

LASER WELDING MACHINE

DARK BLADE SERIES

Professional Laser Welder Supplier
support you 1-8mm welding solution
everyone deserves a easy-learning welder



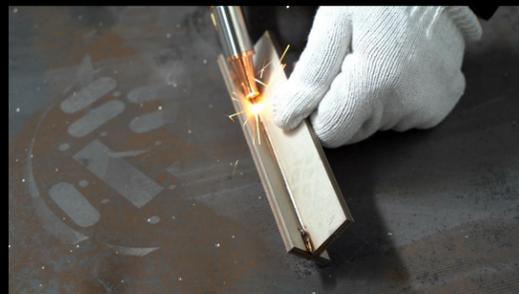
1200W Integrated AIR-COOLED Laser Welding Machine

Air-cooled handheld laser welding and cleaning devices are fast, easy to learn and operate, and produce high quality, consistent results across a wide range of materials and thicknesses. Pre-weld and post-weld laser cleaning functionality optimizes weld quality while increasing productivity.

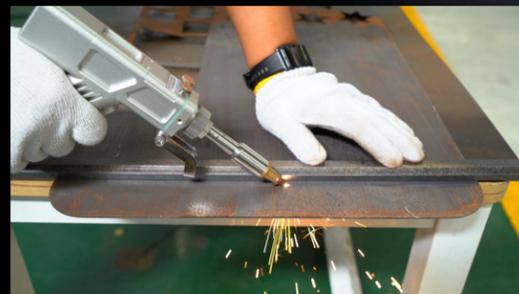
High Efficiency Productive Laser Processing Tools

Material	600W	900W	1200W
Stainless Steel	1.5mm	2mm	3mm
Aluminium	1mm	1.5mm	2.5mm
Carbon Steel	1.5mm	2mm	3mm
Nickel Alloy	1.5mm	2mm	3mm

It offers laser power output up to 2000W to further extend welding capabilities. Choose 1.2mm weld materials and maximize welding and cleaning productivity



High speed, low heat input, and a small HAZ make laser welding thick, thin, reflective materials, and materials with dissimilar thicknesses far less challenging for all skill levels



Can be used for cutting below 2mm, suitable for carbon steel, aluminum, stainless steel, etc., suitable for occasional household use, making cutting more daily



Cleaning removes rust and other contaminants from materials and increases weld quality. This is much faster than manual cleaning and uses no chemicals or abrasives.

Air-cooled Welder FEATURES

The laser welding power is up to 1200W, and the touch screen interactive operation allows for quick setting of the optimal welding settings for various materials and thicknesses. Up to 10 preset and user-defined process parameters can be stored, and novice welders can receive training and welding within a few hours.



Weld Safety Detection

1. Laser only fires while the nozzle is in contact with the part
2. Laser power shuts off if no welding plume is detected



Stable 4 in 1 Handheld Welding Gun

The handheld welding & cleaning gun is compact, ergonomic, and comfortable. Specially designed nozzle tips for welding and cleaning applications, plus built in wobble functionality enable operators to produce high quality welds consistently. Nozzle tips switch out quickly and easily to accommodate fusion welding, wire welding, and cleaning, further optimizing and increasing productivity.



Global Version Laser Source



Raycus CE Version Laser Source with higher photoelectric conversion efficiency, Compared with traditional laser, fiber laser has higher photoelectric conversion efficiency, lower power consumption and higher beam quality. Fiber laser is compact and can be used at any time. Because of its flexible laser output mode, it can be easily integrated with the system equipment

Simple Installation and Operation



Workpiece Clamp



220V Power



Standard Gas



Power Switch

Gas In

Power Supply

Clearly labeled rear connections make getting started fast and easy. Just plug in the power cord and gas connection, attach the workpiece clamp, and it is ready to go.

Support 15KG Wire

Suitable for aluminum wire, iron wire, stainless steel wire, etc., easy to replace, easy to see, supports up to 15kg of welding wire, making it convenient for you to buy suitable welding wire locally.

