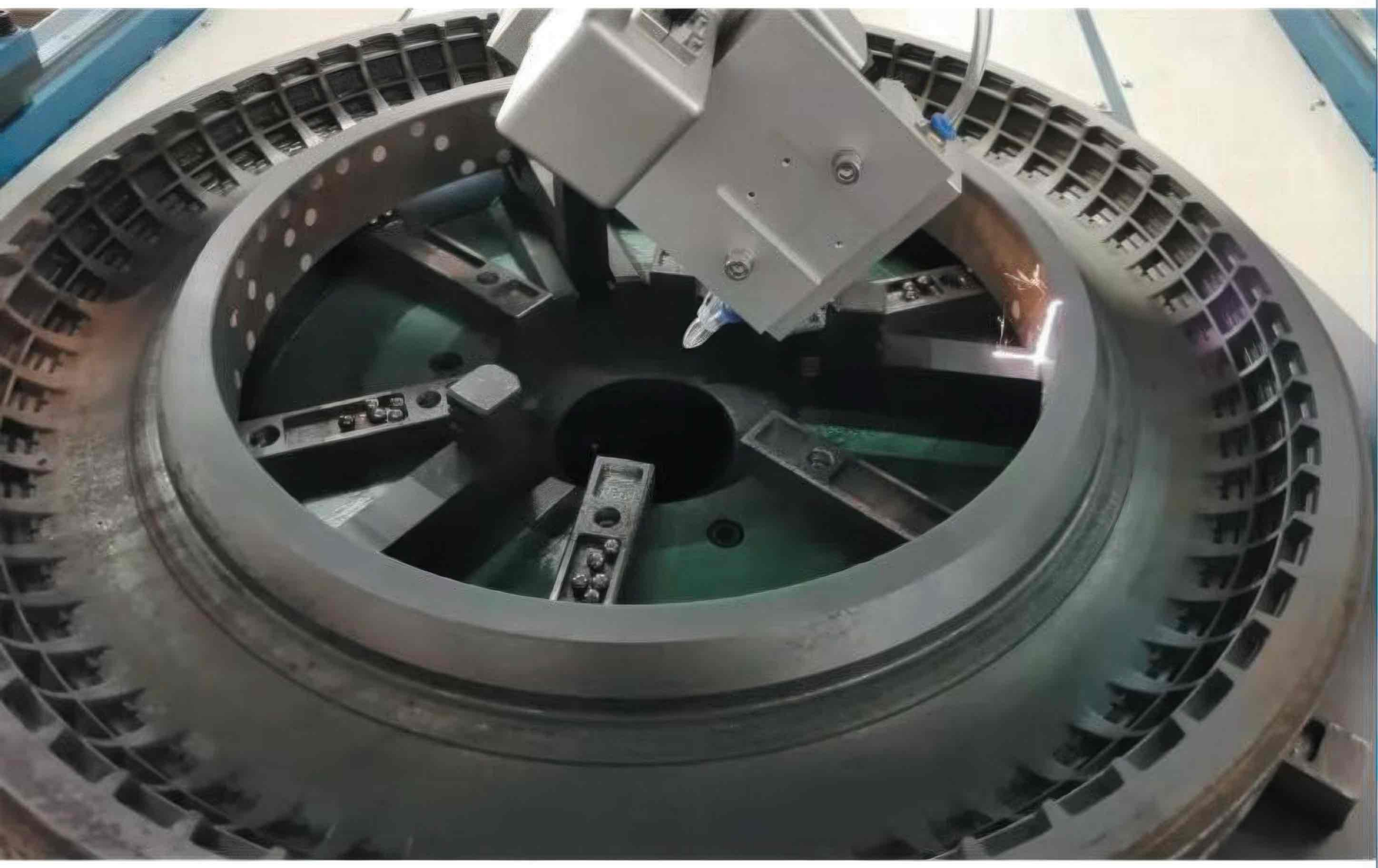
Laser Cleaning



Advantages of the laser cleaning technology

ECO-friendiy: Laser cleaning technology belongs to the category of light and material interaction, the cleaning process does not require any consumables, It solved the influence of traditional cleaning methods such as chemical cleaning and shot blasting on the environment.

Non-destructive: Laser cleaning technology can precisely remove oil, paint, rust and other pollutants from the surface of the material by adjusting the laser parameters. Coupled with the instantaneous condensation of the pulsed laser, it has a great force on the heat input and mechanical response of the material. Easier control and no damage to the material.

Flexibility: Within the laser focal range, cleaning can be done wherever the light reaches, suitable for special working conditions such as outdoor and narrow crevices, and it can also be combined with automated equipment to achieve intelligent operation.

Laser Cleaning

The traditional cleaning methods are mostly chemical, sandblasting, or high pressure water. In contrast, laser cleaning is a new and efficient environmentally friendly cleaning technology that uses the thermal ablation, shock and vibration of light to decontaminate the surface of the material and achieve the purpose of cleaning. By adjusting the parameters of the laser process, the contaminants can be effectively removed without damaging the substrate. Non-abrasive, non-contact, non-thermal and suitable for cleaning wide range of materials. It removes rust, oxidation, paint, oil and other contaminants from the surface of the substrate.

	Laser Clean	Mechanical Clean	Ultrasonic Clean	Dry Ice Clean	Sandblasting	Chemical Clean
Contact/ No Contact	No Contact	Contact	Contact	No Contact	Contact	Contact
Substrate Damage	No Damage	No Damage	No Damage	No Damage	With Damage	With Damage
Precision	High	Low	Low	Low	Low	Low
Efficiency	High	Low	Medium	Medium	Medium	Low
Consumables	No	Grinding Wheel/ Sandpaper	Detergent	Dry Ice	Specialized Abrasive	Chemical Detergent
Eco-friendly	No Pollution	With Pollution	No Pollution	No Pollution	With Pollution	With Pollution
Operations	Easy	Easy	Easy	Easy	Easy	Complex
Safety	High Safety	Low Safety	High Safety	Low Safety	Low Safety	Low Safety

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Laser Cleaning Equipment

QYCL-FP

Backpack Laser Cleaning Machine

Adopt pulsed fiber laser, equipped with self-developed intelligent control system, the overall design quality is small, backpack design is easy to carry, it can accurately remove oil, rust, paint and other pollutants on the metals surface.

