

# [Technical Scheme]

Model: LP-3015D

## Product Introduction

1. High and low exchange platform, fast exchange;
2. Large screen split display, can monitor the production process in real time;
3. All-round protective cover design, safe and environmentally friendly;
4. High power cutting, high efficiency;




## Technical Parameter

Note: The pictures are for reference only, the appearance and size are subject to the actual factory equipment

| No. | Index | Parameter | Index | Parameter |
|---|---|---|---|---|
| 1 | Model | LP-3015D | Floor Space | 8808x3092x2510mm (length x width x height) |
| 2 | Monitor Rate | 6KW | Laser Power | 3000W |
| 3 | Cutting Format | 3000mm×1500mm | Total Weight | 6t |
| 4 | Y-axis travel | 3080mm | Electricity Supply | 380v50Hz±10% |
| 5 | X-axis travel | 1540mm | Maximum Acceleration | 1.2G |
| 6 | Z-axis travel | 250mm | Voltage/Power | 380V/50HZ/10KW |
| 7 | X, Y axis positioning accuracy | ±0.03mm/1000mm | Maximum Feed Rate | 132m/min |
| 8 | X, Y axis repeated positioning accuracy | ±0.02/1000mm | Control System | FSCUT 2000 |
| 9 | The maximum load of the working platform | 1200kg | Auxiliary Gas | Oxygen, Nitrogen, Air |

Cooling system: laser machine dedicated thermostatically controlled chiller (external)
Circuit and protection system: designed according to CE standard

Technical supplements:

1. There should be no serious rust on the processed workpiece. Rust will affect the quality of the cutting section. The plates should be stored in the open air and placed neatly to reduce surface bumps. The pipes should be straight, reduce bending and twisting, and ensure that the front end is flush. Because the bending interference exceeds the relevant standards, the equipment cannot guarantee the cutting effect;
2. Party A must regularly maintain the machine as required;



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## Product Advantages:

**01 Intelligent cutting system 02 Medium power process database 03 Intelligent control system 04 Monitoring and Remote Diagnosis System 05 Wide application 06 Strong and durable bed**

### 01 Intelligent cutting system

FSCUT2000 medium power laser cutting system: easy installation, easy debugging, excellent performance and complete solutions.

### 02 Medium power process database

Supports five-level perforation, any combination of segment or progressive; supports starting, closing, and fine cutting processes; supports air-moving obstacle avoidance, and leapfrog intelligent judgment; Supports automated applications such as simple scheduling, virtual multi-station, and scanning code maps.

### 03 Intelligent control system

Open-loop control system, motion control algorithm; trajectory accuracy 0.03mm, positioning accuracy 0.001mm, repeat positioning accuracy 0.003mm; maximum cutting speed 80m/min, maximum idle speed 150m/min, maximum acceleration 1.5G; Support dual drive error detection function.

### 04 Monitoring and Remote Diagnosis System

In the process of processing, each blind spot area can be monitored at any time to control the cutting process; high-definition intelligent monitoring system, remote alarm operation without danger; remote service worry-free, professional engineers are available at any time;

### 05 Wide application

Widely used in sheet metal parts, kitchen utensils, lamps, cabinets, sports equipment, elevators, transportation, aluminum alloy, power facilities and other industries.

### 06 Strong and durable bed

Independent research and development, overall processing. One-time processing and molding to ensure accuracy. To ensure that the machine tool has excellent shock resistance, high rigidity and stability, good toughness, light weight, corrosion resistance, oxidation resistance, and high processing speed.

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## Cutting System

### 1. Cutting software:

Automatic optimization of imported graphics:
When importing external files, the original image will be automatically optimized automatically
Simple and clear process settings:
After importing the graphics, you can quickly set up the lead, micro-connection, compensation and other processes, and modify the functions in the batch, and you can quickly complete the setting of the whole board process.
Flexible processing control bar:
Support floating coordinate system and workpiece coordinate system, which can not only meet the requirements of flexible production, but also easily realize batch production.
Rich native statistics:
For the use of machine tools, rich and timely statistics can be provided.
Accurate edge finding assistance:
Support photoelectric edge finding and capacitive edge finding to quickly correct the deviation angle of the plate.
Self-correction of dual-drive deviation:
Using the gantry synchronization function, the deviation of the drive shaft will be corrected every time you return to the origin.