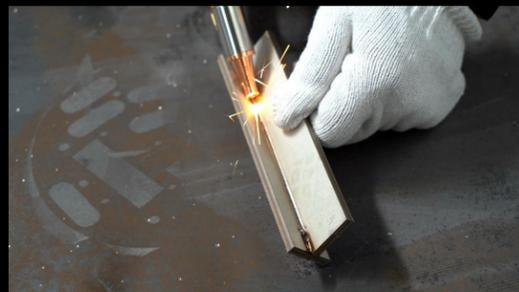
1200W PORTABLE Laser Welding Machine

This laser welding and cleaning machine is portable, It's very convenient to carry outdoors, easy to learn and operate, and produce high quality, consistent results across a wide range of materials and thicknesses. Pre-weld and post-weld laser cleaning functionality optimizes weld quality while increasing productivity.

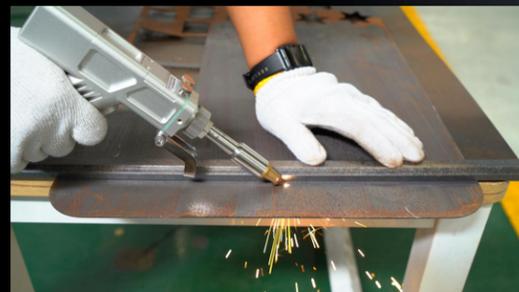
High Efficiency Productive Laser Processing Tools

Material	1200W
Stainless Steel	3mm
Aluminium	2.5mm
Carbon Steel	3mm
Nickel Alloy	2mm

It offers laser power output up to 1200W to further extend welding capabilities. Choose 1.2mm weld materials and maximize welding and cleaning productivity



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Portable Welder FEATURES

The laser welding power is up to 1200W, and the touch screen interactive operation allows for quick setting of the optimal welding settings for various materials and thicknesses. Up to 10 preset and user-defined process parameters can be stored, and novice welders can receive training and welding within a few hours.



Weld Safety Detection

1. Laser only fires while the nozzle is in contact with the part
2. Laser power shuts off if no welding plume is detected



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Simple Installation and Operation



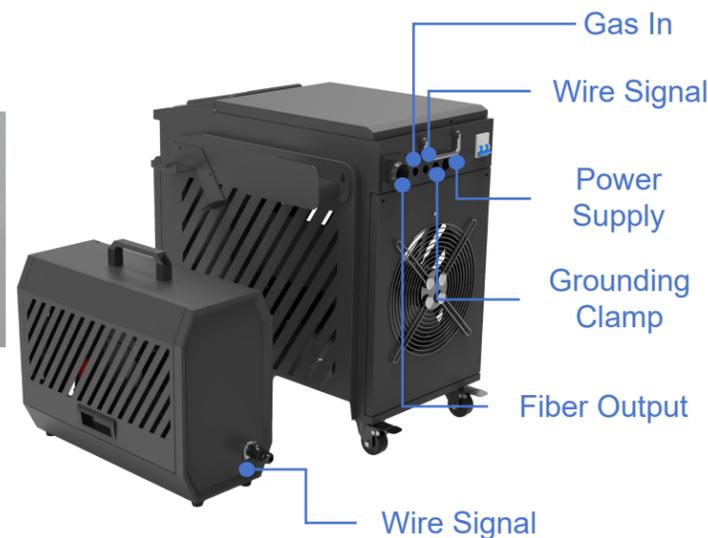
Workpiece Clamp



Standard Interface



Standard Gas



Clearly labeled rear connections make getting started fast and easy. Just plug in the power cord and gas connection, attach the workpiece clamp, and it is ready to go.

8L Chiller

Suitable for aluminum wire, iron wire, stainless steel wire, etc., easy to replace, easy to see, supports up to 15kg of welding wire, making it convenient for you to buy suitable welding wire locally.