1. Backpack structure design

Small size, light, easy to carry, battery/external power supply two modes can be selected freely, it's not only suitable for small spaces, high altitude, field operations, etc., but also suitable for factory workshop operations

2. Portable cleaning head

Two-dimensional galvanometer structure, multi-pattern cleaning solution, small cleaning head is small and light, timely alarm, safe and reliable

3. Rechargeable battery structure

Built-in Korean Samsung high-capacity battery and protection circuit, safety and reliable, it can work at full power 2.5 hours or more. Snap-on installation and the power display can observe the power at any time

4. Open functional design

Anti-mis-touch design, support parameter power-off save and process parameter custom storage function

Product display






Specifications		
Model	QYCL-FP50B	QYCL-FP100B
Laser power (w)	50	100
Single pulse energy (mJ)	1.1	1.7
Weight of hand-held head（kg）	0.7	
Rated power（kw）	0.5	0.6
Power adjustment range（%）	10-100	
Width of scanning（mm）	100*100	
Focal length（mm）	100/160/260	
Central wavelength（nm）	1060~1070	
Cooling method	Air Cooling	
Fiber length（m）	3	
Type of laser source	Pulsed fiber laser	
Battery	Lithium battery（24V 25Ah）	
Battery life	2.8	1.6
Dimension of machine (mm)	260*190*415	
Weight of machine（kg）	14±0.5	16±0.5
Package size (mm)	/	561*370*695
Package weight（kg）	25±0.5	30±0.5
Power supply	220V/110V 50Hz/60Hz	

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Laser Cleaning Equipment

QYCL-FP

Portable Laser Cleaning Machine

Adopt pulsed fiber laser, equipped with self-developed intelligent control system, the overall design quality is small, Suitcase design is easy to carry, it can accurately remove oil, rust, paint and other pollutants on the metals surface.

1. Suitcase structure design

Small size, light weight, easy to carry, battery/external power supply two modes can be selected freely, it's not only suitable for small spaces, high altitude, field operations, etc., but also suitable for factory workshop operations.

2. Portable cleaning head

Two-dimensional galvanometer structure, multi-pattern cleaning solution, small cleaning head is small and light, timely alarm, safe and reliable

3. High-quality core components

First class laser source with Qiangyuan self-developed control system and cleaning head, jumper type design can switch multi-brand laser, suitcase mechanical structure, more lightweight and flexible

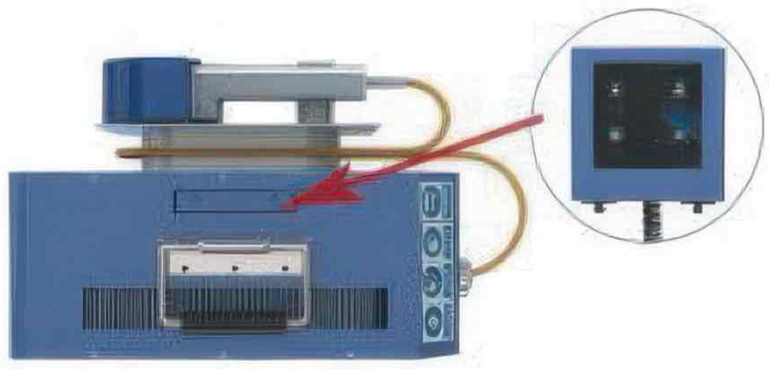
IPG PHOTONICS

MAX

4. Open functional design

Anti-mis-touch design, support parameter power-off save and process parameter custom storage function

Product display



Specifications		
Model	QYCL-FP50D	QYCL-FP100D
Laser power (w)	50	100
Single pulse energy (mJ)	1.1	1.7
Weight of hand-held head (kg)	0.7	
Rated power (kw)	0.5	0.6
Power adjustment range (%)	10-100	
Width of scanning (mm)	100*100	
Focal length (mm)	100/160/260	
Central wavelength (nm)	1060~1070	
Cooling method	Air Cooling	
Fiber length (m)	3	
Type of laser source	Pulsed fiber laser	
Dimension of machine (mm)	315*152*275	394*160*275
Weight of machine (kg)	8.5±0.5	11±0.5
Power supply	220V/110V 50Hz/60Hz	

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Laser Cleaning Equipment

QYCL-FP

Luggage Type Laser Cleaning Machine

Pulsed fiber laser with independent R&D of intelligent control system, laser pulse frequency and pulse width can be controlled independently, red light can assist in focusing and the focusing position can be adjusted according to different F-theta lens. It can achieve constant peak power output by laser parameter adjustment collocation and suitable for a wider range of cleaning applications

1. High-quality core components

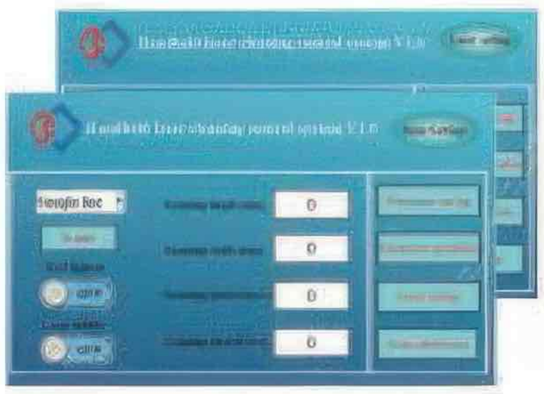
IPG/ Raycus/MAX/JPT laser source, Qiangyuan self-developed control system and cleaning head, jumper type design can switch multi-brand laser, luggage type mechanical structure, more lightweight and flexible.

2. Portable cleaning head

Two-dimensional galvanometer structure, a variety of graphic cleaning solutions, ergonomic design, small size easy to hold, optional different F-theta lens.

3. Luggege type portable structure

Luggage type design, flexible movement, 360° silent universal wheel rotation, aluminum alloy pull rod, strong and durable. Easy to achieve laser cleaning requirements



4. Open functional design

Visual multi-language touch screen, standard with 8 kinds of cleaning graphics, can be customized graphics. Supports a variety of bus protocols.

Product display

Specifications			
Model	QYCL-FP100	QYCL-FP200	QYCL-FP300
Average laser power (w)	120~130	200~210	300~320
Single pulse energy (mJ)	1.8		
Weight of hand-held head (kg)	1		
Rated power (kw)	0.8	1.2	1.5
Power adjustment range (%)	10-100		
Width of scanning (mm)	100*100		
Focal length (mm)	100/160/260/300		
Central wavelength (nm)	1060~1070		
Cooling method	Air Cooling		
Fiber length (m)	5m (Optional 10 m)		
Type of laser source	Pulsed fiber laser		
Dimension of machine (mm)	520*347*707		
Weight of machine (kg)	55	71	
Package size (mm)	1010*770*640		
Package weight (kg)	82	96	
Power supply	220V/110V 50Hz/60Hz		

