About Us

Shandong Oree Laser Technology Co., Ltd. is a high-tech enterprise integrating R&D, production and sales of laser application equipment.

66000m²

Manufactory

The company has a manufactory of 66000 square meters, including modern standard factory buildings of 4000 square meters and smart office building of 6000 square meters.

1,000

Over 1000 Employees

The company has more than 1,000 outstanding employees, including more than 120 professional core R&D team members, and some experts with more than 15 years experience of laser filed.

150+

Products are exported to 150+ countries and regions

The products are exported to more than 150 countries and regions including Russia, the United States, South Korea, India, Thailand, Poland, Vietnam, and Malaysia.

30

International certification, patent

It has obtained ISO9001, RoHS, CE and FDA international certifications, and has more than 30 utility model patents and appearance design patents.

6

Major product series

Products mainly include Flatbed fiber laser cutting machine, Tube fiber laser cutting machine, Sheet&Tube dual-use fiber laser cutting machine, 3D fiber laser cutting machine and Hand-held welding machine.

INDUSTRIES

Wide application field

Products have been widely used in electronic appliances, precision machinery, integrated circuits, auto parts, kitchen and bathroom hardware, smart home, handicraft processing, fashion and lighting industries.

EASILY HANDLE MULTIPLE TASKS

Efficient Operation

High Power Fiber Laser Cutting Machine OR-PG

Full Protection Cabin • Monitoring System • Super High Precision

Fully Enclosed Protective Cover

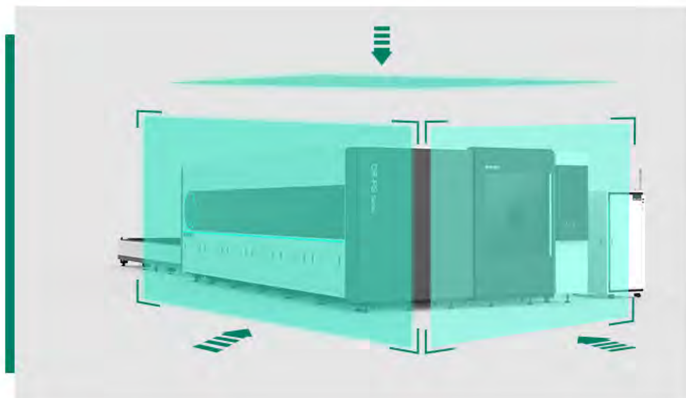
- Rear Camera Monitoring

- Built-in Camera Monitoring

- Intelligent Monitoring

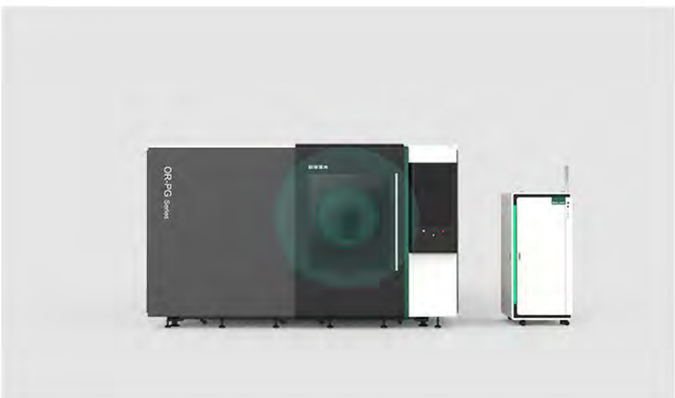
  Split screen display, operation monitoring is not delayed

- The large 32-inch screen and the integrated design of monitoring and operation provide users with the ultimate experience;
- The protective cover has a built-in camera to monitor the machine without stopping the machine during operation, which is convenient for the operator to observe the cutting process in real time;
- The rear camera of the outer cover is convenient for the operator to monitor the side and rear dynamics in real time



Protective Cover

Fully enclosed design, internal dust is filtered to discharge.



