

Hand-held Fiber Laser Welding Machine with Automatic Wire Feeding





Spot welder Laser welder Welding automation

Founded in 2006, PDKJ Technology is a professional supplier of welding automation solutions. The company has passed the ISO9001 international quality management system certification, has more than 70 officially authorized and applied national patents, and a number of core technologies in the welding field fill the technical gap at home and abroad. It is a national high-tech enterprise. Over the past 18 years, PDKJ Technology has provided products and services to nearly 9000 users worldwide in the field of welding automation. PDKJ brand spot welder laser welding machines are popular in more than 30 countries and regions around the world. In the future, we will continue to create lifelong value for users worldwide in the field of welding automation.



PDKJ, BORN FOR METAL WELDING

Hand-held Fiber Laser Welding Machine with Automatic Wire Feeding

1500W/2000W/3000W



The handheld laser welding machine is designed as an integrated structure. It uses the latest generation of laser generator, and the integrated dual drive automatic wire feeding system and equipped with the double swing welding head independently developed by our company. Welding is flexible and convenient, with good beam quality, minimal deformation of the welding body, smooth and beautiful welds, and high reliability. For areas that are difficult to access with ordinary argon arc welding guns, flexible transmission non-contact hang in the air welding is implemented. It is suitable for spot welding and full welding of various metal frame structural parts, sheet metal parts and other complicated and irregular internal corners, external corners, seams, etc. It has the advantages of simple operation, beautiful welds, fast welding speed, etc. It is suitable for welding aluminum alloy plate, stainless steel plate, iron plate, galvanized plate and other metal materials, and can perfectly replace the traditional argon arc welding, arc welding and other processes.

PDKJ Laser Welder



Languages: Simplified Chinese, English, Korean, Russian, Traditional Chinese, Japanese, German, French, Italian, Spanish, Portuguese, Türkiye, Greek, Czech, Slovak, Polish, Thai, Vietnamese, Romanian.



High definition touch screen

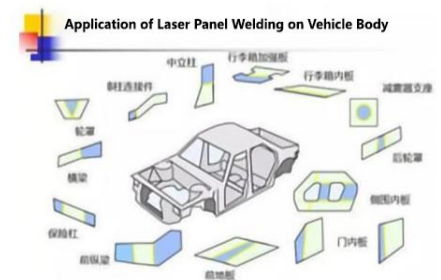


Universal wheel for flexible movement

Project	Parameter
Device Name	Handheld continuous laser welding machine
Laser Power	1500W/2000W/3000W
Fiber Wire Length	Standard configuration of 10 meters (customizable length up to 15 meters)
Cooling System	Integrated constant temperature water tank
Operation Temperature Range	15-35°C
Operation humidity range	<70% without condensation
Consumables	Protective lenses

Advantages

1. The human-machine interface is easy to understand and operate, and beginners can also weld beautiful products;
2. The welding speed is 3-5 times faster than traditional welding speed, and one device can save at least 3-5 welders per year;
3. Low consumption of laser welding materials and long service life;
4. The weld seam is smooth and beautiful, with small deformation and wide processing range, reducing subsequent polishing processes and saving time and cost;
5. There is no deformation, no welding marks, and the welding is firm;
6. The self-developed double swing welding head compensates for the disadvantage of small laser spot, expands the tolerance range and weld width of the processed parts, and achieves good weld forming effect;
7. Strong grafting ability, able to be installed and used on robots and multi axis automation equipment, reproducing complex and automated welding. Widely compatible with all robots on the market.



