



LASER

Welding Machine Introduction

Supplier: Gentronics

Buyer:



GENTRONICS
WELDING SUPPLIES AND SERVICE

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Handheld Laser Welding Machine

Colour can be
customised

With Wirefeeder



Welding

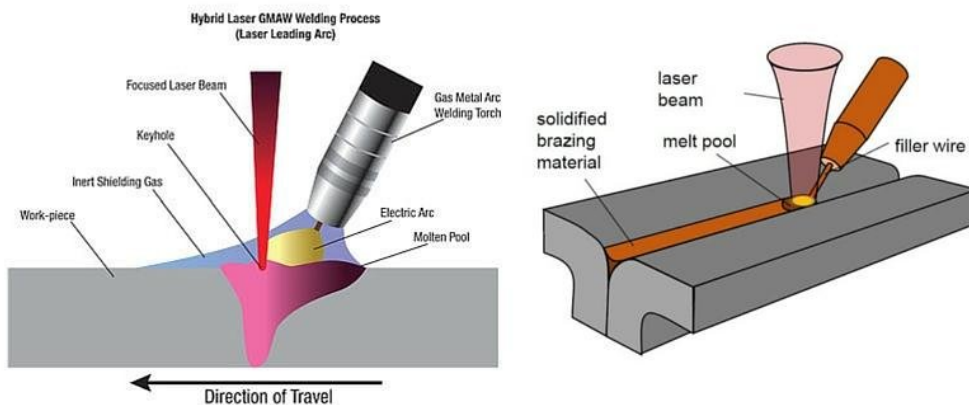
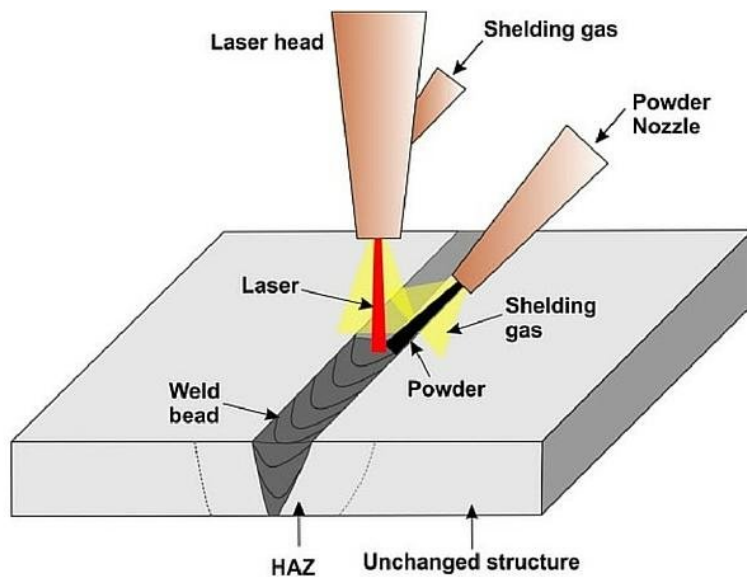
Cutting

Cleaning

Principle



The laser is generated by the laser source and transmitted by the flexible optical fiber path. After being focused by the focusing lens in the welding head, the laser acts on the weld seam between the processed materials. With the help of the protective gas (to prevent the material from being oxidized), the material is liquefied to form a specific molten pool, so as to achieve the purpose of welding.



Principle

- Hand-held operation welding, flexible and convenient, can be any shape, any angle welding;
- The equipment is small and easy to move. It is not only convenient for long-distance welding of large workpieces, but also for outdoor welding;
- Simple operation, easy to use, no need for professional welders;
- The welding speed is fast and the efficiency is more than 5 times that of arc welding;
- Beautiful weld, small deformation, saving the cost of subsequent grinding and shaping;

SS Welding Sample



2mm SS Positive Angle Welding



2mm SS Butt Welding

Alloy Welding Sample



1mm Aluminium Butt Weld



1mm Titanium Butt Weld

External Fillet Welding Sample



Application Examples



Application Industry

- Auto Manufacturing industry
- Lighting and mold industry
- Electrical industry
- Optoelectronic communication devices, medical, electronics, copper parts, aluminum parts and small welding processing industries
- Lithium-ion battery seal welding
- Metallurgical industry
- Applied military industry
- Precision spot welding and sealing welding of electronic components

Application Range

- Suitable for welding of various metal materials, including carbon steel, stainless steel, high-strength steel, aluminum, copper and alloy materials;
- It can emit light continuously or in pulse, which can not only realize thermal conductivity welding, but also continuous deep penetration welding. It can realize spot welding, butt welding, overlap welding, seal welding, seam welding, etc.
- Small thermal deformation and heat affected zone, suitable for processing high melting point, high hardness and special materials;
- It can process complex shapes parts and small parts, and can also process in vacuum;
- Combined with automatic mechanism such as mechanical arm, it can realize processing automation;
- It can realize wire filling welding. Due to the advanced processing method, it can improve the existing product structure and materials.



General Parameters

Laser Power	1000W	1500W	2000W	3000W
Laser Type	Continuous Fiber Laser			
Rated Output Power	1000W/1500W/2000W/3000W			
Optical Output Interface	QBH			
Indication System	Red Light			
Fiber Length	10m (Can be customized)			
Welding Torch Cable Length	10m (Can be customized)			
Welding Torch Type	Single Swing Welding (Dual is option)			
Welding Torch Weight	0.8kg			
Diameter of Welding Wire	0.8、1.0、1.2、1.6(Dual wire option)			
Production Form	1000/1500/2000w Integrated		3000w Separated	
Dimension	Host machine 1200*600*1300mm			
Weight	280KG			
Work Voltage	1Ph, 220V			3Ph,380V
Complete Set Power	6Kw	7Kw	9.5Kw	18Kw

Laser Welding/Cutting Capacity

	1000w	1500w	2000w	3000w
Mild Steel	2mm	4mm	5mm	6mm
Stainless Steel	2mm	4mm	5mm	6mm
Aluminum	2mm	3mm	4mm	4mm

Remark: These are welding penetration thickness, cutting capacity refer to these.

Main Configuration

Item	Main Components	Brief Description
1	Laser Source	Continuous fiber laser, central wavelength $1080 \pm 3\text{nm}$
2	Transmission Fiber	10m Flexible optical fiber, QBH port
3	Fill Wire welding Torch	Light and compact, with safety circuit trigger protection function, with wire feeding mechanism
4	Wire Feeder	Patent design
5	Control System	Chinese and English operation interface, touch screen control
6	Machine Enclosure	One-piece design with universal walking casters
7	Water Chiller	Water chiller for fiber laser
8	Wire Feeding System	Intelligent control system

Fiber Laser Source

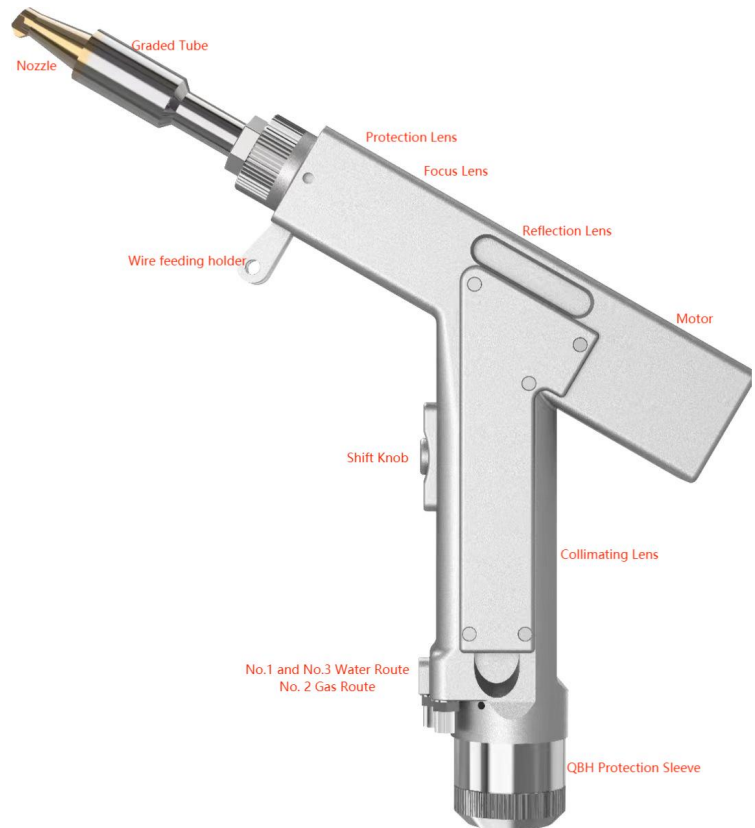


We only use good brands laser source such as IPG, Raycus, MAX. They stand for stable running and good quality. All have 2 years warranty.



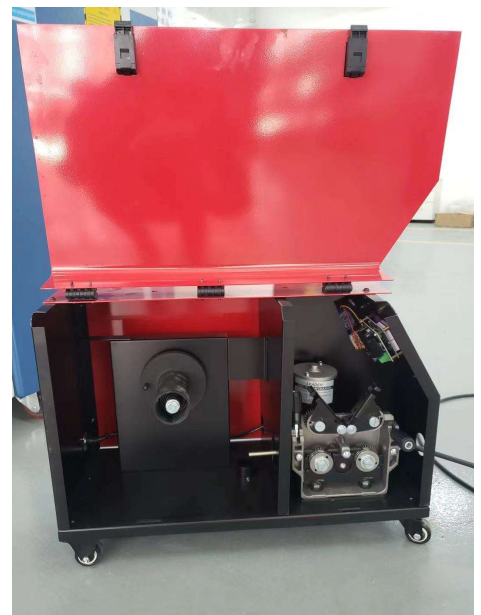
Welding Torch/Gun

Interface Type: QBH
For Power Range: 1000--3000W
Laser Wave: 1064-1080nm
Spot Adjustment: (0.2-5)mm
Collimation Focal Length: 60mm
Focus Focal Length: 150mm
Pina Lenses: D18X2mm
Cooling Method: Water cooling
Weight: 0.8KG



Wire Feeder

Single or Dual
Wire Feeding



Cleaning Function



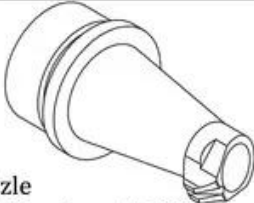
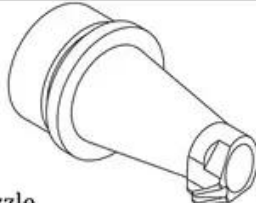
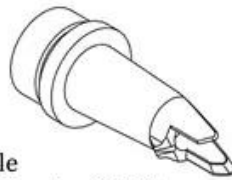

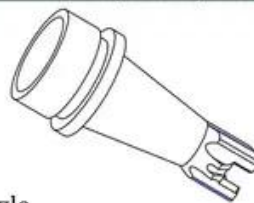
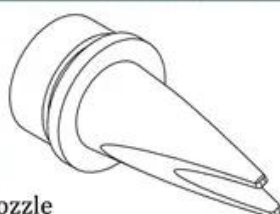
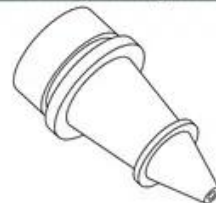

We have Multi-function Laser machine. It can Weld, Cut and Clean by one machine. Clean means can remove rust and greasy dirt on the metal surface.

Cutting Function



The Handheld Multi-function Laser Machine can cut steel as well after replace the welding tip to cutting nozzle. It is handheld type, so it is not so efficient and powerful as the Laser Cutting Machine with Worktable.

Spare Parts

 Nozzle Part Number:AS-12 Remark: Weld Wire 0.8mm/1.0mm/1.2mm	 Nozzle Part Number:BS-16 Remark: Weld Wire,1.6mm	 Nozzle Part Number:CS-12 Remark: Weld Wire 0.8mm/1.0mm/1.2mm	 Nozzle Part Number:ES-12 Remark: Weld Wire 0.8mm/1.0mm/1.2mm
 Nozzle Part Number:FS-16 Remark: Weld Wire,1.6mm	 Nozzle Part Number:C Remark: Wire-Free Welding	 Cutting Nozzle Remark: Single1.5mm	 Graduated Tube

We offer different laser welding tips and wire feeding nozzles for different welding job such as External fillet welding, Butt welding,etc.

Customer Preparation

- ✓ Power distribution requirements:
 - (1) 220V, 1Ph /380V, 3Ph / 50HZ;
 - (2) Line voltage fluctuation<10%.
- ✓ Gas supply requirements:
 - (1) Argon or Nitrogen, purity 99.99%;
 - (2) Gas flow ≥ 15 L/min.
- ✓ Installation site requirements:
 - (1) The ground is flat and there are no vibration sources around;
 - (2) Clean, corrosion resistant, and free of high concentration volatile gases;
 - (3) Temperature range: 10° C-40° C, humidity: less than 70%.