



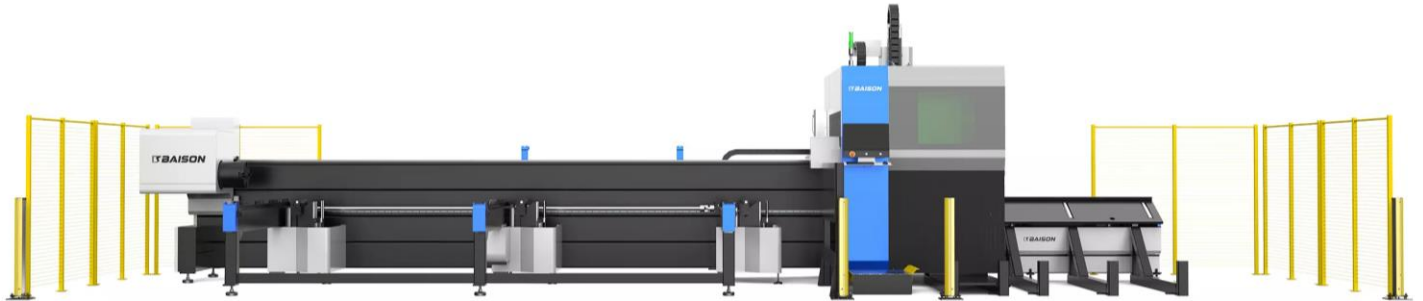
# TECHNICAL PROPOSAL



V36

\*Fence and grating selection

# Product Overview



V36

## ADVANTAGES

- **Heavy-duty Tube Cutting**

V series laser tube cutting machine can not only cut round tubes, square tubes, elliptical tubes, but also can cut any tube shape such as channel steel, I-beam, and special-shaped tubes.

- **Low Investment & High Return**

1 tube laser cutting machine > 3 sawing machines + 2 punching machines

It' s the best metalworking tool for tubes and pipes

- **±45° Flexible Cutting**

Realizing bevel cutting of the workpiece in the range of 0°-45°.

Standard semi-automatic loading rack (chain rolling type) and 3-meter follow-up unloading rack.

# Technical Parameter

| Processing Format & Working Range |                                                  |
|-----------------------------------|--------------------------------------------------|
| Processing Area( L × W )          | 6500mm×360mm                                     |
| X-axis Stroke                     | 500mm                                            |
| Y-axis Stroke                     | 6500mm                                           |
| Z-axis Stroke                     | 500mm                                            |
| Accuracy                          |                                                  |
| X/Y Axis Positioning Accuracy     | ±0.05mm/m                                        |
| X/Y Axis Repositioning Accuracy   | ±0.05mm/m                                        |
| Speed                             |                                                  |
| Max. Moving Speed                 | 50m/min                                          |
| Max. Chuck Speed                  | 60r/min                                          |
| Weight & Size                     |                                                  |
| Max Single Tube Loading Weight    | 1000KG                                           |
| Tail Length                       | 160mm                                            |
| Dimension (L×W×H)                 | 9530*2830*2750mm                                 |
| Weight(kg)                        | 8180KG<br>(Including loading and unloading rack) |

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.

# Technical Parameter

| Parameters of Unloading Rack |        |
|------------------------------|--------|
| Receiving Length             | 3M     |
| Single Tube Load Capacity    | 500KG  |
| Unloading Pipe Length        | 4M     |
| Parameters of Loading Rack   |        |
| Loading Pipe Length          | 6.5M   |
| Single Tube Load Capacity    | 1000KG |

- Features of semi-automatic loading rack:

By running an automatic feeding program to control the feeding rack, automatic feeding is achieved;

Simply place the pipe on the feeding platform, solving problems such as difficulty in manual feeding, low safety factor, and low efficiency.

- Features of fully automatic unloading rack:

The follow-up support for feeding is more stable and safer. With the cooperation of the follow-up feeding rack, automatic feeding of workpieces within 4 meters in length can be completed, reducing the safety issues of manual feeding and improving the efficiency of heavy-duty pipe feeding.