Laser welder parameter

Parameter	LWM1500	LWM2000	LWM3000
Laser machine power	1500W	2000W	3000W
Input power	220V 50/60Hz	220V 50/60Hz	380V 50/60Hz
Protective gas	Argon/Nitrogen	Argon/Nitrogen	Argon/Nitrogen
Placement environment	Flat, vibration and impact free		
Working environment temperature (°C)	10-40	10-40	10-40
Working environment humidity (%)	< 70	< 70	< 70
Automatic wire feeding	Yes	Yes	Yes
Welding gun model	A/B/C Optional	A/B/C Optional	A/B/C Optional
Laser wave length	1064nm	1064nm	1080nm
Overall power	2500W	3000W	4500W
Welding interval requirements	<0.5mm	<0.5mm	<1.0mm
Aiming and positioning	Infrared	Infrared	Infrared
Robot automatic welding interface	Yes	Yes	Yes
Welding capacity / aluminum	0.2-3.0mm	0.2-4.0mm	0.2-6.0mm
Welding capacity / carbon steel	0.2-4.0mm	0.2-5.0mm	0.2-7.0mm
Welding capacity / stainless steel	0.2-4.0mm	0.2-5.0mm	0.2-7.0mm
Welding capacity / galvanized sheet	0.2-3.0mm	0.2-4.0mm	0.2-6.0mm
Welding speed	0-120 cm/Min	0-120 cm/Min	0-120 cm/Min
Weight	280kg	300kg	208kg+165kg
Overall dimension	1050*750*1310mm	1050*750*1310mm	Note: Matching external chiller