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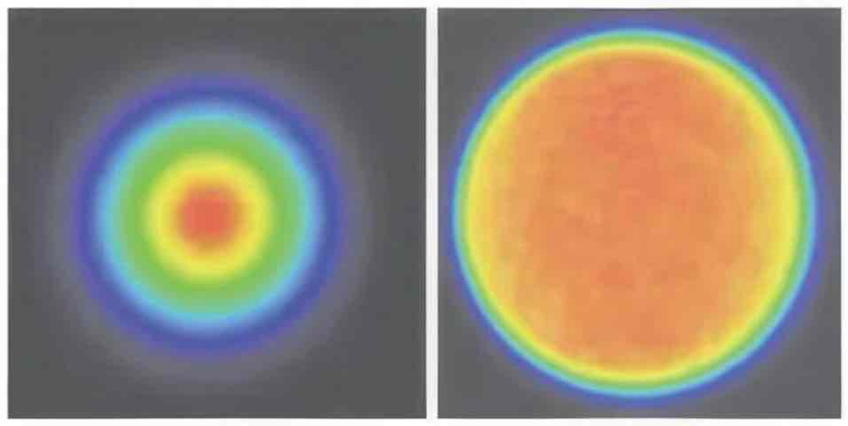
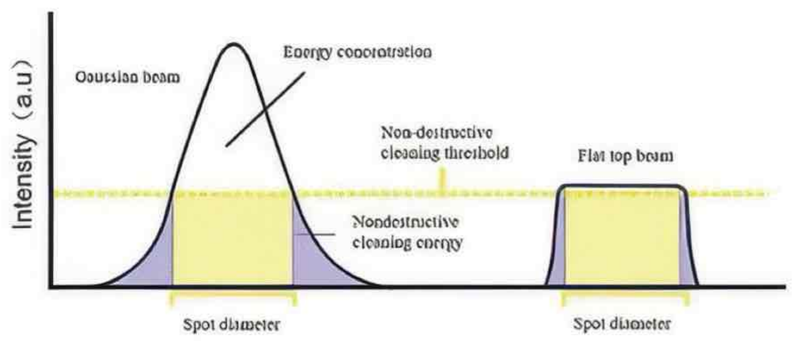
Laser Cleaning Equipment

QYCL-FP-A

Top-hat Fiber Laser Cleaning Machine

Adopt MOPA pulsed fiber laser, with variety waveform options, it can meet different materials cleaning requirement. Large single pulse energy, high cleaning efficiency, the spot energy distribution is uniform, not damage for the basic material. Box structure is easy to integrate. It can non-destructively remove oil, corrosion, paint and other pollutants on the metal surface, green and pollution-free.





1. High-quality core components

MAX/Raycus/JPT/IPG laser source, first class brand, it can be customized.

Schneider/Omron/Chint famous electrical brand, safe, stable and reliable.

2. Portable cleaning head

Ergonomic design, hand-held or with automation equipment. With quick connector, easy operation, professional air pipe design it's better protect the optical lens, suitable for various complex cleaning conditions.

3. Integrated appearance design

Integrated embedded water cooler, with 360° silent universal wheels, easy to move. Equipped with a separate fiber box.

4. Open functional design

Independent R&D, visual customizable multi-language touch control panel.

Support a variety of industrial bus communication protocols, it can meet customer's automatic control design.

LASER CLEANING NZ LTD 18

Laser Cleaning Equipment

Product display

Specifications					
Model	QYCL-FP 200A	QYCL-FP 300A	QYCL-FP 500A	QYCL-FP 1000A-15	QYCL-FP 1000A-50
Average laser power (w)	200~220	300~320	500~520	1000	
Single pulse energy (mJ)	13		13/50	15	50
Weight of hand-held head (kg)	1.5				
Rated power (kw)	2.5	3	5	9	
Power adjustment range (%)	10-100				
Width of scanning (mm)	10-100				
Focal length (mm)	100/160/254/330/420				
Central wavelength (nm)	1060~1070				
Cooling method	Water Cooling				
Fiber length (m)	5m (Optional 10 m)		10m		
Type of laser source	Pulsed fiber laser				
Dimension of machine (mm)	1110*490*750		1240*510*1040		
Weight of machine (kg)	144		205		
Package size (mm)	1200*560*950		1360*600*1405		
Package weight (kg)	180		285		
Power supply	220V		380V		

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Laser Cleaning Equipment

QYCL-FC

Continuous Wave Laser Cleaning Machine

Adopt famous brand core components, safe, stable and reliable. Equipped with self-developed intelligent control system and visual control panel. Ergonomic design hand-held cleaning head, easier to operate and durable. It can be used for high-intensity and complex environmental cleaning in rail, Marine ships, construction machinery and other fields.

1. High-quality core components

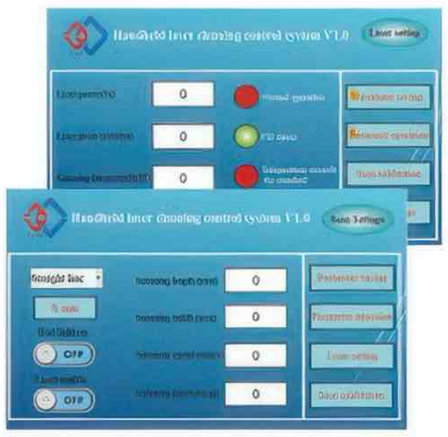
MAX/Raycus/JPT/IPG laser, famous brand, customized Schneider/Omron Chint First-class electrical brand, safe, stable and reliable.

2. Hand-held cleaning head

Ergonomic design, small size and light weight, professional water and air circuit design, built-in temperature sensor protect the optical lens, easy to maintenance and with low cost of use.

3. Professional mechanical structure design

Adopt 360°silent universal wheel and integrated embedded water chiller design, smaller, easier to move. Rear air duct & air intake grilles on both sides, more efficient heat dissipation with longer service life.



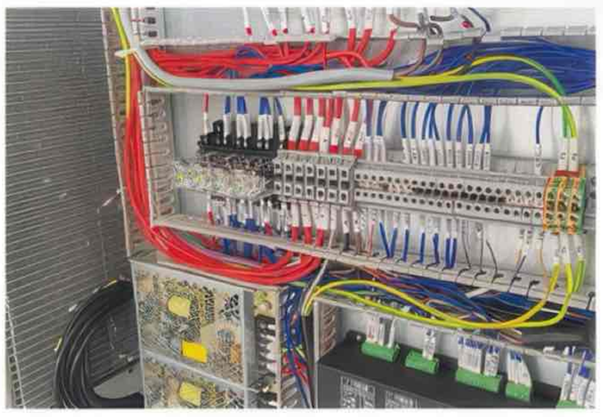
4. Open functional design

Visual multi-language touch control screen, equipped with a variety of industrial bus communication protocol interface to real-time monitoring of the control system status, help users quickly locate and solve problems

LASER CLEANING NZ LTD 20

Laser Cleaning Equipment

Product display



Specifications				
Model	QYCL-FC1000	QYCL-FC1500	QYCL-FC2000	QYCL-FC3000
Average laser power (w)	1000	1500	2000	3000
Weight of hand-held head (kg)	0.8			
Rated power (kw)	5	6.6	9.6	12.6
Power adjustment range (%)	10-100			
Width of scanning (mm)	10-150/10-300			
Focal length (mm)	400/800			
Central wavelength (nm)	1070~1090			
Cooling method	Water Cooling			
Fiber length (m)	10m (Optional 15 m)			20m
Type of laser source	Continuous Wave			
Dimension of machine (mm)	917*490*750		1110*490*750	1240*510*1040
Package size (mm)	1090*600*1110		1200*560*950	1360*600*1405
Weight of machine (kg)	119		145	220
Package weight (kg)	152		180	285
Power supply	220V			380V

LASER CLEANING NZ LTD 21

Laser Cleaning Equipment

Product display

Specifications				
Model	QYCL-FC 800	QYCL-FC 1200	QYCL-FC 1500	QYCL-FC 2000
Average laser power (w)	800	1200	1500	2000
Net weight (kg)	60	62	62	59
Laser head weight (kg)	0.8			
Rated power (kw)	2.7	4	4.5	4.5
Power adjustment range (%)	10-100			
Width of scanning (mm)	10-150/10-300			
Focal length (mm)	400/800			
Central wavelength (nm)	1070~1090			
Cooling method	Air cooled			
Fiber length (m)	10m(can customize)			10m
Type of laser source	Continuous Wave			
Dimension of machine (mm)	/			665*300*590
Power supply	220V			

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Laser Cleaning Equipment

QYCL-DW

Cultural Relics Laser Cleaning Machine

Adopt solid-state laser source with maximum 1J single pulse energy and unique beam homogenization design to ensure uniform output beam. Multi-joint rotation and dual-wavelength total reflection direct water-cooled light guide design, combined with a self-developed intelligent control system, it can non-destructively remove surface oil, mould and other pollutants on the surface of calligraphy, painting, murals, bronzes and other cultural relics.

