



Maxphotonics Handheld Laser Welding Machine

· Up to 4x Efficiency · Truly Portable · Environment Friendly



X1w-1500

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Smallest And lightest

The one and only TRUELY
Portable System

X1w-1500 is 100% developed by Maxphotonics with 18 years of experience in laser industry. It weighs **only 39kg** and **the volume is <math><0.1\text{m}^3</math>**. It is currently the lightest and smallest handheld laser welding machine in the world. The feeder cable can be placed in the cable reel to make the machine more compact to be stored or transported. Thanks to the light weight and our unique cable sleeve locking mechanism, the feeder cable can be used to pull the machine to move around in the working area, which makes it more convenient to use during operations.

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Only 39kg

Volume <math><0.1\text{m}^3</math>





Product Specification

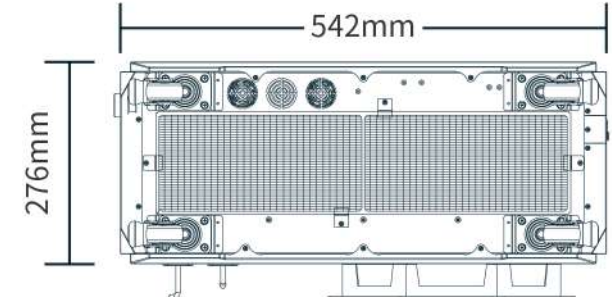
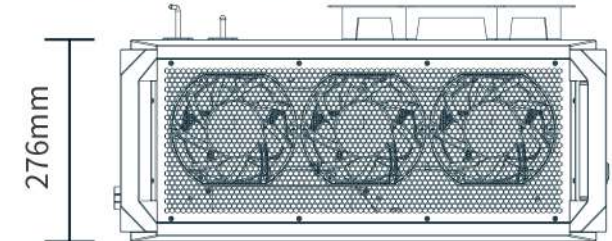
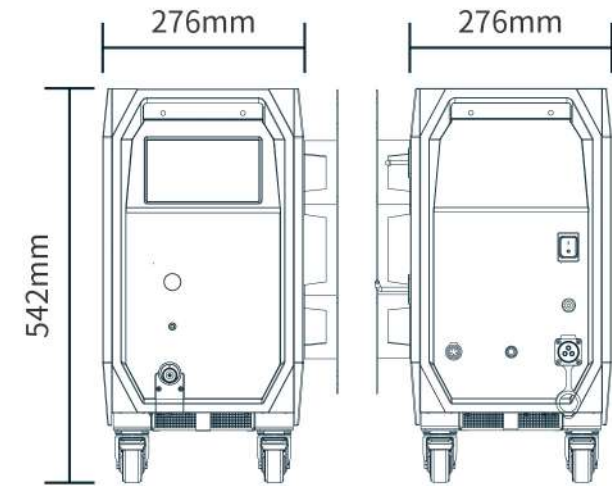
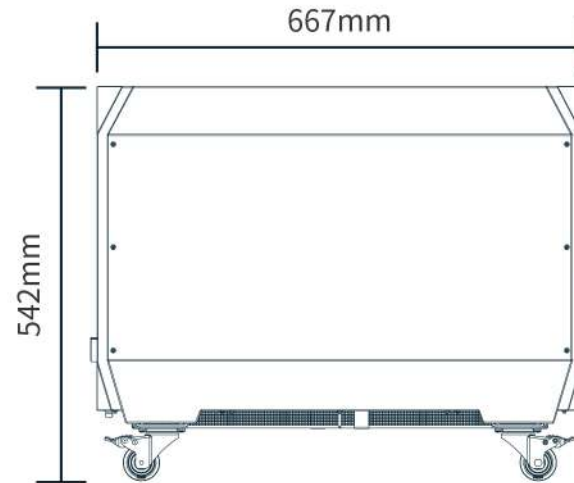
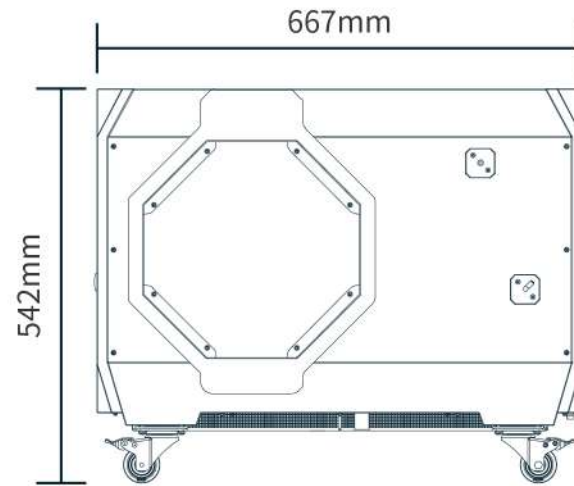
Nominal Power: **1500W**

