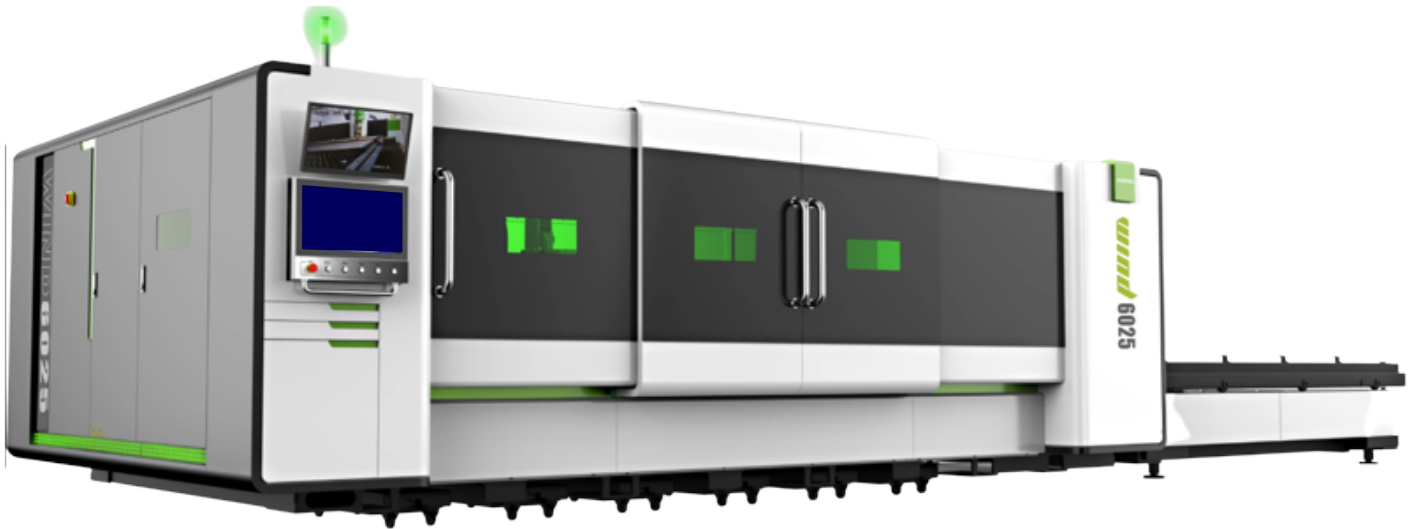


Fiber Laser Cutter Fully Enclosed with Hydraulic Shuttle Table



► FEATURES

- Servo control assisted gas: Reduce gas consumption during the movement without cutting to save cost.
- Cold drew extruded aluminum gantry: Lightweight, great rigidity, high dynamic and precise, robust structure, less deformation.
- Rail-typed typed splicing machine tool design, connect the front and rail side precisely.

► Machine Body

High-rigidity welded body, compact design and stable performance.

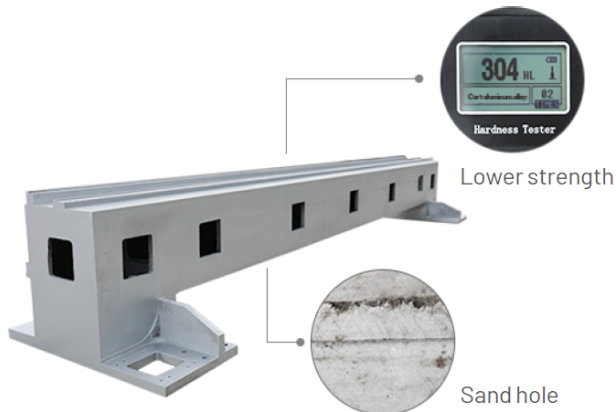
► Gantry

Special molding technique made aviation aluminum gantry: light weight, strong rigidity, high precision, fast response and stable running.

► Z-Axis System

Integral molding die-cast aviation aluminum Z-axis is equipped with high precision ball screw system, to achieve good rigidity, fast response and high precision.