### 2.Nesting software:

**Drawing processing and import**
Intelligent drawing recognition, automatic judgment of drawing errors, efficient modification of wrong drawings; support the import of DWG, DXF format drawings; support Exce form to generate drawings, fast import.

**Nesting algorithm**
Fast and high-utilization nesting algorithm to reduce material waste; there is no upper limit to the number of nesting plates; support automatic, manual and manual +automatic addition of mixed nesting methods, support automatic and manual nesting of special-shaped plates.

**Cutting path optimization**
Intelligent sorting algorithm that minimizes empty shift as much as possible; fast manual sorting operation method: a variety of common edge tool path generation modes developed to adapt to different customer scenarios.

**Auxiliary Function**
It can generate various types of processing orders, quotations and other statistical documents; it is fully compatible with the HypCut/CypCutt cutting process.

**New function:**
1. The part recognition interface supports automatic micro-connection
2. Support radar scanning for more graphics
3. Manual nesting increases the "part combination" function
4. Added "align and rotate" function for manual nesting
5. Added the vertex avoidance function of the lead
6. Added C-type common edge tool path lead avoidance function
7. Support setting whether the inner hole allows nested nesting
8. Support batch modification of common edge combination
9. Automatic sorting adds the function of "cutting after the base metal of the outer contour"
10. Support setting the number of processing times for identifying typesetting
11. Optimize the margin setting of recognition typesetting
12. Added "quick selection" function in part recognition interface and drawing interface
13. Support the reading of DWG2018 format files
14. Added four types of duct expansion templates

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## Installation and Training

**1、Installation/Training**

15 days before the delivery of the equipment, provide the customer with the installation floor plan (including the requirements for the installation of civil works, water, electricity, gas, piping, interfaces, etc.).We are responsible for equipment installation and commissioning. The customer is responsible for the civil work of the equipment installation, and the water, gas pipes, and power lines are connected to the machine tool designated by our engineer. We are responsible for the pipeline connected to the machine tool, but the user should provide the necessary cooperation and assistance for the equipment installation and debugging of our engineer.Mainly learn equipment maintenance, operation, laser protection, processing technology, graphic editing, common troubleshooting, etc.The trainees are required to be mechanical, electrical or optical assistant engineers or engineers, understand computer operation, and be able to draw SolidWorks. The trainees should pass the assessment organized by the supplier on eqipment operation, basic laser knowledge, safety protection, maintenance, etc. before they can take up their posts.

**2、After-sales service**

The whole machine is guaranteed for 1 year and maintained for life.

Our company will help the buyer to coordinate the problem of auxiliary equipment sales service. Our sales engineers will provide corresponding telephone support and necessary on-site services according to the problems reported by customers.

During the warranty period of the equipment, our company will replace the components free of charge due to the quality of the equipment components themselves, and provide free services at the same time. [Excluding wearing parts and damage caused by user error]

Regarding the replacement of equipment components (including wearing parts), whether it is within the warranty period or outside the warranty period, please be sure to purchase from our company to ensure that your equipment is in normal use, and we will also be responsible for the maintenance of this component. If there is any damage or failure caused by the accessories purchased from us, our company will stop the free warranty service and the warranty period will end.

During the warranty period, our company does not provide warranty for the following items: nozzle, ceramic ring, dust cover, filter element and filter element, constant temperature fluid, all lubricating oil, working optical fiber, collimating lens, cutting lens.

**3、Pre-validate**

The pre-acceptance is carried out at the supplier's site, and the main acceptance indicators are as follows:

The function of the whole tube laser cutting machine; the appearance and composition of the equipment; the coordination and reliability of the whole tube tube laser cutting machine.

Acceptance of technical indicators of the whole tube laser cutting machine: acceptance according to the main technical agreement indicators of the equipment.

Workpiece acceptance: cutting according to the workpiece provided by the buyer. After the pre-acceptance is passed, it can be shipped.

**4、Final acceptance**

The final acceptance is carried out at the buyer's site and is jointly carried out by the personnel of both parties. The main acceptance indicators are as follows:

The function acceptance of the whole tube material laser cutting machine; the appearance and composition of the equipment, and the acceptance of the coordination and reliability of the whole tube material laser cutting machine.

Acceptance of the technical indicators of the entire tube laser cutting machine; acceptance according to the main technical agreement indicators of the equipment.

Sample acceptance: cutting according to the workpiece provided by the buyer to meet the sample cutting requirements.

## Cutting sample display：