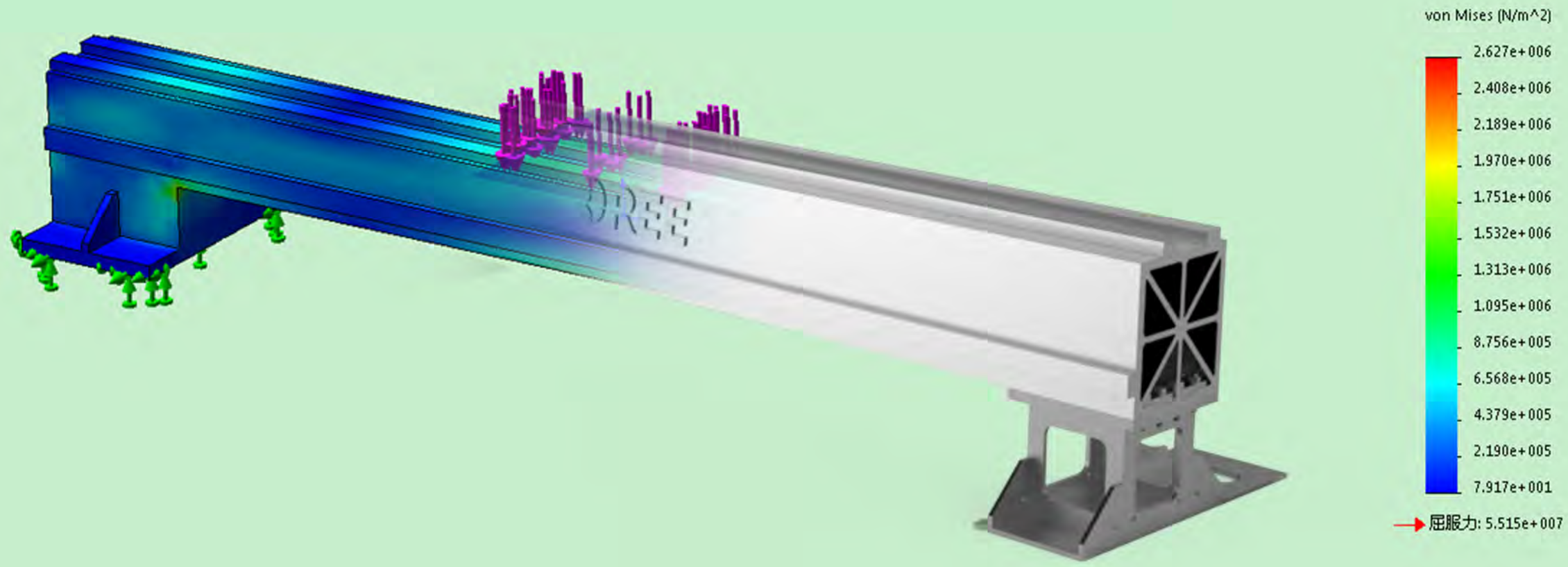
CE Standard Protective Glass

The observation window adopts European CE standard protective glass, which makes eye protection safer.

Thicken Sheet Metal

The thickness of the sheet metal is 1.5-3mm, the shell is not easy to deform, and the body is more tough.

The Fifth-generation a'Aviation Aluminum Beam



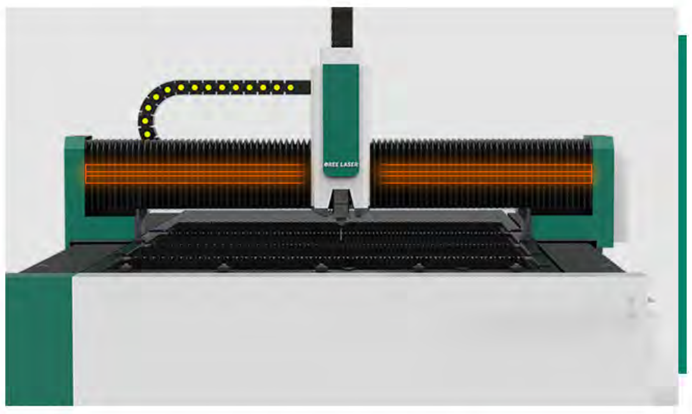
- In order to improve the structure of the beam and optimize its dynamic performance, the R&D staff of Oree took advantage of the previous 4 generations of beams and used finite element analysis to ensure the stability of the beam structure;
- Under the condition of normal operation of the laser cutting machine, physical monitoring was observed for 30 days;
- The structural stability and dynamic performance meet the expected standards, and finally the fifth-generation aviation aluminum alloy beam was successfully developed.