1. Core optical design

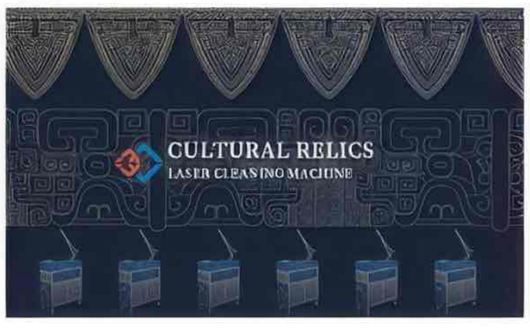
Adopt high-power and high-energy xenon lamp pulsed solid-statelaser, produce low repetition rate, high peak value and narrow pulse width laser, combined with imported light guide arm to output near top-hat spot, cleaning better, more uniform and more efficient.

2. High-quality core components

The laser has a built-in high-precision translation stage, which can flexibly switch between 1064nm and 532nm wavelength lasers, it can achieve non-destructive cleaning of cultural relics of different materials.

3. Flexible swing arm design

Equipped with imported multi-axis light guide arm, joint rotation and dual-wavelength total reflection output high-quality optical system design, free and flexible customization options.



4. Open functional design

Visual touch screen, precise energy adjustment, preventing cultural relics damage, foot-operated laser trigger, hands-free, more convenient operation.

Product display

Specifications	
Model	DW1000
Single pulse energy (mJ)	1000
Rated power (kw)	2
Power adjustment range (%)	10-100
Width of scanning (mm)	1-10
Central wavelength (nm)	532&1064
Cooling method	Water Cooling
Light guide arm length (m)	1
Type of laser source	Pulsed solid-state laser
Dimension of machine (mm)	520*347*707
Weight of machine (kg)	118
Power supply	220V

Mold Cleaning---- Laser can realize non-contact and non-damage cleaning of the mold to ensure its precision, it can clean sub-micron dirt particles that cannot be removed by traditional cleaning methods to achieve truly pollution-free, efficient and high-quality cleaning.

Precision Instrument---- Laser clean greasing can completely remove esters and mineral oil without damaging parts surface. The laser prompts the explosive gasification of the thin layer of oxide on the surface of the part to form a shock wave to remove dirt.

Ship Industry-----At present, ship pre-production cleaning mainly adopts sandblasting method, which causes serious dust pollution to the environment. Laser cleaning will provide green cleaning solution for ship surface anti-corrosion spraying.

Ship field----- At present, the ship pre - cleaning mainly uses sand blasting method, sand blasting method around the environment has caused serious dust pollution. Laser cleaning technology will provide a green and pollution-free cleaning scheme for ship surface anticorrosive spraying.

Military Industry----- Laser cleaning technology is widely used in weapons maintenance. Laser cleaning system can remove rust and contaminants efficiently and quickly, and the removal parts can be selected to achieve the automation of cleaning.

Laser Cleaning Application

Laser Cleaning Graffiti

Laser Cleaning Wood

Laser Cleaning Paint

Laser Cleaning Auto Parts

Laser Cleaning Equipment

Rail Transit

Aerospace

Mining Machinery

Construction Machinery

Surface Treatment before & After Welding

Metallurgical Components

Tyre Mould

Laser Welding Application:

Machinery Manufacturing ------ Laser welding machine can avoid personal contact, we can provide automation solution.

Auto Spare Parts-----Adopt laser welding can realize fast welding, full welding seam, firm welding, simple cleaning, it's more suitable for high-quality products production requirements.

Electronic Equipment----- Electronic equipment as an essential tool for modern life, work and study, it's difficult to weld small objects with high welding requirements, laser welding can break the space restrictions, convert the welding angle to ensure the quality of welding.

Jewelry Industry ----- Laser welding through the microscope to enlarge the small parts of jewelry to achieve precision welding, repair without deformation, solving two major problems of weld aesthetics and welding quality.

Laser Welding Application

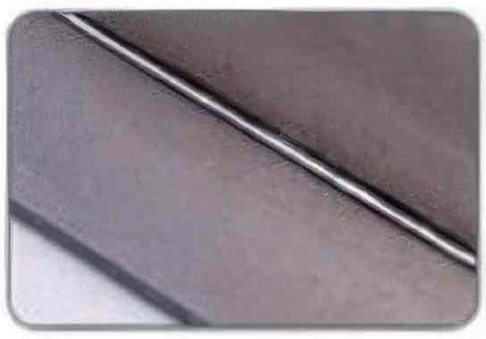
Laser weld aluminum parts

Laser weld 2mm samples

Laser weld precision thin tube

Laser weld perforated sheet

Application



2mm stainless steel fillet welding

Sheet metal outside fillet welding

Stainless steel 360° welding

Aluminum alloy door and window assembling welding

Stainless steel inside fillet welding

Flange welding

Aluminum plate stack welding

Aluminum plate outside fillet welding

Inside fillet welding

Carbon steel flat welding

Cylindrical joint welding

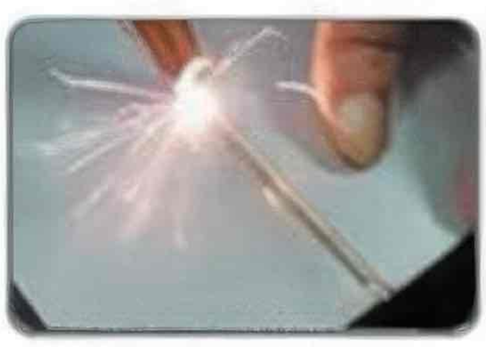
Carbon steel outside fillet flat welding

Scale welding

Advertising welding

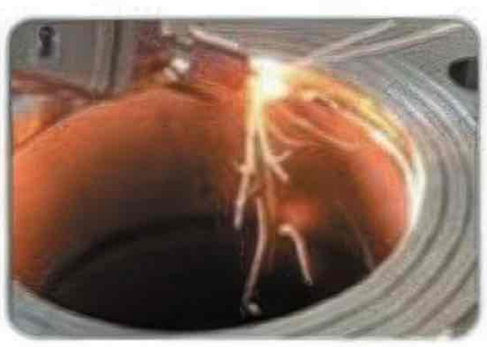
Mandarin pot welding

Frame welding



1mm aluminum alloy welding

Auto hydraulic tank welding



Round pipe flange welding

Ventilation pipe welding

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Laser Welding Equipment

Wire Feeder

Standard products, simple installation and easy control, high and low speed conversion work, support variety of welding wire. Color screen system is easy to operate and more practical, accurate wire feeding, saving more energy. High accuracy of parameter adjustment, standard products and parts, it can be widely used in aluminum alloy, stainless steel, low carbon steel and non-ferrous metals and other materials welding.

