

SXF Series Air-cooled Handheld Laser Welding Machines



The advantages of air-cooled handheld laser welding machines mainly include the following points:

- Compact size and strong portability: Its size is similar to that of a computer host, so it is very suitable for on-site operations in terms of operation. On site operations or occasions that require mobile welding.
- Multiple power options available: offers three power options, 700W, 1200W and 1500W, which can adapt to different welding needs, whether it is precision welding or welding of thicker materials.
- Wide welding thickness range: 700W of power is suitable for welding with a thickness of 0.4 to 3 mm, while 1500W of power can handle materials with a thickness of 0.4 to 5mm, covering the most common welding needs.
- Easy to operate: Simply press to start welding, suitable for operators with different skill levels.
- Accurate control of welding parameters: capable of accurately controlling key parameters during the welding process, ensuring welding quality, and meeting high standard welding requirements.

These advantages make air-cooled handheld laser welding machines efficient, flexible, and reliable welding tools, suitable for various industrial and manual welding scenarios.

Technical Specifications

Model Number	SXF-700W	SXF-1200W	SXF-1500W
Laser power	700W	1200W	1500W
Dimension	570x260x540mm	570x260x540mm	570x260x540mm
Weight	29kg	43kg	48kg
Max. power required	2.5kW	4kW	4.5kW
Input voltage	220VAC, 50/60Hz	220VAC, 50/60Hz	220VAC, 50/60Hz
Cooling method	Air-cooled	Air-cooled	Air-cooled
Operation temp.	-20 ~ 40 degree C	-20 ~ 40 degree C	-20 ~ 40 degree C
Laser wavelength	1070nm	1070nm	1070nm
Welding handle length	10m	10m	10m
Welding speed	0-2m/min	0-2m/min	0-2m/min
Welding thickness	0.4-3mm	0.4-4mm	0.4-5mm
Scan width	0-8mm	0-8mm	0-8mm
Welding material	Carbon steel, stainless steel, aluminum, galvanized material & other metal materials		
Pointing light	Red light	Red light	Red light
Capable of functionality	Welding, cutting, cleaning		
Adapted welding wire dia.	0.8/1.0/1.2/1.6/2.0mm		
Automatic wire feeding	Standard configuration		
Welding wire specs.	Solid coiled wire, same as gas-shielded wire		
Welding wire material	Same as welded base material		
Protective gas	Nitrogen, argon, carbon dioxide		
Protective gas flow rate	10-15 liters per minute		

Product Features

POINT 1

All electrical components adopt Schneider and other first-line brands
Stable equipment



