Laser Welding Solution ▸ Handheld Welder Series

SWAN Series Air-cooled Handheld Laser Welder

Penta Laser SWAN Series Air-cooled Handheld Laser Welder is specially designed for efficient welding of thin plates! With volume and weight less than one-third of water-cooled devices, it is portable and flexible, making it adaptable to a wide range of scenarios. Industrial-grade forced air cooling prevents internal condensation, allowing startup without preheating in a wide temperature range from -10°C to 40°C. It features dual alarms for air pressure and voltage anomalies, ensuring stable and safe operation. The industrial-grade LCD touchscreen offers intuitive operation, while dual continuous and pulse modes, combined with a high depth-to-width ratio, enable more precise and efficient heat conduction welding of thin plates.

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Characteristics

- Lightweight and portable, under one-third the size and weight of water-cooled lasers.
- Industrial forced air cooling prevents laser condensation.
- Instant start from -10°C to 40°C; includes air pressure and input voltage alarms.
- Industrial LCD touchscreen for intuitive operation.
- Continuous and pulse modes with high depth-to-width ratio ideal for thin sheet welding.

Technical Parameters

Model	SWAN HW 500-A/800-A/1200-A
Rated Laser Output Power(W)	500 / 800 / 1200
Output Laser Wavelength(nm)	1080 ± 10
Input Power(Hz)	220V 50 / 60
Variable Beam Shape	Gauss / Flat top / Ring
Optical Fiber Cable Length(m)	5
Working Mode	Continuous / Pulse Output Mode
Operating Ambient Temperature Range(°C)	- 10 ~ 40
Operating Ambient Humidity Range(%)	< 70
Equipment Sizer(mm)	423 × 320 × 110 (500W) / 630 × 335 × 550 (800W / 1200W)
Equipment Weight(kg)	(500W) ≤ 30 / (800W / 1200W) ≤ 50

Applications


Metal Processing


Kitchen and Bathroom Home Furnishings


Automotive Parts


Handicrafts and Jewelry


Outdoor and On-site Operation