► 3rd Generation Aluminum Bridge Aviation Quality

It is manufactured to aerospace standards and formed by 4,300-ton press extrusion molding. Due to its aging treatment, its strength can reach 6061 T6, which is the highest strength level in bridges.

Aviation aluminum has many advantages, such as good toughness, lightweight, corrosion resistance, anti-oxidation, low density and greatly increases the processing speed.

► PRECITEC Laser Cutting Head

The **PRECITEC Pro-Cutter** offers a fully integrated sensor system that monitors the cutting process and provides the user with relevant information. The head ensures a processing with up to 15 kW and that each component can be reproducibly manufactured at a high standard of quality.

- Motorized focus position adjustment for automatic machine setup and piercing work.
- Lightweight and slim design created for fast acceleration and cutting speed.
- Drift-free, fast-reacting distance measurement.
- Permanent protective window monitoring.
- Straight and angled design versions adapted to the machine concept.
- Completely dustproof beam path with protective windows.
- LED operating status display.
- Display of operating parameters via Bluetooth® and interface for machine control.
- Pressure monitoring in the nozzle area (gas cutting) and in the head.



► Laser Source

This model equips with IPG fiber laser source, IPG laser source enjoys the following advantages:

- It has a super compact design with the laser housed in a hermetically sealed cabinet.
- 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 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.



► Industrial Water Chiller:

- Temperature control with $\pm 0.5^{\circ}\text{C}$ accuracies. Intelligent temperature controller with Manual and Automatic modes.
- Dual temperature to meet different needs of fiber laser device and lens.
- **Multiple alarm functions:** compressor time-delay protection, compressor over current protection, water flow alarm, and high/low-temperature alarm.
- **Quality Seals:** CE Approval, RoHS, and REACH Approval.
- **Tank Capacity:** 16 L of Distilled or Deionized water.

► Automatic lubrication:

The lubrication time period can be set in the software, to ensure the accuracy of transmission system, operator just need to set up the time break in the software and keep the oil container full.



► Transmission System

Synchronous drive system on both side of cutting gantry, equipped with high torque servo drive system and perfect laser welded gear system. Ensure the powerful driving, high accuracy cutting and excellent dynamic response.



TECH SPECIFICATIONS	
Working Area:	9.84' x 32.8' (1000 x 3000 mm)
X, Y Two-axis coordinated positioning speed (MAX):	2.4 G
Positioning acceleration (MAX):	2.0g
Positioning accuracy:	±0.05 mm/m
Re-positioning accuracy:	±0.03 mm
Laser resonator:	IPG (Germany Brand)
Laser head:	PRECITEC (Germany Brand)
Controlling System:	Beckhoff (Germany Brand)
X-Y-Z Servo Motors:	X-2x9700W; Y- 1x6880W ; Z-1x940W
IPG-YLS Specification:	6kw to 15kw
Laser Mode:	CW,QCW
Wavelength:	1070-1080nm
Standard output laser power:	6000W
Laser beam quality:	≤4mm*mrad
Modulation speed:	5kHz
Delivery fiber core diameter:	≥50μ
Output stability:	±2%
Power supply:	400-460V/3P+PE@50-6

► Software Training

"The user is required to have the basic knowledge of the programming design"

- After training, the operator can install and use programming software independently.
- A single part drawing can be prepared; Input the part drawing; Make the part cutting plan and production plan.
- Able to input the cutting plan into the Machine; Calculate the cutting time;
- Make the production report.
- Master the data management.

► Operation Training

- Properly independently turn on/off the Machine.
- Identify and determine the system information and troubleshooting.
- Learn the functions of different parts of fiber laser cutting Machine: such as CNC control, load and unload the material, precautions of fiber laser use, the operation manual, independent operation, etc.
- Master using the original basic parameters to cut the parts with oxygen or nitrogen.
- According to the condition of the cutting material, optimize the cutting parameters, replace the cutting nozzle.

After the machine is delivered, BES CUTTER will arrange technicians to conduct several days training for the machine operators. The training contents are as follow.