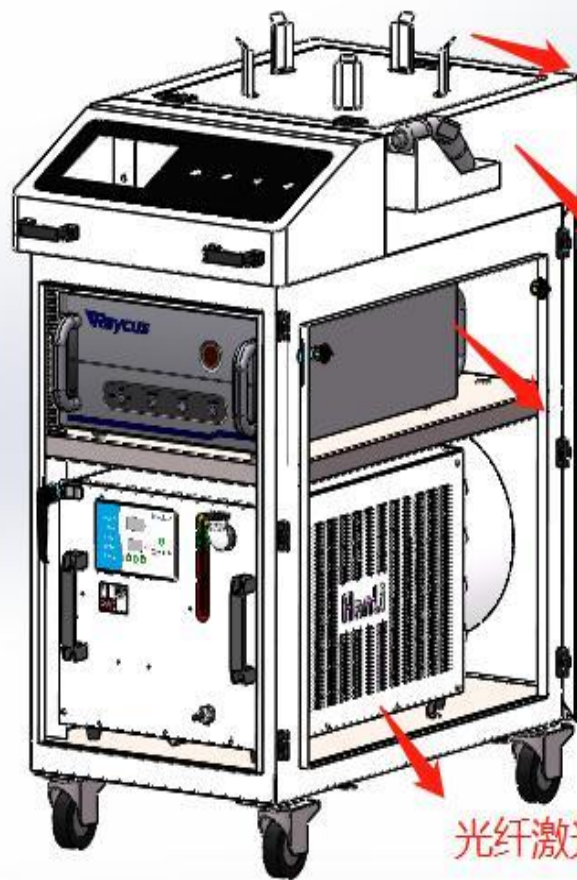




Hand-held Laser Welding Machine

QY is serious about one thing:
making better metal cutting machine for customers

QY Laser is a manufacturer since 2008
dedicated to only fiber laser cutting machine
from 1000W to 15000W



光缆盘放区

Cable Storage Area

控制系统

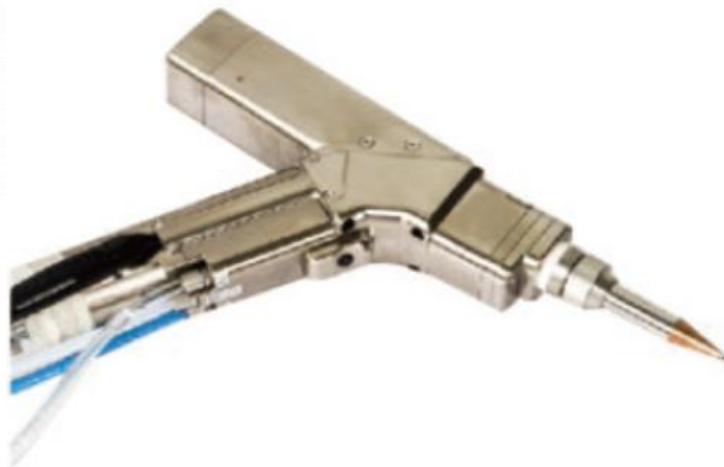
Electrical Cabinet

光纤激光器

Laser Power Source

光纤激光冷水机


Chiller Unit




Hand-held Laser Welding Machine


QY-LWF-****-PS

The advantages of Our Machine

 Flexibility : it's suitable to weld any shaped products


 High efficiency

- the welding speed is 2-10 times faster than the traditional welding processing speed
- compatible with a wide range of models, and short changeover times

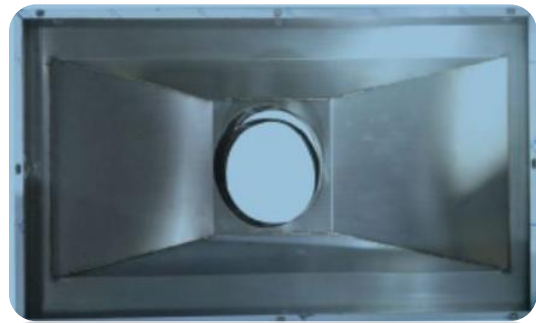
 High welding quality:

- no distortion, no welding scar, and very strong
- Welding seam surface smooth and beautiful, no need to make further grinding processing, save time and cost

 Modular compact design with less layout space, beautiful and easy to maintain and commissioning;

 Simple operation: the operator will get started quickly even without any experience.