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# Processing Capability

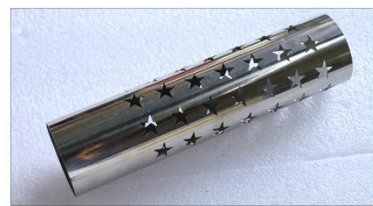
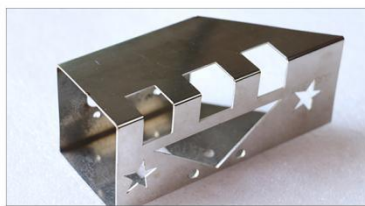
| Pipe Type          | Processing Range(mm)                                                              | Processing Length |
|--------------------|-----------------------------------------------------------------------------------|-------------------|
| <b>Round Tube</b>  | Φ10 ~ 360mm                                                                       | 6500mm            |
| <b>Square Tube</b> | 10*10 ~ 350*350mm (Pipe R angle is greater than 25mm, can be clamped 360mmx360mm) |                   |
| <b>U-steel</b>     | 35#(With standrad professional fixtures)                                          |                   |
| <b>Angle Iron</b>  | 10#(With standrad professional fixtures)                                          |                   |
| <b>H-beam</b>      | 345*345mm (With standrad professional fixtures)                                   |                   |
| <b>I-beam</b>      | 35#(With standrad professional fixtures)                                          |                   |

Note:

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

V36

## CUTTING SAMPLES





# Processing Capability

V36

## BEVEL CUTTING SAMPLES

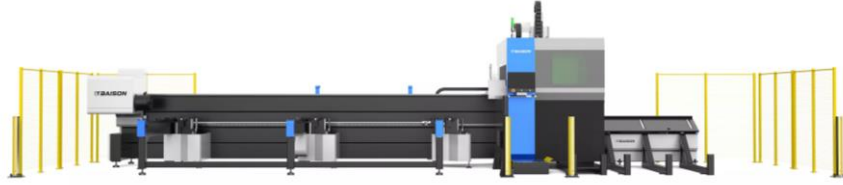


# Product Configuration

| Configuration      | Brand / Specification                                     |
|--------------------|-----------------------------------------------------------|
| Control System     | FSCUT5000B+TubesT                                         |
| Fiber Source       | RAYCUS (CE Version)                                       |
| Cutting Head       | RAYTOOLS BM06K<br>Optional: Beveling cutting head (BM06K) |
| Servo Motor        | VEICHI                                                    |
| Gear And Rack      | JT                                                        |
| Guide              | SHAC                                                      |
| Proportional Valve | AVENTICS                                                  |
| HANLI              | TECHMECH                                                  |
| Water Chiller      | HANLI                                                     |

# Product Configuration

## Super Heavy Steel Welding Machine Bed



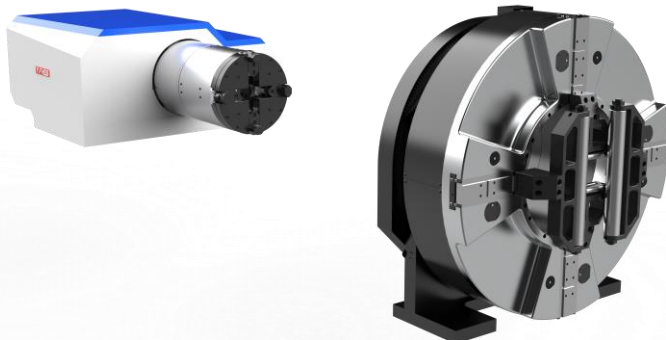
- Adopts a 12mm super-thick monolithic steel plate for laser blanking.
- The groove welding method is used to make the plates reach an equal strength butt.
- ▾ Stress annealing and natural aging treatment are applied to eliminate internal stress.

## Intelligent Clamping System



- The intelligent clamping system features a cylinder-driven clamping mechanism that centers the tube and prevents it from swinging from side to side during cutting.
- It also includes a left and right clamping system that provides greater clamping force, stabilizes the tube, avoids swing, and improves precision.

## Full-Stroke Professional Pneumatic Chuck



- Features a fully sealed design with a blow function on the rear chuck, which effectively protects the chuck from dust and debris entering the gripper, causing malfunctions.
- The blow function also helps reduce the adhesion of cutting dust to the inner wall of the tube, ensuring smoother cutting and minimizing maintenance needs.



