, the product(s) satisfies the requirements of the Certification Mark of CE, in reference to the above listed standards; The above Compliance Mark can be affixed on the product(s) according to the ECM registration (after its release and its use, the registration can be found on www.enfocem.it); This Certificate of Compliance can be checked for validity at www.enfocem.it.
The verification does't imply assessment of the production of the product(s).

CE Additional information, clarification about the CE marking:
The client that is not for the CE marking process is in place. Whereas, the Manufacturer is responsible to start the CE Marking Certification procedure and to perform all the necessary activities, as required by the Directive before placing the CE Mark on the product(s).

Date of issue 30 March 2018 Expiry date 26 March 2023

Chief Manager  Deputy Manager 
Machinery Automation

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- Each product from Han's Songu Intelligent Equipment is strictly examined according to ISO9001 CE standards before put it into the market.

Machine Range

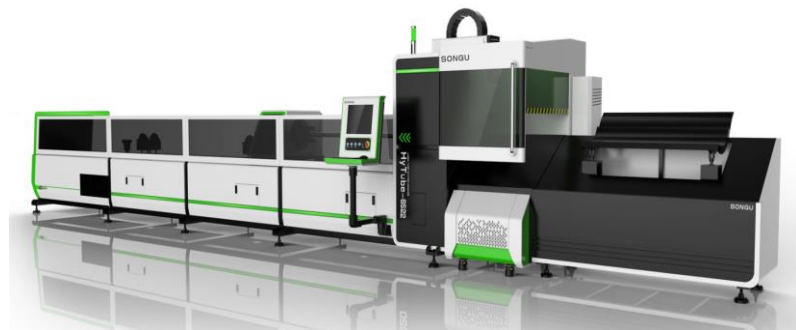
2D High Power Fiber Laser Cutter



Hybrid Laser Cutter for Sheet & Tube



Auto-loading/unloading Tube Cutter



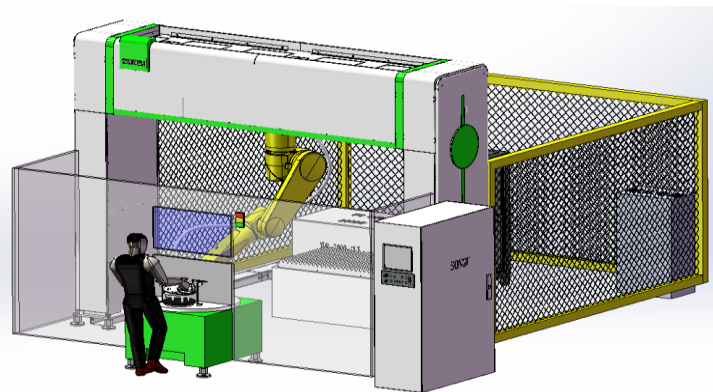
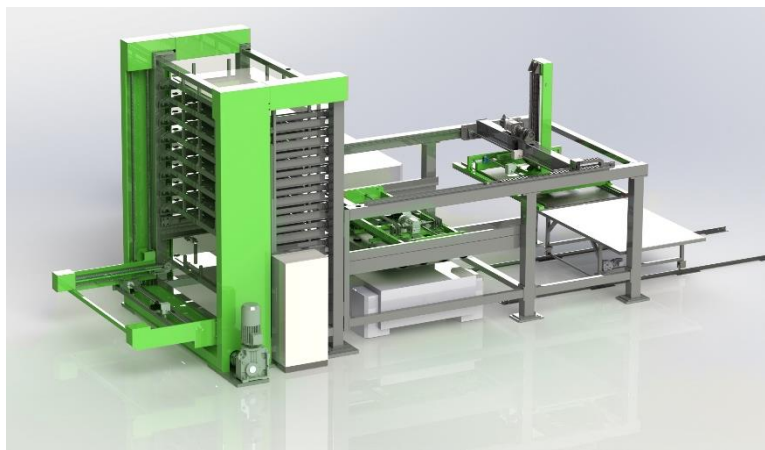
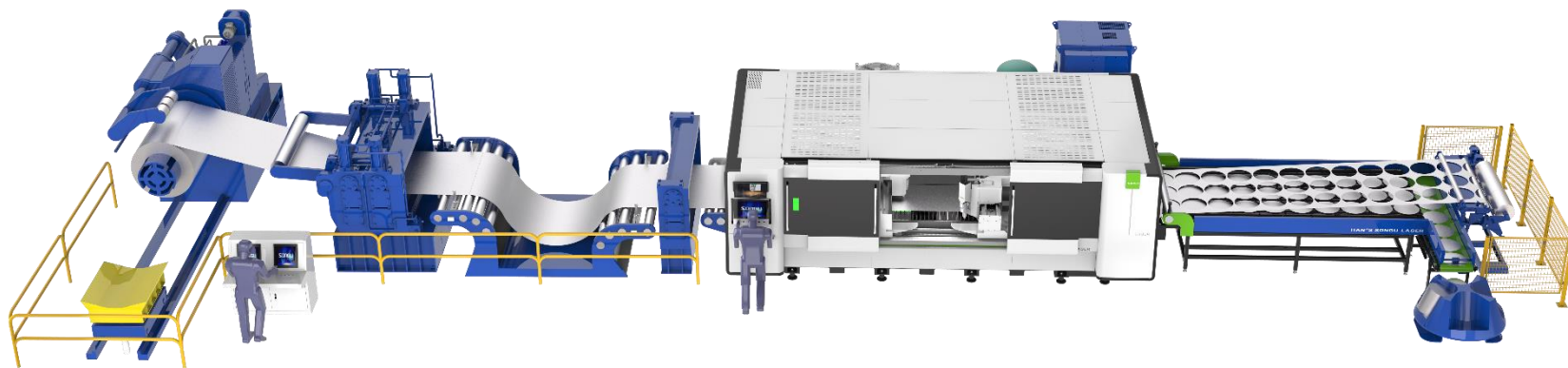
3D Robot Laser Cutter



