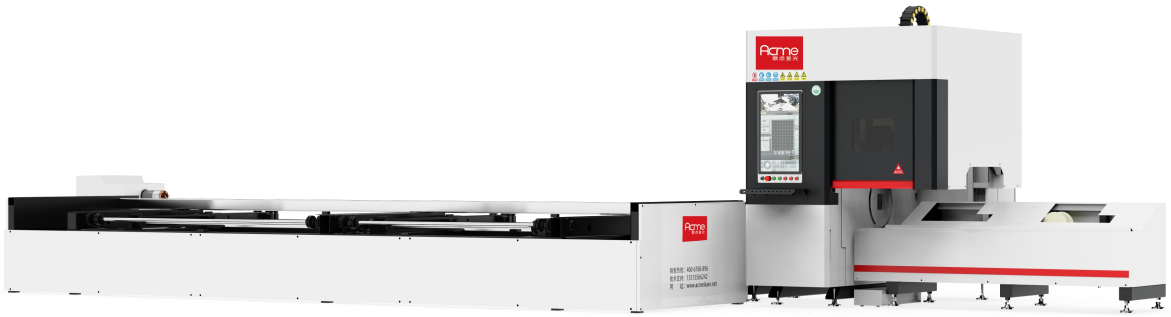


# [Technical Scheme]

Model: LT-6017DB

## Product Advantages

1. Strong tolerance, suitable for various shapes of metal pipes;
2. High cutting efficiency;
3. Automatic feeding;
4. Less tailings;
5. High cost performance;



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

## Technical Parameter

| No. | Index | Parameter | Index | Parameter |
|---|---|---|---|---|
| 1 | Model | LT-6017DB | Floor Space | 10868×3275×2206mm (With feeding system) |
| 2 | Cut Pipe Length | 6200mm | Cut Pipe Diameter | DiameterΦ/口16-165mm |
| 3 | Total power | 23.8KW | Total Weight | 3.6t |
| 4 | Tailstock length | ≥65mm | Electricity Supply | 380v50Hz±10% |
| 5 | Y-axis travel | 7400mm | Maximum Acceleration | 1.5G |
| 6 | X-axis travel | 380mm | Chuck Load | 300kg |
| 7 | Z-axis travel | 250mm | Maximum Feed Rate | 92m/min |
| 8 | X, Y axis positioning accuracy | ±0.05mm/1000mm | Control System | FSCUT3000 |
| 9 | X, Y axis repeated positioning accuracy | ±0.05/1000mm | Auxiliary Gas | Oxygen, Nitrogen, Air |
| 10 | Max.rotating speed | 100r/min | Feeding Pipe Diameter | ≤100mm |

Cooling system: laser machine dedicated thermostatically controlled chiller (external)
Circuit and protection system: designed according to CE standard
Software: Tubest Professional Tube Nesting Software
Supported file formats: Solidworks, Pro/e, UG, etc.

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. Pay attention to the safety of personnel and equipment when feeding pipes, and loading in bundles needs to be carried out by driving;
3. Party A must regularly maintain the machine as required;



# [Technical Scheme]

Model: LT-6017DB

## Autonomous technology:

**1.Machine Bed:** independent research and development, overall processing. Has excellent dynamic and static characteristics. Welded with high-quality raw materials. Ensure that the guide rail surface and the rack surface are processed and formed at one time to ensure accuracy. These design and processing methods 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.



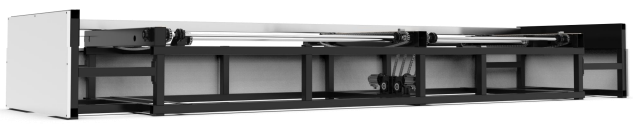
**2. Chuck:** The R&D team of Toppoint Laser Chuck adheres to independent innovation, strong R&D capability, and has obtained a number of technical patents and completely independent intellectual property rights. Compared with other manufacturers, it is more suitable for the application of pipe cutting machines.

**Performance advantages:**
Square hole design, stronger passing ability;
The clamping force can be adjusted intelligently, which is suitable for different types of pipe processing needs;
Full stroke clamping range without manual adjustment;
High dustproof level and stronger stability
The lengthened design of the rear chuck can deeply pass through the front chuck to achieve "zero tailing" cutting in the case of two chucks.

**3. Nylon wheel support:** The equipment is equipped with multiple lifting support mechanisms with rotatable nylon wheels.