PDKJ Laser Welder



Main accessories

(1) Welding host



(2) 3 in 1 Laser welding gun



Aluminum alloy welding gun

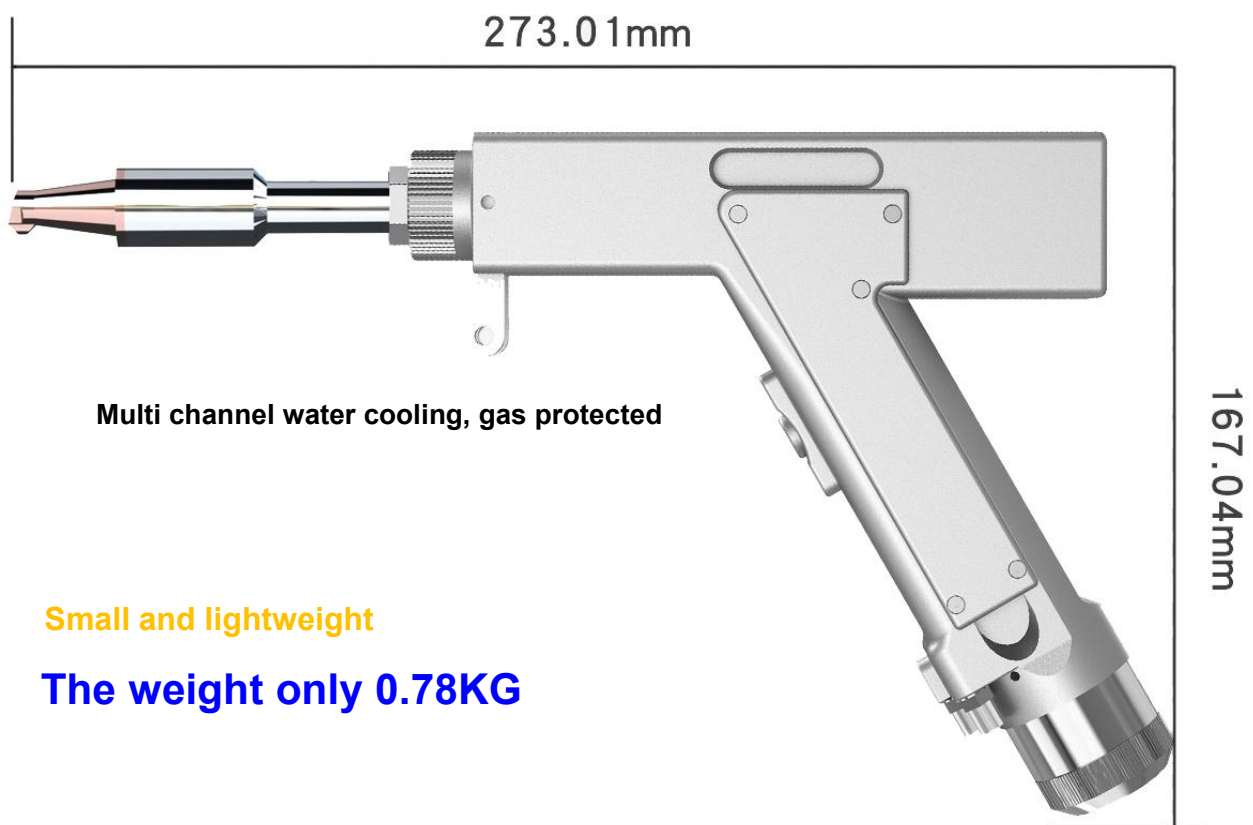


Rubber Grip Welding Gun

Aluminum alloy laser welding gun

1. Multi point temperature measurement, Real-time monitoring Independently developed safety detection system, real-time monitoring of multi-point temperature;
2. Dust-proof, Wear-resistant, Anti-interference The body is dustproof, with excellent anti-interference performance and higher work efficiency;
3. Efficient and convenient Focusing lens and protective lens were designed as drawers type for easy replacement;
4. Smart lock off, safety protection Contact with metal to emit laser, remove automatic locking light.

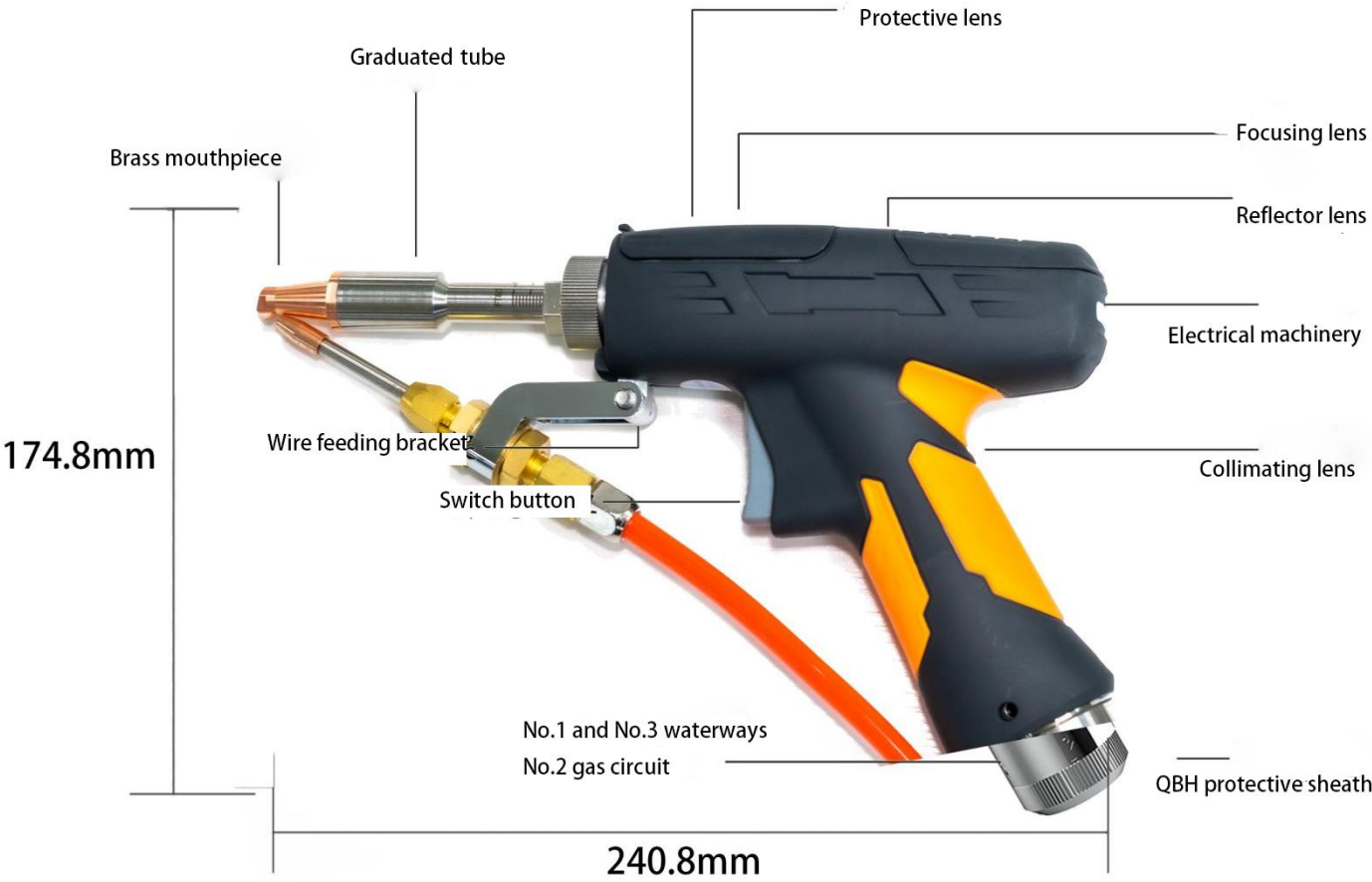
Product	Aluminum alloy laser welding gun
Power level	=<2000W
Collimating focal length	60nm
Focusing focal length	150mm
Maximum air pressure	15Bar
Vertical focusing range	± 10mm
Spot adjustment range	Line 0-5mm
Applicable wave length	1070nm
Weight	0.78Kg



