

SENFENG LEIANG
LASER



HANDHELD LASER WELDING MACHINE



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ABOUT US

Senfeng Leiming Laser is a high-tech enterprise committed to providing laser cutting solutions for global users.

Our current main products including: ultra-high power fiber laser cutting machine, medium and high power fiber laser cutting machine, laser welding machine, laser cleaning machine, fiber laser marking machine, etc. The man-machine design, functional design and user experience of most our products have already reached a high level in China.

Senfeng Leiming Laser products are currently widely used in: mechanical equipment, electrical equipment, sheet metal production, advertising signs, precision parts, craft gifts, hardware products, electronics and many other industries.

We truly provide customers with personalized and professional laser processing system solutions.

60000⁺

More than 60,000 customers
around the world

DEVICE DESCRIPTION

The self-developed welding head, pioneered by Senfeng Laser, has automatic wire feeding. The hand-held laser welding machine, which adopts the latest generation of fiber lasers, has filled the gap of hand-held welding in the laser equipment industry. It can be operated after training and obtaining certification. HWM has the advantages of beautiful welding seams, fast welding speed and none consumables. It is suitable for thin stainless steel, iron plates, galvanized sheet and other metal materials welding. The hand-held laser welding machine can be widely used in the complicated and irregular welding processes of cabinets, kitchens and bathrooms, stair and elevators, shelves, ovens, stainless steel doors and windows guardrails, power distribution boxes, stainless steel furniture and various other industries.

Humanized design and technology upgrades. Compared with traditional welding equipment, our hand-held welding machines make welders' work safer, more efficient, energy-saving and environmentally friendly. It has 3-to-10 times faster welding speed, as well as features of cost saving, stable and worry-free.

Senfeng Handheld Laser Welding Machine——Let welders love their work more!

DO YOU HAVE THE FOLLOWING PROBLEMS?



Unightly welding and high damage rate



Complex operation and low efficiency



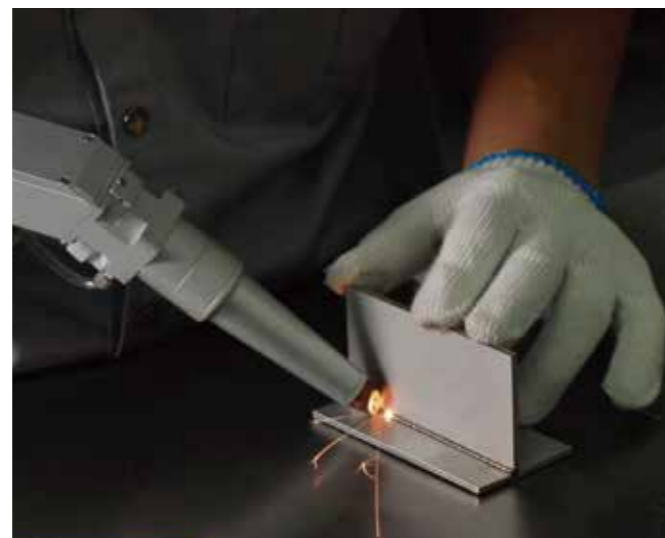
Traditional welding, extreme harm

In the traditional welding process, environmental pollution is high, and problems such as arc radiation, metal smoke, and harmful gases increase the risk of occupational diseases for employees.

HANDHELD LASER WELDERS MAKE WELDERS LOVE THEIR JOBS.

Compared with traditional welding equipment, our handheld welding machines make welders' work safer, more efficient, energy-saving and environmentally friendly.

- 1 Smooth and beautiful weld
No need for sanding or sanding workload is small
- 2 Able to operate after training and obtaining certification
- 3 Less consumables, longer life, safer and more environmentally protective
- 4 Up to 10 to 15 meters optical fiber cable
Long-distance and large workpiece welding feasible
- 5 High welding efficiency with rapid welding speed



DETAIL ADVANTAGES

01

SENFENG LASER PIONEERING SELF-DEVELOPED WELDING HEAD

It makes up for the disadvantage of small laser welding spot, expands the tolerance range and welding width of processed parts, and obtains better weld formation.