T6 Heat Treatment Process

The whole is processed by **T6 heat** treatment process to make the beam obtain the highest strength. Solution treatment increases the strength and plasticity of the beam, and improves the corrosion resistance of the alloy; complete artificial aging makes the beam obtain the maximum strength (tensile strength), and obtains the hardness and ductility by controlling the effective **temperature and holding time.**

Stop Structure

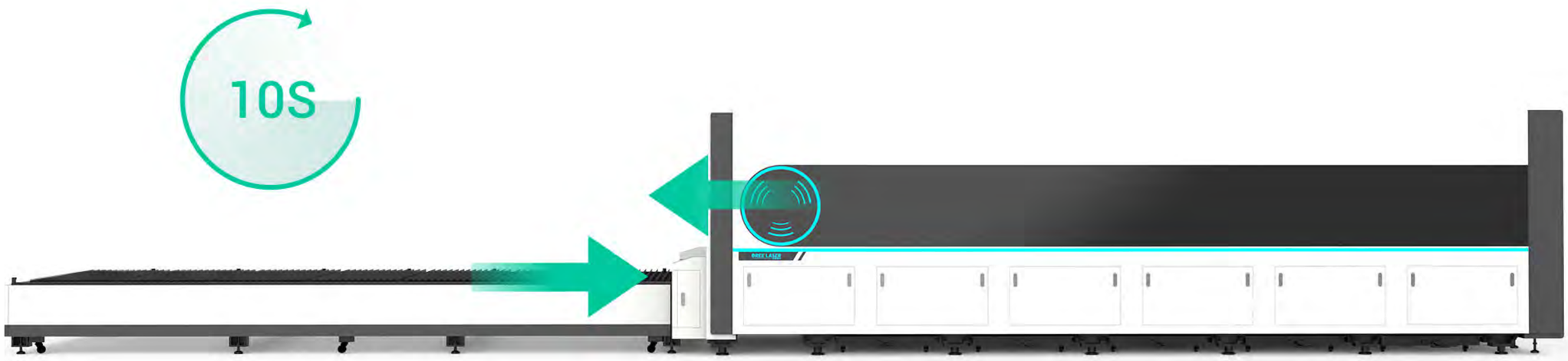
The beam is specially equipped with a "**stop structure**", the convex stop and the concave stop are tightly locked, and the strong stop of the side wall is on the inner side to resist external forces. The overall structure can ensure that the beam does not move, and the structure is stronger.



Lightweight And High Speed

OREE's newly developed and upgraded mass-produced beams optimize and reduce their weight while ensuring structural stability, ensuring their ultra-high response speed.

Six-sided Steel Rapid Exchange Platform

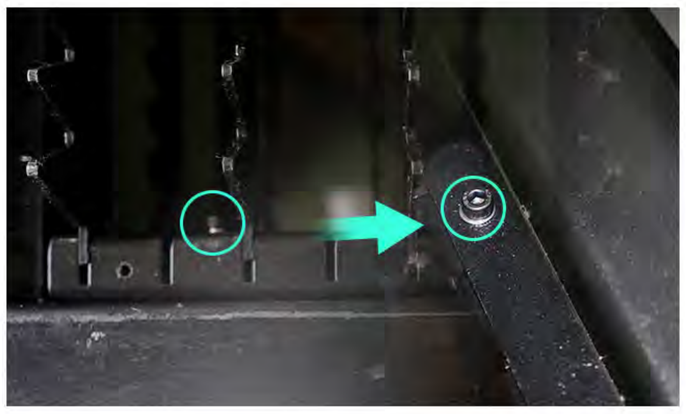


- **Single Platform Exchange Only Takes 10 Seconds**

Taking the 3015 platform as the standard, a single platform exchange only takes 10 seconds, which can effectively improve the processing efficiency of the manufacturer.

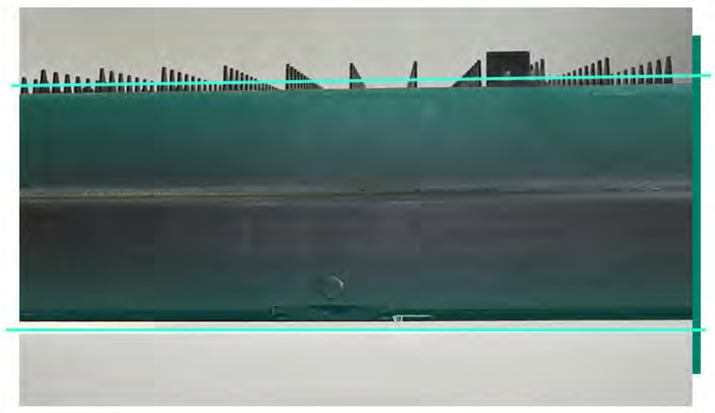
Partition dust removal

Optimize the dust removal function of the equipment, remove dust in stages according to the use of the area, save energy and reduce emissions.