POINT 2

Dual protective lens design
Longer lasting and more durable



POINT 3

Drawer type lens design, easy to replace, simple maintenance



POINT 4



POINT 5

Top of screen design
Easy to operate



POINT 6

10 meters welding line
Wide area of use



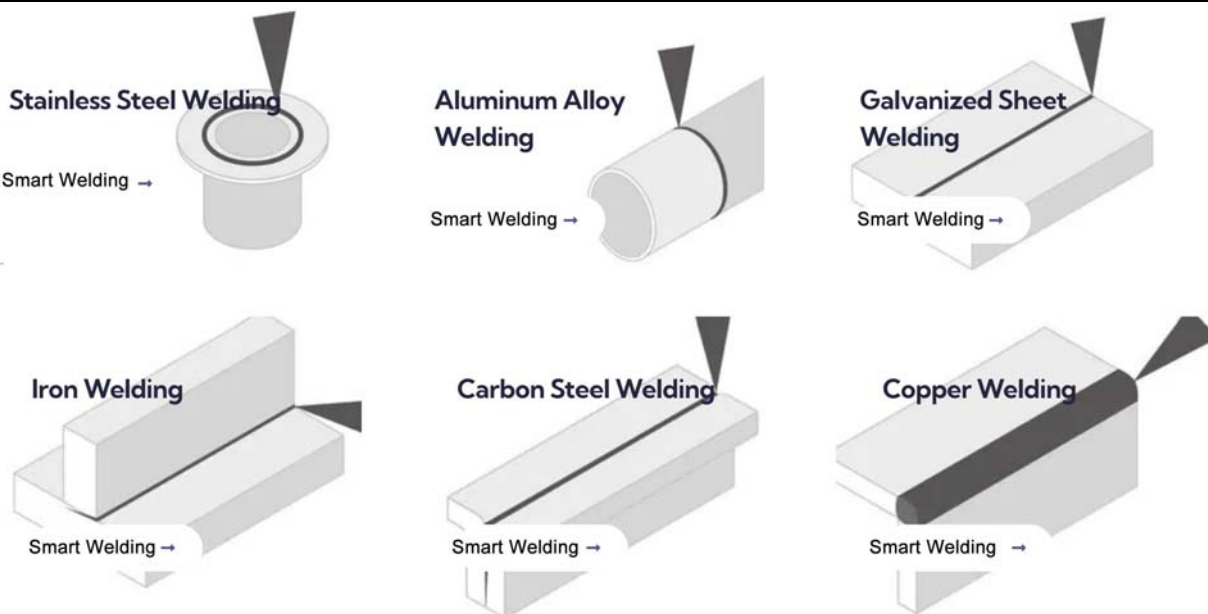
POINT 7

Complete specification of accessories



POINT 8

Compact device, easy to move



Comparison with TIG/MIG Welding:



TIG/MIG

VS



Air-cooled laser welding machine

Advantages of air-cooled laser welding machines

- No welding technology required
- Fast welding speed
- Beautiful weld seam
- No grinding
- Small heat distortion
- Low welding fume
- No glare during welding

Water-cooled laser welding VS. air-cooled laser welding

Water-cooled laser welding machine



VS



Air-cooled laser welding machine

Advantages of air-cooled laser welding machines

- Compact and easy to move
- Energy saving of 50% compared to water-cooled equipment
- No need to wait for the machine to start welding
- Maintenance-free mainframe, no need to add water and antifreeze
- Modular design, low failure rate

**Easy operating system
Intelligent machining mode**



Welding at any angle

Welding head can weld workpieces at any angle, suitable for various complex welds and various equipment



Flexible and convenient, Move according to one's heart, Act casually

Welding gun armor cable can be dragged.

weight

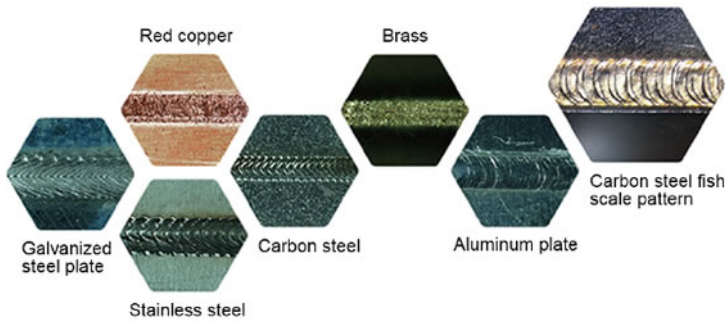
Easy to move by one person

volume

Less than 0.1 cubic meters



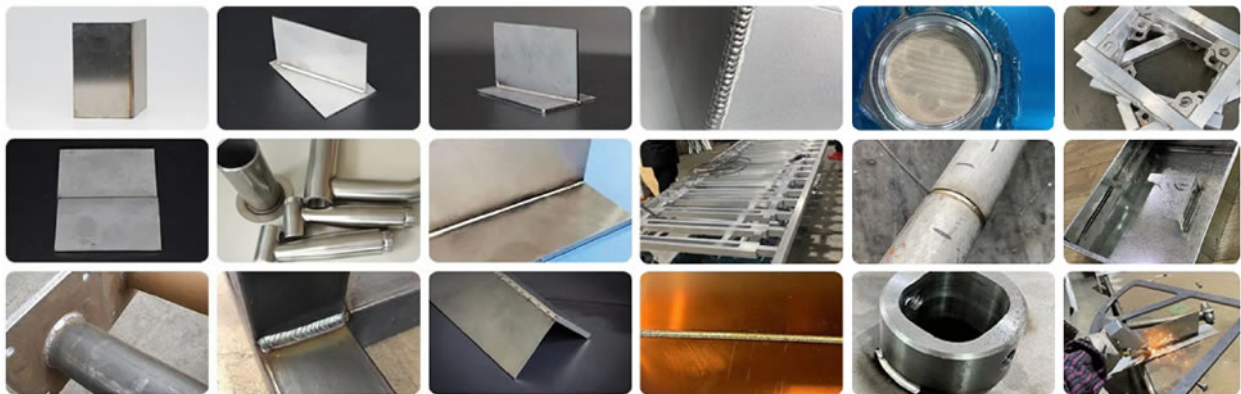
● Not only ease of use and efficiency, but also welding art