Welding Samples



Welding shape:

T, L, large arc and round parts with diameter more than 30mm

Simple and convenient operation

Application:

railings of stairs and elevator , shelves, oven, stainless steel guardrail, electrical box, stainless steel home supplies, **kitchen ware, electrical energy, furniture, car manufacturer, tool& machinery, military, ship industries** etc.

Technical Parameter

Part Name	Description	Brand
Laser	1Kw-2Kw	IPG, Raycus Optional
Welding Head	SUP15S	QY
Cooling Chiller	1Kw-2Kw	Hanli
Controller System	Hand-held feeding system	QY
Electrical Box	Chiller and laser integrated	QY
Electrical Components	Schneider	French
Pneumatic Valve	SMC	Japan brand
Wire Feeder	WF-007A	
Holder	MT-602(0.5-1.5)	Optional

Chiller Model No	SCH-1000、SCH-1500、SCH-2000
Power Supply	AC 220V 50Hz/60HZ
Freon	R410A
Power Consumption	1.5Kw
Chiller Capacity	15L
Environment	(C°)0 ~ 40
Humidity	0 ~ 80%
Chiller Control Range	(C°)10-40
Flow Switch	Work flow > 5L/min Disconnect flow < 5L/min
Machine Dimension	820*485*425cm
Machine Net Weight	50Kgs



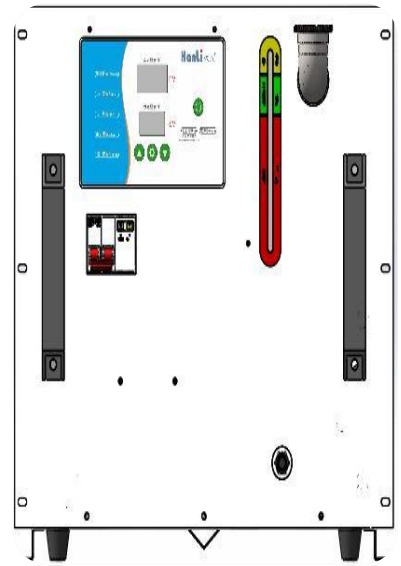
Professional laser wire welding software

- 1、 Professional handheld welding software, better compatible with wire feeder, easy to expand
- 2、 A variety of process plan adjustments, up to 9 process storage, direct call to facilitate product replacement, greatly shortening the debugging time.
- 3、 The unique laser offset adjustment is better than the manual adjustment of the spot offset on the market, which is directly input in the system, which is low and convenient for employees.
- 4、 Powerful system, slow rise and fall, laser offset, advance and delay, continuous and pulse comparable to computer welding systems. Perfectly solve the problem of broken wire in feeding wire welding.



Constant temperature control for stable operation

- 1、 Built-in cooling water circulation system, with deionizer, filter, constant temperature control, can avoid frequent replacement of circulating water;
- 2、 Temperature control accuracy $\pm 1^{\circ}\text{C}$;
- 3、 The intelligent thermostat has two temperature control modes, suitable for different use occasions; there are multiple settings and fault display functions;
- 4、 With multiple alarm protection functions: compressor delay protection; compressor overcurrent protection; water flow alarm; temperature over/low alarm;
- 6、 Longevity and durability, easy to operate;



Integrated control cabinet reduces operating costs

- 1、 Simple and wireless: The concise and orderly slot design makes the line connection way in an orderly manner. All controls can be completed with only one power cord.
- 2、 Space saving: Reasonable layout integration of various components, high integration, and 50% space saving compared with traditional split connection.
- 3、 Nice appearance: The simple and stylish physical design of the integrated operating room is not only convenient for display, but also in line with modern people's purpose of saving space and being beautiful.
- 4、 Perfect care: The protection of electrical components is more complete, dustproof and fireproof.



