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Pakistan Service Center
Add: Dullukhur metro station 26 Ferozpur road, Lahore

India Service Center
Add: Plot no 4/09, survey no -519, TSIIC, ip nadergul, hyderabad

Vietnam Service Center
Add: K13 Ngã 3 NgọcHồi Xã Ngũ Hiệp Huyện Thanh Trì Hà Nội

Jordan Service Center
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Note: The pictures and parameters in the album are for reference only, and the actual product shall prevail. Printed in Sept. 2024

SENFENG

SF-HW

Handheld Fiber Laser Welding Machine

www.senfenglaser.com

About Us

Since the establishment of SENFENG, we have been committed to the R&D and innovation of laser technology. We're a leading manufacturer specializing in the field of laser cutting, laser welding, laser cleaning, laser cladding, industrial 3D robot, bending, milling, etc.

In order to achieve global local services more efficiently, we have established 3 subsidiaries in the United States, Germany and UAE, and 4 service centers in India, Pakistan, Vietnam and Jordan.

After years of persistent probe in the field of laser technology, we are equipped with a great pool of core tech to drive automation process of modern machinery industry.

Laser Welding

Welding Division

Equipped laser welding, hybrid welding, and automatic welding equipment with 1.5kW-20kW power, we provide SENFENG partners with customized welding automation services in industries such as auto parts, sheet metal processing, new energy manufacturing, and mechanical processing. And we support free demos and welding process verification of various metals (0.3-20mm carbon steel, stainless steel, aluminum, galvanized, copper, etc.).

Post-weld Testing Laboratory

SENFENG post-weld testing laboratory has professionals and comprehensive testing equipment such as tensile test, inlay, metallographic test, friction and wear test, ultrasonic test, hardness test, salt spray test, etc., and conducts real-time welding process test evaluation.

Tension machine

Metallographic microscope

Friction and wear testing machine

Vickers hardness tester

Metallographic sample grinding and polishing machine

Metallographic sample mounting machine

Digital microscope

Salt spray test chamber

SF-HW Handheld Fiber Laser Welding Machine

Introduction

SENFENG Handheld Fiber Laser Welding Machine overturned the working mode of the traditional laser welding machine, flexible and convenient, which makes it possible for laser welding to be operated outdoors. It has the advantages of simple operation, beautiful weld seam, fast welding speed, and no consumables, and can perfectly replace traditional argon arc welding.

It is mainly for large and medium-sized sheet metal welding, and widely used in the home appliance industry, advertising industry, stainless steel products industry, door and window industry, auto parts industry, etc.

- **Easy to operate**
- **Multiple welding methods**
- **Wider welding range**
- **High-quality welding effect**
- **No need for subsequent polishing**

Welding Head

In accordance with modern design theory and manufacturing technology, our handheld laser welding head is ergonomically comfortable to use, high in welding efficiency and performs more stably in use. It is the best choice for handheld welding customers.

01

Newly upgraded plastic welding head

This unibody structure behaves better in dust and leakage prevention in addition to its lighter weight, smaller size and higher stability.

02

Spatter-proof structure

Based on spatter-proof function, we have also optimized its graduated tube to reduce possible loss of protective lens.

03

4-in-1 control system

Balance welding, cleaning, weld seam cleaning and cutting well for flexible switch among them.

04

Temperature control alarm

If welding head is overheated, the control system will give alarm in time to safeguard the protective & focusing and other optical lens, so as to enhance its service life.

05

Easy to assemble and disassemble

For users, it is easy to dismount focusing, collimating and reflecting lens on site and convenient to apply for after-sales repair.

06

Much lighter in weight

The 0.7kg welding head allows for more flexible and comfortable operation.

Wire Feeder

SENFENG wire feeders offer top performance and efficiency over traditional welding machines, making them ideal for a wide range of welding applications. With the option of single or dual wire feed, you can customize your machine to fit your specific needs.

★ Optional aluminum feeding component makes the feeding more stable and smoother, no longer stuck.

01 Upgraded display screen
Full LCD wire feeding system

02 Double wire feeder optional
Wider and fuller weld seam

03 High torque DC motor
More stable and smooth wire feeding

04 The maximum welding weld can be up to 8mm.

Positioner(optional):

⊕ Stepless adjustable speed;

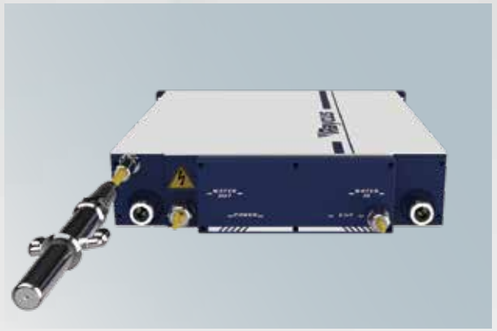
⊕ Precise structure, easy operation and flexible use;

