

# Hand-held Laser Welding Machine Technical Solution



## GW-FH Handheld Laser Welding Machine

## 1. Company profile



Dongguan Glorystar Laser Technology Co., Ltd, Sino-German cooperation, focusing on laser technology & applications, after years of continuous innovation and development, has become a well-known large-scale manufacturer of laser equipment, the company owns office building, R&D building, machining shop, painting and welding shop, assembling shop, modern showroom and standard industrial factory.

The company's main products are metal laser cutting machine, non-metal laser cutting machine, laser marking machine, laser welding machine and bending machine. The annual production capacity of 8000 sets of products sold in more than 100 countries and regions.

The company was identified as the national high-tech enterprise, and repeatedly won the Technology Innovation Awards. As a leader in laser equipment, Glorystar Laser technology Co., Ltd has a complete R&D system, with many domestic famous universities and research institutions to maintain the close optical and technical cooperation, also is Nanyang Institute of Science and Technology Graduate Trainee base.

Products made EU CE certification and the SGS certification, and in all aspects of the incoming, process, machine, shipping and other compliance with ISO quality and environmental management system management guidelines to ensure that the national quality.

Carrying the Global view sight, GLORystAR keeps on focusing the laser science and technology to share with you in the future successfully.

## 2. Glorystar Factory



Headquarters, Dongguan



Factory 02, Dongguan



Factory 03, Shenzhen



Factory 04, Suzhou



Fiber Laser Cutting Machine Workshop



Hydraulic Press Brake Workshop



Laser Marking Machine Workshop



Co2 Laser Cutting Machine Workshop



Showroom



Reception



Training room



Coffee Room



Marketing Division.



Domestic sales Division.



International sales Division.

### **3. Handheld laser welding machine introduction (1)**

Glorystar GSW-FH handheld welding machine adopts the latest generation of fiber laser integrated design, built-in cold water system, laser, control system, fiber storage space and other integrated design, saving customers space. There are caster cups at the bottom for easy handling. The mini spherical tri-color indicator light not only takes up space, but also indicates the working state of the device.

The hand-held welding machine can realize two working modes of spot welding and continuous welding, and the welding power and duty ratio can be set by touch screen. Both the laser and the chiller have an alarm protection function, and the red indicator light will illuminate when an alarm occurs.

The hand-held welding machine adopts fiber laser, which has many advantages such as high photoelectric conversion efficiency, small volume, maintenance-free, and low failure rate. Simple operation, fast welding speed, welding of metal materials such as thin plate stainless steel plate, steel plate, galvanized plate, etc., can replace traditional welding, widely used in kitchen and bathroom industry, sheet metal cabinet processing industry.

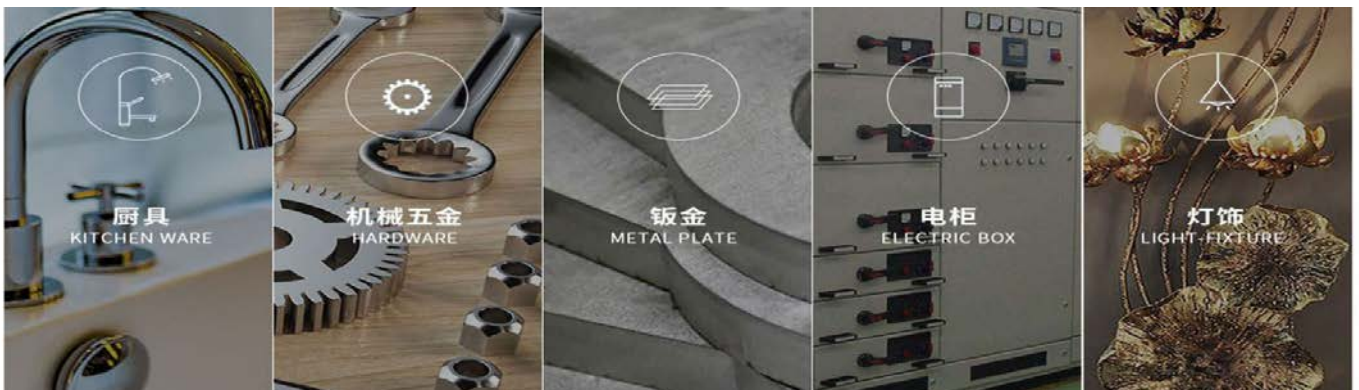
## 4. Application Material and Application Industry