Multifunctional 3-in-1 welding gun

- 1. Multi point temperature measurement and real-time monitoring Independently developed safety detection system, real-time monitoring of multi-point temperature on the body
- 2. Dust-proof, wear-resistant, anti-interference The body is dust-proof, with excellent anti-interference performance and higher work efficiency
- 3. Efficient and convenient Focusing lens and protective lens were designed as drawers type for easy replacement, and the collimator and QBH are integrated for easy on-site replacement
- 4. Intelligent protection system No contact with workpieces, no circuit no ignition, improving production safety.

Product model	Multifunctional 3-in-1 welding gun
Power level	=<2000W
Collimating focal length	60nm
Focusing focal length	150mm
Max. air pressure	15Bar
Vertical focusing range	± 10mm
Spot adjustment range	Line 0-5mm
Applicable wavelength	1070nm
Weight	0.68Kg

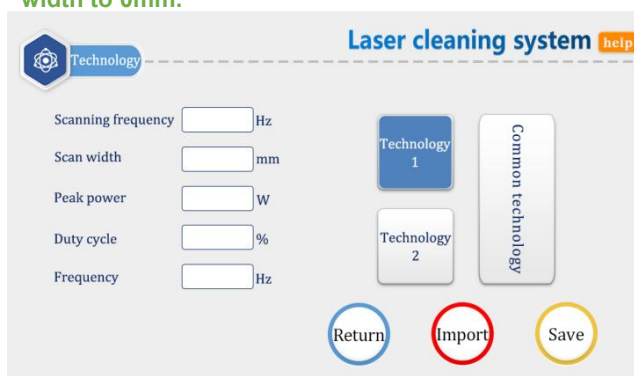
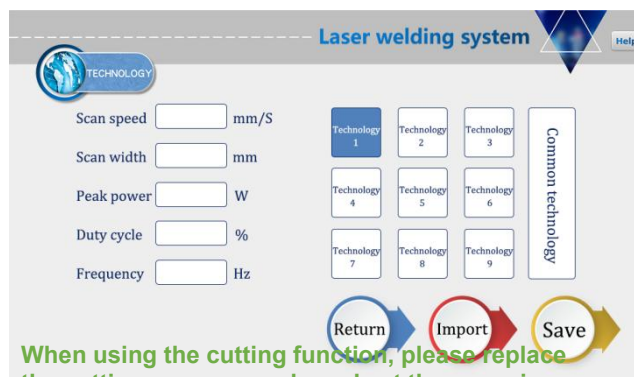
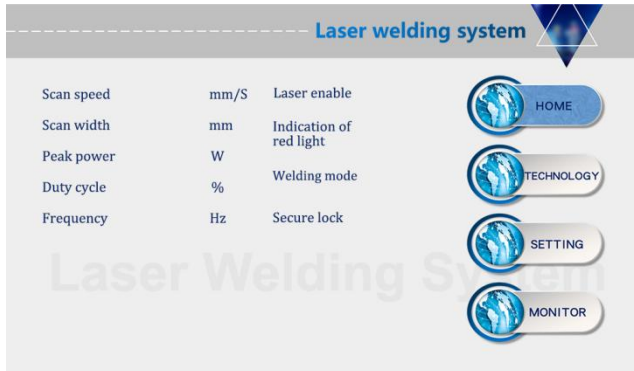