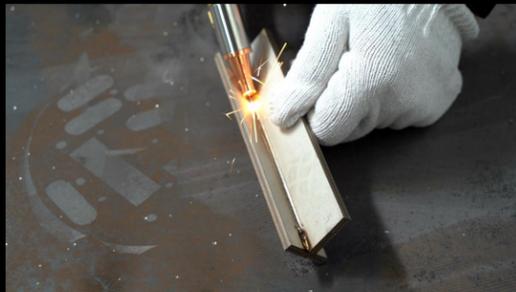
1500W/2000W Integrated Water-cooled Laser Welding Machine

Air-cooled handheld laser welding and cleaning devices are fast, easy to learn and operate, and produce high quality, consistent results across a wide range of materials and thicknesses. Pre-weld and post-weld laser cleaning functionality optimizes weld quality while increasing productivity.

High Efficiency Productive Laser Processing Tools

Material	1500W	2000W
Stainless Steel	3mm	5mm
Aluminium	2.5mm	4.5mm
Carbon Steel	3mm	5mm
Nickel Alloy	2mm	4mm

It offers laser power output up to 2000W to further extend welding capabilities. Choose 1.2mm weld materials and maximize welding and cleaning productivity



High speed, low heat input, and a small HAZ make laser welding thick, thin, reflective materials, and materials with dissimilar thicknesses far less challenging for all skill levels



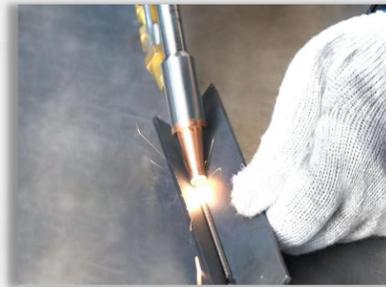
Can be used for cutting below 2mm, suitable for carbon steel, aluminum, stainless steel, etc., suitable for occasional household use, making cutting more daily



Cleaning removes rust and other contaminants from materials and increases weld quality. This is much faster than manual cleaning and uses no chemicals or abrasives.

Integrated Welder FEATURES

The laser welding power is up to 1200W, and the touch screen interactive operation allows for quick setting of the optimal welding settings for various materials and thicknesses. Up to 10 preset and user-defined process parameters can be stored, and novice welders can receive training and welding within a few hours.



Weld Safety Detection

1. Laser only fires while the nozzle is in contact with the part
2. Laser power shuts off if no welding plume is detected



Stable 4 in 1 Handheld Welding Gun

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Simple Installation and Operation



