## **Multi-Function Laser Welding Machine**

Model: PE-W300D 400D 500D



## PERFECT LASER



Perfect Laser is a leading brand for professional laser welding machine. In order to satisfy the different needs of the market for laser welding, Perfect Laser developed a type of Multi - function laser welding machine.

With the help of CNC 2000 control system, this welding machine can automatically generate the movement trajectory according to the specific shape of the workpiece to control all functions and make best welding effect.



Application Field: aviation, machinery, electronics, communications, power, chemical, automobile manufacturing, institutions and research institutes and other industries. Such as auto parts welding, lithium-ion battery sealing welding, electronic components such as precision spot welding.

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- 1.High conversion efficiency, high energy stability, good beam mode the overall performance of the device has significantly improved, which enhanced the operation of the equipment ductility. Wide range of applications, and easy to operate.
- 2.Integrated designs, beautiful and gorgeous appearance, compact and reasonable structure. using Germany's advanced combined gold-plated reflective laser cavity technology, high output power, excellent beam mode.
- 3.Double pulse xenon lamp, constant current switching power supply, programmable pulse and intelligent system management, and it has a misuse and over-temperature water flow automatic protection.
- 4.Three-axis table system and light guide system by the IPC or CNC control, so it can achieve three or four-axis movement.
- 5.Optional closed chamber or airtight room, manual table lifting mechanism, automatic rotation mechanism and coaxial monitoring system and other institutions.
- 6.The width of the weld is small, the heat affected area is small, Also the deformation is small, and the welding speed is fast and so on.
- ◆ 7.Welding groove is smooth and beautiful, no need to deal with anything after welding, high welding quality, no pores, this can reduce or optimize the base metal impurities, welding can be refined after welding.
- 8.It can achieve precise automatic control, little laser output power changes, and focus spot is small, high precision positioning.
- 9.It comes with a rotating fixture, and can weld the round tube and other special parts.
- 10.Automatically welding or manual welding can be selected to rapidly weld all kinds of components.

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No.	Project	Tender specifications
	Model	PE-W500D 300D 400D
1	Input voltage	Three-phase four-wire system, 380V ± 5%
2	Maximum output power	12KW
3	Full mirror	Reflectivity≥99.7%
4	Power supply fee dback type	Current feedback
5	Condenser cham ber	Gold-plated single-chamber design, dual-lamp single rod
6	Laser wavelength	1.064µm
7	Beam divergence angle	≤8mrad/m
8	Peak output powe	500W
9	Laser head adjust ment	360 degrees
10	Pulse frequency	1~150Hz
11	Pulse Width	0.1~20ms
12	Current regulation	50-500A
13	Beam expander	3 times
14	Focus spot diame ter	0.2-2mm
15	X-axis and Y-axis travel	X*Y=300mm*300mm

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16	Table size	X*Y=400mm*400mm
17	Moving speed ran ge	0-50mm/s
18	Reset accuracy	0.03mm
19	positioning accura cy	≤0.025mm
19	Z axis	Electric lift height 200mm Manual lift 100mm
20	Rotating fixture	Diameter Φ100mm rotating fixture, angle 0-90° manually adjustable, can be locked in any position between them, using stepper motor drive, step equivalent of 0.01 degrees, positioning accuracy of 0.1 degrees, repeat positioning accuracy of 0.05 degrees.
21	Displaying metho d	Coaxial CCD LCD screen observation
22	Targeting method	Positioning method red + positioning rod
23	way of light	Automatic + manual switchable
24	Cooling system	Double cycle system, heat exchange titanium tube, over temperature alarm, flow protection, water level protection.
25	Control System	Industrial computer CNC2000 control software