PDKJ Laser Welder



Multifunctional 3-in1 welding gun

Welding, Cutting, Cleaning (Rust removal)

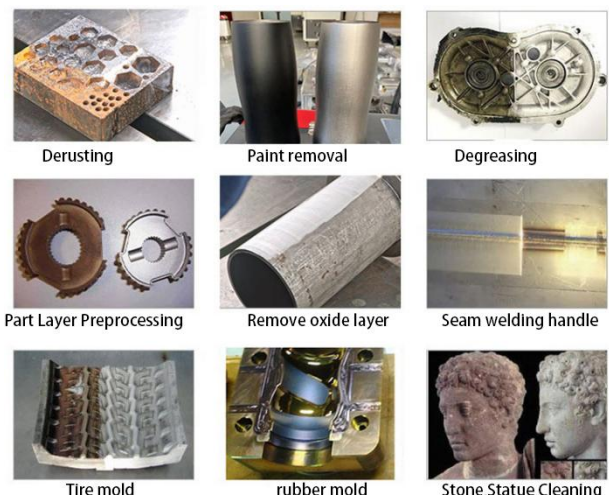


Main functions of cleaning mode :

Rust removal, oil removal, paint removal and oxidation layer removal.

Application scope:

Metal rust and oil removal, mechanical component cleaning, pipeline and pipe fitting cleaning, mold cleaning, automotive component cleaning, welding seams, building exterior wall stone statue cleaning, electronics industry cleaning and aircraft old paint cleaning, etc.