⊕ Especially suitable for welding flanges, steel pipes, etc.;

⊕ Support 3 load options (50kg/100kg/300kg);

⊕ D-200 chuck as standard (clamping range is 10-200mm and the sizes can be customized)

Model	BY-50	BY-100	BY-300
Input power	AC110V/220V 50/60Hz	AC110V/220V 50/60Hz	AC220V 50/60Hz
Capacity (horizontal/vertical)	50kg/25kg	100kg/50kg	300kg/150kg
Table dimension	315mm	345mm	450mm
Table height	375mm	415mm	510mm
Rotation speed	05-3.5/1-7/2-15rpm	05-3.5/1-7/2-15rpm	05-3.5rpm
Tilt angle	0-90°	0-90°	0-90°
Tilt mode	Manual	Manual drive	Manual drive
Ratation motor	80W	120W	200W
Max eccentricity	100mm	100mm	150mm
Max center of gravity	100mm	100mm	150mm
Central mode	//	//	foot switch
Over dimension	430*430*375mm	500*470*415mm	500*500*510mm
Adjustable chuck	D-200 D-300	D-200 D-300	D-200 D-300 D-400



Laser Source

- Excellent beam quality
- Small light decay
- Stable performance and low failure rate

Water Cooler

- Dual-temperature dual-control cooling system
- Steady temperature of the gun head and lasers
- More stable and smooth feeding

Operation Interface

- Simple interface and easy to operate
- Rich welding modes
- Switch light progressive function to effectively reduce welding pits
- Its control system is compatible with over 20 kinds of languages

Welding System

01 The new generation of welding system developed by Senfeng integrates continuous welding, spot welding, scale welding and cutting.

02 The system control interface is more user-friendly and can quickly check whether each signal is normal.

03

Welding process parameters can be conveniently saved and retrieved in real time.

04

The gradual function of switching light can effectively reduce the phenomenon of welding pits at the beginning and end of welding.

05

Its control system is compatible with over 20 kinds of languages like simplified and traditional Chinese, English, Korean, Russian, Japanese. It will serve users well.

Technical Parameters

Model	SF1500HW	SF2000HW	SF3000HW
Wire diameter	0.8-1.6mm	0.8-1.6mm	0.8-2mm
Weld splicing requirements	Weld seam shall be ≤15% of sheet thickness and ≤0.5mm in case of self-fusion welding. Weld seam≤1.2mm and ≤2mm if single and dual-wire feeder respectively (for details, please see technical parameters)		
Equipment net weight	156kg	176kg	196kg
Equipment size (mm)	968*660*826mm	968*660*826mm	980*720*867mm
Weld thickness	≤4mm	≤5mm	≤7mm
Total length of wire	10m(The length of the wire feeding tube is 5 meters)		
Welding gun weight	≤0.7kg		
Total equipment power	9kW	12kW	15kW
Voltage/frequency	Single-phase 220V 50/60HZ (2000W and below) Three-phase 380V 50/60HZ (3000W)		

Configuration

Name	Brand
Machine body	SENFENG
Water chiller	SENFENG
Electrical system	SENFENG
Welding control system	SENFENG
Laser generator	RAYCUS
Welding head	SENFENG
Maintenance tools	SENFENG
User manual	SENFENG
Certificate	SENFENG
Positioner (optional)	SENFENG
Voltage stabilizer (optional)	SENFENG

Thickness range

Carbon steel, stainless steel welding range

Model	Recommended thickness range	Max thickness	Welding speed
SF1500HW	0.3-3mm	4mm	0-120mm
SF2000HW	0.3-4mm	5mm	0-120mm
SF3000HW	0.3-6mm	7mm	0-120mm

Aluminum alloy welding range

Model	Recommended thickness range	Max thickness	Welding speed
SF1500HW	0.3-3mm	4mm	0-120mm
SF2000HW	0.3-4mm	5mm	0-120mm
SF3000HW	0.3-5mm	6mm	0-120mm

Note: The above data are for reference, and there may be differences due to factors such as materials and splicing methods.

Welding Materials

It can be used for welding stainless steel, carbon steel, AL, galvanized sheet, copper, titanium and other metals (batch welding of brass and red copper is not recommended because of their high-reflectivity nature)

Quality Control

- ★ 47 quality inspection procedures ensure zero defect in the quality of the machines on the market, and strictly control the quality requirements.
- ★ Under the premise of full inspection of each equipment, technical R&D personnel conduct secondary random inspections at least 3 times a week.

Global Service

7/24 online service

Fast response within one hour to give a solution

Support customers to test samples

Complete after-sales training available