Blade reinforcement

Prevent plate vibration during processing and improve cutting accuracy.



Guide rail V-groove + pressure block design

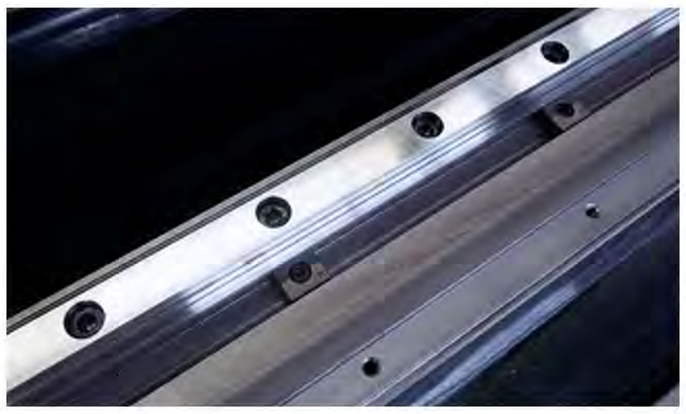
Provide guide rail fine-tuning function to ensure that the guide rail is always level with the bed.

High-load Wrap-around Hollow Bed

The special bed for ultra-high power laser cutting machine is made of high-strength steel. The cutting area is hollow design to prevent high-temperature slag from splashing to the surface of the bed connecting ribs to prevent the machine from overheating and deformation. It is resistant to strain and Overburning advantage to ensure the accuracy of the bed

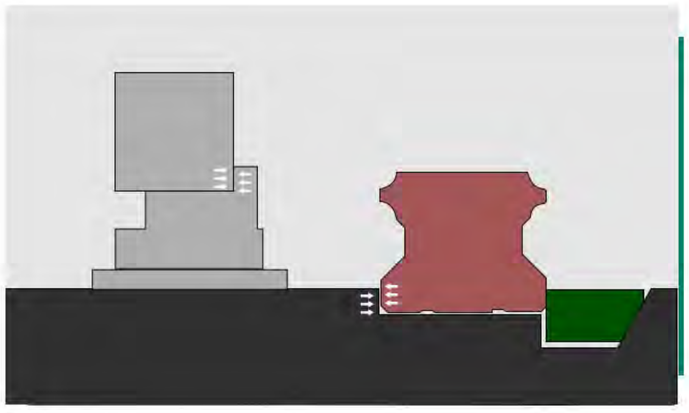
Partition dust removal

The overall thermal stress annealing treatment method is adopted to eliminate thermal stress, reduce bed deformation, and greatly extend the service life of the bed without deformation for 20 years



Guide rail V-groove + pressure block design

The guide rail fine-tuning function can ensure that the guide rail is always level with the bed

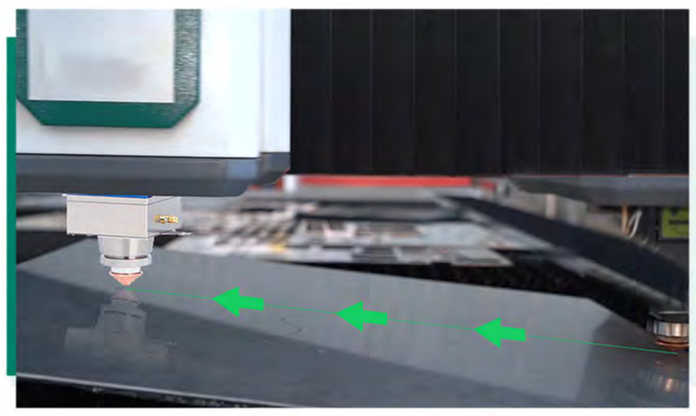


Blade reinforcement

The structural design as shown in the picture can increase the firmness and stability of the guide rail and rack installation, and ensure the cutting accuracy

Automatic Focusing Laser Head

The German Precitec laser head is made of high-quality materials in accordance with advanced technology. It is strong and durable; it can achieve "online" measurement during the production process, and the measurement is accurate and rapid.