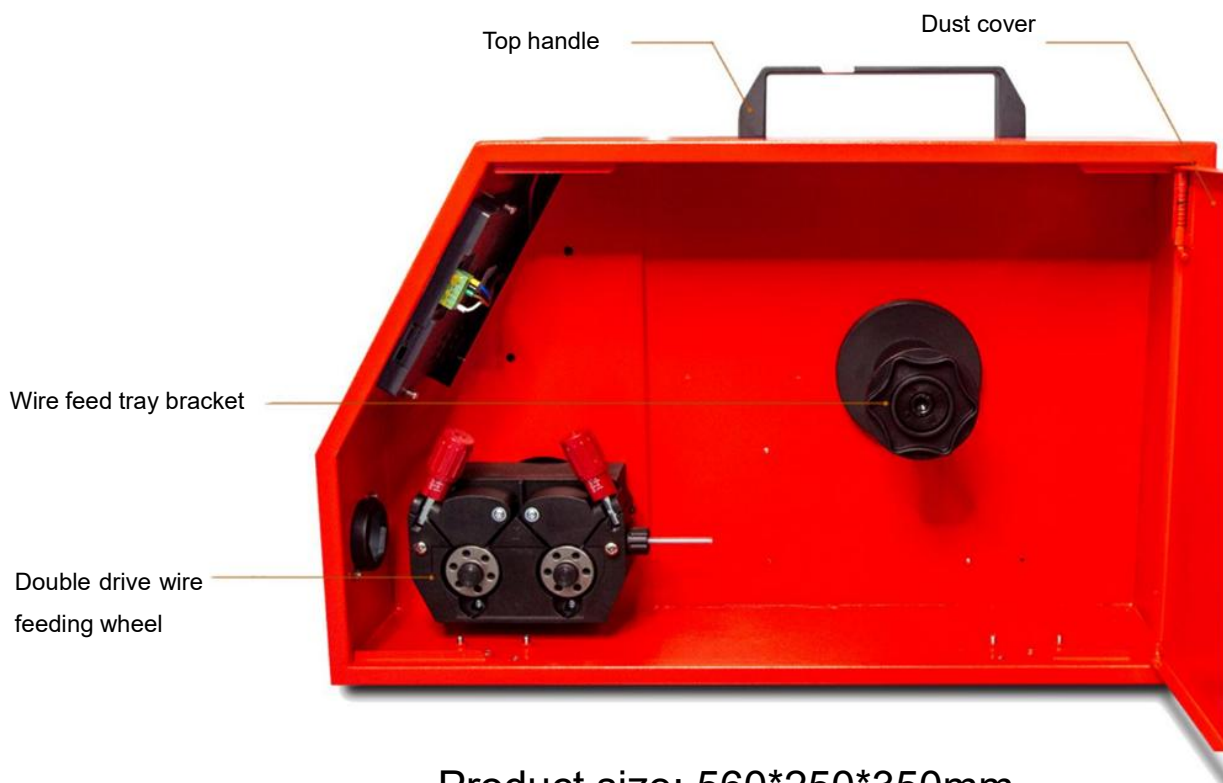


Automatic wire feeding system



1. Adjustable welding wire specifications, 0.8, 1.0, 1.2, 1.6, 2.0mm. The material of welding wire varies depending on the material of welding products which carbon steel and aluminum plates;
2. Perfect filling of various welding gaps and stable effect;
3. Meeting diverse welding process requirements;
4. Simple operation;
5. With automatic wire feeding, the welding gun automatically follows the welding, and workers only need to control the direction and time.

Built in microprocessor.
Lightweight and stylish, It can be
lifted with just one hand



Product size: 560*250*350mm

Dual water tank intelligent IoT cooling system

1. Super large chassis, industrial grade chiller, designed for high-strength and stable operation;
2. Internet of Things temperature control system: LCD display with 485 communication function, remote control, and can be used for large-scale production monitoring;
3. Dual water tank circulating cooling: The temperature control accuracy of chilled water is $\pm 0.2-0.5\text{ }^{\circ}\text{C}$; Normal temperature water temperature control accuracy $\pm 0.5-1\text{ }^{\circ}\text{C}$;
4. The cooling system is bilingual in Chinese and English, and easy to operate.

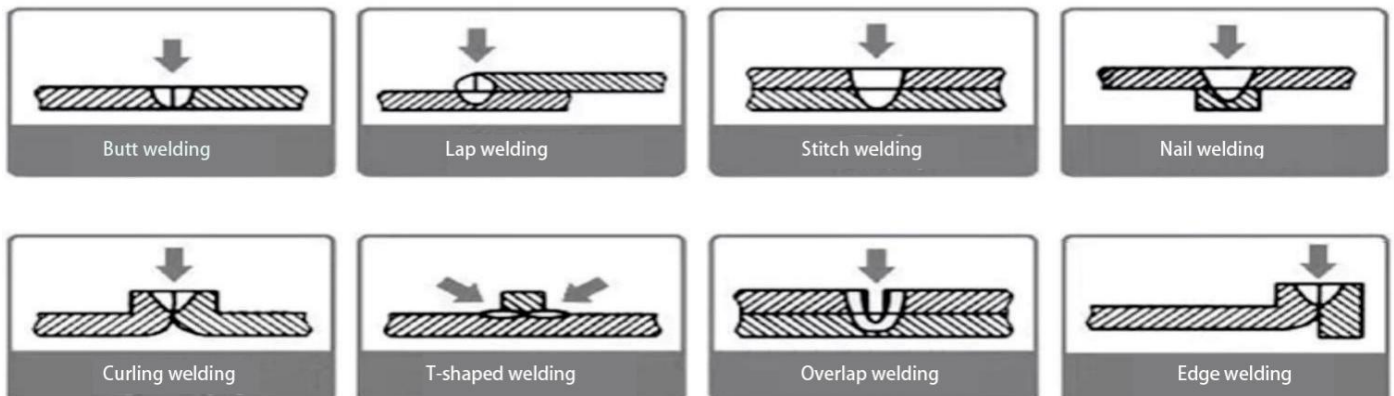
PS: The 1500W/2000W laser welding machine matched with built-in chiller, 3000W laser welding machine is matched with external chiller.



