



# Intelligent Handheld Laser Welder

—  
Welding/Cutting/Cleaning 3-in-1 Solution

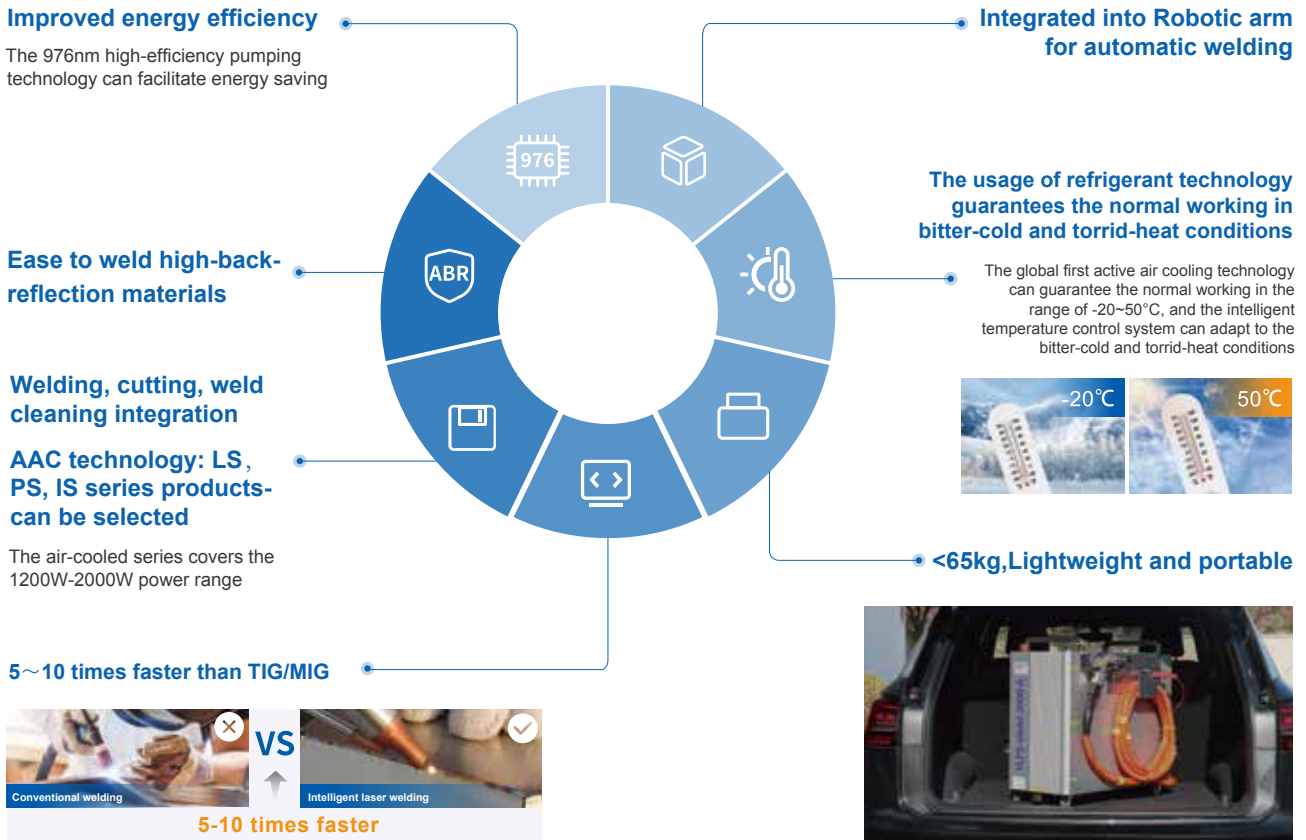


## AAC Active Air Cooling

**Different steel sheets with different thicknesses**  
(such as carbon steel and galvanized steel, aluminum alloy, red copper, stainless steel, etc.)

# 01 Intelligent Handheld Laser Welder — A Leading Welding Tool

GW launched a new generation of active air cooling intelligent handheld laser welder, with high welding speed and good welding effect, being lightweight and portable, as well as easy for operation, and thus greatly improving the production efficiency and reducing processing costs.