Key knob color screen system

Thickened hinge

Sturdy and durable
High load capacity

Concealed automatic lock

More convenient opening

Double-drive wire feeding wheel

More stable and accurate wire feeding

Dual drive wire feeding

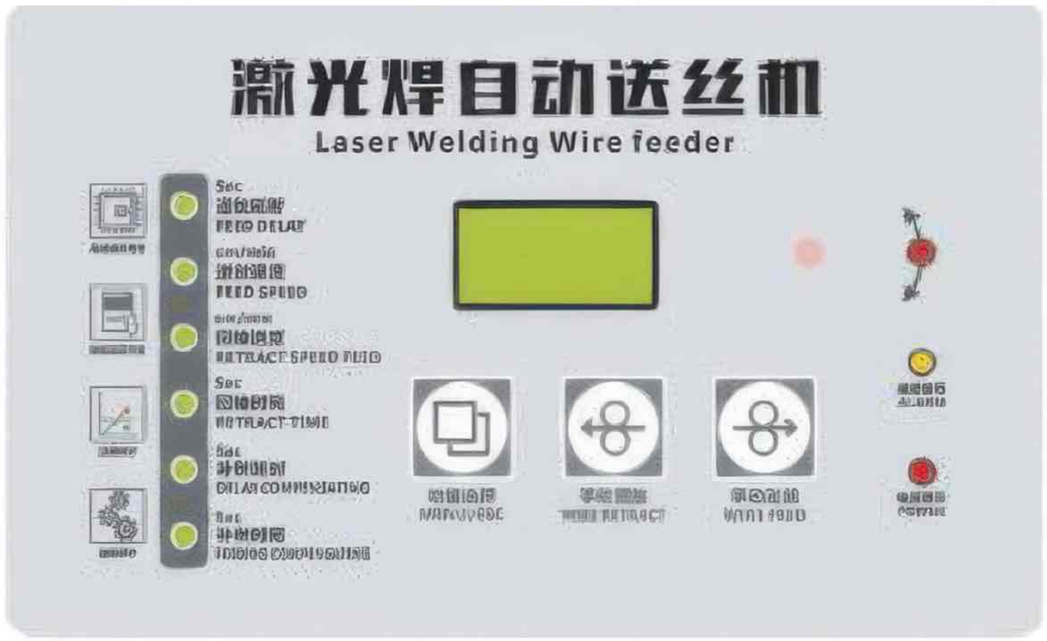
Stable effect

Wide applicability

Support customization

Accurate wire feeding

Easy to operate



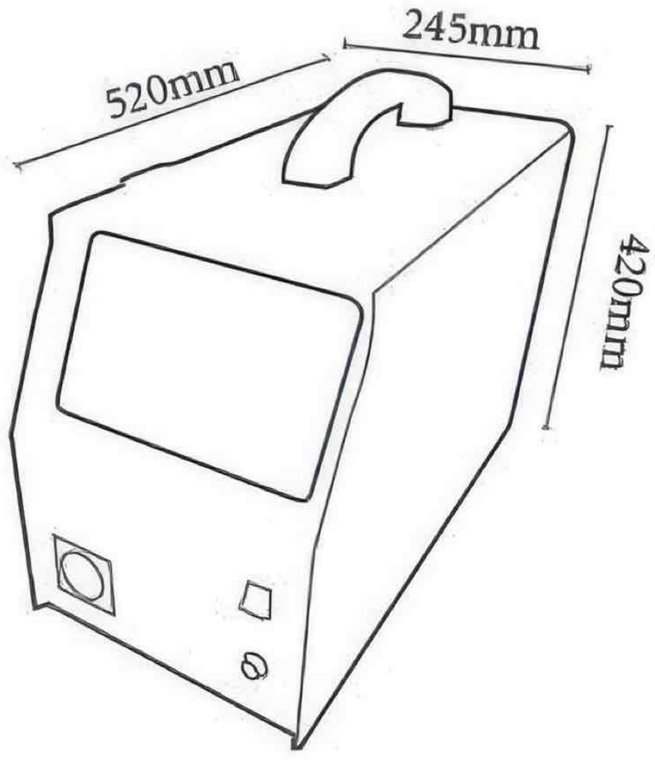
Laser Welding Equipment

1. Through industrial high-speed microprocessor control, intelligent operating system, with automatic memory storage, strong anti-interference ability, stable performance, easy to operate.
2. All set parameters are displayed by high green digital tube with LED light, simple and clear, function switching is controlled by button, parameter modification by control knob, high sensitivity and fast response.
3. With encoder wire feeder, closed-loop speed regulation, wire feed more stable.
4. Gun switch anti-mistake trigger delay, with 0.2S anti-shake delay.
5. Double-drive wire feeding system, strong and stable wire feeding, optional wire feeding wheel.
6. Automatic memory storage, overload protection, blocking protection.

Complete Spare Parts

Widely Matched With Many Products

Double drive wire feed wheel, precise wire feeding



Specifications	
Model	Laser Welding Automatic Wire Feeder
Supply Voltage	Single Phase AC 230V 50/60HZ 75W
Power	75W
Wire Feed Speed Range	0.3 m/min--6m/min (Adjustable)
Motor Type	DC Permanent Magnet Motor
Speed Control Method	1. Upgraded PWM with closed-loop feedback speed regulation; 2. Standard PWM with open-loop speed regulation
Adaptable Wire Diameter	0.6mm/0.8mm/1.0mm/1.2mm/1.6mm/2.0mm
Dimension(L*W*H)	520*245*420mm
Weight	13Kg

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Laser Welding Equipment

QYWL-FC

Laser Welding Machine

The product adopts the self-developed intelligent operating system, with the famous laser source and cooling system, the product quality is stable, the performance is superior, and it can be used for welding stainless steel, carbon steel, galvanized sheet and other materials. Flexible and firm welding, weld seam smooth and beautiful, easy to operate, high efficiency and energy saving, it can realize long-distance operation.

1. High-quality core components

MAX/Raycus/JPT/IPG laser, famous brand, customized options.

Schneider/Omron/Chint famous electrical brand, safe, stable and reliable.

2. Portable welding head

Light weight with portable and flexible torch structure design,suitable for welding operation habits, stable and reliable.

Handheld and automatic machine dual-purpose, suitable for welding operations in high-strength and complex environments

3. Universal wheel movable structure

Equipped with universal wheels, flexible movement, with good inlet and outlet air design of the shell ensures the overall heat dissipation and provides reliable welding guarantee for complex working conditions.

4. Open functional design

Fast power plug suitable for more working conditions.

Visual control panel, one-key operation with multi-language interface.