Through the intelligent operating system, users can quickly select welding parameters based on different materials and thicknesses, and beginners can also weld high-quality and consistent welds.

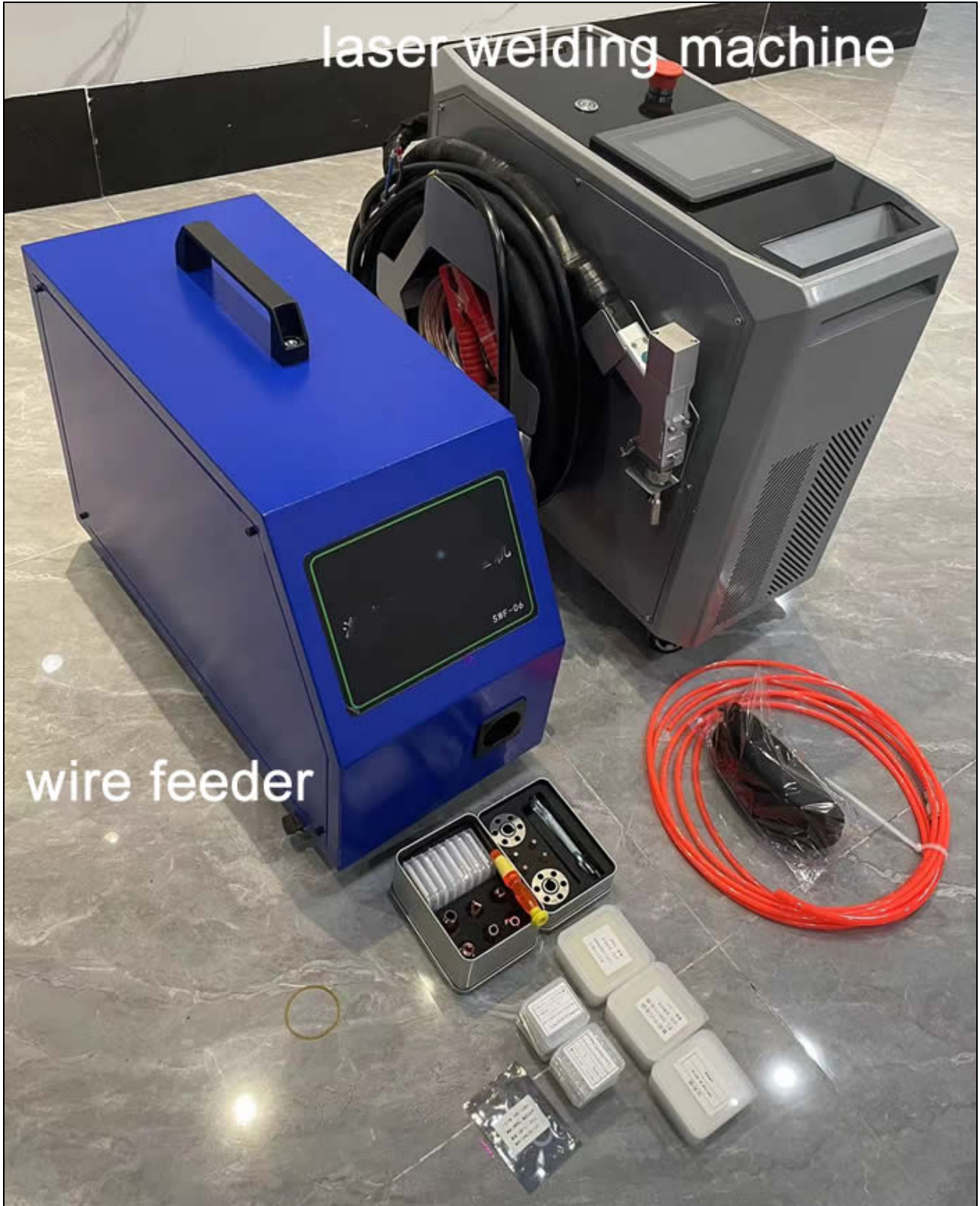


● Application cases



Packing List

- 1) Laser welding machine, including 10m of welding wire, one unit
- 2) Wire feeder, including wire feed tube, wire feed wheel accessories, one set
- 3) Safety goggles, one pair
- 4) Welding nozzle, five pcs
- 5) Protective lens, 18*2, five pcs (disposables)
- 6) Nozzle assembly, including 0.8/1.0/1.2/1.6mm wire nozzle and wire feeder, one set
- 7) Protective gas connection fittings, one piece



SXF Series Water-cooled Handheld Laser Welding Machines



Product Features:

POINT 1

Classic protective lens design



POINT 2

