



FEASURES

- **Low costs and maintainance free**
- **Excellent power stability**
- **Higher current-laser transforming efficiency**
- **Maximum modulated frequency 5kHz**
- **Optimized processing quality with two optional modes continuous and modulated pulse**
- **Good beam quality and suitable for precision machining**
- **Outstanding system reliability**
- **Simple control interface**

APPLICATION

- **Precision cutting**
- **Surface treatment**
- **3D printing (SLS/SLM)**
- **3D cutting and welding**
- **Precision welding**
- **Drilling**
- **Metal plates processing**
- **Li battery manufacture**

BWT laser 500W single mode Yb-doped fiber lasers feature high beam quality near diffraction limits for precision materials processing. With two optional modes, continuous mode and pulse mode, HAZ (heat affected zone) can be minimized. The system is designed for outstanding reliability and can be operated in harsh industrial application environment.

BWT laser 500W fiber lasers are suitable for many applications, such as precision machining, 3D printing, metal plates processing, Li battery soldering, etc. Materials can be processed include steels, aluminum based and nickel based alloys, copper, titanium alloy, ceramics and many others.

Technical Specification

Optical Character	
Power	500W
Wavelength	1080±10 nm
Output fiber core diameter	14μm/20μm/50μm
Cable Length	12m or Customized
Beam Delivery	QBH or Customized
Guide Beam	Red
Operation Mode	Continuous or modulated
Polarization	Random
Power Stability (25℃)	< 3% (2h)
Power Adjustment Scope	10%–100%
Max Modulation Frequency	5kHz
Overall size and weights	
Weights	< 30Kg
Outline Feature	153mm*482mm*378mm
Electronic Character	
Voltage	Single Phase, 220±20V, AC, PE, 50/60Hz
Power Consumption	1.5kW
Control Interface	RS232
Water Cooling Parameters	
Minimum Water Cooling Capacity	1 kW

Temperature Settings	25°C (Laser Module), 30°C (QBH)
Cooling Tubes Size (External)	Φ12mm
Cooling Water Flux	>6L/min
QBH Cooling Water Flux	1.5~2.0L/min