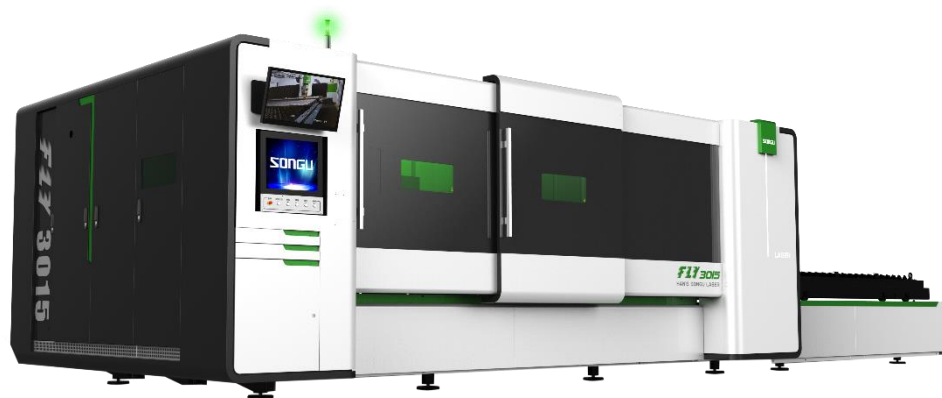
3D Robot Laser Welding Machine



Customized Laser Solution & Automation



Model Explanation → FLY3015/4020 /6020



FLY

3015

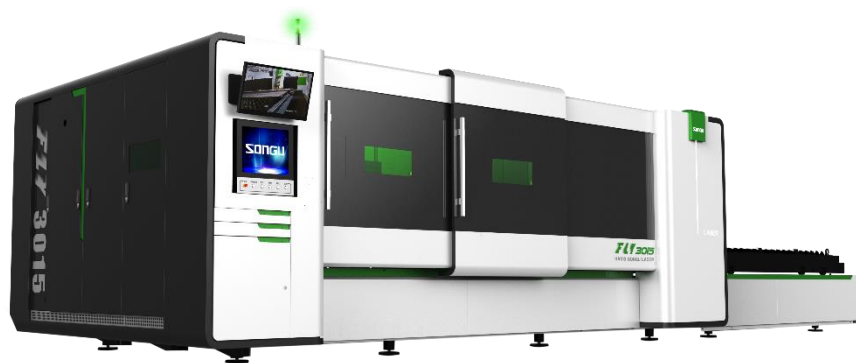
A

Version: A

Working size: 3m x 1.5m(4020/6020 option!)

Series: FLY

Product info-FLY laser cutter



Product features:

- Safety, beauty;
- Fast, efficient, powerful;
- Stable and robust;
- Low running cost;
- Easy operation & intelligent;