Welding Material and thickness

Material	1000W	1500W	2000W
Stainless Steel	0.3mm—2mm	0.3mm—3mm	0.3mm—4mm
Mild Steel	0.3mm—1.5mm	0.3mm—2.5mm	0.3mm—3.5mm
Aluminum	0.8mm—1mm	0.8mm—1.5mm	0.8mm—2.5mm
Brass	0.8mm—1mm	0.8mm—1.5mm	0.8mm—2.5mm

Note: above parameters are for reference, if double side welding is acceptable, the welding thickness will be increased.

Welding Speed

Material	Stainless Steel(m/min)							
T (mm)	0.5	0.8	1.0	1.2	1.5	2.0	2.5	3.0
1Kw	4	3	2.5	2	1.2	*	*	*
1.5Kw	7	5	4	3.5	3	2	*	*
2Kw	10	7	6	5	4	3	2.5	2

Material	Aluminum(m/min)				
T (mm)	1	1.2	1.5	2	2.5
1Kw	3	1	*	*	*
1.5Kw	6	2.5	2	*	*
2Kw	8	4	3	2	1.8

Material	Mild Steel(m/min)							
T (mm)	0.5	0.8	1.0	1.2	1.5	2.0	2.5	3.0
1Kw	4	3	2.5	2	1.2	*	*	*
1.5Kw	7	5	4	3.5	3	2	*	*
2Kw	10	7	6	5	4	3	2.5	2

Material	Mild Steel With Zn(m/min)						
T (mm)	0.5	0.8	1.0	1.2	1.5	2	2.5
1Kw	3.8	2.8	2.3	1.8	1	*	*
1.5Kw	6.8	4.8	3.8	3.2	2.8	*	*
2Kw	9	6.8	5.8	4.8	3.8	2.3	2.0

Welding angle and other considerations

- ◆ During the welding process, the welding tip must be always horizontal downwards, and upwards is prohibited.
 - ◆ Welding arcs and circles need to be welded in sections (such as 1/4 circle), and it is not possible to weld 1/2 circle or large-angle arc at a time which cause welding through, not welded well, and the welding tip damaged by polarized light.
 - ◆ The welding gun is perpendicular to the left and right of the weld bead, and 45 degrees to the welding seam is best.
 - ◆ Argon gas will be used during welding for protection.
 - ◆ If wire feeder is used for welding, the welding speed is preferably the same as the wire feeding speed, it's not allowed to force the welding speed speed-up or slow-down. The max. welding gap is 2mm(1.6mm welding wire will be used when the gap is 2mm). Please use the suitable wire for different gap, and do not forcibly slow down or forcibly lift-up to make more wire filling, otherwise the wire feeder may be easily stuck, broken and sticky.
 - ◆ It's prohibited to weld in the case that
 - welding aluminum, copper and other non-ferrous metals, if it is too thick
 - the material problem
 - insufficient power
- Non-ferrous metals is with light reflection, it's possible to damage the welding nozzle and the lens, even laser source by forcible welding.

Machine including:

1. Laser source system IPG or Raycus brand, optional
2. Cooling chiller
3. Control system (English control panel)
4. Laser gun
5. Wire Feeder
5. Consumables: protective lens and nozzle, we will provide 5 pcs lens and 5 nozzles for spare use.

Hand Held Laser Welding is a fast effective replacement for TIG welding applications. Utilizing high power for very good penetration, controlling the frequency provides excellent heat control. The Heat Affected Zone is therefore minimised and very little distortion occurs. And, because the guiding tip of the gun is always in contact with the workpiece, a smooth weld appearance can be achieved easily, even by inexperienced welders. Demonstrations of this process are available.

Please contact us for further information.

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