Workpiece Clamp

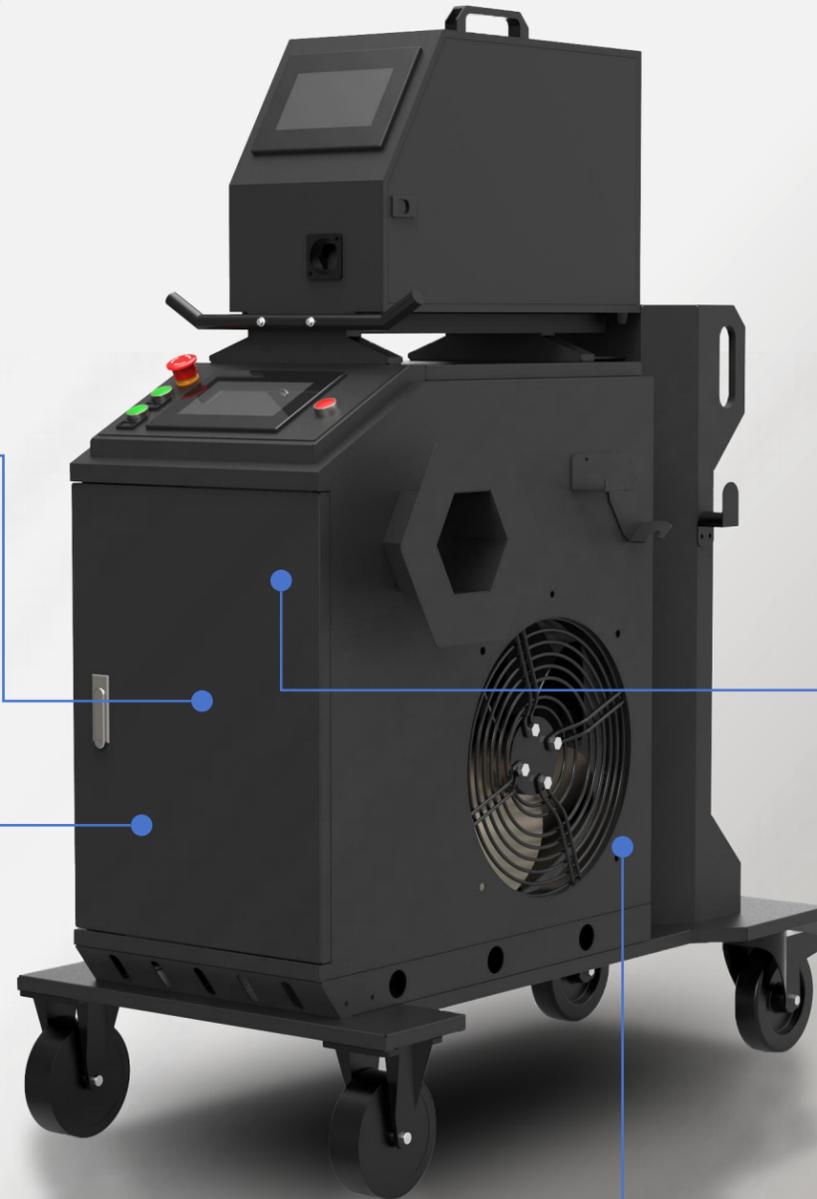


220V Power



Standard Gas

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Global Version Laser Source



Raycus CE Version Laser Source with higher photoelectric conversion efficiency, Compared with traditional laser, fiber laser has higher photoelectric conversion efficiency, lower power consumption and higher beam quality. Fiber laser is compact and can be used at any time. Because of its flexible laser output mode, it can be easily integrated with the system equipment



Move with Gas Cylinder

Suitable for aluminum wire, iron wire, stainless steel wire, etc., easy to replace, easy to see, supports up to 15kg of welding wire, making it convenient for you to buy suitable welding wire locally.

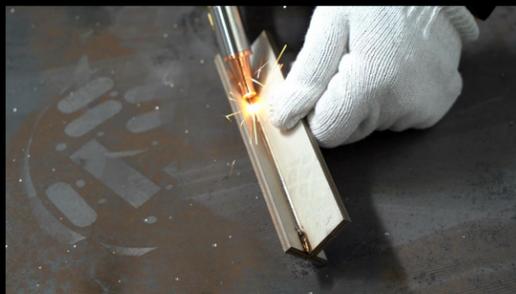
3000W WATER-COOLED Laser Welding Machine

This 3kw handheld laser welding and cleaning machine is stable, fast, easy to learn and operate, and produce high quality, consistent results across a wide range of materials and thicknesses. Pre-weld and post-weld laser cleaning functionality optimizes weld quality while increasing productivity.

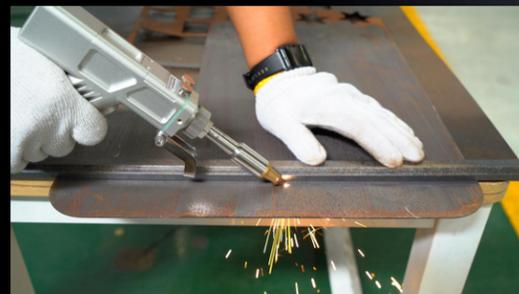
High Efficiency Productive Laser Processing Tools

Material	1500W	2000W	3000W
Stainless Steel	3mm	5mm	7mm
Aluminium	2.5mm	4.5mm	6.5mm
Carbon Steel	3mm	5mm	8mm
Nickel Alloy	2mm	4mm	6mm

It offers laser power output up to 3000W to further extend welding capabilities. Choose 1.2/1.6mm weld materials and maximize welding and cleaning productivity



High speed, low heat input, and a small HAZ make laser welding thick, thin, reflective materials, and materials with dissimilar thicknesses far less challenging for all skill levels



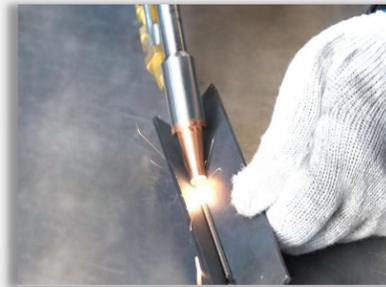
Can be used for cutting below 2mm, suitable for carbon steel, aluminum, stainless steel, etc., suitable for occasional household use, making cutting more daily



Cleaning removes rust and other contaminants from materials and increases weld quality. This is much faster than manual cleaning and uses no chemicals or abrasives.