Laser Head Follow-up Function

Follow the change of the height of the board, don't worry about the unevenness of the board affecting the cutting effect.

Automatic Cleaning

Equipped with laser head brush, which can automatically clean the nozzle, which is efficient and worry-free.

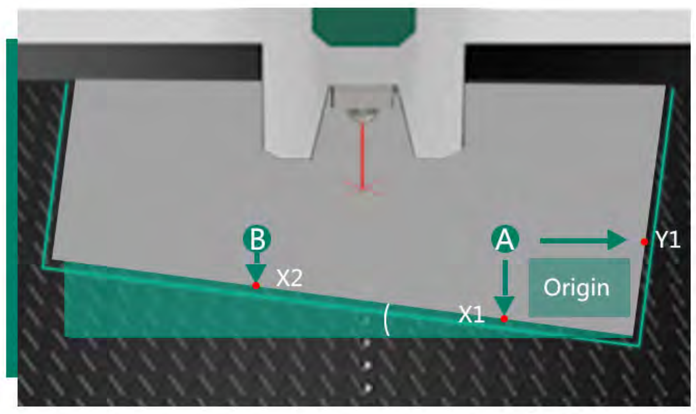
Long Service Life

The protective lens is continuously monitored; the internal structure of the laser head is completely sealed to prevent the optical lens from burning due to dust.

Intelligent Control System

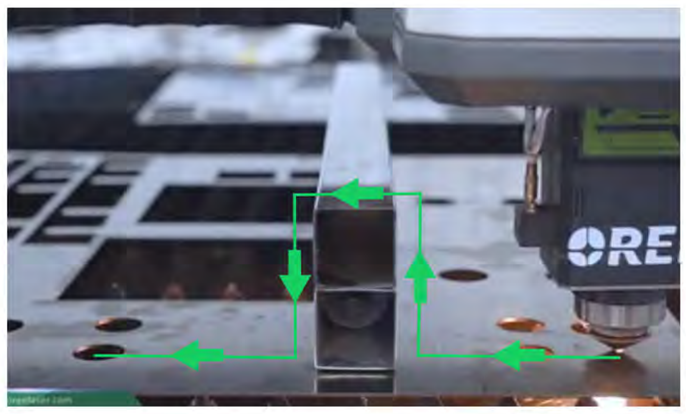
FSCUT8000 Bus Numerical Control System

FSCUT8000 is a set of high-power dedicated bus numerical control system. Its processing and drawing are separated to ensure the stable operation of processing equipment.



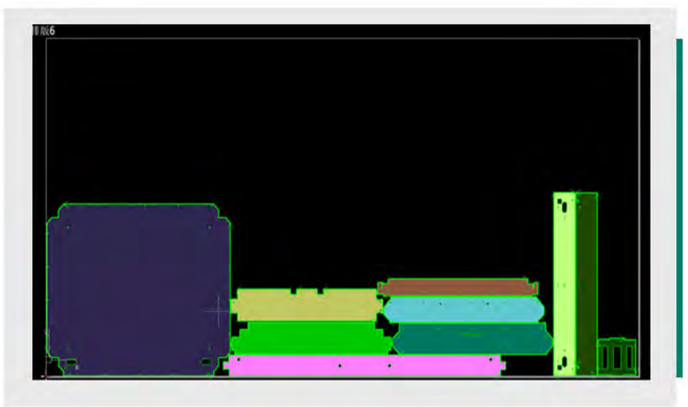
Ultra-high-speed Capacitor Edge Seeking

High-speed and high-precision edge-finding. The unilateral error of edge-finding at **500mm/s** speed is **less than 0.5mm**. It can accurately locate the edge of the plate, optimize the layout according to the position of the plate