## Application



Windows and doors industry



Auto industry



Cabinet industry



Medical apparatus industry



Hardware and building materials



Elevator plates



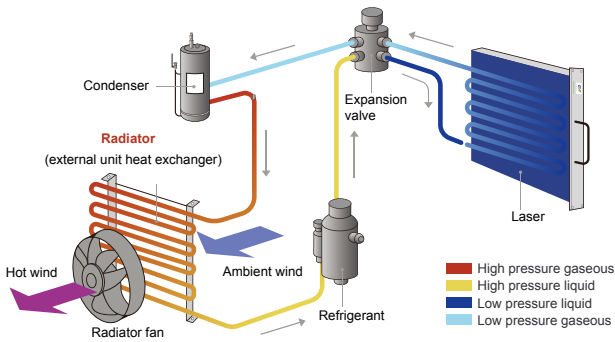
Furniture and household appliances



Mechanical engineering industry

## Global First AAC active air cooling technology

The refrigerator and laser are combined into one to avoid the existence of water, and the removal of intermediate heat storage link makes the whole machine more integrated, with lightweight and compact structure yet better cooling efficiency.



(Schematic diagram for active air cooling heat dissipation technology)

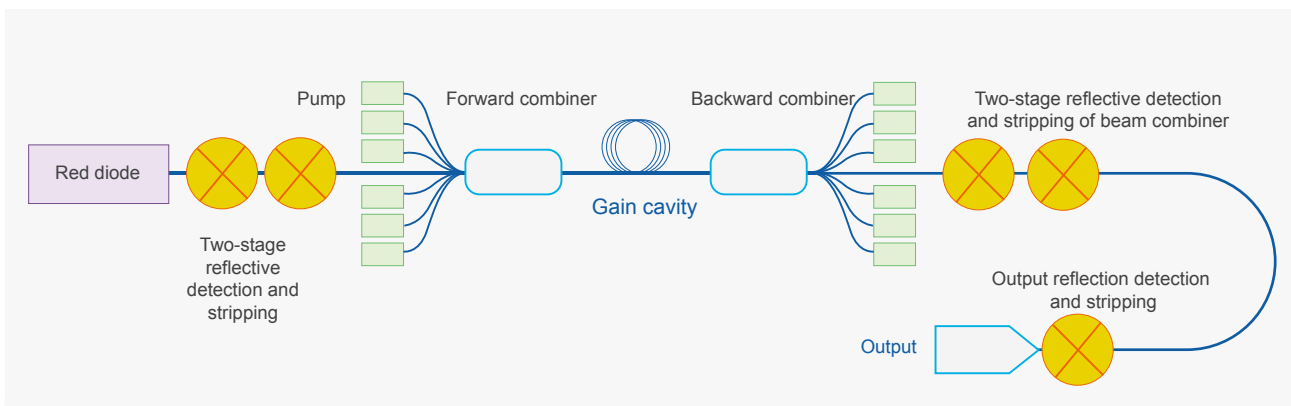
Refrigerating mode	Water cooling	Forced air cooling	Active air cooling
Cooling liquid	Distilled water glycol antifreeze	Air	Refrigerant
Heat exchange efficiency	Medium	Low	High
Equipment energy consumption	High	Medium	Low
Maintainability	Periodic maintenance	Maintenance-free	Maintenance-free
Failure rate of heat dissipation system	High	Low	Low
Temperature control mode	Open-loop control Temperature changes cannot be monitored	Open-loop control The heat dissipation capacity is affected by the ambient temperature	Closed-loop control System setting temperature Accurate temperature control

(Comparison of different heat dissipation methods)

- >> Active cooling, and on-demand cooling, with higher cooling efficiency
- >> Higher system integration, with lightweight and compact structure, reducing the difficulty of assembly and integration
- >> Maintenance-free refrigeration system, with no need to replace the cooling liquid and being free of maintenance investment
- >> Low standby power consumption, which makes that there is no need to maintain long-term high-power operation of the refrigerating system, bringing in lower operation cost of the whole machine
- >> Better environmental adaptability, being available for sustainable operation at -20 ~ 50°C ambient temperature

## ABR Anti-back-reflection technology

The super proprietary anti-back-reflection (ABR) technology, using multiple anti-back-reflection structure design, can easily cut the high-back-reflection materials like copper, aluminum, gold, silver and so on, providing stable processing ability, and effectively increasing the reliability and service life of fiber lasers.