Product info-FLY laser cutter

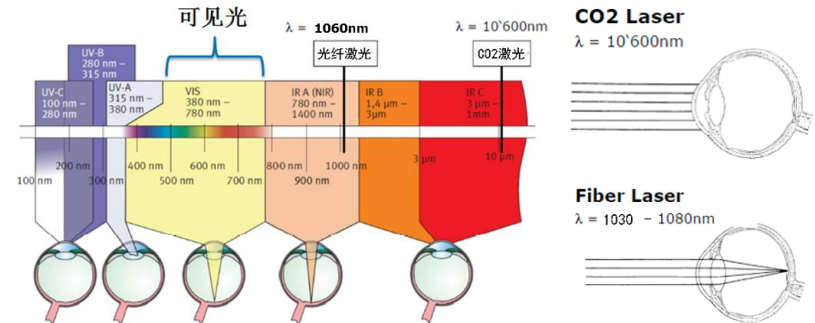


1. Safety & beauty

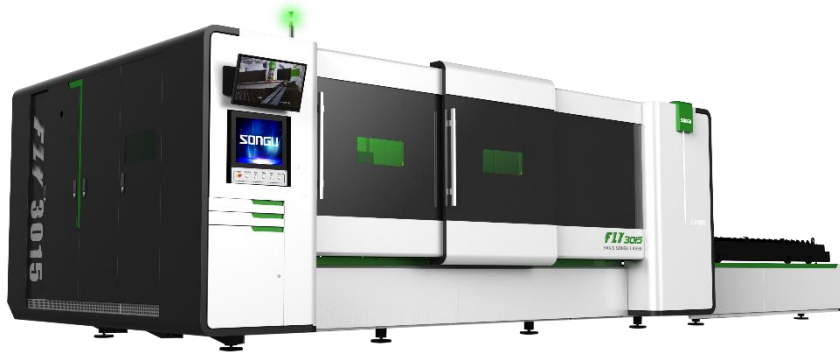
- Protection cover with laser radiation free watching window;
- Professional industrial design, easy reach the operation area

Customer benefit:

Safety and robust



Product info-FLY laser cutter



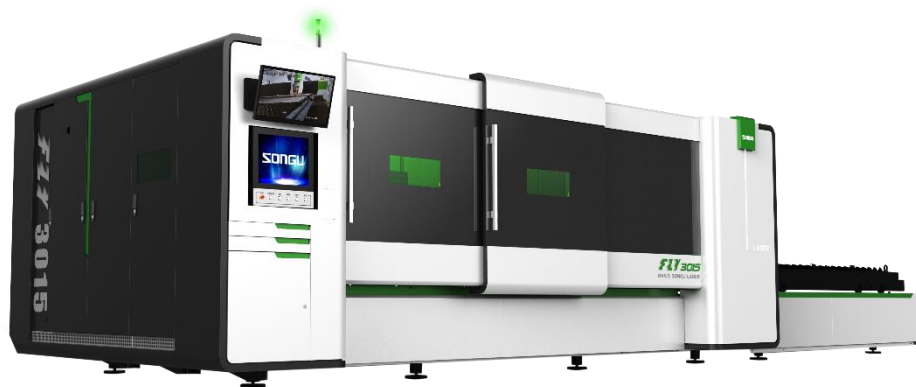
2. Fast speed and high efficiency

- Max positioning speed 140m /min,
- Max acceleration speed 1.4G,
- High rigidity enhanced aluminum gantry, light weight, short start-stop time, high dynamic;
- Scan cutting is available with the cutting path optimization.

Customer benefit:

Better cutting precision, more orders, more profits.

Product info-FLY laser cutter



3. Stable & robust

- Advanced fiber laser source with high stability;
- Parallel shuttle table, less fault rate, fast exchange speed;
- Imported core parts, quality guarantee.

Customer benefits:

Safe and reliable

Product info-FLY laser cutter



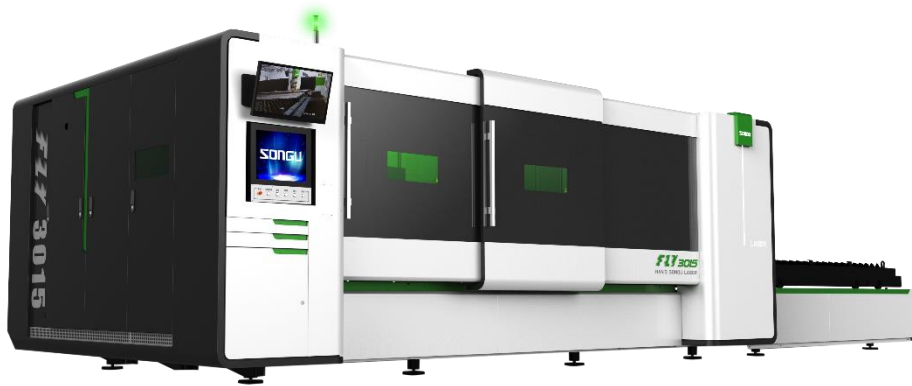
4. Low running cost

- Fiber laser has better Industry-leading wall-plug efficiency (around 40%), less power consumption;
- Automatic energy saving mode: if the machine stop over 5 minutes, the equipment would stay in the resting state;
- Laser source has no laser gas, the running cost is much lower than Co2 laser;
- Servo-control assisted gas, to reduce gas consumption during the movement without cutting, to save cost;

Customer benefits:

Low running cost, more profit

Product info-FLY laser cutter



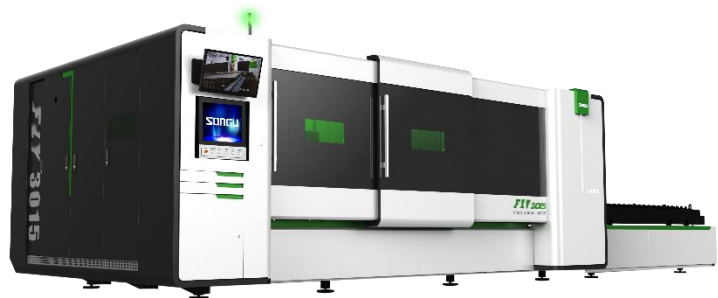
5. Easy operation, intelligent

- The front door is on the Y axis, easy for operator to reach whole working area;
- With remote monitoring, remote assistance function, intelligent and convenient;
- Hand controller is available, easy for operation;
- Servo-control assisted gas, no need manual adjust gas pressure, intelligent and convenient for operator

Customer benefits:

Easy operation and more intelligent

Product info-FLY laser cutter



Parameter	3015	4020	6020
Working size	3000 x 1500 mm	4000 x 2000 mm	6000 x 2000 mm
Laser power	1000W/1500W/2000W/3000W/4000W/6000W		
Transmission	Synchronized dual large torque servo motor		
Loading method	Parallel shuttle exchange table		
Positioning speed (Max)	140 m/min		
Acceleration (Max)	1.4G		
Positioning accuracy	± 0.05mm (VDI/DGQ 3441)		
Repositioning accuracy	± 0.03mm (VDI/DGQ 3441)		
Power	10KW	11KW	12KW
Weight (body)	9500Kg	11000Kg	13500Kg
Dimension	890x300x220cm	1200x360x220cm	1550x420x220cm

Core part- laser source

- It has a super compact design with the laser housed in a hermetically sealed cabinet;
- Maintenance-free Operation,
- A dehumidifier is installed within the cabinet to ensure optimal internal humidity;
- Industry-leading wall-plug efficiency our lasers are known for has reached over 40% ;
- The electrical cost savings add up to many tens of thousands of dollars over lifetime of a laser;
- Wide variety of fiber delivery options (50, 100, 150 or 200 μm) core diameter;
- record reliability and maintenance-free operation;
- Hot redundancy ensures 100% up time with no change in power;
- Compact Rugged Design



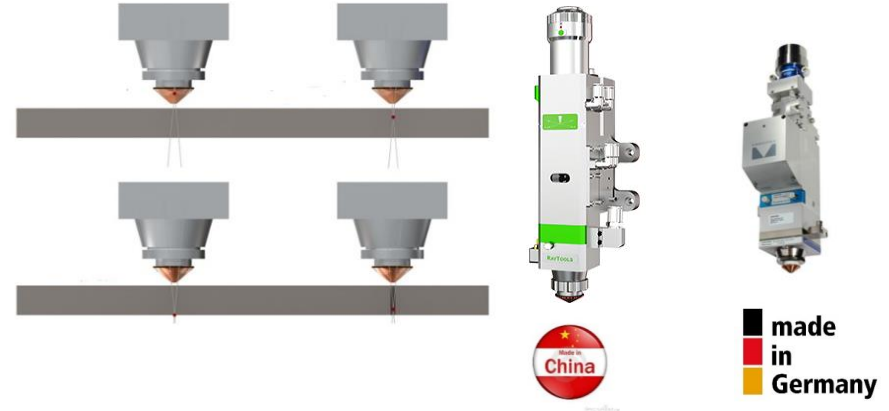
IPG-YLR Specification

YLR-1000/2000/3000 (YLS-3000/4000/6000W)	
Laser mode	CW, QCW
Wavelength	1070-1080nm
Standard output laser power	1000/2000/3000/4000/6000W
Laser beam quality	≤4mm*mrad
Modulation speed	5kHz
Delivery fiber core diameter	≥50μm
Output stability	±2%
Power supply	400-460V/3P+PE@50-60Hz

Core part-laser head

Auto-focus Features:

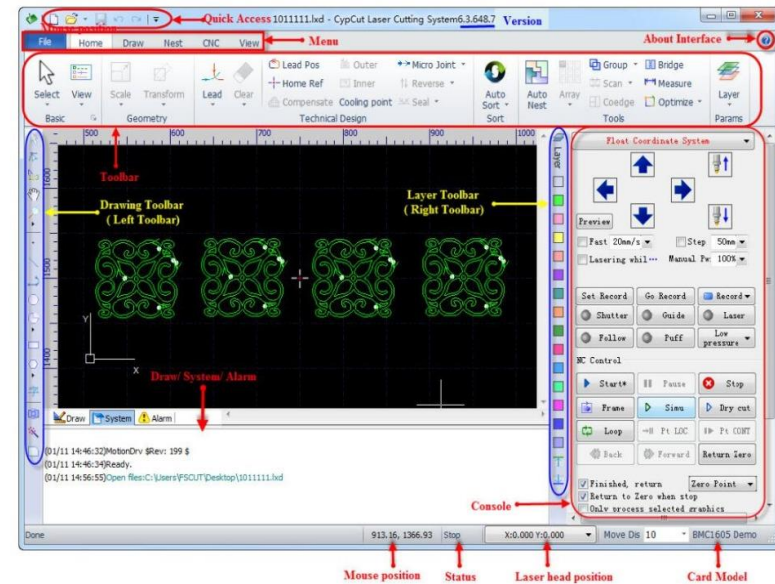
- The focus is controlled by the inner precision servo motor, no need for manual operation.
- Punching time reduced by 80% compared to common cutting head. Best match for high-speed thick- metal material cutting and highly reflective material cutting.
- Large and complete cutting technique data base. Operations are done simply through module data selecting among existing data according to the material features. Easy and convenient operation.
- Supporting remote system monitoring through wireless handheld box and Ethernet.