Laser Welding Equipment

Product display

Specifications

Model	QYWL-FC1000	QYWL-FC1500	QYWL-FC2000	QYWL-FC3000
Hand-held head	Single pendulum welding head			
Weight of hand-held head (kg)	0.8			
Laser power (w)	1000	1500	2000	3000
Rated power (kw)	5	6.6	9.6	12.6
Power adjustment range (%)	10-100			
Central wavelength (nm)	1060~1070			
Cooling method	Water Cooling			
Fiber length (m)	10 (Optional 5/15)			20
Type of laser source	Continuous wave			
Dimension of machine (mm)	917*490*750		1110*490*750	1240*510*1040
Weight of machine (kg)	138		145	220
Package size (mm)	980*640*1000		1200*560*950	/
Package weight (kg)	183		210	/
Power supply	220V			380V

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Laser Welding Equipment

Product display

Specifications

Model	QYCL-FC 800A	QYCL-FC 1200A	QYCL-FC 1500A	QYCL-FC 2000A
Laser power	800	1200	1500	2000
Net weight (kg)	60	62	62	59
Weight of hand-held head (kg)	0.8			
Rated power (kw)	2.7	4	4.5	4.5
Power adjustment range (%)	10-100			
Central wavelength (nm)	1070-1090			
Cooling method	Air Cooling			
Fiber length (m)	10m(can customize)			10m
Operation mode	Continuous			
Machine dimension (mm)	665*300*590			
Voltage power (V)	220			
Working environment requirement	1.Environmental humidity 10%~85%RH, no exposure 2.No explosive and corrosive gases of equipment installation 3.The environment temperature is 10 °C to 40 °C			

LASER CLEANING NZ LTD 33

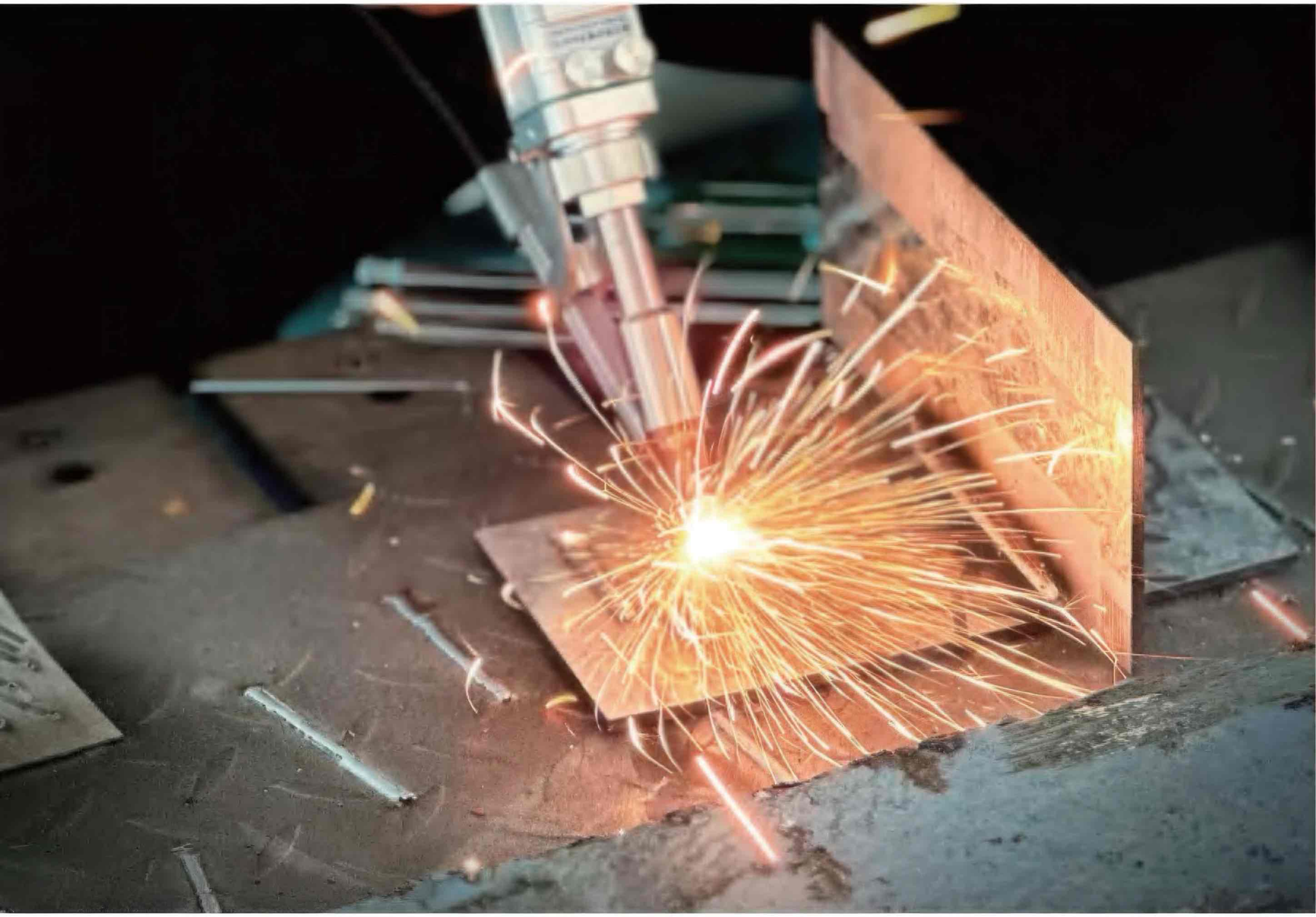
Laser Welding Equipment

Product display

Specifications

Model	QYCL-FC 800A	QYCL-FC 1200A	QYCL-FC 1500A	QYCL-FC 2000A
Laser power	800	1200	1500	2000
Net weight (kg)				
Weight of hand-held head (kg)	0.8			
Rated power (kw)				
Power adjustment range (%)	10-100			
Central wavelength (nm)	1070-1090			
Cooling method	Air Cooling			
Fiber length (m)	10m(can customize)			10m
Operation mode	Continuous			
Machine dimension (mm)				
Voltage power (V)	220			
Working environment requirement	1.Environmental humidity 10%~85%RH, no exposure 2.No explosive and corrosive gases of equipment installation 3.The environment temperature is 10 ℃ to 40 ℃			

Laser Welding



Advantages of Laser Welding Process

The laser welding machine can be used stably for a long time without consumables. The heat-affected zone of laser welding machine welding is small, small deformation. The handheld laser welding machine can be widely used in various thin plates such as carbon steel, stainless steel, aluminum alloy, etc., and is equipped with an automatic wire feeder, which is very convenient and fast to control. It can replace most argon arc wire feeding welding processes. The welding seam is uniform, with higher efficiency and there is no need to train professional welding workers.

