

500W 3D Laser Cutting Machine with Robotic Arm

This 500W 3D laser cutting machine is designed for precision cutting of 5mm carbon steel and 3mm stainless steel. It features a robotic arm for flexible 3D cutting capabilities, allowing for complex shapes and intricate designs.



ADDITIONAL IMAGES



Overview



The 6-axis robotic laser cutting workstation performing high-precision 3D metal processing.

Advanced 3D Robotic Laser Cutting

This 500W 3D laser cutting workstation integrates a high-precision 6-axis robotic arm with advanced fiber laser technology for complex metal processing. Designed for versatility, it excels in cutting intricate shapes and 3D components in materials like stainless steel and carbon steel. The system features a fully integrated CNC control environment, ensuring seamless operation and high efficiency for demanding industrial applications.

Performance Metrics

Key Performance Metrics

500 W

Laser Power

6

Robot Axes

2033 mm

Arm Radius

Material Processing

Cutting Capacities

Material	Maximum Thickness
Carbon Steel	5mm
Stainless Steel	3mm

Supported Materials

Carbon Steel, Stainless Steel, Spring Steel, Alloy Steel, Aluminum Alloy

Technical Features

System Components

- Fiber laser source with power supply
- Water chilling unit
- Transmission fiber and laser guidance system
- Laser cutting head with follow-up sliding table
- 6-axis robotic arm
- Robot control cabinet and teaching box

Integrated CNC Control

The system utilizes a Profibus bus system to ensure stable signal interaction. The fully integrated CNC software allows for numerical control programs to be executed directly, supporting NC programming or CAD/CAM systems without the need for complex language conversion.

High Precision Operation

Yes

Applications

Target Industries

Aerospace • Automotive • Engineering Machinery • Textile Machinery • Agricultural Machinery • Elevator Manufacturing • IT Hardware