Peak Power: **2500W**

Material	One-Sided Limit Welding Seam
Stainless steel	Up to 4.5mm
Mild steel	Up to 4.5mm
Galvanized sheet	Up to 4.0mm
Aluminum plate	Up to 4.0mm
Brass	Up to 3.0mm

Application Areas

- Maintenance and repair
- Metal processing by industry
- Agriculture, furniture, and appliances
- Construction, construction machinery, aviation, ship mooring, transportation

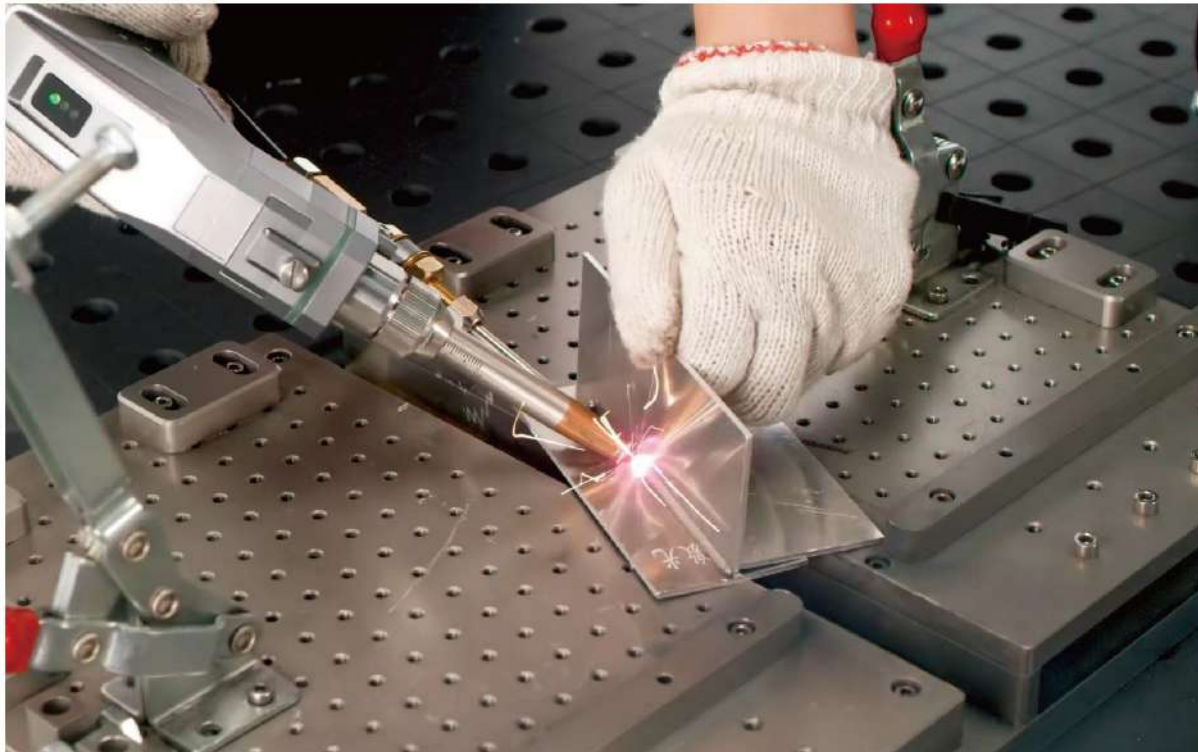


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Excellent welding performance energy saving and environment Friendly

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- **Up to 4 times** faster than traditional welding methods, which helps our customers to **save 80% to 90% of electrical energy**, greatly improve production efficiency and reduce overall operational cost.
- State of art laser control system brings high beam stability, consistent and neat welding seam, improved welding strength and minimum deformation.
- Cooling system adopts phase change heat conduction technology with powerful self-adaptive fans, which ensures long-term stability.



