



**HDA1SE40**

**Good welding**

**A new generation of  
handheld laser welding machine**

# 01 High Standard

## A NEW GENERATION OF HANDHELD LASER WELDING, WITH WIDER APPLICATION MATERIALS AND EASIER OPERATION AND USE

A1SE40 is a new generation of handheld laser welding machine, with fast welding speed, good effect, easy to learn, easy to use, can greatly improve production efficiency and reduce processing costs.

### High performance

Stainless steel 4.0mm limit welding depth, red copper 1.5mm limit welding depth.

### Fast welding speed

4-10 times faster than traditional welding methods, improving production efficiency.

### Good effect

Precise laser control system, stable beam quality, high welding strength and beautiful weld seam.

### Strong energy saving

Compared with arc welding, it can save about 80%~90% of electric energy.

### Long lifespan

Phase change heat dissipation technology, self-adaptive fan speed regulation, 2-year warranty for lasers.

### Easy to use

7-inch large touch screen, a new generation of intelligent operating system.

### Wide application

It is suitable for various materials, various thicknesses, and ultra-thin parts welding.

### Safe enough

Six safety guarantees, air pressure value monitoring, highly protect the safety of operators and equipment.

materials	Stainless steel	Carbon steel	Galvanized sheet	Aluminum	Brass	Red copper
Single side	4mm	4mm	4mm	3mm	3mm	1.5mm
Double side	8mm	8mm	8mm	6mm	6mm	3mm

## 02 Core Technology

**Not just ease of use and efficiency, but also the art of welding**



Through the intelligent operating system, users can quickly select welding parameters according to different materials and thicknesses. Novices can also weld high-quality and high-consistency welds.

## Application field



## 03 Industry Upgrade

**Say goodbye to traditional welding and use laser to improve productivity**



<b>PROJECT</b>	Traditional Welding Method	A new generation of handheld laser welding
Labor cost	Hard to recruit, high wages	Simple operation, low labor costs
Physical hazard	Occupational disease, serious physical injury	Non-direct exposure, low radiation, only use protective glasses to filter strong light
Welding speed	slow and inefficient	4-10 times faster than traditional welding methods
Heat affected zone	large	Small
Bending deformation	Easily deformed	Not easily deformed
Welding quality	Welds are thick and irregular. Needs to be polished	The welding seam is fine and beautiful, the molten pool is deep, and the strength is strong
Welding seam damage	There are pores, easy to weld through	Even molten pool, good consistency
Welding materials	Limited by consumables changes	Wide range of applied materials
Difficulty of learning	Professional welders are required, and the technical threshold is high	Novices only need 30 minutes to learn and can master it proficiently

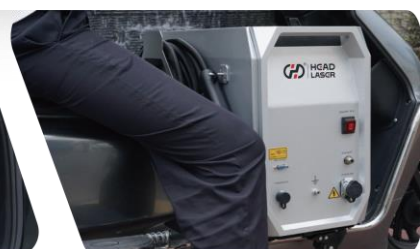
## 04 Product Features

### Flexible and portable, move as you like

The lightest weight in the world **<38kg**

The smallest fuselage in the world **<0.1m<sup>3</sup>**

The armored cable of the welding torch can be dragged, making the mobile operation more convenient



## 05 Product Lightest

# Compact handheld welding torch, welding is like playing

The lightest weight in the world **680g**



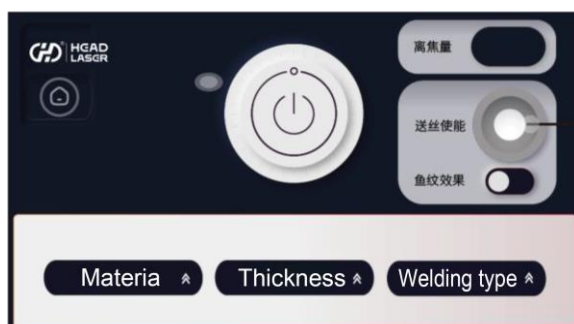
The collimated QCS interface is adopted, which greatly reduces the volume and weight of the welding torch, only 680g. The optical design perfectly matches the OCS output head, and the transmission efficiency is high. The shape of the welding torch is ergonomic, comfortable to hold and easy to operate. In addition, the torch

has a built-in laser oscillating function for wide seam welding.

## 06 Easy Operation

# Simple operating system, intelligent processing mode

The new generation of handheld laser welding machine adopts 7-inch industrial-grade LED touch screen, intelligent operating system, supports simple operation mode, easy to learn, and simple and fast to operate. For novices, it only takes 30 minutes of training to master the welding operation, saving training and production costs. 32 groups of preset and user-defined process parameters, users can quickly select welding parameters according to different materials and thicknesses, even beginners can weld high-quality and high-consistency welds.





## 07 Product Safety

# 6 layers of safety protection to protect people and equipment

Hand-held laser welding belongs to Class IV lasers. In order to ensure the safe operation of the equipment, all-round protective measures are required. LOOP security lock



Operators and personnel entering the welding area must wear all personal protective equipment, including heat-resistant and flame-resistant gloves, hats, clothing and accessories, and at the same time ensure that there are no flammable and explosive items in the welding work area.

## 08 Nozzles

# More nozzle combinations



Flat welding nozzles  
ND18-019T



Flat wire feed nozzle  
ND18A-05-024T



Out side fillet welding  
ND18-021T



0.8-1.0 wire feed nozzle  
ND18-187T



1.2-1.6 wire feed nozzle  
ND18-188T

## 09 Parameter

### A1SE40 Product parameters

Type	Model	Weight	CBM	Size	Laser wavelength
Paraer	A1SE40	< 38 kg	< 0.1 m <sup>3</sup>	667×276×542 mm	1080 nm

Type	Working mode	Output power	Input voltage	Swing width	Swing frequency
Paraer	Continuous and pulse	1200w	220v	0-4 mm	0-300 Hz

Type	Preset process parameters	Rated power	Welding torch interface type		
Paraer	32	6000w	QCS		

## 10 Accessories Packing list

NO.	Description	Unit	Quantity
1	Handheld Laser(Including 5.6m armored cable)	Pc	1
2	Welding torch	Pc	1
3	Wire feeder (individually packaged) including wire feed tank and wire feed roll	Pc	1
4	Power Cable (10 meters)	Pc	1
5	Ground Wire (10 meters)	Pc	1
6	Eye Protection (Support OD6+)	Pc	3
7	Gun Head Rack (Including hexagon socket head countersunk head screws (4pcs))	Pc	1
8	Armored Cable Rack (Including hexagon socket head countersunk head screws (8pcs))	Pc	1
9	Copper nozzles 1, 3, A, B and flat nozzles	Pc	5
10	Protective Lens (Φ20×3)	Pc	5
11	Lock Ring Wrench	Pc	1
12	Filament Nozzle Assembly (0.8/1.0/1.2/1.6mm wire feed nozzle and wire frame)	Pc	1
13	Tip Holder (Disassembly and assembly of collimating focusing lens)	Pc	1
14	Cotton Swab 1 (25 sticks)	Pc	1
15	Cotton Swab 2 (25 sticks)	Pc	1
16	Soundproof Earplugs (3M brand)	Pc	5
17	Dust Mask (Advanced dustproof)	Pc	2
18	Screwdriver (Inner hexagon)	Pc	1