Intelligent Anti-collision Technology

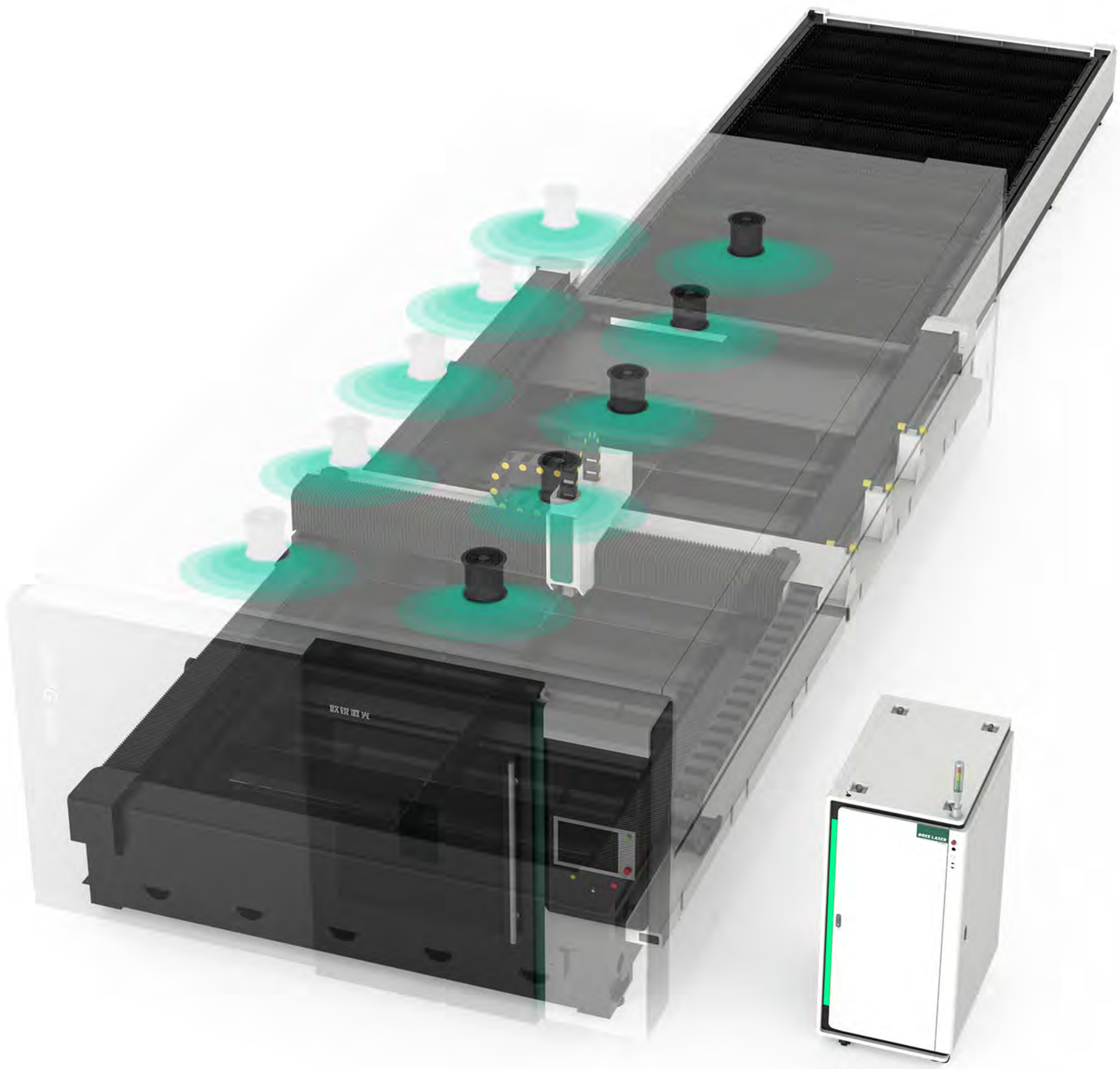
The use of intelligent anti-collision head technology greatly reduces the probability of head collision.



