



CATALOG

1. Company Profile
2. Product Introduction
3. The Dilemma of traditional welding
4. Features and Advantages
5. Specifications
6. Common Welding methods
7. Comparison
8. Applicable Industry



COMPANY PROFILE:

Laser Technologies was founded by Mr. Rakesh Agarwal with a group of Technocrats in June 2011, with the idea of creating a large umbrella organization to assist and serve the growing Indian Laser Industry and to help the market with its years of experience in the field of Lasers and its applications.

We represent many global manufactures, covering a wide range of solutions Laser Marking, Laser Welding, 2D Laser Cutting, 3D Laser Cutting, Laser Cladding, Laser Hardening. Our Laser Solutions can process a wide range of materials like Metal, Paper, Acrylic, Wood, Textile, Leather, Plastic and many more.

Our main aim is to serve our customers with cost effective and innovative solutions with our utmost know how of Applications and help them to fulfill their objectives.

With a well-built Sales and Service team, our offices spread out from Mumbai to Delhi, Pune, Ahmedabad and Bangalore we area One Stop Shop for all your Laser Requirements!!!

The founding members of Laser Technologies is also interested in the formation of an international Laser community in India. To prove our commitment towards Laser Technology and growth of Indian Laser Industry, we conceptualized the idea of India's first exclusive Laser Exhibition in 2010, which provided the customers and Laser industry a common platform to share applications and solutions.

Smart Weld



**Three in one
Wobble head**

*It's easy to operate even for an unskilled operator
wobble technology; weld without deformation*

MACHINE DESCRIPTION:

Smart Laser Handheld laser welding machine adopts the latest generation of fiber laser and is equipped with a self-developed wobble welding head. It fills the blank of handheld welding in the laser machinery industry. It has the advantages of simple operation, beautiful welds, fast welding speed, and no consumables. For welding thin stainless-steel plates, iron plates, galvanized plates and other metal materials, it can perfectly replace traditional argon arc welding, electric welding and other processes. The handheld laser welding machine can be widely used in the complicated and irregular welding processes of cabinets, kitchens and bathrooms, stair elevators, shelves, ovens, stainless steel door and window guardrails, power distribution boxes, stainless steel home appliances and other industries.

The Dilemma of traditional Welding companies:



It is difficult to recruit an argon arc welder, let alone to recruit a skilled welder. Moreover, young people nowadays are less willing to engage in welding. Therefore, the human costs tend to be higher and higher.



Manual Arc Welding

- ☐ Time-consuming and tedious
- ☐ Hard to weld
- ☐ Damage the body
- ☐ Workpiece deformation



Laser Welding

- ☐ Safer and more environmental-friendly
- ☐ Stable welding no thermal deformation no weld scar
- ☐ Energy-saving the photoelectric rate is 25%-30%
- ☐ Less material consumer get a longer service life
- ☐ Easy to operate even unskilled operators without work license can also weld beautifully
- ☐ The welding seam is smooth and beautiful, which reduces the subsequent grinding process
- ☐ Then saves both time and cost
- ☐ The writing speed is 2-10 times faster than that in traditional way, which will help you to save at least 2 welders a year

Advantages:

No deformation, no weld scar, stable welding.



No Weld scar



No Deformation



Stable Welding



The first generation of hand-held welding head, 3.0 kg, no wobble technology



The second generation of wobble hand-held welding head, 1.5kg, lighter, smaller and more comfortable operation

We independently developed wobble welding head, which made up for the disadvantage of small laser spot, expanded the tolerance range of processing parts and weld width, and obtained better weld formation.

PARAMETERS FOR DETAILS

Item	Specifications
Name	Handheld Laser Welding Machine
Laser Power	1000W/1500W/2000W/3000W
Electric Power	<6kw
Cooling mode	Water Cooling
Laser pulse Frequency	1-20HZ
Welding gap requirement	≤0.5mm
Pulse width	0.1-20ms
Adjusted spot range	0.1-3.0mm
Spot size	0.2-5.0mm/1.5mm
Minimum weldingpool	0.1mm
Machine dimension	120*60*90cm/120*60*115cm
Water tank	inbuilt model
Working Environment Temperature	15~35 °C
Optical Fiber	25um,10M
Continous Working Time	24 hours
Comllimation Length	F=50mm
Suggested Welding Thickness	0.5-5mm (depends on the materials)
Grand weight	240KG
Working Voltage	220V/380V 50Hz

COMMON WELDING METHODS

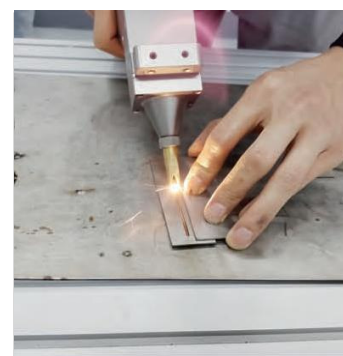
The utility model has simple and reasonable structure, thereby being easy to operate, high welding efficiency and low energy consumption.



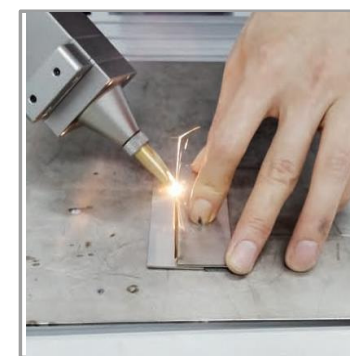
Tailor-Welding



Corner Welding



Stitch Welding



Overlap Welding

COMPARE WITH OTHER WELDS

Item	Traditional Welding	Laser Welding	Smart Weld new generation laser welding
Heat input to the workpiece	Very High	Low	Low
Deformation of workpiece, undercut	Big	Small	Small
Bond Strength with base material	Common	Good	Excellent
Subsequent Processing	Polish	No or very little grinding	No or very little grinding
Welding speed	Common	Fast, very fast	
Applied materials	Stainless steel, Aluminium, Iron, Copper	Stainless steel, Aluminium, carbon steel, galvanized sheet	Stainless steel, Aluminium, Iron, Copper
Consumables	Many	Little	Little
Operation difficulty	Complicate	Common	Simple
Operator safety	Not Safe	Safe	Safe
Impact on the environment	Pollution	Environmental	Environmental
Welding fault tolerance	Good	Not good	Good
Pendular welding	No	No	Yes
Adjustable spot width	No	No	Yes
Welding quality contrast	Bad	Common	Excellent

WELDING DEPTH REFERENCE DATA

1000W + WOBBLE Head

Material	Stainless Steel	Iron	Galvanized plate	Angle iron
Thickness	0.5-2mm	0.5-2mm	0.5-1.5mm	0.5-2mm

2000W + WOBBLE Head

Material	Stainless Steel	Iron	Galvanized plate	Angle iron
Thickness	≤3mm	≤3mm	≤2.5mm	≤3mm

Process characteristics of hand-held laser welding machine

The welding seam is smooth and beautiful, the welding workpiece has no deformation, no welding scar, the welding is firm, and the subsequent grinding process is reduced, saving time and cost.



APPLICABLE INDUSTRY

Applicable industry, railings of stairs and elevator, shelves oven stainless steel guardrail distribution box, stainless steel home supplies etc.



AIRSHIP



AUTO PARTS



MACHINE MANUFACTURING



MEDICAL EQUIPMENT



ELEVATOR MANUFACTURING



HOUSEHOLD APPLIANCES



HARDWARE PARTS



CONTAINER MANUFACTURING