

AIM 1500W BWT Laser Welding Machine



Model

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Laser Wavelength Rated Power Beam (M2) Optical Fibre Modulation Frequency Stability Beam Output Cooling Medium Power Supply Welding Material

BWT-1500W

1080nm (+/- 10nm) ≥1200W 2.2 At 50M, 10M 20KHz <3% 1 Beam Distilled Water, Ionized Water 50Hz Bated Power 5kW (Bated)

220V±10%, 50Hz, Rated Power 5kW, Rated Voltage 40A Stainless Steel, Carbon Steel, Aluminium



Product Feature BWT Laser Power Source



- 1500W BWT Laser, one year warranty covering manufacturing defect.
- 50um optical fibre heart diameter.
- High quality beam and stable performance.



Suplaser Welding Head

- Ergonomically design for ease of use.
- Enable welding at any position and angle.
- Infrared positioning ensures greater welding accuracy.



AIM TECH WELDING SYSTEM SDN BHD (655239-P) NO.7865, JALAN TELUK BATU 1, BATU 4 ½, JALAN KEBUN, SEKSYEN 36, 40470 SHAH ALAM, SELANGOR DARUL EHSAN TEL: 012-3702467 / 012-4170885 FAX: 03-51617593

EMAIL : purchasing@aimtechwelding.com.my / kevin@aimtechwelding.com.my



Navar Control System

- LCD Screen with an intuitive control system.
- Preset various craft modes and multiple security alarms for enhanced safety and reliability.

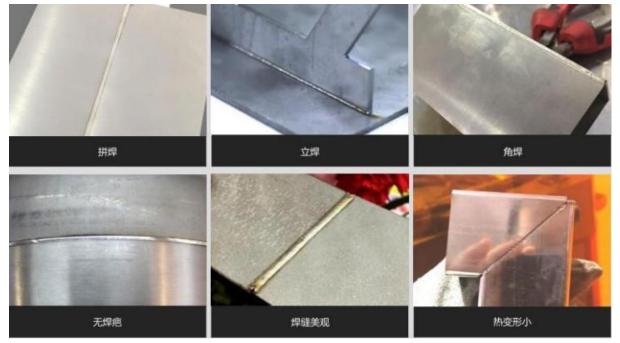


Cooler Machine

- Intelligent control with compressor refrigeration.
- Liquid crystal display with real-time temperature monitoring.
- User-friendly, reliable, energy-efficient, and high-performing.



End Products of Laser Welding



Advantages of Laser Welding Compared to Traditional Welding

Laser welding offers several advantages over traditional welding methods. Here are some key benefits:

- 1. Precision and Accuracy: Laser welding allows for highly precise and accurate welds, making it ideal for intricate and delicate work. The laser beam can be precisely controlled, allowing for minimal heat-affected zones.
- 2. High-Speed Welding: Laser welding can be much faster than traditional welding methods, which increases productivity, especially in automated production lines.
- 3. Minimal Distortion: Due to the focused nature of the laser beam, there is less heat input into the surrounding material. This results in minimal distortion, warping, or residual stress on the workpiece.
- 4. Ability to Weld Difficult Materials: Laser welding can be used to weld a wide range of materials, including those that are difficult to weld with traditional methods, such as certain metals, ceramics, and dissimilar materials.
- 5. Non-contact Process: Laser welding is a non-contact process, meaning that the welding tool (the laser) does not physically touch the workpiece. This reduces wear and tear on tools and allows for welding in hard-to-reach areas.



- 6. Clean and Aesthetic Welds: Laser welding produces clean and aesthetically pleasing welds with minimal need for post-weld finishing, such as grinding or polishing.
- 7. Narrow Weld Seams: The concentrated energy of the laser beam results in narrow, deep weld seams, which can be beneficial for applications requiring high strength and minimal material usage.
- 8. Automation and Integration: Laser welding can be easily integrated into automated systems, making it suitable for high-volume manufacturing environments. The process can be controlled with high precision using computer systems.
- 9. Welding of Thin Materials: Laser welding is particularly effective for welding thin materials, as it can create strong welds without causing excessive heat damage or burn-through.
- 10. Reduced Need for Filler Material: In many cases, laser welding can be performed without the need for additional filler material, which can reduce costs and simplify the process.

These advantages make laser welding a preferred method in industries such as aerospace, automotive, electronics, and medical device manufacturing, where precision, speed, and quality are critical.