Comparison of welding processes

Project	Traditional argon arc welding	Laser welding machine	Handheld Fiber Optic Welding
Heat input to the workpiece	Very high	Low	Low
Deformation and undercut of the workpiece	Large	Small	Small
Bond strength with base metal	Average	good	very good
Subsequent processing	Polish	No or minimal polishing	No or minimal polishing
Welding speed	Average	More than twice that of argon arc welding	More than twice that of argon arc welding
Applicable materials	Stainless steel/carbon steel/galvanized sheet/aluminum alloy/copper material	Stainless steel/carbon steel/galvanized sheet/aluminum alloy/copper material	Stainless steel/carbon steel/galvanized sheet/aluminum alloy Gold/copper material
Consumables	More	Less	Less
Operational difficulty	Complex	Average	Simple
Operator safety	Unsafe	Safe	Safe
Environmental Protection Impact	Not environmentally friendly	Environmentally friendly	Environmentally friendly
Welding fault tolerance	Good	Average	Good
Double pendulum hand holding head	No	No	Yes
Adjustable spot brightness	No	No	Yes
Welding quality	Poor	Average	Good

The welding head can weld the workpiece at any angle, suitable for various complex weld seams and various devices.



PDKJ Laser Welder



Welding effect

It is suitable for welding stainless steel plate, aluminum alloy plate, galvanized plate, carbon steel and other metal materials, and can replace the traditional argon arc welding, Arc welding and other processes.



Application

Mainly used for welding metal products such as aerospace, military industry, rail transit, new energy storage vehicles, energy storage, sheet metal, machinery, hardware, home appliances, kitchens, elevators, advertisements, outdoor products, etc



Basic accessories

No.	Name	Specifications	Qty	Unit	Notes
1	Laser welding host	Integrated	1	Set	PDKJ
2	Continuous fiber laser	1500W	1	Unit	Raycus
3	Industrial water chiller	constant temperature	1	Unit	PDKJ
4	Intelligent laser control system	Touching screen	1	Set	PDKJ
5	Single pendulum automatic handheld welding gun	Type T	1	Unit	
6	Dual drive multifunctional wire feeder	0.8-1.6	1	Unit	
7	ISO robot connection supporting control system	PDKJ-PW353	1	Set	PDKJ
8	Inner/outer corner self fusion welding nozzle		10	Unit	Random configuration
9	Copper clamp		1	Unit	PDKJ
10	Lenses		10	Pcs	Random configuration
11	Packing list		1	Copy	File
12	Warranty card		1	Copy	File
13	Certificate of conformity		1	Copy	File

Main accessories

Main components	Configuration Description
Fiber laser	High Solar-cell efficiency, good beam quality, suitable for flexible processing, maintenance free
Thermostatic refrigerator	Efficient compressor, water pump, over temperature alarm, flow protection
Laser control system	Adopting an 8-inch touch screen, the laser control mode and laser power can be adjusted in real-time, making it convenient and practical
Fiber optic handheld welding gun	QBH interface mode, simple structure, with blowing function and configured with safety protection function
Dual pendulum multifunctional handheld welding gun	Suitable for T-type welding, spot welding, tailor welding, overlap welding, butt welding, seam welding, fillet welding, overlap welding, etc
IO robot connection supporting control system	Seamless connection with robot automatic welding system

Why PDKJ

PDKJ, born for metal welding



01

National level high-tech enterprise, 76 intellectual property rights and invention patents, ISO9001, CCC, CE, FC, CSA etc.



02

Strong team, serving over 3500 enterprises in over 30 countries and regions currently.



03

Strict quality control, equipment do all inspection before delivery, 6000 square meter factory.



04

Customer service system, quick response, Complete pre-sales, in sales, and after-sales services, free welding sample.