02

EXTRA LONG FIBER OPTIC CABLE, MORE FLEXIBLE

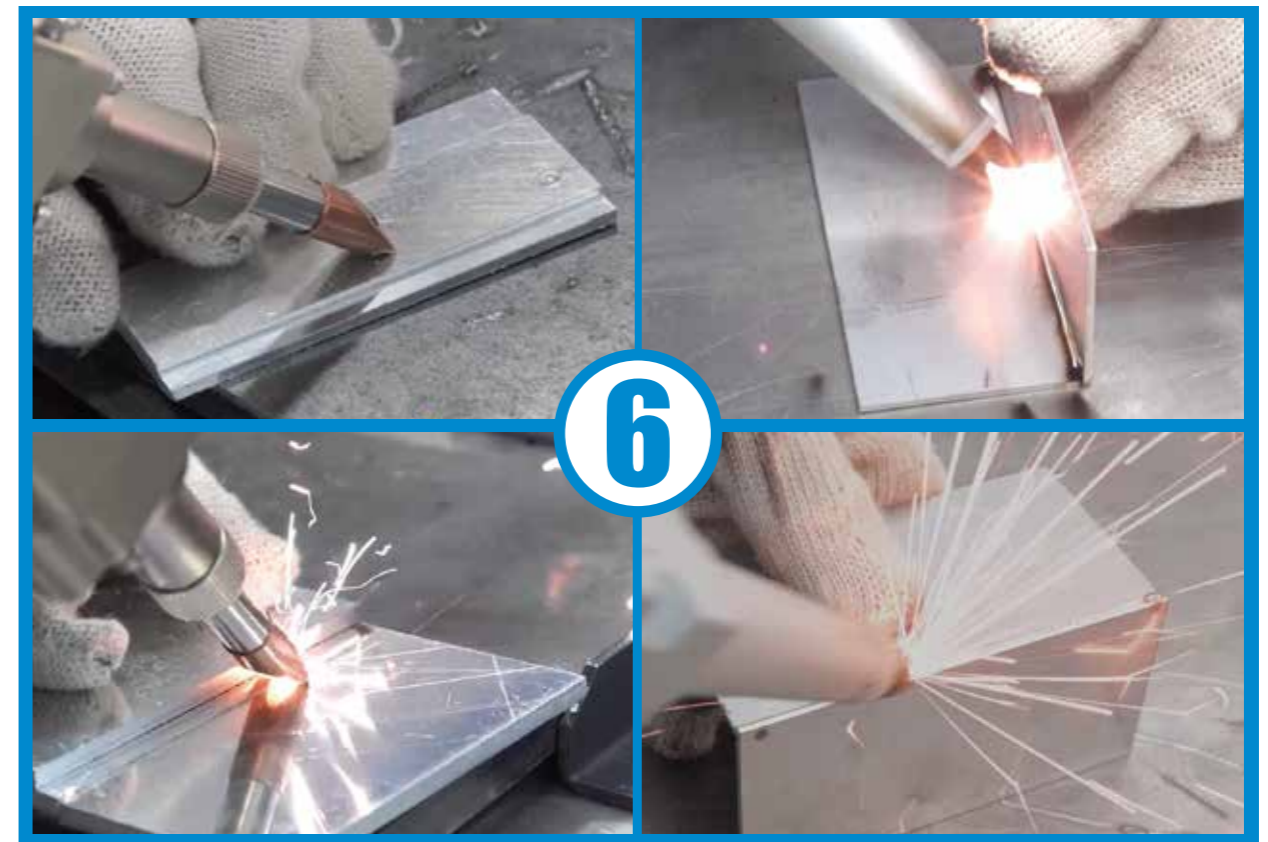
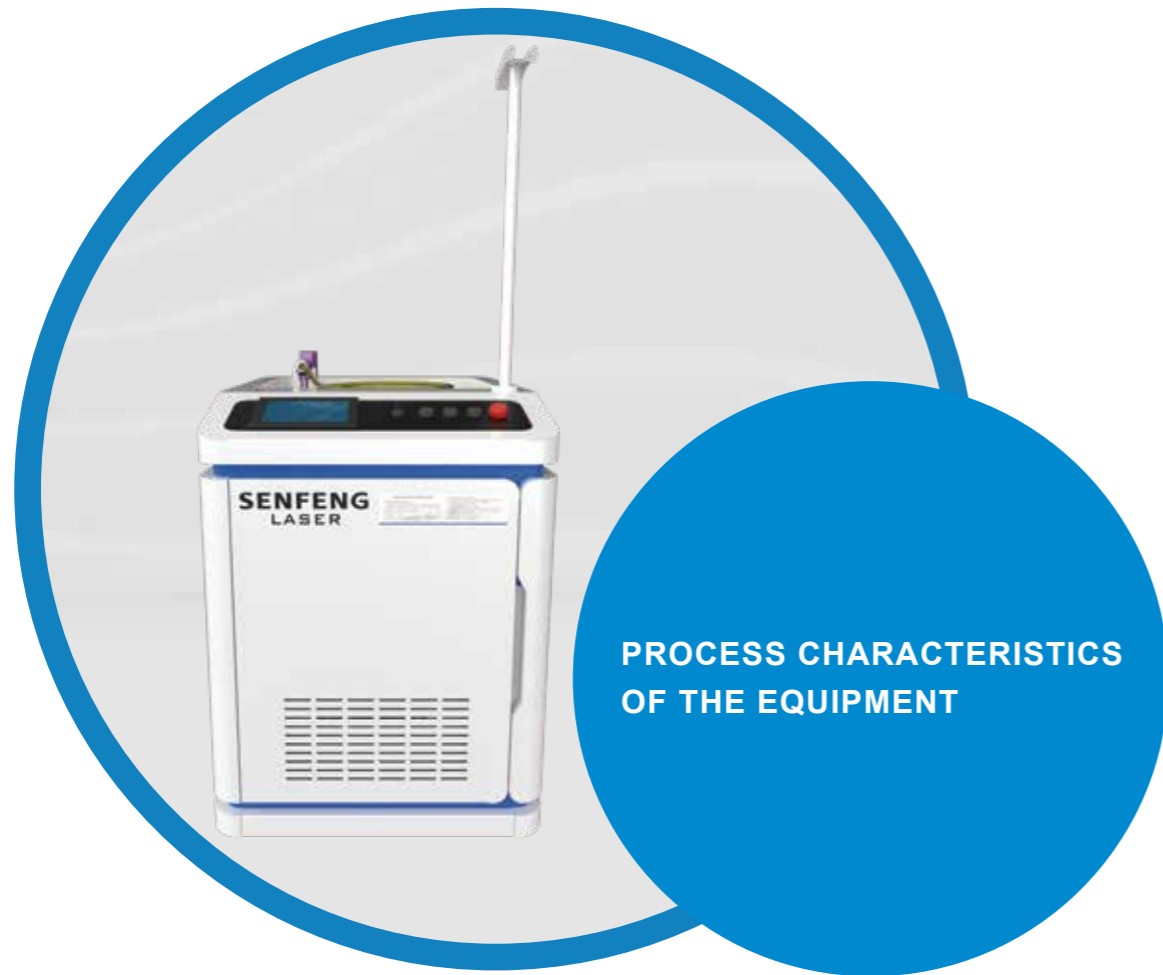
By adopting fiber optic cable specifically for fiber laser, with 10 meters long welding distance, it supports more convenience for field work.