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Galvanized

Carbon steel

Stainless steel

Aluminum

Copper

	Traditional welding method	Maxphotonics Handheld laser welding machine
Physical hazard	Large radiation and smoke	Low radiation, environmentally friendly
Welding speed	Slow and inefficient	Up to 4 times faster than TIG and MIG
Welding quality	Welding seam are rough and irregular, need to be polished	Beautiful and neat welding seam, deep molten pool and high strength
Learning difficulty	High	Low
Heat affected zone	Large	Small
Bending deformation	High	Low
Welding seam damage	With air holes, easy to weld through	Uniform molten pool and good consistency
Welding materials	Limited by changes in consumables	Wide range of materials

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The lightest and smallest handheld welding torch in the industry

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Maxphotonics handheld welding torch weighs **only 0.68kg** and at the same time it comes with compact size and ergonomic design. It has been proven to be the most comfortable, stable, and easy-to-operate welding torch of its kind. In addition, multiple safety precautions allow for continuous and safe welding operations throughout the day.



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Simple and easy to use

- Embedded with 24 pre-set modes for various material easy welding
- Only half hour training needed for beginners to operate the welding system
- Beginners can use the pre-set modes to achieve the same high-quality, consistent, and neat welding seems like experienced operators.
- Pre-set modes include wobble parameters, suitable for wider welding seams and high tolerance for workpiece assembly clearance.
- For advanced operators, additional process modes for different materials and thickness combinations can be created and stored.

04

7 inch
touch screen



Home Page	Advanced Setting	Application Parameters	Machine Information	Manufacturer Setting
Status				
Gas Pressure	102 KPa	Power	60 %	Standby
P-lens Temp	30 °C			
Status		Alarm		Setting
Laser <input type="checkbox"/>	Link <input type="checkbox"/>	Link <input checked="" type="checkbox"/>	P-lens Temp <input checked="" type="checkbox"/>	Power %
Red Linht <input type="checkbox"/>	Clamp <input type="checkbox"/>	Wobble <input checked="" type="checkbox"/>	Gas <input checked="" type="checkbox"/>	Wobble-F Hz
Gas <input type="checkbox"/>	Trigger <input type="checkbox"/>	Feeder <input checked="" type="checkbox"/>	Laser <input checked="" type="checkbox"/>	Wobble-L mm
Feeder <input type="checkbox"/>	Hand Sensor <input type="checkbox"/>	E-stop <input checked="" type="checkbox"/>		Enable <input type="checkbox"/> OFF

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Product parameters

Type	Parameters
Size	667mm*276mm*542mm
Weight	39kg
Volume	<0.1m ³
Wavelength (nm)	1080nm
Operating mode	Continuous and Pulsed
Output power	1500W
Input voltage	220VAC/50Hz/60Hz
Wobble	0-4mm
Wobble frequency	0-300Hz
Preset process parameters	32 groups
Average load power	6000W/4500W

Packing list

1	Handheld laser welding (including 5.6 meters fiber cable) / 1 set	10	Protective lens (φ20*3) /5 pieces
2	Welding torch/1	11	Lock ring wrench/1 pcs
3	Wire feeder (individually packaged) including wire feeding tube and wire feeding wheel/1 set	12	Wire nozzle assembly (0.8/1.0/1.2/1.6mm wire feed nozzle and wire feed frame)/1 set
4	Power cable (10 meters) / 1	13	Welding torch fixture (collimating focusing lens installation and removal)/1 set
5	Ground wire (10 meters) / 1	14	Cotton swabs 1 (25 pieces)/1 pack
6	Protective glasses (support 0D6+) / 3 pairs	15	Cotton swabs 2 (25 pieces)/1 pack
7	Hanging welding torch frame (including 4pcs hexagonal countersunk head screws)/1 set	16	Noise-isolating earplugs (Brand: 3M) / 5 pairs
8	Hanging armored cable frame (including 8pcs hexagonal countersunk head screws)/1 set	17	Dust mask (premium dust-proof) / 2 pairs
9	Nozzles (1, 3, A, B and flat nozzles) / 2 sets	18	Screwdriver (hexagon socket) / 1 pcs



Maxphotonics Co., Ltd.

Founded in 2004, Maxphotonics is one of the earliest fiber laser manufacturers in China with wide range of product offerings. Thanks to the dedicated research and investment in core optical technology for almost 20 years, today Maxphotonics has grown to become one of the largest global laser enterprises, delivering high performance fiber laser source, laser systems and solutions to customers across a wide range of industries and applications. With worldwide operations serving over 1000 customers in over 80 countries, Maxphotonics is the recognized Chinese No.1 brand in the global fiber laser market.