Laser Welding

Laser welding is an efficient and precise welding method that uses a high-energy-density laser beam as a heat source.When the laser power density is less than 10^{4}-10^{5} w/cm^{2}, the welding principle mainly relies on heat conduction.By control the laser power, repetition frequency, pulse width and other parameters to melt the workpiece and form a specific molten pool. At this time, the weld depth is shallow and the welding speed is slow, which is suitable for thin plate welding; the laser power density is greater than 10^{5}-10^{7} w/cm^{2}, when the metal surface is irradiated with a sufficiently high power density laser, the material evaporates and forms small holes. The energy conversion mechanism is completed through the "small hole" structure, which has the advantages of fast welding speed and large aspect ratio.

As a new welding technology, laser welding has high energy density, high speed, high precision, deep penetration, strong adaptability and other characteristics, its application range is more and more extensive, not only can improve production efficiency but also improve welding quality.

Comparison Items	Traditional Welding	Automatic Laser Welding	Handheld Laser Welding
Heat Input	Very high	Low	Low
Deformation and Undercut	Large deformation	Small deformation	Small deformation
Bonding Strength with Base Metal	General	Good	Good
Subsequent Processing	Polish	Without polish	Without polish
Welding Speed	Slow	Fast	Fast
Applicable Material	General metal material	General metal material	General metal material
Consumables	More consumable	No consumables	No consumables
Operation	Complicated	General	Sample
Operator Safety	Unsafe	Safe	Safe
Environmental Impact	Not environmentally friendly	Environmental friendly	Environmental friendly
Welding Fault-tolerance	Good	Good	Good
Wobble Welding	No	Yes	Yes
Spot Width Adjustable	No	Yes	Yes
Welding Quality Comparison	Bad	Good	Good

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3 In 1 Laser Equipment

QYWL-FC

Laser Welding Cleaning and Cutting Machine

Fiber continuous wave laser welding, cleaning and cutting all-in-one machine, it can achieve cutting + welding + cleaning functions together, a multi-purpose machine to meet a variety of working application.

1. High-quality core components

MAX/Raycus/JPT/IPG laser, high-end brand, tailor-made.

Schneider/Omron/Chint first-line electrical brand, safe, stable and reliable.

2. Portable cleaning head

Ergonomic design, can be hand-held or with automation equipment. Quick connector, easy disassembly and assembly, professional air circuit design to better protect the optical lens, and can adapt to cleaning operations in various complex environments.

3. Integrated appearance design

Integrated embedded water cooler structure, equipped with 360° silent universal wheels, the equipment is easy to move, and the upper cover is equipped with a U-shaped groove for the wiring harness, which is convenient and fast for fiber optic deployment.

4. Open functional design

Independent research and development, visual customizable multi-language touch control panel

It supports a variety of industrial bus communication protocols and can cooperate with customer automation control design

3 In 1 Laser Equipment

Product display

Specifications				
Model	QYWL-FC1000	QYWL-FC1500	QYWL-FC2000	QYWL-FC3000
Average laser power (w)	1000	1500	2000	3000
Single pulse energy (mJ)	/			
Weight of hand-held head (kg)	0.8			
Rated power (kw)	5	6.6	9.6	12.6
Power adjustment range (%)	10-100			
Width of scanning (mm)	10-150/10-300			
Focal length (mm)	400/800			
Central wavelength (nm)	1070~1090			
Cooling method	Water Cooling			
Fiber length (m)	10m (Optional 15 m)			20m
Type of laser source	Continuous Wave			
Dimension of machine (mm)	917*490*750		1110*490*750	1240*510*1040
Weight of machine (kg)	138		145	220
Package size (mm)	980*640*1000		1200*560*950	1360*600*1405
Package weight (kg)	183		210	/
Power supply	220V			380V

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Automatic Equipment

QYCL-FP

Platform Laser Cleaning/ Welding Machine

- Support butt welding, stitch welding, sealing welding
- Adjustable beam energy
- Convenient welding of various complex shapes
- High degree of welding automation

Laser Welding Head

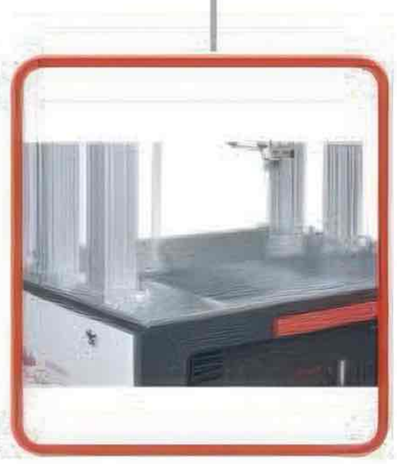
The welding head is equipped with a monitoring lens, air blowing pipe and light, it's better observe the welding seam condition.

HD Display

High-definition solder joint display, visually monitor the welding process by CCD.

Multi-Axis Linkage Module

Adjusting the accuracy by the cleaning scale and height needle, achieve a better welding effect



Work Platform

Comprehensive work platform with a hole spacing of 45mm, m6 holes, 15mm thick aluminum plate (steel plate). The design is compact and sturdy with simple interfaces, flexible and adjustable processing directions and easy control.

Advantage

- Support butt welding, lap welding and sealing welding with high speed;
- It can welding 0.1mm-5mm materials ;
- High-power gas protection, it can work longer time;
- Adjustable laser beam energy , moving speed, it can be used for various welding processes;
- High degree of automation, fast speed and high efficiency.

Application Area

Electronics and communication products, integrated circuit chips, computer accessories and electrical appliances; Various precision parts, hardware tools, instruments, auto parts, aerospace devices; Jewelry, clocks, gifts, office supplies, trademark signs, sanitary ware and other metal products.

Specifications

Product Name	3D Automatic Welding Machine
Model	QYCL-FP Series
Effective Stroke of X Axis	500mm
Effective Stroke of Y Axis	300mm
Effective Stroke of Z Axis	300mm
Overall Dimensions	1500*1400*1900mm
Net Weight	250kg
Module Running Speed	X axis: 10m/min Y axis: 10m/min Z axis: 5m/min
Repetitive Positioning Accuracy	±0.02mm
Rotary Table	Circular Runout Accuracy≤0.05mm
Power Supply	220V
Average Load Power	4.5kw