FUNCTION

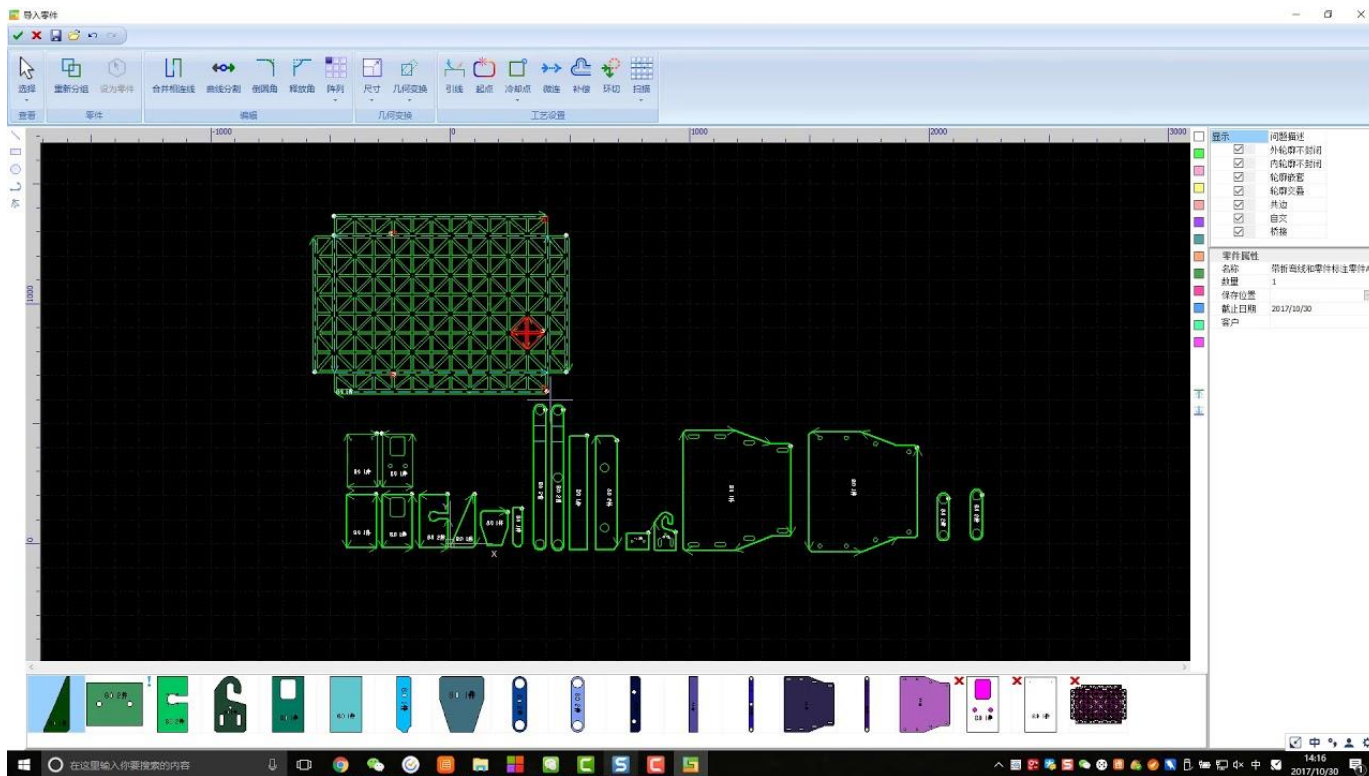
Software & system:

- Professional laser cutting software with simple graphics drawing, including point, line, circle (arc), rectangle, polygon, Bezier curve, text and other basic drawing elements. It mainly supports IGS, DXF, AI, PLT, Gerber and other formats. Graphics can be typeset, zoomed, translated, mirrored, rotated, lead-in / lead-out, micro-connected, and node edited, which is convenient for users to edit graphics.
- Support segmented piercing, progressive piercing, pre-perforation, and support to separate laser power, frequency, laser form, gas type, air pressure, follow height, etc.
- Support remote control system with wireless handheld box and Ethernet