3000W Welder FEATURES

The laser welding power is up to 1200W, and the touch screen interactive operation allows for quick setting of the optimal welding settings for various materials and thicknesses. Up to 10 preset and user-defined process parameters can be stored, and novice welders can receive training and welding within a few hours.



Weld Safety Detection

1. Laser only fires while the nozzle is in contact with the part
2. Laser power shuts off if no welding plume is detected



Stable 4 in 1 Handheld Welding Gun

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Simple Installation and Operation



Workpiece Clamp



220V Power



Standard Gas

Clearly labeled rear connections make getting started fast and easy. Just plug in the power cord and gas connection, attach the workpiece clamp, and it is ready to go.



Global Version Laser Source



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Power Switch

Gas Inlet

Wire Feeder
Signal Cable

Power

Ground Clamp

Large & Stable Chiller

Max 38L chiller, support cooling 3kw laser source, capable of heating and cooling, able to operate 24 hours a day. With a circulating water flow of 58L/min, it quickly removes excess heat from the laser source. We use R410a Freon for faster refrigeration and more solid materials.

Laser Welder ADTANTAGES & BENEFITS

Enables dramatically faster welding and is easier to learn and operate than MIG or TIG. It provides higher-quality, consistent results with minimal distortion or part deformation.

	MIG&TIG	LASER WELDER
Speed	Average	Fast - Over 4X Faster than TIG
Quality	Depends on user experience	Consistent high-quality results
Learning Curve	Steep	Quick and easy
Part Setup	Critical and time consuming	Minimal and fast
Material flexibility	Limited with consumables changes	Wide range with no set up
Heat affected zone	Large	Small
Distortion & Deformation	High	Very Low
Cleaning Function	No	Yes
Cutting Function	No	Yes



TIG welding can generate extreme heat that deforms thin materials and produces poor visual finishes. Welding copper is difficult and welding metals of dissimilar thicknesses is limited. TIG welding is a highly skilled process, and experienced TIG welders are a scarce resource.



MIG welding requires consumable wire, material pre-cleaning, and beveled joints for full penetration of thick metals. Travel and work angles are limited, and vertical positions are extremely challenging. MIG is a high-heat process that can cause part deformation.



It is easier to learn and operate, and is 4X faster than TIG welding. The low heat input and extensive material and thickness capabilities increase productivity, repeatability, and improve weld quality for operators of all skill levels. For our air-cooled welder that offer laser welding, cleaning remove oxides, rust, paint, oil, or grease from surfaces to be welded. Cutting suitable for below 2mm material.

Laser Welder LASER WELDING & CLEANING CAPABILITY

Aircooled built-in optimized presets provide high-quality, consistent welds for any skill level. It offer the added functionality of cleaning. Pre-weld cleaning removes oil, grease, paint, or any potential contaminants that can affect weld quality. Post-weld cleaning creates visually appealing welds while eliminating need for post processing.



It easily welds steels and aluminum 3 & 5 series without part deformation. Preset modes ensure proper laser settings for consistent high-quality welds. Built-in wobble function accommodates wider seams, while wire welding capability extends welding application to poorly fit up parts



To improve weld quality and reduce porosity, best results are attained by pre-cleaning to remove any oil, grease, or any debris that could enter the weld pool and create a defect.



Even the best welders can leave soot, debris, and visual signs of localized heating. A quick, final cleaning pass leaves a beautiful, clean weld without the need for manual post-finishing.

