

Optical Metal

— Solutions —





Standard Series Handheld Laser Welder

- 1 tool, 4 jobs: welding, cutting, seam cleaning, professional cleaning
- Make welding faster, easier and better
- Higher efficiency, more work and lower cost
- Up to 70% less filling materials consumption
- Highly digital and automatic level
- Easy to learn and operate
- Wobbling function automatically realizing fish scale seam
- Real-time feedback of abnormalities

Welding Samples



Stainless Steel



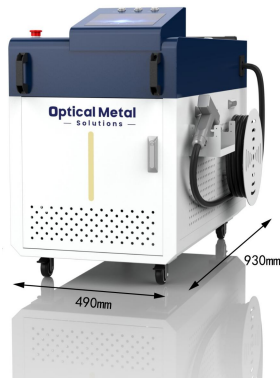
Carbon Steel



Aluminum

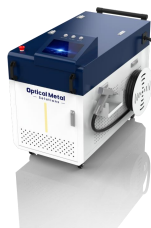
Technical specification				
Power	1200W	1500W	2000W	3000W
Laser Wavelength	1080±5nm			
Fiber Length	7m	10m		20m
Electrical Voltage	AC 220V /380V			AC 380V
Electrical Current	28A	30A	32A	28A
Frequency	50/60Hz			
Power Consumption	7.5kW	8kW	10kW	14kW
Cooling Method	water cooling			
Welding Speed	up to 120mm/s			
Wire Diameters	0.8~2.5mm			
Wire Filling	automatic wire feeding			
Operation Method	manual /automated			

Mini/Eco Series Handheld Laser Welder



- 1 tool, 4 jobs: welding, cutting, seam cleaning, professional cleaning
- Make welding faster, easier and better
- Higher efficiency, more work and lower cost
- Up to 70% less filling materials consumption
- Highly digital and automatic level
- Smaller dimension and weight but with efficient water-cooling support
- Easy to be integrated with robot, cobot or other devices

Welding Samples



Stainless Steel



Carbon Steel



Aluminum

Technical specification

Power	1200W	1500W	2000W
Laser Wavelength	1080±5nm		
Fiber Length	7m	10m	
Laser Source Opiton	Raycus	Raycus / Maxphotoncis / BWT	
Electrical Voltage	AC 220V /380V		
Electrical Current	28A	30A	32A
Frequency	50/60Hz		
Power Consumption	4.5kW	6kW	8kW
Cooling Method	water cooling		
Welding Speed	up to 120mm/s		
Wire Diameters	0.8~2.5mm		
Wire Filling	automatic wire feeding		
Wire Feeder	mechanic automatic wire feeder (upgrading to digital model available)		
Dimension	490*930*790mm (inluding loading wheels)		
Weight	95kg		
Operation Method	manual /automated		



Portable Air Cooled Laser Welder

- 1 tool, 4 jobs: welding, cutting, seam cleaning, professional cleaning
- Make welding faster, easier and better
- Higher efficiency, more work and lower cost
- Up to 70% less filling materials consumption
- Highly digital and automatic level
- Easy to learn and operate
- Wobbling function can automatically realize fish scale seam
- Real-time feedback of abnormalities
- Smaller size and weight, easy to move and intergration



Welding Samples



Aluminum

Stainless Steel

Carbon Steel

Technical specification

Power	800W	1200W	1500W
Welding Thickness	≤ 2.5 mm	≤ 4 mm	≤ 5 mm
Welding Wire Diameter	0.8 ~ 2.5mm		
Main Machine Weight	38 KG		40 KG
Wire Feeder Weight	13.2 KG		
Main Machine Overall Dimension	510 (L) * 424 (W) * 586.47 (H) mm (including wheels and laser gun holder)		
Wire Feeder Overall Dimension	420(L)*180(W)*230(H) mm		
Cooling Method	air cooling		
Welding Gun Cable Length	10 m		
Welding Gun Weight	≤0.65 KG		
Power Consumption	3 KW	4.5 KW	5.5 KW
Electrical Voltage &Frequency	220V 50/60 HZ		
Welding Speed	up to 120 mm/s		
Operation Method	manual /automated		



Standard Series Handheld CW Laser Cleaner

- Next generation of industrial cleaning tool
- Easy to learn and operate
- No additives consumed, no pollution
- Highly digital and automatic level
- Real-time feedback of abnormalities

Cleaning Samples



Rust removal



Painting removal

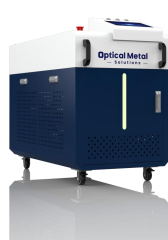
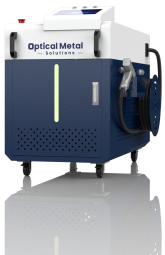


Rust removal

Technical specification

Power	1200W	1500W	2000W	3000W
Laser Wavelength	1080±5nm			
Fiber Length	7m	10m		20m
Electrical Voltage	AC 220V /380V			380V
Electrical Current	28A	30A	32A	28A
Frequency	50/60Hz			
Power Consumption	7.5kW	8kW	10kW	14kW
Cooling Method	water cooling			
Cleaning Width	up to 300mm			
Operation Method	manual /automated			

Mini/Eco Series Handheld CW Laser Cleaner



- Next generation of industrial cleaning tool
- Easy to learn and operate
- No additives consumed, no pollution
- Highly digital and automatic level
- Smaller dimension and weight but with efficient water-cooling support
- Easy to be integrated with robot, cobot or other devices