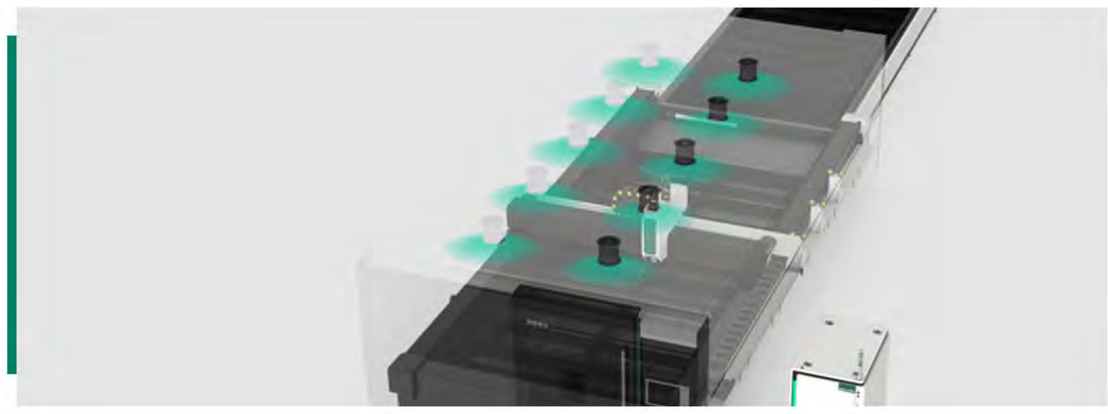
Save materials

The HyVision visual waste material reproduction system realizes the reuse of waste materials. On average, **8%** of the waste material can be used for each plate.

Partition dust removal system



The fan is placed on the top of the protective cover, and the intelligent smoke detection can automatically start and stop the smoke exhaust according to the amount of smoke; the positive wind pressure creates a real smoke-free environment, and at the same time ensures that the operator can observe without obstacles when cutting thick plates.



Truly smoke-free environment

Positive wind pressure, strong ventilation, real smokeless cutting in the protective cover;

Partition dust removal

Optimize the dust removal function of the equipment, remove dust in sections according to the use of the area, save energy and reduce emissions.

QC Lifeline, Full Control

The QC quality control system under the "whole industry chain" mode is in the quality loop of equipment production. Each link requires quality management personnel to conduct real-time supervision in accordance with the requirements of operating standards and operating procedures, so as to ensure that the equipment is processed and assembled. The debugging end, the supervision end and other links realize the quality controllable, so that it meets the quality technical requirements.

- **LASER CUTTING**

Accurate cutting, small error, will not cause plate size error due to slitting

- **GROOVE WELDING**

Groove welding and seamless welding are used to make the plates (pipes) reach equal strength butt, and ensure that the bed reaches equal strength

- **STRESS ANNEALING**

Stepwise increase temperature to 580 degrees for annealing treatment, and then aging treatment for 1-2 days, release the internal stress of the bed, the internal stress is basically eliminated.

- **SANDBLASTING**

The impact of high-speed sand flow is used to clean and roughen the surface of the bed. After spraying, the bed can form a smooth and bright permanent coating film to achieve the purpose of decoration and anti-corrosion.

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- **FINISHING**

A few machining allowances are cut from the surface of the finely machined workpiece to obtain high machining accuracy and a small surface roughness value.

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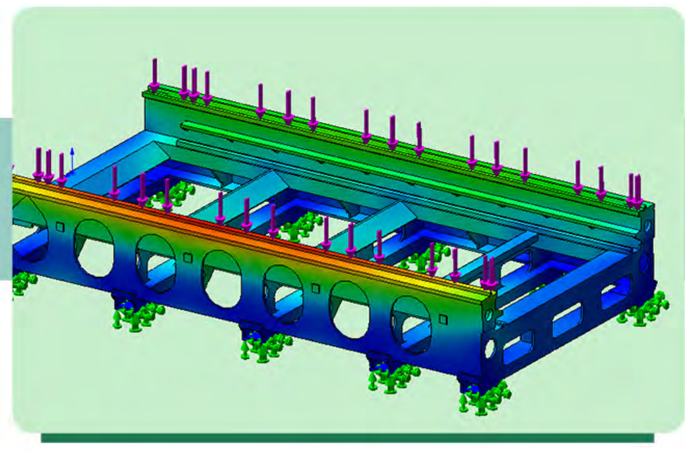


Design drawing——Make a model

Through computer finite element analysis, the structure of the bed is accurately designed, and the mold is 1:1.

Brush Paint

Ensure that the casting model has a beautiful appearance and no trachoma.

Pouring

Fill the molding with resin sand in the sand box, and pour it after the molding is fixed, which effectively eliminates shrinkage and porosity defects, and the mold has high rigidity.

Clean Up The Sand

After cooling, the casting is hoisted out, and the casting is naturally separated from the dry sand. At the same time, the integrity of the casting is checked for other defects, and then the sand is cleaned with a shot blasting machine.

Stress annealing

Stepwise increase temperature to 580 degrees for annealing treatment, and then aging treatment for 1-2 days, release the internal stress of the bed, the internal stress is basically eliminated, the cast iron bed will not be deformed after 50 years of use.