- **Application Material**

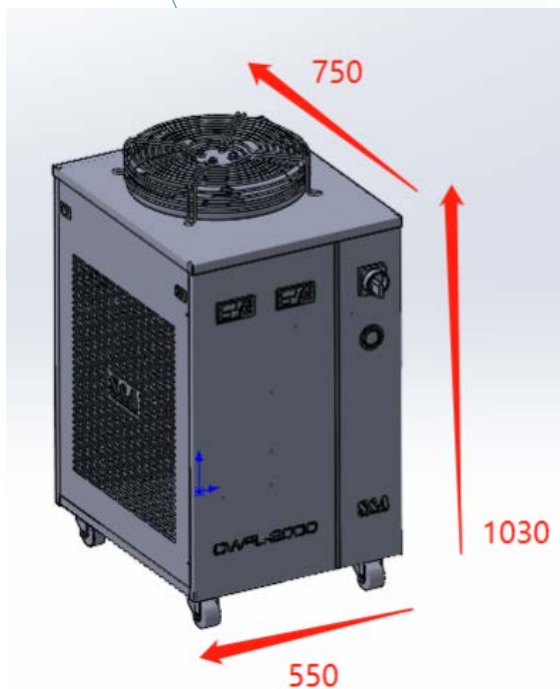
Suitable for metal ,such as stainless steel, carbon steel, copper, aluminum, galvanized plate and othes.

- **Application industry**

Hand-held welding machines are widely used in sanitary ware, food packaging, glasses and watches, auto parts, electronic hardware, and are used in fields that require high depth, smoothness, and fineness.



## 5. Handheld laser welding machine introduction (2)



## 5. Handheld laser welding machine introduction (2)

Welding gun, with 5mm width of light spot



wire feeding device  
Feeding wires with diameter of 0.6~1.6mm



Protection goggles

## 6.Product Features

- The welding speed and welding quality are better than traditional welding and save cost more than 35,000USD each year .
- The touch screen control panel is versatile and easy to operate.
- Advanced laser processing method and high accuracy.
- The electro-optical conversion efficiency of the fiber laser > 40%; the service life of the pump source > 100,000 hours; lower maintenance cost; compact size.
- The welding head is designed with the design method of body engineering, fully considering the comfort of the customer for long-term use, and has the protection measures to prevent light from the welding material to prevent accidental injury to others.



**Easy to operate**

**Energy saving and high efficiency**

**2~10 times faster**

## 7. Hand-held welding head



## 8. Main product configuration

NO.	Name	Specification	Brand
1	Laser resource	Fiber Laser	Raycus
2	Chiller	Laser dedicated	Glorystar
3	CNC system	GSW-FH	Glorystar
4	Welding head	LHW100S	Glorystar

## 9. Technical parameter

Name	Parameters
Laser power	1500W/2000W/3000W
Fiber length	10m (customized)
Spot Width	0~5mm 0~8mm (dual wire)
Welding Head	0.75kg weight
Laser wavelength	1064 - 1080nm
Protective gas	Nitrogen or Argon or Argon + CO2
Cooling method	Built-in water chiller ( $\leq 2$ kw) External water chiller (3kw)
Wire feeding method	Standard Single Wire Optional Double Wires ( $\geq 2$ kw)
Wire feeding material	304 stainless steel/carbon steel/aluminum
Wire feeding speed	17m/min
Wire feeding tube length	3m/5m
Electricity demand (V)	220V( $\leq 2$ kw laser power) 380V(3kw laser power)
Machine size (mm)	1000*650*1100

## 11. Welding Penetration Table

Materials	Protective gas	Thickness (mm)	1500W	2000W	3000W
Aluminium	N2	1.0	√	√	√
		1.2	√	√	√
		1.5	√	√	√
		2.0	√	√	√
		2.5	√	√	√
		3.0		√	√
		3.5			√
		4.0			√
Stainless steel	N2	0.5	√	√	√
		0.8	√	√	√
		1.0	√	√	√
		1.2	√	√	√
		1.5	√	√	√
		2.0	√	√	√
		2.5	√	√	√
		3.0	√	√	√
		3.5		√	√
		4.0			√
		5.0			√
		carbon steel	N2	0.5	√
0.8	√			√	√
1.0	√			√	√
1.2	√			√	√
1.5	√			√	√
2.0	√			√	√
2.5	√			√	√
3.0	√			√	√
3.5				√	√
4.0				√	√
5.0					√

### **13. warranty period**

The warranty period of the whole equipment is 1 year, and it will be maintained for life. (Optical devices, lenses and other vulnerable parts and consumables are not covered by the warranty)

If the equipment fails during the warranty period (except for human and force majeure factors), Party B is responsible for free repairs, and the required replacement parts are provided by Party B free of charge, except for failures caused by user's illegal operations.

## WELCOME TO VISIT US



## Technology adds to your value

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