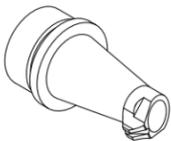
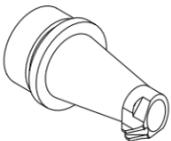
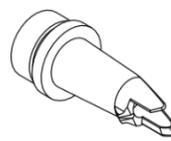
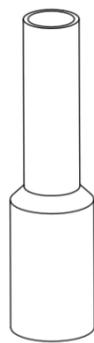
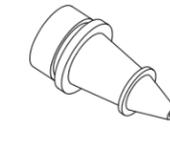


Switching between welding and cleaning is fast and easy. Simply loosen the collet, remove the scale tube and nozzle, and select the corresponding system from the front panel to clean or weld.

ACCESSORIES

Laser Head & Nozzle

	21T	23T
Maximum air pressure support	15Bar	15Bar
Focus of vertical adjustment range	±10mm	±10mm
Scan width-weld	0~8mm	0~8mm
Scan width-Clean	F150-0~30mm F400-0~60mm F800-0~120mm	F150-0~30mm F400-0~60mm F800-0~120mm
Temperature indicator light	×	√

 Name: Welding Nozzle Type: AS-12 Application: Wire 0.8mm/1.0mm/1.2mm	 Name: Welding Nozzle Type: BS-16 Application: Wire 1.6mm	 Name: Welding Nozzle Type: CS-12 Application: Wire 0.8mm/1.0mm/1.2mm	 Name: Welding Nozzle Type: ES-12 Application: Wire 0.8mm/1.0mm/1.2mm	 Name: Scale Tube Type: FT80
 Name: Welding Nozzle Type: FS-16 Application: Wire 1.6mm	 Name: Welding Nozzle Type: C Application: No wire, outer angle welding	 Name: Welding Nozzle Type: AS-20D Application: Double wire 2.0mm, and weld seam cleaning	 Name: Cutting Nozzle Application: Single layer 1.5mm	

Laser source

	Raycus CE Version Laser Source
Service center	Thailand, Vietnam, Malaysia, Taiwan, South Korea, Australia, India, Russia, Italy, Germany, Brazil, Turkey
Light conversion rate	40%
Fiber length	10m
Warranty period	2 Years

The laser can be connected to phone's Bluetooth for preliminary status check, and basic alarm information can be viewed in real-time on the APP.



ACCESSORIES

System

Cutting Mode

Cleaning Mode

Welding Mode

A self-developed three in one control system that allows for flexible switching of welding, cleaning, and cutting, with multiple safety alarms set, and easy and flexible operation.

Technology

Process library: monofilament (0~6mm)

Material: carbon steel, stainless steel, aluminium, other

Thickness: mm

Silk feeder: Feeding speed (0 cm/min), Weld wire diameter (0 mm)

Spot welding: Interval, Spot welding duration (0 ms), Spot welding interval (0 ms)

The wire feeding speed can be directly adjusted on the system panel

Adjust spot welding mode, suitable for more application scenarios

Process library: multiple sets of parameter settings can be pre stored to make welding more convenient and efficient

Parameter adjustment interface: make the welding rhythm more suitable for oneself

CONSUMABLES



Daily consumables only require copper tips, lenses, and welding wire, with low maintenance costs

PACKAGE



GLOBAL SERVICE



Warranty

- Complete machine: 1 years warranty. Laser source: 2 years warranty
- Free Warranty Service: We will send replacement parts on our cost first, keep customer's machine running is top concern.
- If machine needs onsite service for quality issue, we send technician to anywhere on our cost. You may inquire any of our old international customers for reference!

Pre-service

- Free sample cutting, For free sample welding/testing, please send us your request, we will do welding here and make video to show you , or send sample to you check welding quality.
- Customized machine design
According to customer's application, we may revise our machine accordingly for customer's convenience and high production efficiency.

After-sales

- Machine will be supplied with training video and user's manual in English for installation, operation, maintenance and trouble-shooting, and shall give technical guide by e-mail, fax, telephone, skype ... for fast solution.
- Customer may come to our factory for training. We will offer training of installation, operation, machine trouble-shooting, and maintenance.
- We offer technician to customer site for installation and training, customer covers travel cost and local living cost.

Quotation Sheet

Type	Price Term
Pic	Laser Source Warranty
Laser Power	Machine Warranty
Laser source	Delivery Time
Chiller	
Voltage	
Price	