# Product Configuration

## Laser Cutting Head



\*Pictures are for reference

- Auto focus
- Higher accuracy
- Longer service life
- Calibration and focus lenses and nozzle better protection

## MOTOREDUCER



- Stable operation
- Low noise
- Large output torque
- High speed ratio

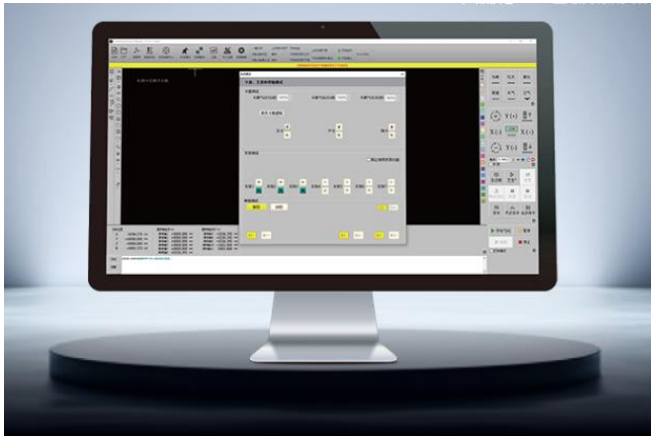
## Servo Motor



- High accuracy
- High-speed performance
- High adaptability & stability
- Timeliness, short dynamic response time of motor
- Comfort less fever and noise

# Product Configuration

## Control System



- Easy to use
- Various file editing functions
- Real-time alarm and protection
- Built-in simple nesting function maximizes the utilization of the sheet metal.
- Fly cutting / Secondary perforation cutting, etc.

## Water Cooling System



- Dual cooling function
- Real-time alarm
- Machine protection

## Guide



- Low noise
- Wear-resistant
- Smoothly,enable fast speed

# Processing Cost

| Items                                            |                        | Air   | Oxygen | Nitrogen |
|--------------------------------------------------|------------------------|-------|--------|----------|
| Peak Power Consumption (KW)                      | Laser                  | 18.50 | 18.50  | 18.50    |
|                                                  | Water Cooling          | 11.00 | 11.00  | 11.00    |
|                                                  | Air Compressor         | 20.00 | /      | /        |
|                                                  | Machine Main Frame     | 17.00 | 17.00  | 17.00    |
|                                                  | Dust Removal Equipment | 1.50  | 1.50   | 1.50     |
| Total Power(KW)                                  |                        | 68.00 | 48.00  | 48.00    |
| Typical Power Consumption(KW) (*75% Total power) |                        | 51.00 | 36.00  | 36.00    |
| Power Consumption Cost (0.15USD/kwh)             |                        | 7.65  | 5.40   | 5.40     |
| Consumable Parts (USD/h)                         |                        | 0.2   | 0.2    | 0.2      |
| Gas Consumption(USD/h)                           |                        | 0     | 2.5    | 6        |
| Total Operating Cost (USD/h)                     |                        | 7.85  | 8.10   | 11.60    |

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.

# Inspection & Assembly

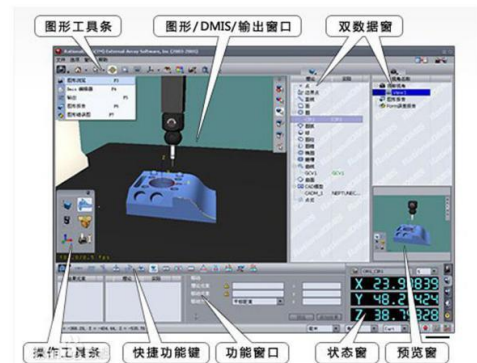
## DURING ASSEMBLY

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.