Sandblasting

The impact of high-speed sand flow is used to clean and roughen the surface of the bed. After spraying, the bed can form a smooth and bright permanent coating film to achieve the purpose of decoration and anti-corrosion.

Roughing

Cut most of the machining allowance from the workpiece to make the shape and size close to the requirements of the finished product. Leave it for another month to achieve natural aging and ensure that the deformation of the rail mounting surface is extremely small, not exceeding 0.02mm/M.

Fine processing

Cut less machining allowance from the rough machined surface, so that the workpiece can achieve higher machining accuracy and surface quality.

Finishing

A few machining allowances are cut from the surface of the finely machined workpiece to obtain high machining accuracy and a small surface roughness value.

Production lines

Bed Foot Installation

Adjust the height of the feet according to the test results of the strip level to ensure the accuracy of subsequent installation.

Rail Installation

Use photoelectric autocollimator to detect the straightness and flatness of the guide rail to ensure that the detection value is within the standard range.

Rack Installation

The relative position of the guide rail and the rack is locked by the measuring rod and the multi-point position is clamped. After the distance is detected by the dial indicator, data statistics and analysis are performed to ensure that the two are parallel.

Beam Installation

After the beam is installed, use a three-coordinate measuring instrument to check the coaxiality to ensure the relative perpendicularity of the X/Y/Z three-axis

Positioning Accuracy Inspection

The laser interferometer tests the X-axis positioning accuracy to ensure the accuracy of the whole machine.

Positioning Accuracy Inspection

The laser interferometer tests the Y-axis positioning accuracy to ensure the accuracy of the whole machine.

Laser Power Meter Test

Ensure that the laser output power of the laser is within the specified range

72h Machine Aging Test

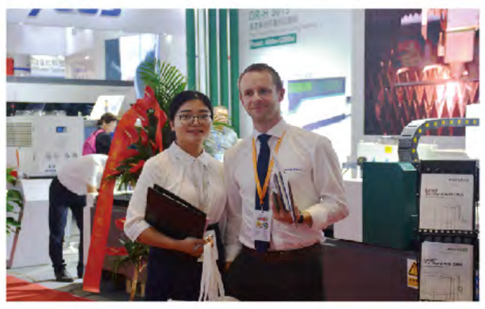
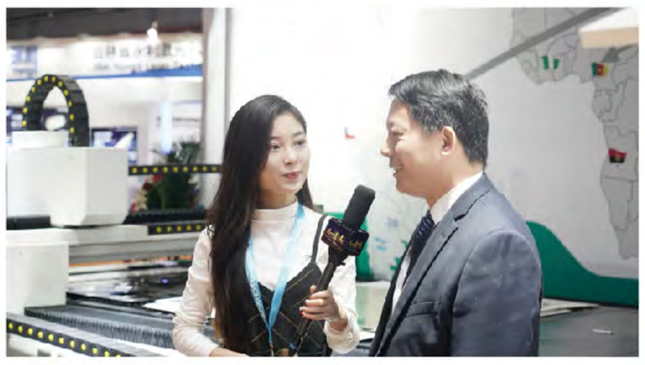
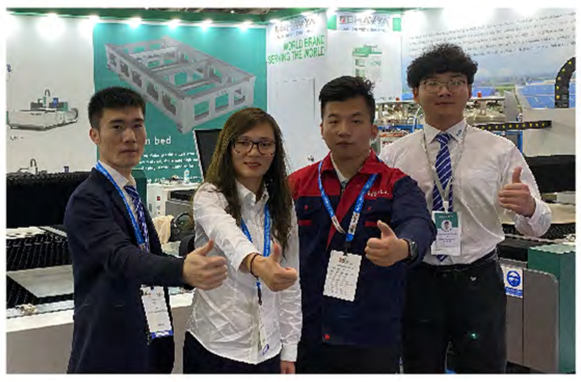
Simulate the high-intensity test of various harsh conditions in the actual use of the equipment, and at the same time, according to the requirements of use, rationalize the improvement to ensure the factory pass rate and improve the reliability of the equipment

Pack And Ship

Adopt sealed composite aluminum foil moisture-proof low-pressure packaging and thick wooden boards to protect the fuselage to prevent bumps and collisions during shipping, and minimize unnecessary mechanical losses that may occur during transportation.

AFTER-SALES SERVICE

OREE LASER









EXHIBITION SILHOUETTE

OREE LASER