

LASER WELDING SYSTEM

- ◎ Certified Safety Compliance
- ◎ High-Quality Welding Performance
- ◎ Comprehensive Service Support



TRUST / Reliable / Masterful

TRM®

Water-Cooled Laser Welding Handheld



- ◉ **Industrial-grade design**
Long-duration continuous operation
- ◉ **Consistent welding performance**
Stable, repeatable weld quality
- ◉ **Continuously optimized Expert Database, USB upgradeable**
Fast setup, easy to operate for all skill levels
- ◉ **Multi-wire capability**
Supports dual- and triple-wire applications

Specifications

Model	LWH1500-S	LWH2000-S	LWH3000-S
AC Input Power	3/N/PE~380V 50Hz 18.5A 1/N/PE~220V 60Hz 34.6A	3/N/PE~380V 50Hz 28A 1/N/PE~220V 60Hz 44.1A	3/N/PE~380V 50Hz 28.2A 3/N/PE~380V 60Hz 29.6A
Wavelength	1080±10nm	1080±10nm	1080±10nm
Laser Power	1500 W	2000 W	3000 W
Laser Fiber Length	10m	10m	10m
Shielding Gas	Argon, Nitrogen	Argon, Nitrogen	Argon, Nitrogen
Rated Power	6.8 kw(50Hz) / 7.5 kw(60Hz)	8.7 kw(50Hz) / 9.6 kw(60Hz)	11 kw(50Hz) / 10.2 kw(60Hz)
Welding Machine Dimension(L*W*H)	1130*740*855mm	1130*740*855mm	1130*740*855mm
Weight	~ 195 kg	~ 210 kg	~ 210 kg
Operating Environment Temperature	10 to 40 ℃	10 to 40 ℃	10 to 40 ℃
Workpiece Thickness (Suggested)	0.4-4 mm	0.4-6 mm	0.4-8 mm
Refrigerant	R32	R32	R32

Air-Cooled Laser Welding Handheld



- Advanced anti-reflective technology**
 For stable welding of aluminum and copper
- 3D phase-change cooling system**
 Enables continuous-duty operation
- 110+ built-in expert presets**
 Fast setup and repeatable results



Photoelectric conversion efficiency $\geq 35\%$



Optimized for reflective materials

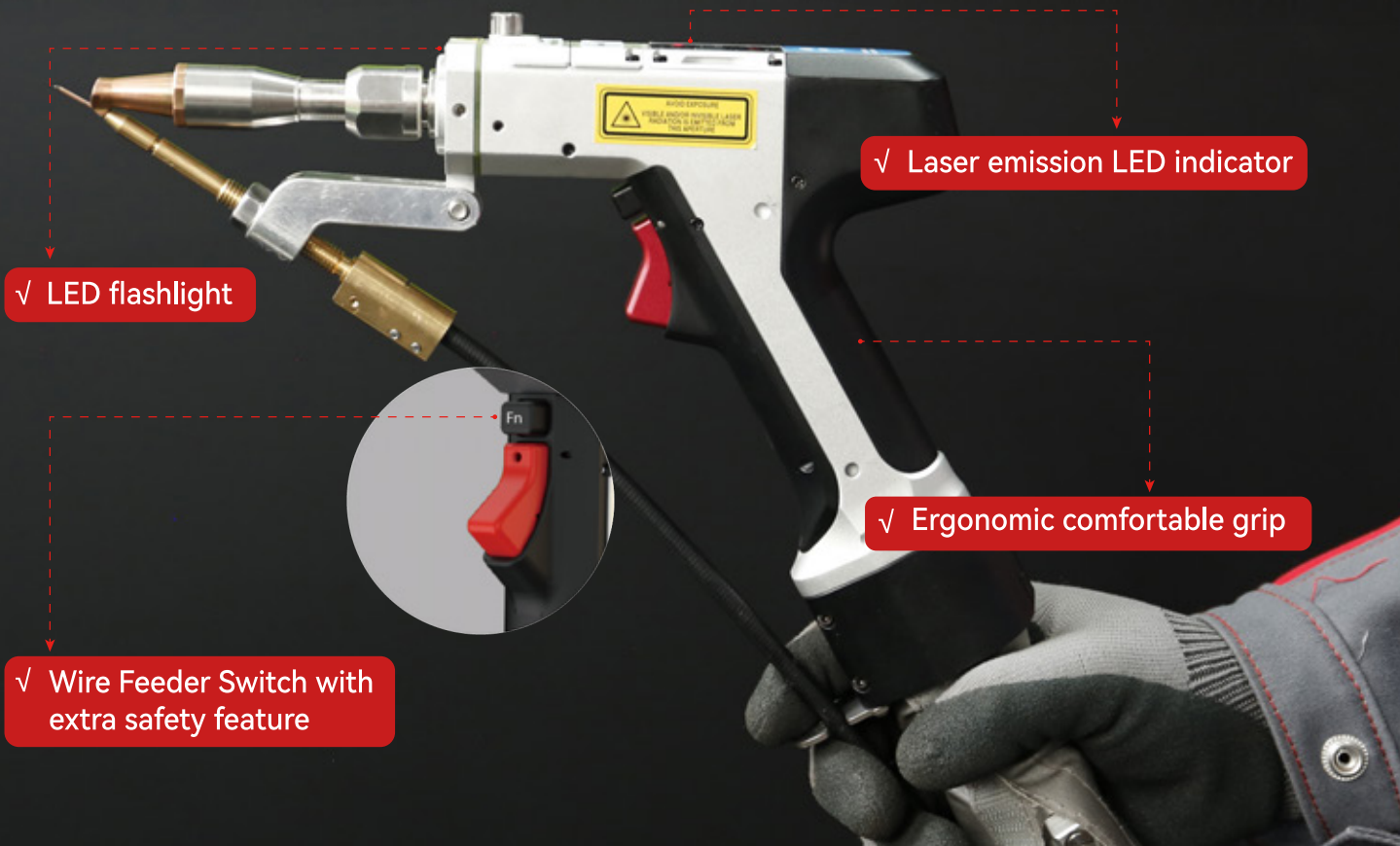


110+ expert parameter presets

Specifications

Model	LWH1200-AS
AC Input Power	230V ~ 20A 50/60Hz
Wavelength	1080 $\pm$ 10nm
Laser Power	1200 W
Laser Fiber Length	5m
Shielding Gas	Argon, Nitrogen
Rated Power	4.5 kW
Welding Machine Dimension(L*W*H)	690*330*560 mm
Weight	41 kg
Operating Environment Temperature	-10 $^{\circ}$ C ~ 40 $^{\circ}$ C
Workpiece Thickness (Suggested)	0.4 ~ 4 mm

New Torch



Wire Feeder

- Smooth, precise wire feeding for stable welding
- Supports up to four wire feeders, reducing wire change frequency



01 Certified Safety Compliance

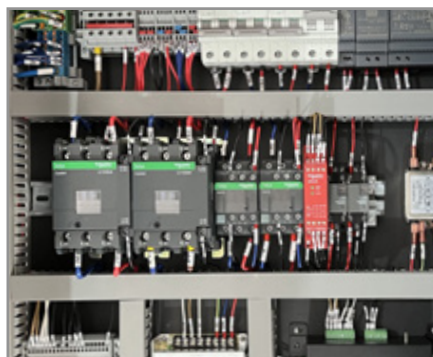
- SGS-certified CE compliance, fully meeting EU safety requirements; Certified to Machinery Directive (MD) and EMC standards: EN ISO 12100, EN 60204-1, EN ISO 11553-2, EN 61000-6-4, EN 61000-6-2
- Safety level: Category 4, Performance Level e (PL e)
- Fiber cable damage detection
- External safety interlock interface

Certified



Safety level

Category 4, Performance Level e (PL e)