Customer Witness

Used and witnessed by over 3000 high-end customers worldwide



Use site of IF spot welder



Robot laser welding workshop



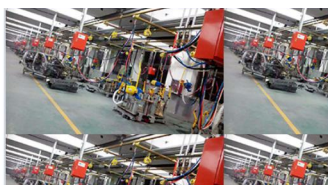
Site of automobile spot welding shop



BYD Auto



Site of precision spot welder



Suspension welding large shop



Delivery site of laser welder



Midea



Cooperative partner

The world's top 500 customers list : Tesla, Ningde Times, Foxconn, Flextronics, Amphenol, China Aerospace, CRRC, State Grid, China Building Materials, Foxlink International, Huawei, Apple, Cisco, Philips, Samsung, Hitachi, Mitsubishi, Sanyo, ABB, Schneider, TDK, Panasonic, Toshiba, Sony, HP, Dell, Siemens, Quanta Computer, Midea, Gree, Haier, Lenovo, Ericsson, LG, Fujitsu, Maersk ThyssenKrupp, Boeing, Airbus, Bosch, Toshiba, Wistron, Daimler, BMW, Honda, Toyota, GM, Ford, Suzuki, Guangzhou Automobile, Nissan, Volkswagen, Mazda, BAIC, Renault, Geely, Dongfeng, Hyundai, etc.

Key customers in China : BYD, Xiaopeng Automobile, Ideals, TCL, Skyworth, Changhong, Vantage, Galanz, Easter, Xinwangda, Galaxy Electronics, Guangdong Changying, Kedali, Jingquanhua, Kaizhong, David, Haozhi, Lianying, Dongfang Electric Heating, Jiali Group, Jinde Group, Xuji, China Railway, Sinosteel, Sany Heavy Industry, Fuhua Heavy Industry, Anhui Keda, Zhongheng Electric, Baiyun Electric, Chuanyi Co., Ltd., Tongda Automobile, Wanbao, Haima, Haihong Dadihe, Kaite, Jinjin, Liansu, Conghua Sheet Metal, Hongxun Elevator, Ningbo Wanjin, Yihe Precision, Dingtong Precision, Delta, Yidong, Yangtian, Longguang, Jingliang, Guangdi, Poly, Bailiwenyi, Junpeng, Lianli, Goldsmith Technology, Xinda Gaofan, Yijia Home, Hefeng Furniture, Shenglan Technology, etc .



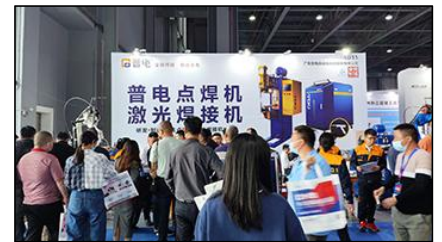
Products of PDKJ

1. Hand-held Fiber Laser Welding Machine with Automatic Wire Feeding
2. Intermediate Frequency Inverter DC Spot (Convex) Welder
3. high-power Intermediate Frequency Inverter DC Spot (Convex) Welder
4. Platform Type Medium Frequency Inverter Spot Welder
5. Desktop IF Inverter Precision Spot Welder
6. Desktop AC Precision Spot Welder
7. Customizing Various Types of Automated Welding Machines
8. Robot Welding System

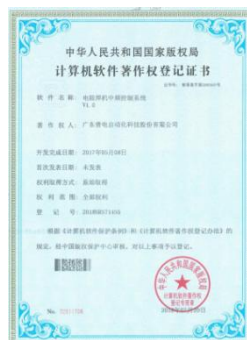
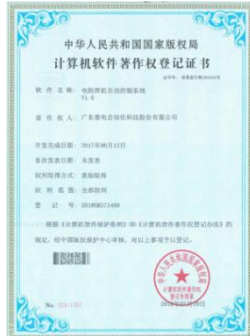
Application Industry

1. Transportation equipment industry
2. Electronic and electrical manufacturing industry
3. Hardware sheet metal manufacturing industry
4. Communication and electrical manufacturing industry
5. New energy application industry
6. Furniture and kitchenware manufacturing industry
7. Motor compressor industry
8. Mechanical wire network industry, etc

Our Factory



Honors and Patents (82)





Technology drives the future, quality changes the world

The quality that can be used for 20 years



WhatsApp



Website



YouTube

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