Automatic Laser Cleaning Solution

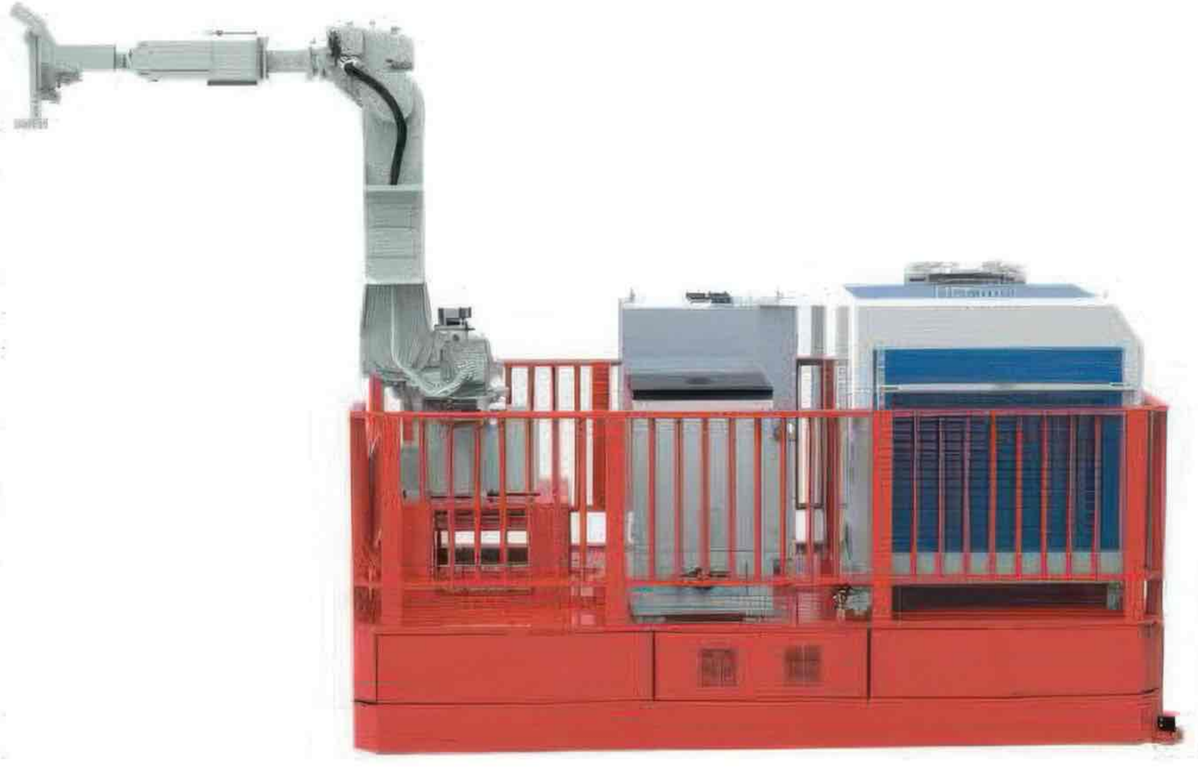
Positioning Mobile Cleaning Platform

The positioning mobile cleaning platform adopts a wave pressure lifting mechanism, which can realize rapid positioning after moving without magnetic strips.

The positioning accuracy is ±10mm and the overall load of the equipment is greater than 2 ton, which is suitable for fixed operation in local areas of the workshop.

High-Precision Mobile Cleaning Platform

The high-precision mobile cleaning platform adopts a high-precision sensor positioning design, which can achieve a high repetition rate positioning accuracy of 5mm under the magnetic strip traction state. The overall load of the equipment is greater than 2t. It is suitable for batch operations in workshops with relatively smooth road conditions. It is mainly used in tire molds cleaning, surface cleaning of rail transit structural parts and other large component surface treatment.



General Mobile Cleaning Platform

The general-purpose mobile cleaning platform adopts the high chassis design of casters and the double-wheel universal can be controlled, which can be used outdoors in complex road conditions. It can be equipped with a mechanical arm with a arm span of 700mm-1800mm, and various types of laser cleaning and welding equipment from SDQY Laser. The overall load is greater than 2t and the operation is easy, which can be applied to workshop regional operations and outdoor operations.

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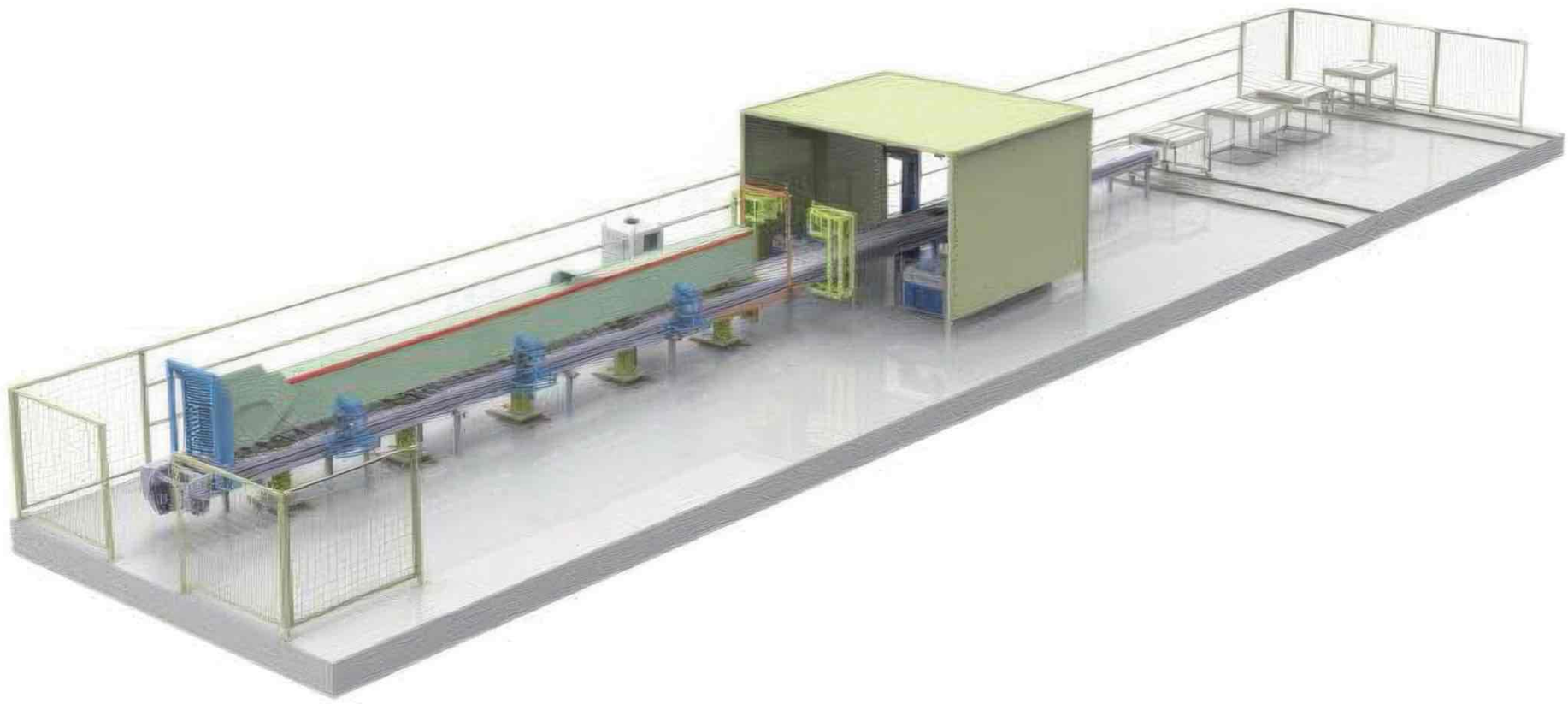
Automatic Laser Cleaning Solution

Automatic Cleaning Line 1

Automatic Cleaning Line 2



According to the customer's on-site working conditions, we can custom design mobile laser processing platform, laser cleaning/welding automatic production line, it can be combined with visual sensing, laser detection and other systems to realize automaticidentification of work-pieces to be processed, matching production schedules, save labor, improve the level of enterprise automation.

Automatic Cleaning Line 3