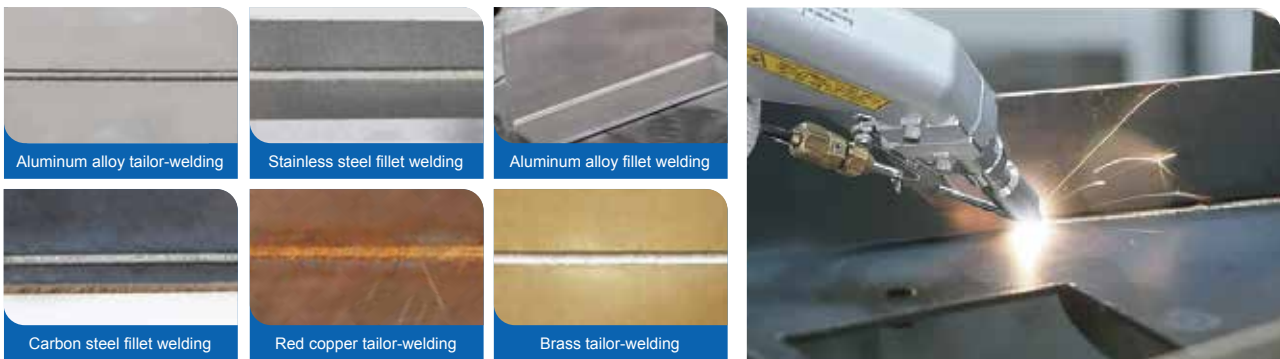


# 03 Penetration Data — Perfect Weld Seam Without Deformation

Power	Welding material	Stainless steel	Carbon steel	Aluminum	Brass	Red copper
1500W 25um	Single-side penetration	4.5mm (1/5")	4.5mm (1/5")	4mm (1/6")	4mm (1/6")	2mm (1/12")
	Double-side penetration	9mm (1/3")	9mm (1/3")	8mm (3/10")	8mm (3/10")	4mm (1/6")

Power	Welding material	Stainless steel	Carbon steel	Aluminum	Brass	Red copper
2000W 25um	Single-side penetration	6mm (1/4")	6mm (1/4")	6mm (1/4")	5mm (1/5")	2.5mm (1/10")
	Double-side penetration	12mm (1/2")	12mm (1/2")	12mm (1/2")	10mm (2/5")	5mm (1/5")

## Weld seams Different materials:



# 04 Simple Operating System — Super Simple and Easy To Use

Simple button design, being easy to operate  
Long service life, being more suitable for industrial scenarios

Status	Control	Device	
U.00 <small>User</small>	S.00 <small>Preset</small>	0.2s <small>Gas Pre-Flow</small>	1.0s <small>Gas Pre-Flow</small>
0 <small>ms Advance Wire Feed</small>	0 <small>ms Advance Wire Feed</small>	0 <small>ms Time Wire Return</small>	

Control / User / U.00 / C			
50 <small>% Laser Power</small>	50 <small>Hz Wobble Freq</small>	5.0 <small>mm Wobble Width</small>	200 <small>ms Rise Time</small>
200 <small>ms Fall Time</small>			

- Built-in 55 groups of parameters facilitate that the users can quickly select welding parameters according to different materials and thickness
- Available for saving the customizable parameters

Materials	Stainless steel			Carbon steel			Aluminum alloy			Red copper
Weld wire Thickness	1.0mm	1.2mm	Self-fluxing	1.0mm	1.2mm	Self-fluxing	1.2mm	1.6mm	Self-fluxing	Self-fluxing
1mm	S.00	S.01	S.35	S.12	S.13	S.41	S.24	/	S.47	S.52
2mm	S.02	S.03	S.36	S.14	S.15	S.42	S.25	S.26	S.48	S.53
3mm	S.04	S.05	S.37	S.16	S.17	S.43	S.27	S.28	S.49	S.54
4mm	S.06	S.07	S.38	S.18	S.19	S.44	S.29	S.30	S.50	/
5mm	S.08	S.09	S.39	S.20	S.21	S.45	S.31	S.32	S.51	/
6mm	S.10	S.11	S.40	S.22	S.23	S.46	S.33	S.34	/	/

# 05 Control Panel and Interfaces

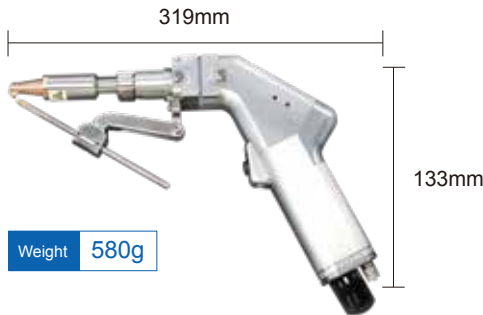
- >> All interfaces are uniformly arranged on the back of the machine, marked clearly, and easy to get started
- >> The optical fiber and welding head protective gas pipes and control wire are pre-assembled in the protection cable
- >> Plug in the AC power supply, connect the protective air source, set the parameters, and fix the workpiece to be processed, and then the equipment can be put into production



## Lightweight and simple welding torch

A variety of nozzle combinations make your operation more flexible

It weighs only 580g, with the control system compatible with pulse and continuous modes and available to switch over among the two modes. The welding torch is of ergonomic structure, being easy for welding, and perfectly meeting the needs of daily welding operations. It is available for free selecting of welding head and adjustable swinging of light spot breadth, making better functional weld seam, and preventing the wider welding seam.