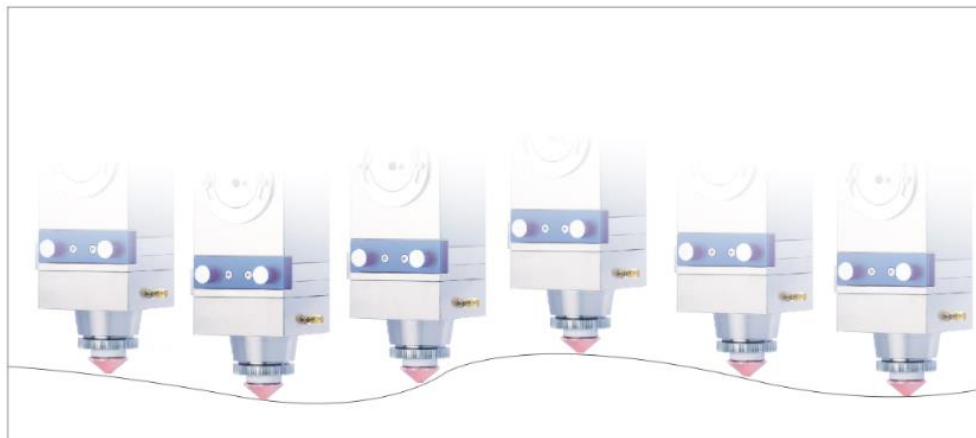
Nesting software:

Professional programming nesting software, highly compatible with cutting software, unique functions in piercing, sharp corner processing, etc.



Leapfrog:

Parabolic motion is adopted between lifting cutting contours, while the traditional cutting system uses "rectangular" motion. The system sets the take-off height and the highest height through PLC, and the contour switching process automatically realizes "frog jump", which greatly improves cutting efficiency.



Intelligent analysis (Optional)

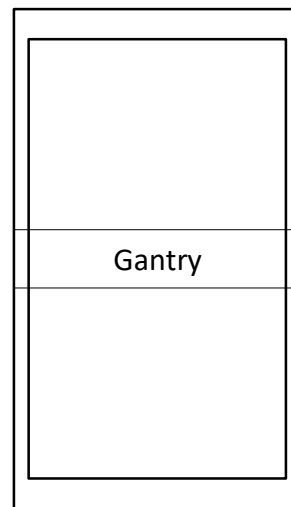
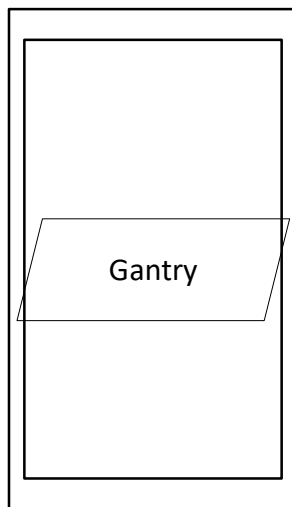
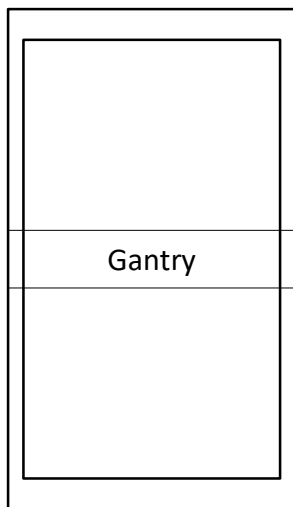
Power failure memory, equipment operation timing, fault alarm, detection, emergency automatic shutdown, fault isolation, fault automatic diagnosis, fault content display, etc. Quickly faults detection; multiple cutting auxiliary gases switched by the system



- Intelligent detection;
- Intelligent evaluation;
- Intelligent diagnosis;
- Intelligent prediction

Gantry deviation self correction:

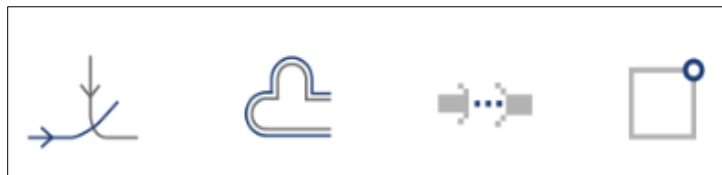
It is necessary for laser cutting machine. It uses two motors to drive the gantry in the same direction to ensure the high dynamic performance of the entire system, especially when the gantry return to origin point.