Drawer type lens design, easy to replace, simple maintenance



POINT 3

The equipment is equipped with an emergency stop button and a safety clip, which makes it safe to use



POINT 4

Top of screen design
Easy to operate



POINT 5

10 meters welding line
Wide area of use



POINT 6

Complete specification of accessories



Comparison with Conventional TIG/MIG Welding Methods:



VS



Advantages of Water Cooled Handheld Laser Welding Machine:

- No welding technology required
- Fast welding speed
- Beautiful weld seam
- No grinding
- Small heat distortion
- Low welding fume
- No glare during welding

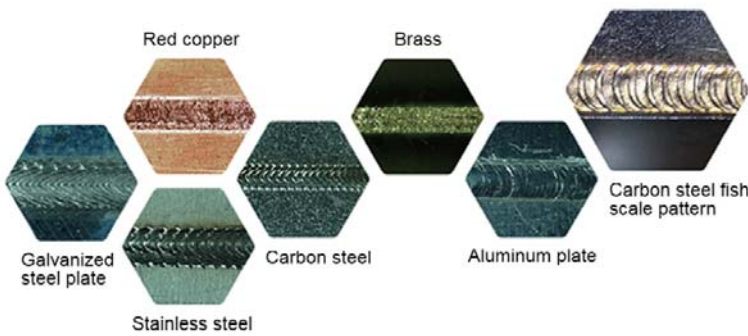
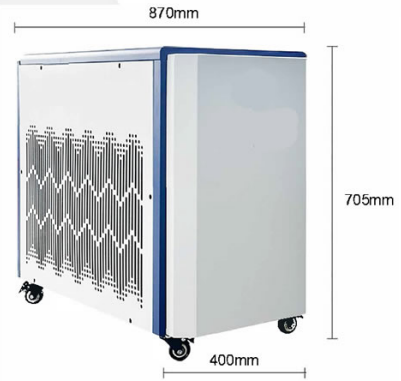
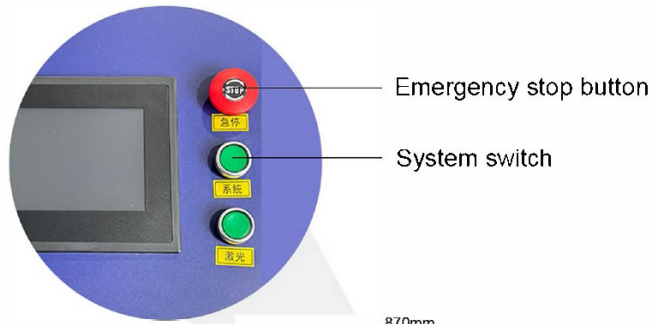
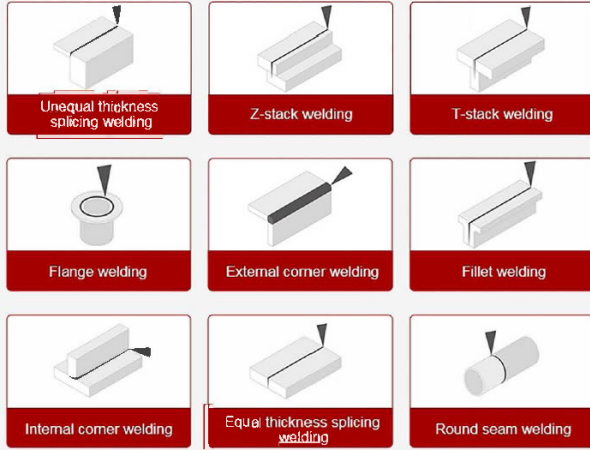
Technical Specifications:

Model Number	SXF-1000W-W	SXF-1500W-W	SXF-2000W-W	SXF-3000W-W
Laser power	1000W	1500W	200W	3000W
Dimension	870x400x705mm	870x400x705mm	870x400x705mm	1125x520x880mm
Weight	75kg	80kg	85kg	130kg
Max. power required	5kW	6.5kW	9kW	13kW
Input voltage	220VAC, 50/60Hz	220VAC, 50/60Hz	220VAC, 50/60Hz	380VAC, 50/60Hz
Cooling method	Internal water-cooled	Internal water-cooled	Internal water-cooled	Internal water-cooled
Operation temp.	0 ~ 45 degree C	0 ~ 45 degree C	0 ~ 45 degree C	0 ~ 45 degree C
Laser wavelength	1070nm	1070nm	1070nm	1070nm
Welding handle length	10m	10m	10m	10m
Welding speed	0-2m/min	0-2m/min	0-2m/min	0-2m/min
Welding thickness	0.4-3mm	0.4-4mm	0.4-6mm	0.4-8mm
Scan width	0-8mm	0-8mm	0-8mm	0-8mm
Welding material	Carbon steel, stainless steel, aluminum, galvanized material & other metal materials			
Pointing light	Red light			
Capable of functionality	Welding, cutting, cleaning			
Adapted welding wire dia.	0.8/1.0/1.2/1.6/2.0mm			
Automatic wire feeding	Standard configuration			
Welding wire specs.	Solid coiled wire, same as gas-shielded wire			
Welding wire material	Same as welded base material			
Protective gas	Nitrogen, argon, carbon dioxide			
Protective gas flow rate	10-15 liters per minute			

●

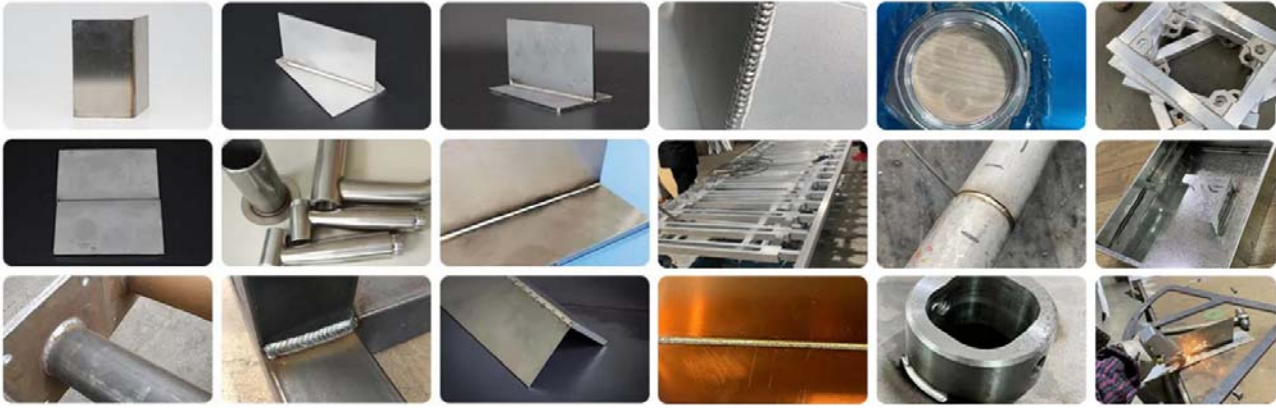
Welding at any angle

Welding head can weld workpieces at any angle, suitable for various complex welds and various equipment



Through the intelligent operating system, users can quickly select welding parameters based on different materials and thicknesses, and beginners can also weld high-quality and consistent welds.