03

PANEL OPERATION, EASIER

Chinese operation display. No need for complicated training. Easy to master the operation method. Grasp the working status at a glance.





6 CORE ADVANTAGES

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



No welding scar

No deformation

Gorgeous welding seam



360 degree welding



Great welding quality



Super fast welding speed



Precise red light assisted positioning



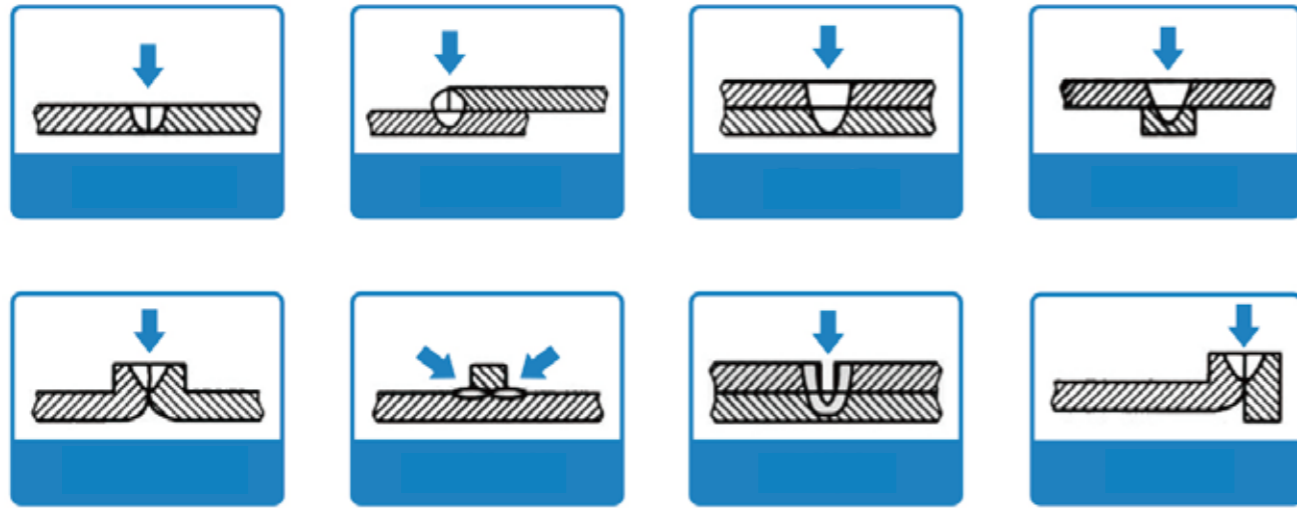
Easy to operate



Flexible welding head

COMMON WELDING METHODS

Able to operate after simple training. Easy to get beautiful welding results.



APPLICATION CASES



Stainless steel fillet welding

Stainless steel pipe welding

Aluminum profile welding

Filler wire welding of galvanized sheet



Pipe filler wire welding

Fillet welding of pipes

Stainless steel R angle filler wire welding

Galvanized sheet R angle filler wire welding

APPLICATION INDUSTRY

Construction machinery industry



Some products in the construction machinery industry have already adopted hand-held laser welding to replace traditional argon arc welding and other welding methods, such as tower crane cab welding. Compared with traditional welding methods, hand-held laser welding has less distortion, higher efficiency, prettier appearance, and more customer satisfaction.