Software functions



Automatic optimization of imported drawings;

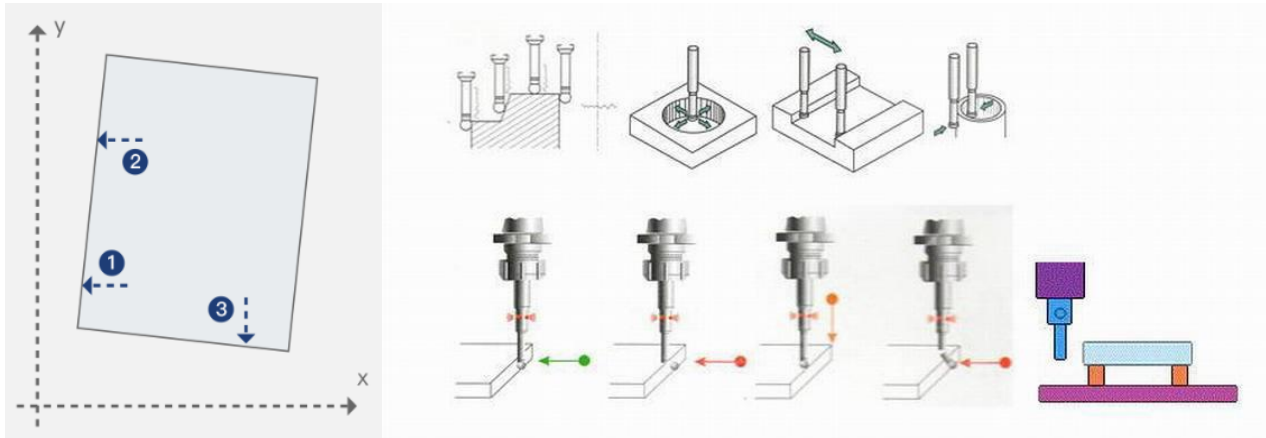


Fast cutting application setting: lead line,
compensation, micro-connect, cooling point;



Photoelectric edge search

To position the metal sheet edge on the working table which is not consistent with the X / Y coordinate, the cutting head can be quickly determined by the *Photoelectric Edge Search* function to improve the processing efficiency.



Machine running dashboard (optional)

- Automatically gather and analysis information about stoppages, cycle times, and other efficiency indicators to help improve the production;
- Real-time machine status monitoring;
- Multiple data acquisition modes: real time data upload, specified time upload, offline cache etc.
- Multiple platforms available: touch screen or PC, tablets or mobile phones;
- Multiple languages available for HMI



Cutting Applications



SS-Brass-CS-AL-CS



Elevator



Electric cabinet

Product info-FLY laser cutter Configuration

	No.	item	Conf	Spec.	Qty	Remarks
Body	1	Machine tool body	●	3000x1500mm 4000x2000mm 6000x2000mm	1	
	2	CNC controller	●	CypCut (Beckhoff optional)	1	CypCut (Beckhoff optional)
	3	Laser power	●	1000/1500/2000/3000/4000W	1	IPG (Raycus optional)
	4	Laser head	●	WSX/RAYTOOLS/Precitec	1	Optional
	5	Exchange table	●	Parallel shuttle table	1	
	6	Cover	●	Protection cover (top not sealed)	1	
	7	Servo-proportional valve	●	SMC O2 Optional: Servo-proportional valve	1	Optional: high presser N2 servo-proportional valve
	8	Monitoring system	○			
	9	Machine documents	●		1	EN/CN version
	10	Spare parts	●		1	Spare parts list
	11	Water chiller	●	According to laser power	1	Colin/TONGFEI
	12	Refrigeration dryer	●		1	Dominike
Auxiliary machine	13	Dust fan	●		1	
	14	Stabilizer	●		1	
	15	Air compressor	○		1	

●: Standard ○: Optional

Production Plants



QUALITY ENDORSE **EXCELLENT**
INTELLIGENT MANUFACTURING

Production Quality Control



High precision Coordinate detector

Full Process Rigorous Quality Control



OPTODYNE Laser Measure Equipment (USA)



Bidirectional Precision Autocollimator



Detail Management for Workflow

Quality Control Process

IQC



▶ Inspect the spare parts according to strict acceptance criteria

Strict quality control for every step of the manufacturing according to Operating Instructions



**IPQC/
PQC**

FQC

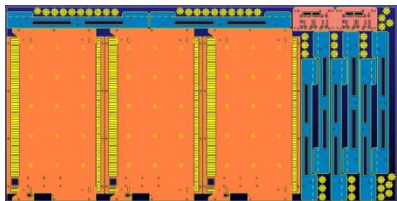


▶ Before Product storage, there will be a comprehensive inspection according to Acceptance Criteria and Production Orders to guarantee the control result.