Applications:**Packing List**

- 1) Laser welding machine, including 10m of welding wire, one unit
- 2) Wire feeder, including wire feed tube, wire feed wheel accessories, one set
- 3) Safety goggles, one pair
- 4) Welding nozzle, five pcs
- 5) Protective lens, 18*2, five pcs (disposables)
- 6) Nozzle assembly, including 0.8/1.0/1.2/1.6mm wire nozzle and wire feeder, one set
- 7) Protective gas connection fittings, one piece

200W Pulsed 4-in-1 Laser Processing Machine (Cleaning, Marking, Deep Engraving & Cutting)



The pulse laser cleaning machine mainly consists of MOPA cleaning laser, control board, control system, pulse cleaning dual swing cleaning head, cleaning f-theta lens, power supply, housing, etc.

Features:

The machine casing is made of metal sheet, laser cut, welded and polished, suitable for various harsh working environments with a beautiful and durable appearance.

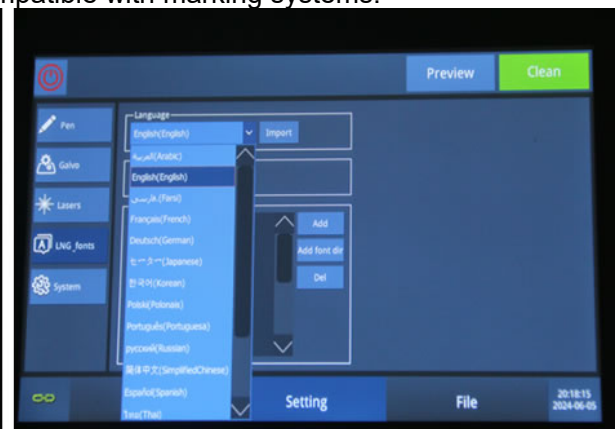
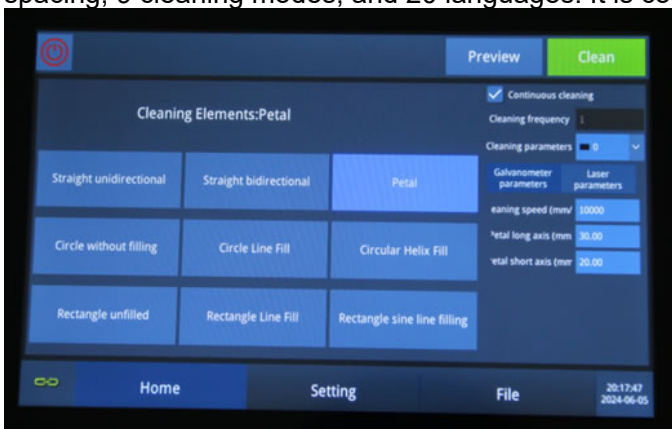
10 Bukit Batock Crescent #07-02 The Spire Singapore 658079 Tel: 6316 7112 Fax: 63167113
<http://www.SintecOptronics.com> <http://www.sintec.sg> sales@sintec.sg sales@SintecOptronics.com

