



## Handheld Fiber Laser Welding Machine

### AW Series

SAFETY  
LEVEL

AESTHETICS

COSTING

- ◆ Compared with the traditional welding equipment, the handheld laser welder speed is more than 2 times of the solid YAG laser welding speed, 3-5 times of the ARC welding speed.
- ◆ Photoelectric conversion efficiency is more than 30%, while solid YAG laser conversion efficiency is only 3%, low energy consumption, reduce production and processing unnecessary costs.
- ◆ No raised welding spot on the welding surface, no need for polishing and grinding process, save working time, beautiful appearance.
- ◆ 5-meter-long imported optical fiber connection laser head, which can be used for long-distance welding of products that are large and difficult to move.
- ◆ High energy density, low heat input, small thermal deformation, narrow melting zone and heat-affected zone.
- ◆ Compared with the contact welding, the laser welding does not need the electrode, reduces the daily maintenance cost, greatly improves the work efficiency.
- ◆ The intelligent internal design and interactive control system expand the tolerance range and the weld width of the processing parts solves the defect of a small laser welding spot and provides better welding forming.
- ◆ Multiple security alarms, which automatically lock the light after removing the workpiece.
- ◆ Imported ceramic condenser cavity, corrosion resistance, high-temperature resistance, long service life.

## Components



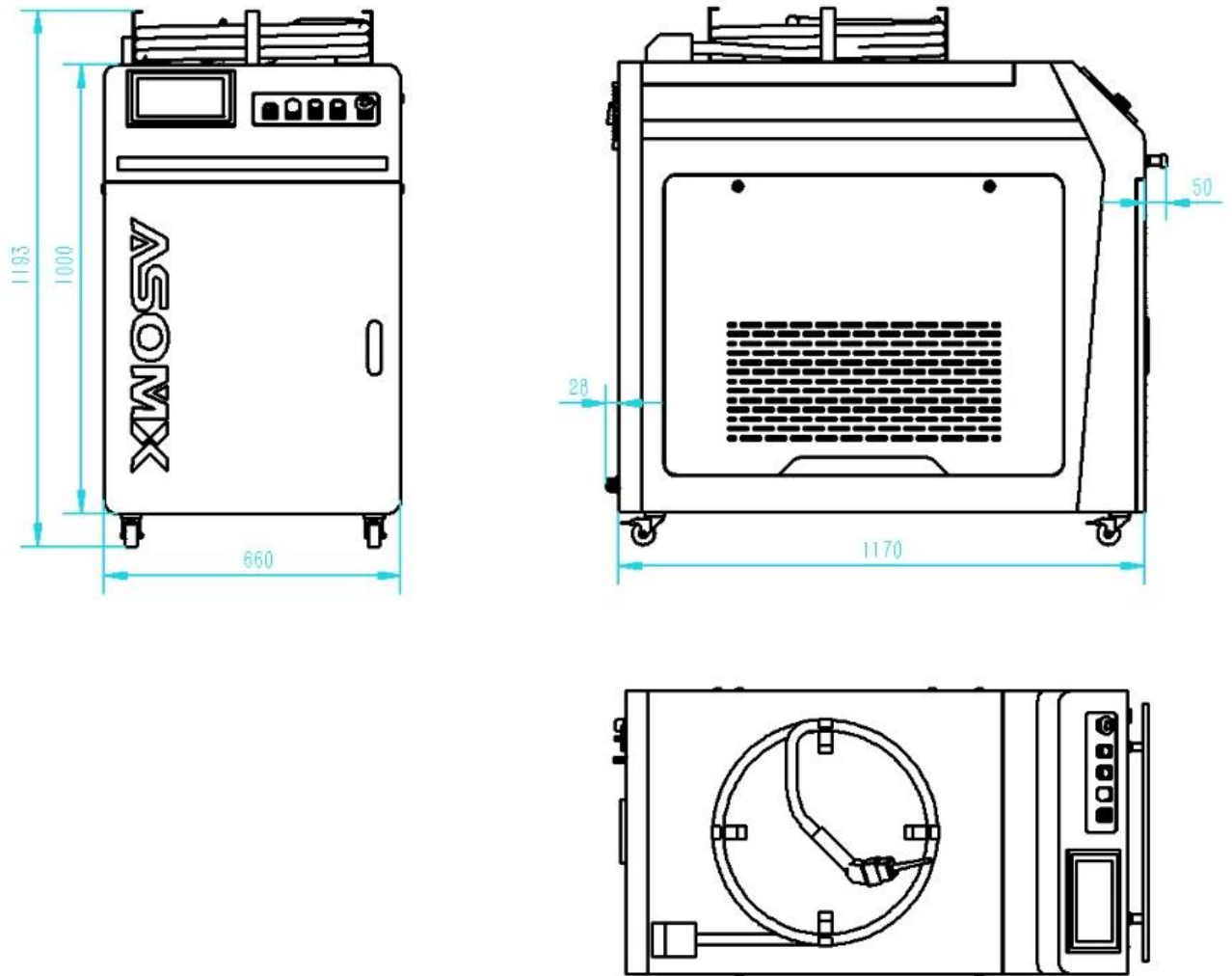
## Specifications

Model No.	AW Series
Laser Power	1000W/1500W/2000W
Laser Wavelength	1080±5nm
Laser Type	Single-Core Junction Semiconductor Module
Welding Head	Xinghong / Qilin / WSX / Hanwei
Optic Length	8000mm
Optional Length	10000mm
Optical Fiber Interface	QBH
Pulse Frequency	5~20KHz
Fiber Diameter	50µm/100µm
Spot Size	Φ0.2-5mm adjustable
Welding Depth	0.2-3mm
Output Power Tunability	10-100%
Repeat Precision	±0.01mm
Cooling Type	Industrial Circulating Water Cooling
Beam Quality	M2<1.1
Power Stability	±2%
Electricity Supply	220V/380V±10% 50/60Hz
Unit Power	7.5kw/8.5kw/10kw
Auxiliary Gas	Nitrogen, Argon and other inert gases
Operating Temperature	0°C-45°C
Relative Humidity	≤70%
Laser Module Life	100000hours
Gross Weight	200kg

# Welding Ability

Material	Power	Thickness	Items	Welding Penetration Maximum Material	Welding Maximum Material
Stainless Steel	1000w			3mm	4mm
	1500w			4mm	5mm
	2000w			5mm	6mm
Galvanized Sheet	1000w			2mm	3mm
	1500w			3mm	5mm
	2000w			3mm	6mm
Iron	1000w			3mm	5mm
	1500w			4mm	6mm
	2000w			4mm	6mm
Mild Steel	1000w			3mm	5mm
	1500w			4mm	6mm
	2000w			4mm	6mm
Aluminum	1000w			1mm	2mm
	1500w			2mm	3mm
	2000w			3mm	4mm
Brass	1000w			1mm	2mm
	1500w			2mm	2mm
	2000w			2mm	3mm

# Layout



# Samples