Cleaning Samples



Rust removal



Painting removal



Rust removal

Technical specification

Power	1200W	1500W	2000W
Laser Wavelength	1080±5nm		
Fiber Length	7m	10m	
Laser Source Opiton	Raycus	Raycus / Maxphotoncis / BWT	
Electrical Voltage	AC 220V /380V		
Electrical Current	28A	30A	32A
Frequency	50/60Hz		
Power Consumption	4.5kW	6kW	8kW
Cooling Method	water cooling		
Cleaning Width	up to 300mm		
Dimension	490*930*790mm (including loading wheels)		
Weight	95kg		
Operation Method	manual /automated		



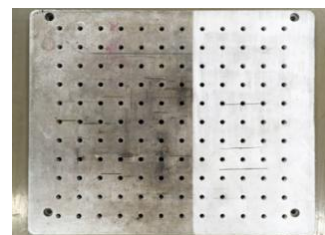
Portable / Handheld MOPA Laser Cleaner

- Next generation of industrial cleaning tool
- Easy to learn and operate
- No additives consumed, no pollution
- Highly digital and automatic level
- Real-time feedback of abnormalities
- Available for high precision products: module, electronical components, etc...

Cleaning Samples



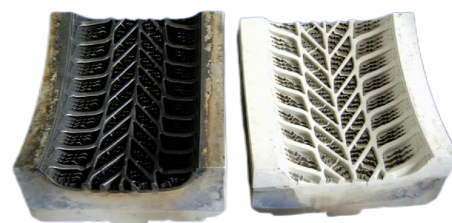
Gear rust removal



Oxidation film removal



Painting removal



Tire mold cleaning

Technical specification			
Power	200W	300W	500W
Laser Wavelength	1064±5nm		
Fiber Length	10m		
Electrical Voltage	AC 220V / 380V		
Electrical Current	5.5A	6.8A	10A
Power Consumption	1.2kW	1.5kW	2.2kW
Scanning Type			
Cooling Method	air cooling		air cooling / water cooling
Cleaning Dimension	up to 200×200mm		
Operation Method	manual /automated		

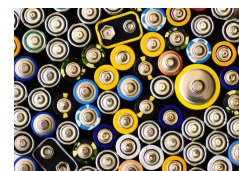
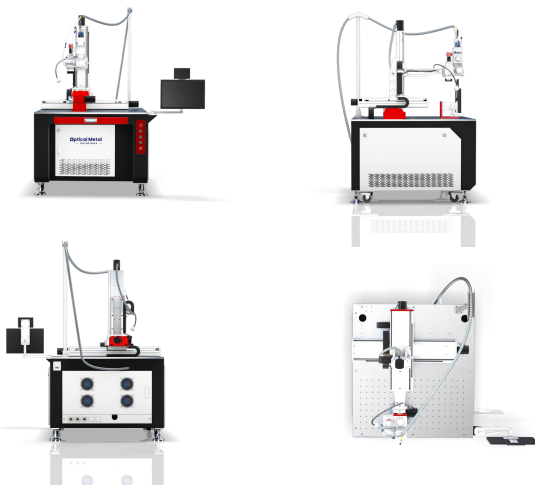
Automatic Laser Welding Machine

Welding Cell Series Automatic Laser Welding Machine



- Highly customized design for different demands
- Nearly robotic level automatic laser welding performance
- Providing more choices to demands of automatic welding
- Ideal performance in small size workpieces mass welding
- Higher speed and better seam quality supported by laser welding technology
- Highly intelligent & automatic operation
- Easy programming

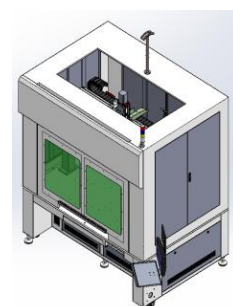
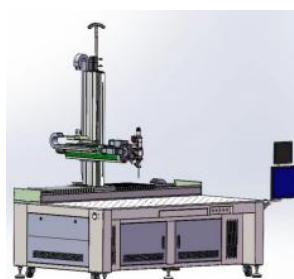
Typical Applications



Technical specification

Power	1000~6000W
Welding Wire Diameter	0.8 ~ 2.5mm
Wire Filling	customized
Cooling Method	water cooling
Welding Gun Cable Length	10 ~20 m (customization available)
Electrical Voltage &Frequency	220V/380V 50/60 HZ
Welding Speed	up to 120 mm/s
Welding Dimension	customizing
Operation Method	computerized numerical control

Highly Customized Design





Automate Series Robotic Laser Welding Machine

- Specific 6-axis laser welding robot supporting laser and welding parameters, featuring controllable power, wire feeding, soft start and stop, pre-laser emission and stop, wire sticking detection, pre-wire extraction, wire replenishment, etc...;
- Providing different choices to laser source types & powers, laser welding heads;
- Compatible to handheld laser welding gun and automatic laser welding head;
- Built-in UPS supporting power regeneration after outage;
- Compact electrical cabinet can be integrated in laser machine;
- Highly customized structure and conception.



Technical specification

Model	Automate 15-12	Automate 18-20	Automate 20-12
Arm Radius	1554mm	1821mm	2015mm
Arm Load	12kg	20kg	12kg
Body Weight	170kg	288kg	262kg
Installation Method	formal installation/inverted installation/side installation		
Electrical Voltage & Frequency	220V/380V 50/60 HZ		
Laser Power	up to 6000W		
Laser Welder Type	handheld or automatic; water-cooled or air-cooled		
Wire Feeding	stepper motor or servo motor driven feeder; internal control or external control;		
Remote Control	Yes		
Functions Extension	Yes		
External Axis	Yes (optional 2)		