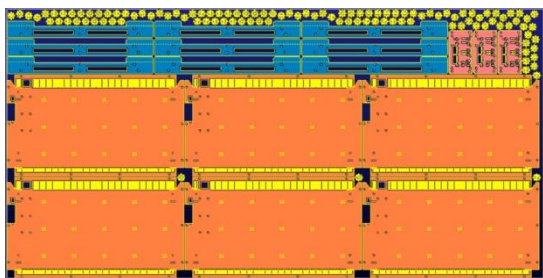
2D laser cutting Application



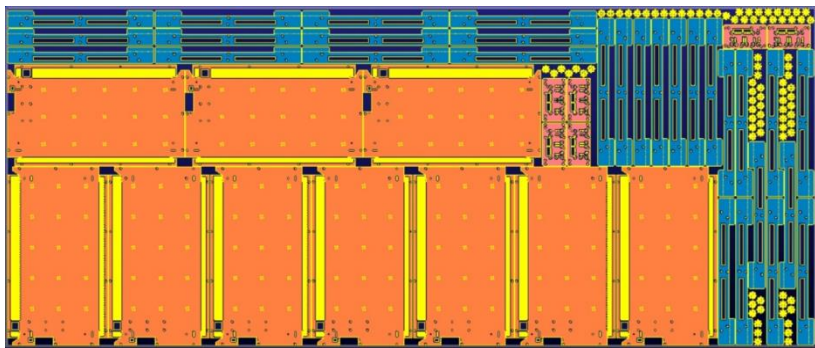
Available working area



3000x1500mm



4000x2000mm



6000x2000mm

Bigger size
customization
welcomed

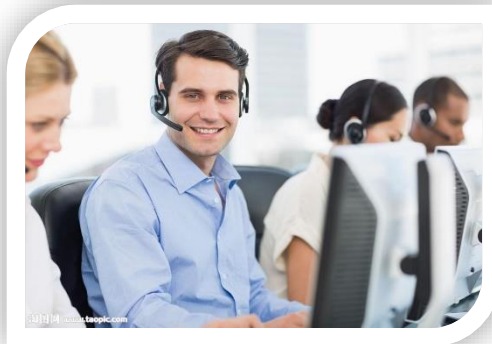
Application



Service Support



SAP ERP system



24 hours online service



Best CRM Records



Global delivery



Local Installation available



5 days free training in factory

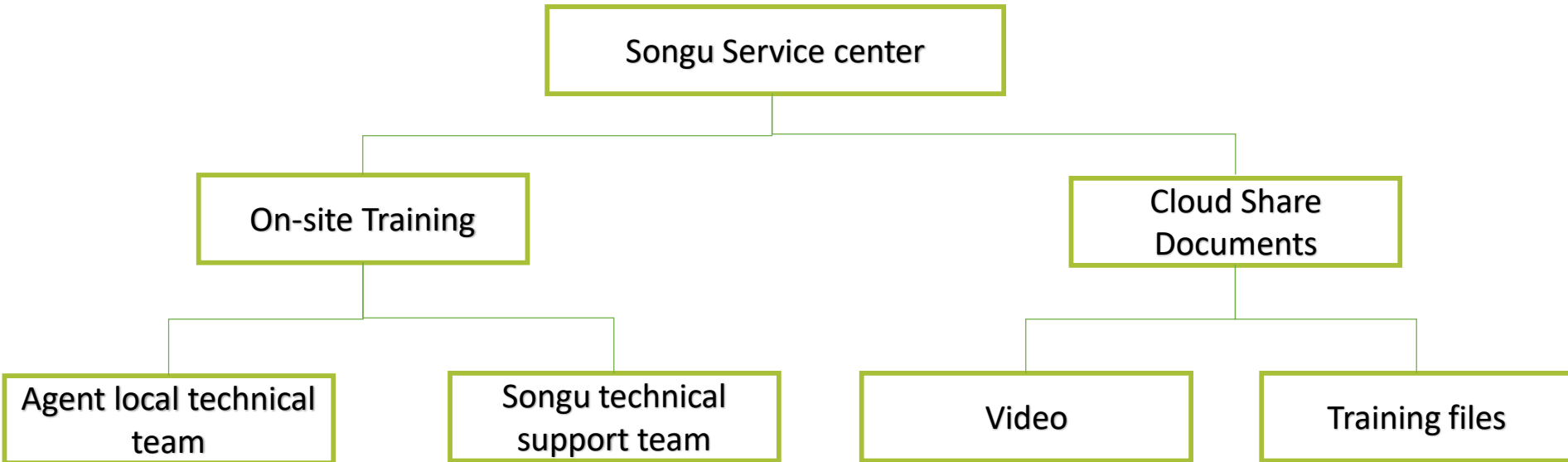
SERVICE

Technical strength: demand research, technical Seminar, laser application testing and samplings service;

Technicians support: 168 domestic technicians, 22 oversea technicians, 5 online engineers, 8:30am~22:30pm online support;

Nearest service: 50 sales & service domestic offices, and 38 oversea agents;

Free Training: 5 days in factory free training (accommodation and food free)



Cooperation Win-win Appreciation Sharing

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