**Performance advantages:**
The lifting mechanism can realize pneumatic control automatic lifting. When the processed pipe is changed, the nylon support wheel can be adjusted so that the support wheel has the same diameter as the processed pipe.





**4. Patented design of automatic feeding:**
ACME independently designs and produces independently, aiming at the light pipe and small pipe industries, suitable for round, square and rectangular pipes with a diameter of 30-100mm;

**Performance advantages:**
The total load of the whole machine is 400kg;
Servo feeding, accurate feeding position and close cooperation with the bed;
Chain drive, stable structure, suitable for batch processing;
The design is compact and cost-effective; one person can guard multiple devices, saving manpower and improving efficiency.

Note: The final order is subject to the actual order agreement.



# [Technical Scheme]

Model: LT-6017DB

## Cutting System

**1. Cutting software:**

**(1) Automatic centering during processing:** Collect Z-axis information to obtain the deviation between the center of the pipe and the center of rotation of the chuck. Real-time compensation is performed on the subsequent graphics to be cut to achieve high-precision processing.

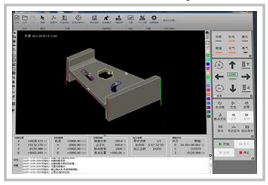
**(2) Cutting of special-shaped steel:** It supports the cutting of standard pipes such as round pipes and square pipes, and also supports the cutting of various special-shaped steels, such as I-beam, channel steel, polygonal pipes, etc., and can be automatically centered.

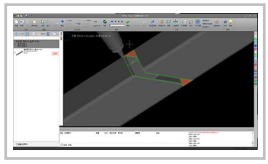
**(3) Dual mode:** Workpiece mode—perforating the cut pipe. Floating mode - suitable for any processing anytime, anywhere.

**(4) Bracket:** When processing long tubes, the bracket can be automatically raised and lowered according to the position of the chuck. The automatic alarm function ensures absolute safety between the chuck and the bracket, and the use of the bracket function can also achieve the purpose of automatic feeding.

**(5) Corner process:** The pipe corner process is introduced, and a set of reasonable corner air pressure, peak power, duty cycle, etc. is set through debugging, so that the cutting at the corner of the pipe is faster and more perfect.

**(6) Rapid frog leap:** According to the pipe section information and the position information of the pipe hole, the Z-axis can be guaranteed a reasonable lifting height to avoid unnecessary lifting.





**2. Nesting software:**

**(1) Intelligent typesetting**

①One-click intelligent typesetting, intelligent drawing recognition.
②Automatically judge the drawing errors, and efficiently modify the wrong drawings.
③Fast and high utilization rate nesting algorithm.
④Automatically adjust the direction of the pipe, a variety of automatic edge sharing and other functions.

**(2)Production report**

①One-click generation of processing reports.
②Automatic calculation of processing time and processing quantity.
③Automatic calculation of cutting length, perforation times, etc.
④Automatically count the utilization rate of materials.

**(3) Typesetting strategy:** All pipes (including special-shaped pipes) can realize the automatic sorting of the empty moving path.

**(4) Profile processing:** It supports the extraction and editing of special profiles such as angle steel, channel steel, I-beam, etc., and can realize the common edge nesting of special profiles, which greatly expands the processing capacity of pipe cutting equipment.

## Why choose ACME LT-6017DB

ACME Laser has a leading market share in the laser tube cutting machine market in China, and is a leading company in laser tube cutting machine equipment. The company has a complete range of products and a rich product echelon, which can meet the finishing requirements of metal pipes in different industries.

ACME LT-6017DB is a cost-effective laser pipe cutting machine with fast chuck speed and high cutting efficiency. It is suitable for crafts, construction processing racks, fitness equipment, steel and wood furniture and other industries.

**1.120 chuck processing capacity**

| Tube Type | Square Tube | Round Tube | Rectangular Tube | Tube Type | I-beam | Angle steel | Channel steel |
|---|---|---|---|---|---|---|---|
| Standard jaws | 16-165mm | 16-165mm | 16-165mm | Standard jaws | 16-165mm | 16-165mm | 16-165mm |

**2. 1500W laser processing capacity (the thickness that can be processed in batches)**

| Material | Carbon steel | Stainless steel | Aluminum alloy | Brass |
|---|---|---|---|---|
| wall thickness | 1-14mm | 1-6mm | 1-4mm | 1-4mm |

Note: The final order is subject to the actual order agreement.



# [Technical Scheme]

Model： LT-6017DB

## 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.