- Full body metallic paint, smooth and bright surface, bright color, high temperature resistance, corrosion resistance, impact resistance, friction resistance, waterproof and oil resistant.
- Metal start switch and metal power interface have a long service life, sensitive response, good contact conductivity, and can be used in harsh working environments.
- The fiber optic protective cover adopts high-density fibers, which are fireproof, waterproof, and corrosion-resistant, and can effectively protect the fiber optic from long-term use in various harsh environments.
- This laser is produced by the well-known company, which has a uniform optical mode and stable laser output energy. Flat top light design, energy density of 5mJ, low power consumption for air cooling.
- The control system adopts a high-sensitivity capacitive touch screen with fast response speed. There are 9 cleaning methods including straight line, circle, petal, solid circle filling, horizontal and vertical scanning, and 20 global languages. The interface operation is simple and easy to set, and can adjust laser power, frequency, pulse width, graphic size, cleaning speed, and reaction time.
- The cleaning head weighs 500g, with a dual swing X/Y copper wire motor. The lens is made of high-temperature quartz material with silicon chips, which does not heat or deform. The fixed bracket is distributed for easier cleaning operation.

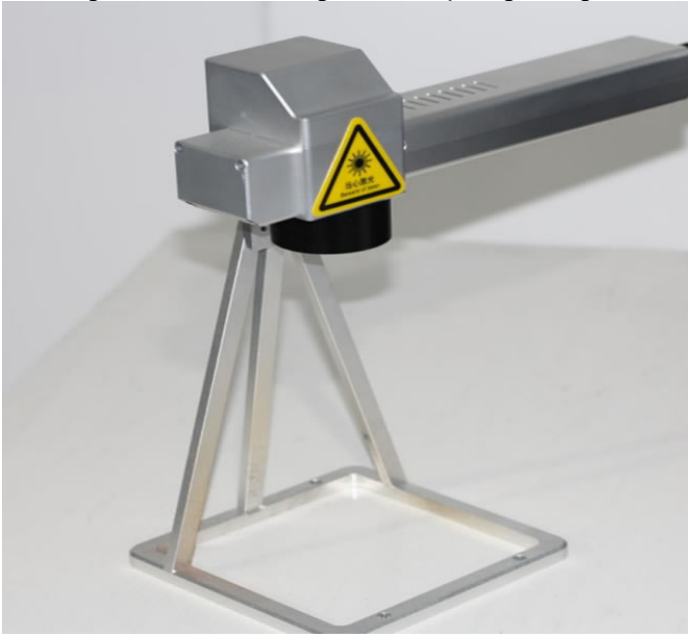
Specifications:

Part number	SKR-C200W
Laser power	200W
Max. pulse energy	5mJ
Laser type	Fiber MOPA
Laser wavelength	1080nm
Power range	0--100%
Pulse repetition rate	1-3000KHz
Pulse width	13--500ns
Power non-stability	< 5%
Laser beam divergence	≤1.5mrad
Laser cleaning width	1-100mm
Focal length	F=200mm
Cleaning modes	9 modes
CW operation time	16hours
Machine noise	≤60db
Fiber length	5M standard
Electrical input power	≤ 1KW
Power supply	AC110/220V±10% 50Hz/60Hz
Operation temp.	-10°C-40°C
Cooling method	Air
Machine weight	20kg
Machine dimension	450*170*360mm
Pack (wooden)	490*210*480mm, 28kg

Control system: Adopting a 7-inch capacitive touch screen and microcontroller principle, it can set laser power, laser frequency (pulse repetition rate), pulse width, cleaning width, filling angle and spacing, 9 cleaning modes, and 20 languages. It is compatible with marking systems.



Handheld cleaning head (compatible with marking function): All metal 6061 aluminum alloy design and manufacturing, electroplated frosted silver, comfortable grip, wear-resistant and drop resistant, gun body weight of 750 grams, long-term holding without fatigue; The gun body is equipped with metal buttons, with over 500000 clicks. It features a copper high-speed motor with dual mirrors, a heavy load accuracy of less than 5 μ rad, a positioning speed of 20m/s, and is suitable for temperatures ranging from -20 ° C to 60 ° C with high speed drive 20000Hz/s, fast response speed, small error, and no noise. High-quality quartz lens is durable and long-lasting. Equipped with a special positioning device bracket for precise focusing, it is easier to operate during cleaning, and can also be disassembled by oneself. It can switch the handheld marking function with one click, perfectly integrating handheld cleaning, marking, thin-metal cutting, and deep engraving.



Cleaned Samples:

