

Handheld Laser Welding Machine

The laser welding system adopts a new method of soldering and it is mainly used for welding on thin-walled materials' precision parts. The machine is also available for jam welding, seal welding, spot welding, stitch welding. The machine



The operating principle of the laser welding system is that it employs high-octane laser pulse to heat one particular area of tiny areas on a work material. The powerful energy of laser radiation diffuses into materials' internal parts through heat conduction, and then the melting material will form a specific molten bath to facilitate the laser welding.

More Details and Videos

Advantages of handheld laser welding machine

- 1. Wide welding range: The handheld welding head is equipped with 10m original optical fiber, which overcomes the limitations of the workbench space, and can be welded outdoors and long-distance welding;
- 2. Convenient and flexible to use: Hand-held laser welding is equipped with movable pulleys, which is comfortable to hold, and can adjust the station at any time. It is free and flexible, and is suitable for various working environment scenarios.
- 3. A variety of welding methods: welding at any angle can be realized: overlap welding, butt welding, vertical welding, flat fillet welding, internal fillet welding, external fillet welding, etc., and can be used for various complex welded workpieces and large workpieces with irregular shapes welding. Realize welding at any angle. In addition, it can also achieve the freely switch of cutting, welding and cutting. All you need do it to change the welding copper nozzle to the cutting copper nozzle, which is very convenient.



reliable. The welding seam strength reaches or exceeds the base metal itself, which cannot be guaranteed by ordinary welding machines.

- 5. The welding seam does not need to be polished: after traditional welding, the welding point needs to be polished to ensure smoothness. The hand-held laser welding precisely reflects more advantages in the processing effect: continuous welding, smooth and no fish-scale patterns, beautiful and no scars, and less follow-up polishing procedures.
- 6. Welding without consumables: the welding operation in most people's impression is "left hand goggles, right hand clamp welding wire". But with the handheld laser welding machine, the welding can be easily completed, which reduces the material cost in production and processing.
- 7. With multiple safety alarms, the welding tip is only effective when the switch is touched when it touches the metal, and the light is automatically locked after the workpiece is removed, and the touch switch has body temperature sensing. The safety is high to ensure the safety of the operators during work.
- 8. Save labor cost: Compared with arc welding, the processing cost can be reduced by about 30%. The operation is simple, easy to learn, and quick to get started. The technical threshold of operators is not high. Ordinary workers can take up their posts after a short training, which can easily achieve high-quality welding results.

Handheld laser welding machine VS Argon arc welding

1. Energy consumption comparison: Compared with traditional arc welding, hand-held laser welding machine saves about 80%~90% of electric energy, and the processing cost can be reduced by about 30%.



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3. Follow-up process comparison: low heat input during laser hand-held welding, small deformation of the workpiece, beautiful welding surface can be obtained, no or only simple treatment (depending on the requirements of the welding surface effect). The handheld laser welding machine can greatly reduce the labor cost of the huge polishing and leveling process.

Application Industry

This series laser welding machine is perforation, widely used in kitchen industrial, household appliances, advertisement, module industrial, stainless windows and doors, handiwork, home supplies, automobile spare parts industry.

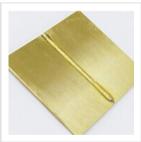






























Technical Parameters

Model	TR-HLW
Laser power	500W/1000W/1500W/2000W/3000W
Laser wavelength	1064nm
Pulse width	0.1-20ms
Cooling system	Water cooling
Laser frequency	1-100HZ
Output fiber length	10m

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