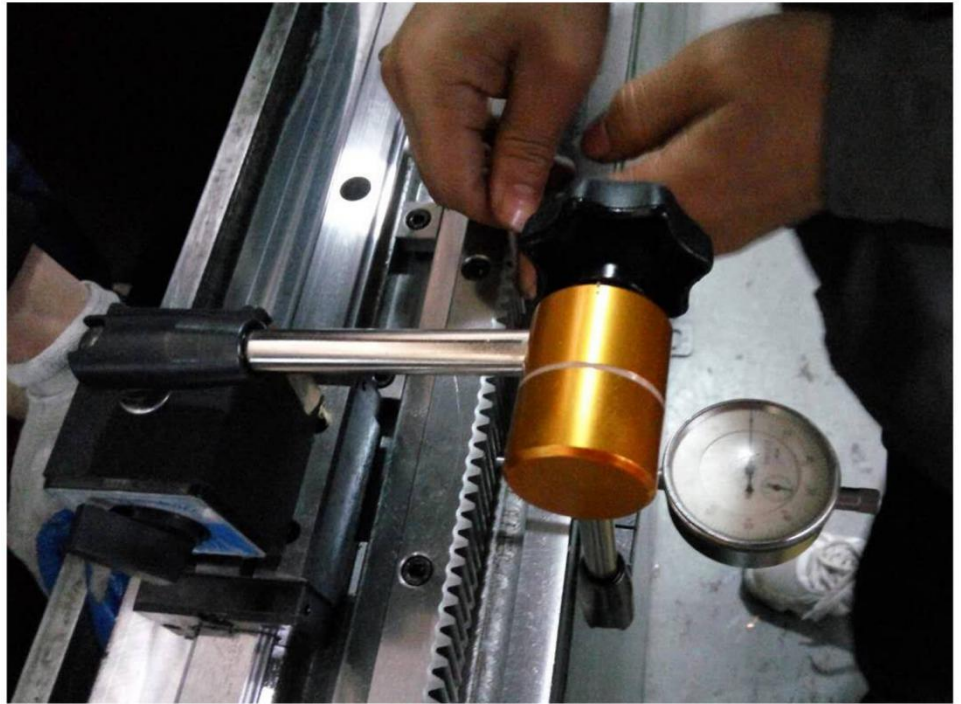




# Inspection & Assembly

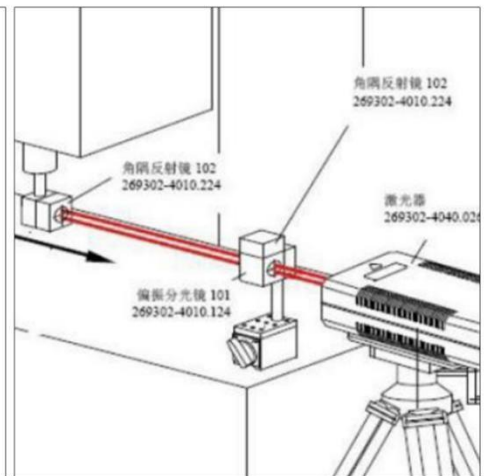
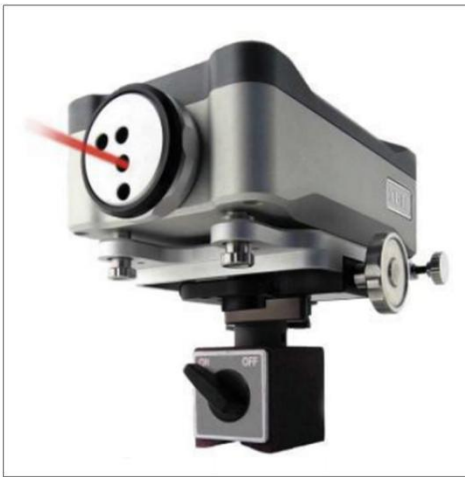
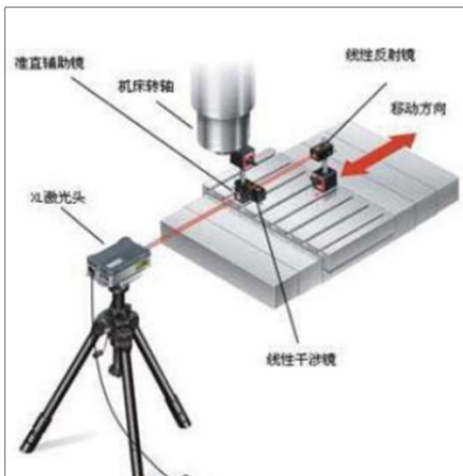
## DURING ASSEMBLY

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

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- 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

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Technicians would offer field installation, debugging and training when they come to the customer's factory.



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 equipment.

## AFTER-SALE SERVICE

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- 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

## ASSEMBLY WORKSHOP



ASSEMBLY WORKSHOP I



ASSEMBLY WORKSHOP II

## WHOLE INDUSTRIAL CHAIN LAYOUT



· The 10000 m<sup>2</sup> 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