Livestock equipment industry

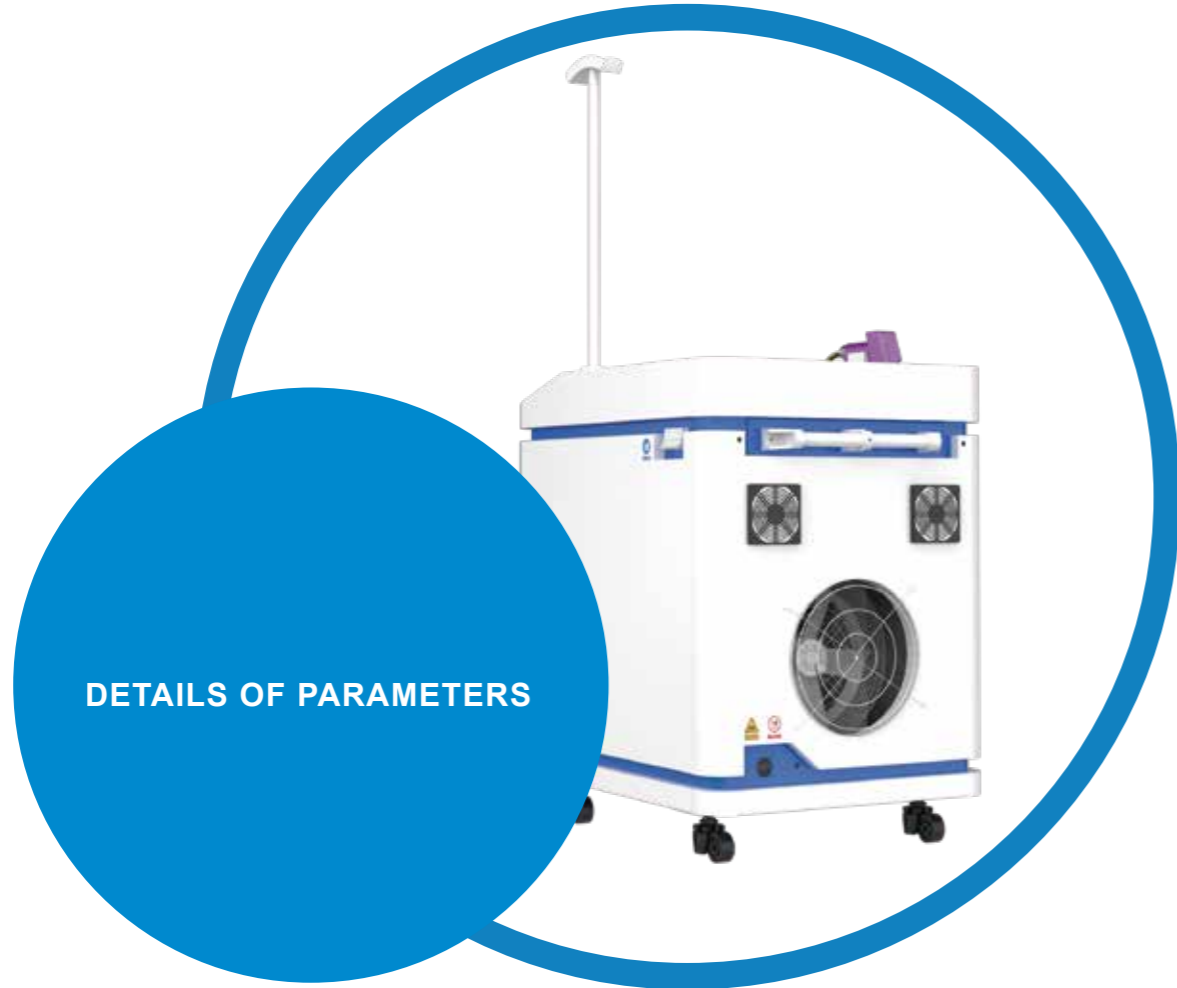


At present, the livestock equipment industry (especially the welding of feed troughs) has adopted a large number of hand-held laser welding. Not only the hand-held laser welding seam is beautiful, but also the worker efficiency is high. Since the thermal deformation generated by it is small, the trough blanking can be effectively controlled, resulting in the product quality being improved.

Kitchen and bathroom furniture industry



There are many thin plate welding in the kitchen and bathroom furniture industry, especially stainless steel welding. The full weld seam is beautiful, without any water leaking. It has high efficiency. The post-welding treatment can be lightly polished or not polished at all, which greatly saves production costs. The advantages of hand-held laser welding in the thin plate field are more and more obvious.



DETAILS OF PARAMETERS

Program	Parameters
Equipment name	Handheld Laser Welding Machine
Laser power	1000W, 1500W, 2000W
Laser wavelength	1080 NM
Fiber length	Standard 10M
Fiber core diameter	50µm
Welding speed range	0~120 mm/s
Cooling method	Water cooling
Working environment temperature range	-10-40 °C
Working environment humidity range	< 70% no condensation
Recommended welding thickness	0.5-5mm
Total power	9KW

COMPARISON WITH OTHER WELDING

Comparison item	Traditional welding	Laser welding	Senfeng new generation laser welding
Heat input to the workpiece	Very high	Low	Low
Deformation of the workpiece, undercut	Huge	Small	Tiny
Bond strength to base material	Average	Good	Great
Subsequent processing	Need sanding	No sanding or a bit sanding	No sanding or a bit sanding
Welding speed	Average	More than 2 times of argon arc welding	More than 2 times of argon arc welding
Applicable materials	Stainless steel / carbon steel / galvanized sheet	Stainless steel / carbon steel / galvanized sheet	Stainless steel / carbon steel / galvanized sheet
Supplies	Plenty	A few	A few
Operation difficulty	Complex	Average	Easy
Operator's safety	Not safe	Safe	Safe
Environmental protection impact	Not environmentally protective	Environmentally protective	Environmentally protective
Welding fault tolerance	Bad	Good	Great
Weaving welding	None	None	Equipped
Adjustable light spot width	None	None	Equipped
Welding quality comparison	Low	Average	Super High

OPTICAL FIBER LASER MATERIAL WELDING PENETRATION COMPARISON TABLE

Material	Thickness(mm)	1000W	1500W	2000W
Aluminium	2.0	√	√	√
	4.0		√	√
Stainless Steel	3.0	√	√	√
	4.0		√	√
	6.0			√
Carbon Steel	3.0	√	√	√
	4.0		√	√
	5.0			√