## Packing list

Commodities	Accessories	
01 Air-cooled laser /1 set	01 220V power cable *1	06 Protective lens [D20T3]*4
	02 Key*2	07 Test report*1
	03 [DB25] Handheld welding feeding wire *1	08 Goggles*1
	04 Welding copper nozzle *8	09 Safety clamp*1
	05 Wire-feed nozzle assembly (Wire guide pipe*1, wire guide pipe nozzle*4, wire feed kit*1, and wire feed pipe clamp*1) *1	

### More accessories optional:

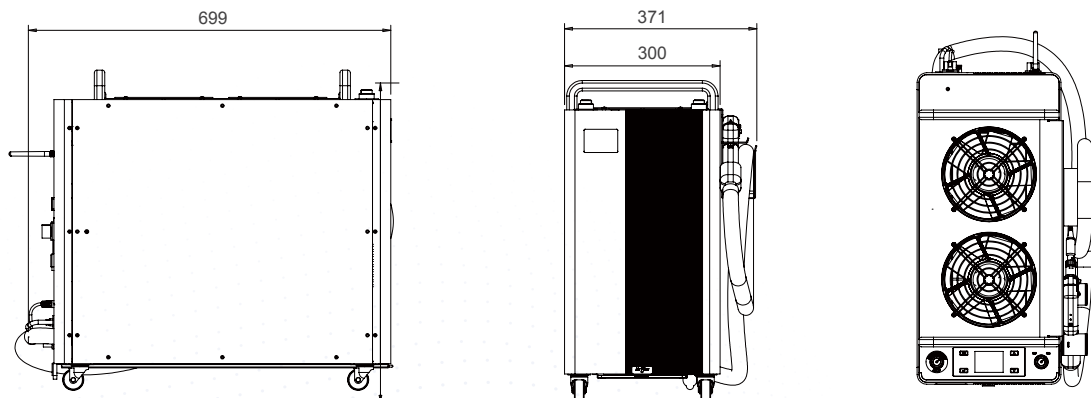


# 06 Specifications

Model	YLPS-Weld-1500-A	YLPS-Weld-2000-A	YLIS-Weld-1500-A	YLIS-Weld-2000-A
Output power	1500W	2000W	1500W	2000W
Operating mode	CW / Modulation mode/ Linear array mode/ Pulse mode/ Timing mode			
Output power range (%)	1-100			
Output laser wavelength (nm)	1070 ± 10			
Power stability	< 3%			
Response time	< 5us			
Red diode wavelength	650nm			
Red diode power	<1mW			
Laser welding torch				
Wobble mode	Single			
Wobble format	0~5mm			
Cable length	5m±0.5m (Customizable)			
Others				
Cooling mode	Active air cooling			
Cooling and protective gas	Inert gas (nitrogen, argon)			
Coolant pressure	2-6bar			
Ambient temperature range	-20°C~ 50°C			
Input voltage	220VAC/50Hz			
Power consumption	<4.8 kW	< 6.5 kW	< 4.8 kW	< 6.5 kW
Ambient humidity range	<95 %			
Dimensions	699 x 371 x 618 mm (L×W×H)			
Weight	<62kg	<65kg	<62kg	<65kg

\*The YLIS series of standard certified-type products have passed the certifications of CE, FDA, and TUV Rheinland, enjoying the joint warranty services in global service outlets

## Dimension





Founded in November 2015, GW is specialized in the business on fiber lasers and their supporting solutions. It is a global leader in high-brightness fiber lasers, ushering in the industrialization of bidirectional 976nm pump technology in China. Its technical team has focused on the research and development of lasers for nearly 20 years, enjoying a profound technical accumulation. With "Laser As A Tool" as our mission, we always adhere to the technology to lead the industry trend, center on the customers, constantly create value for users, and provide customers with high-quality and professional fiber laser products and services.

## Production and after-sales Service network



### Service system

1. One-to-one professional after-sales personnel;
2. The product is equipped with remote access capability and can be served remotely at any time;
3. VIP customer service with special personnel at designated places;
4. Joint warranty service in global service outlets;
5. The dedicated service consultants can provide seamless professional services from product consultation, operational plan to actual product application.

### Custom-oriented Global Laser Solution Provider

>30,000

Laser deployed worldwide

>21%

R & D personnel

100+

Patented technology

>1000

Customers worldwide

Faster · Better · Smarter



**E-mail: [sales@gwlaser.tech](mailto:sales@gwlaser.tech)**

**GW (Shanghai) Laser Technology Co., Ltd.**

 <https://www.gwlaser.tech>  +86 2180392668

 Building 5-1, No. 398 Shuanglian Road, Xujing Township, Qingpu District, Shanghai, China

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