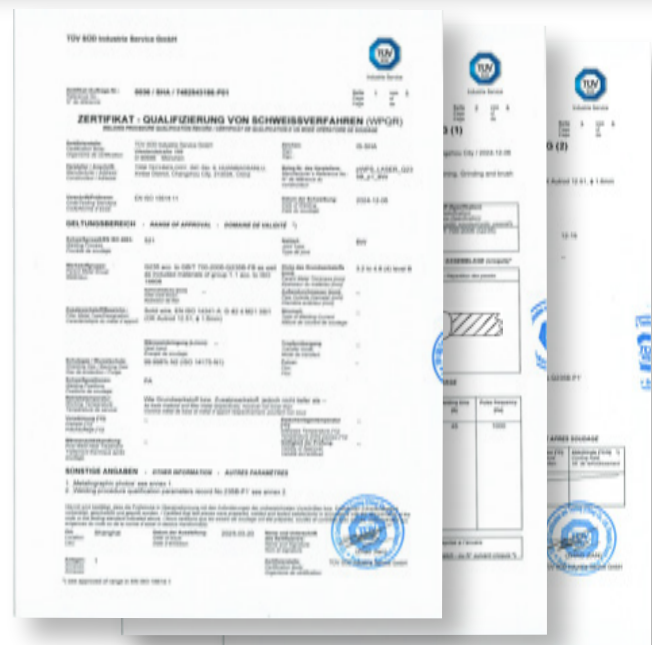
Interlocks

External safety interlock interface

02 High-Quality Welding Performance

- ⊙ Laser power fluctuation below $\pm 1.5\%$ under water-cooled operation
- ⊙ Clean weld seams with no undercut, enabled by optimized power control
- ⊙ Smooth wire feeding with intelligent control, no wire sticking
- ⊙ TÜV Welding Procedure Qualification Record available upon request

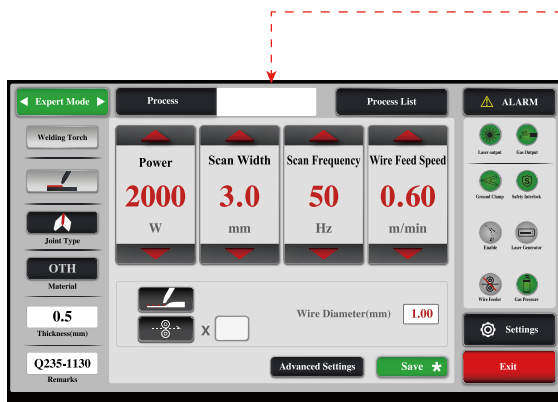
Welding Procedure Qualification Record by TÜV



02 High-Quality Welding Performance

- ⊙ Integrated configuration combining laser source, chiller and wire feeder
- ⊙ User-friendly interface with intuitive menu structure
- ⊙ Easy Mode and Expert Mode for all skill levels
- ⊙ Laser power calibration and self-diagnostic functions
- ⊙ USB upgrade, backup & restore for software and welding programs

TRM Application Software



* Upgrade the application software and Expert Database by USB



03 *Comprehensive Service Support*

- ⦿ Complete technical documentation and training videos available
- ⦿ Comprehensive training programs including factory, online, and on-site training
- ⦿ Real-time technical support provided by professional engineers
- ⦿ Flexible spare parts programs to ensure long-term operational reliability



Manual Torch Automation solution

Seamless Switching



- ⦿ Manual torch or automation — Two-in-One
- ⦿ TRM torch bracket works for all Cobots/Robots, easy to connect
- ⦿ High compatible communication protocol, supports I/O and Modbus
- ⦿ Extensive Expert Database (Pre-set welding parameters)
- ⦿ The welding machine has an alarm output to Cobot/Robot for enhanced safety

Automated Laser Welding Solution



- ⦿ Eight swing modes, the oscillation frequency and amplitude can also be adjusted to optimize the welding process
- ⦿ Highly integrated laser welding system including welder, wire feeder and robotic laser head, minimize the workload at Cobot/Robot programming
- ⦿ Extensive Expert Database (Pre-set welding parameters)
- ⦿ Designated robotic laser head, better suited for continuous welding scenarios

Safety Solutions

01 / Laser Protection Cabin

- ⊙ Laser protection panel tested by TÜV in accordance with EN 60825-4:2006+A1+A2 Safety of Laser Products – Part 4: Laser Guards
- ⊙ Magnetic locking system with code-protected control panel
- ⊙ Beacon lights for clear indication of laser emission status, enhancing safety
- ⊙ CE-certified viewing window
- ⊙ Pre-assembled panel design for quick and easy installation
- ⊙ Customizable in various shapes and sizes, with or without roof, available upon request



Laser Protection Cabin

02 / Laser Protection Helmet

- ⊙ CE certified by ECS GmbH
- ⊙ Protection level:
Eye and face protection:
 900-1080nm D LB7 IR LB8 CE
Head protection:
 900-1100nm D LB5 I LB7 R LB8 CE



Laser Protection Helmet

03 / Laser Protection Eyewear

- ⊙ CE certified by ECS GmbH
- ⊙ Protection level:
 900-1100nm OD8+ DIN4
 900-1100nm D LB6+IR LB8 LP 8 CE EN207



Laser Protection Eyewear

**25 years welding expertise, from consumables
to automation and laser solutions.
TRM, built for your next step.**

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Download Catalogue Here.

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