bodor

Dare to dream

Self-cooling Handheld Laser Welding Machine

Air Series

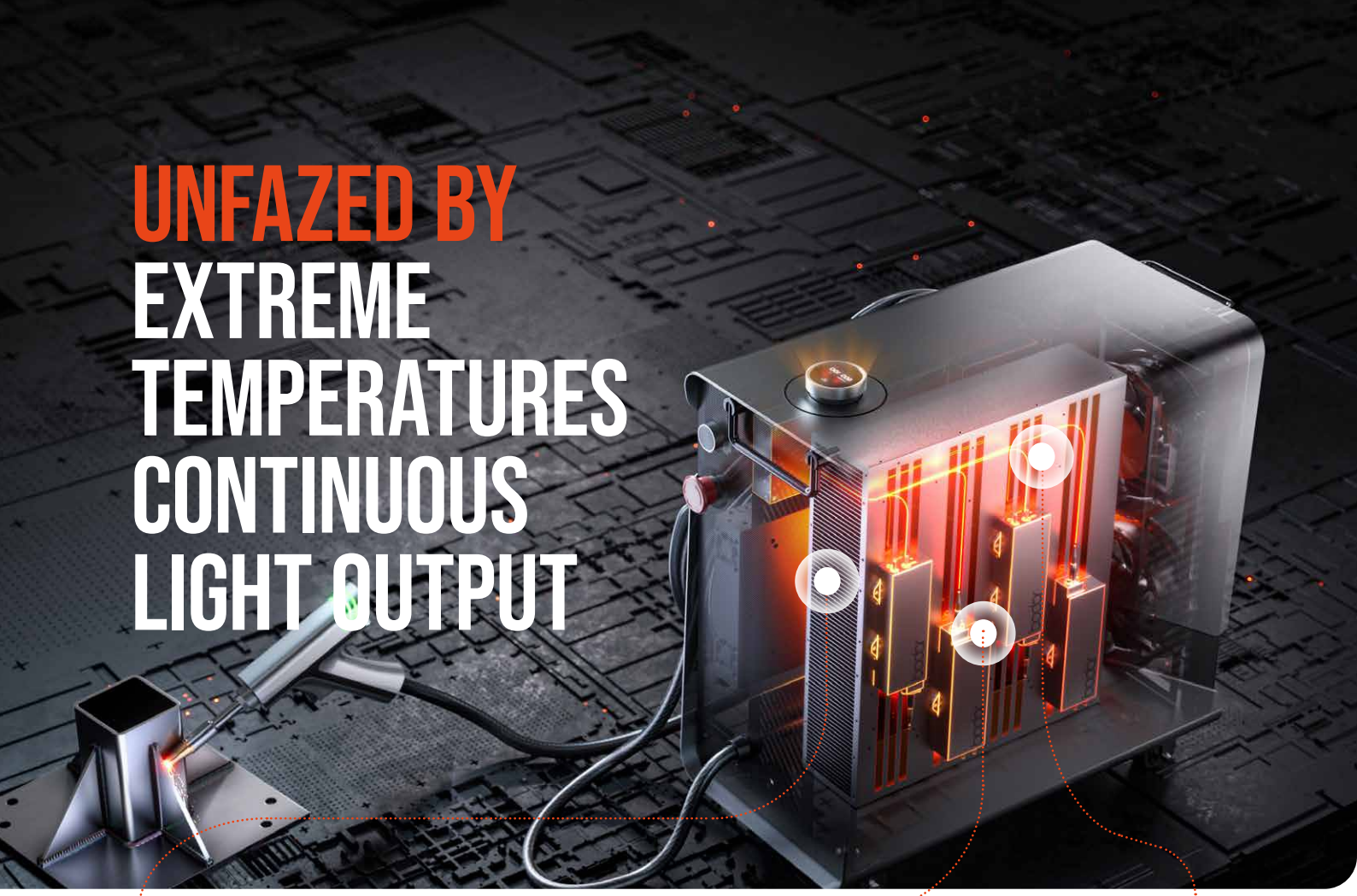
Innovative Air-Cooling Technology,
Pioneer of Continuous Laser Light Output

-20°C

40°C

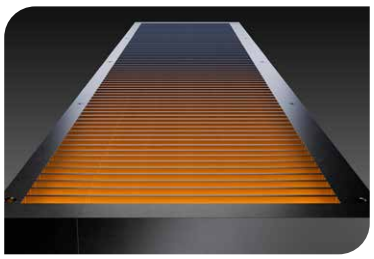
- **Reliable in Extreme Cold and Heat**
- **Air cooling Technology**
- **Continuous Laser Output**

UNFAZED BY EXTREME TEMPERATURES CONTINUOUS LIGHT OUTPUT



Shovel-Tooth Fin Structure

A large fin area combined with high-efficiency heat-dissipating material allows for ongoing heat discharge.

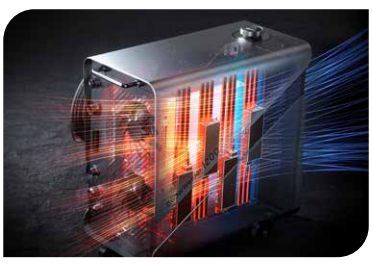


Cutting-Edge Latent Heat Technology

By using phase change of the cooling medium, swift conversion between heating and cooling is achieved.

Dedicated Cooling Duct

Ensure no leakage of light and heat, speeding up cooling.



International Authority Certification

Certified by CNAS authoritative certification organization, using a BodorWelder self-cooling handheld laser welding machine for steel results in smooth and beautiful weld seams and solid welding without deformation, exhibiting strong advantages in bending, hardness, and tensile strength.

Self-Developed Core Components Full Power Output

With a depth of fusion of 4mm, a 1200W self-cooling laser welding machine achieves the welding performance of a 1500W water-cooling one, but with better efficiency and power savings.

Lightweight Design, Powerful Welding

Compared to the water-cooling welding machine, it reduces weight by 50% and volume by more than twice.

One-Click Operation
Master Welding on Your First Attempt

Knob-style operation combined with a comprehensive welding process database allows instant proficiency, akin to an experienced welder.

Wide Voltage, Fully Adaptive

Designed with a 100V-240V wide voltage range, it ensures stable performance without geographical restrictions.

Compact Size, Big Potential

The compact volume of BodorWelder self-cooling handheld laser welding machine, at only 0.11m^3, belies its significant potential thanks to intelligent constant temperature circulation technology.

Laser Welding vs. Traditional Welding

	LASER WELDING	TRADITIONAL WELDING
Welding Material	Metal	Metal
Welding Speed	1m/min	0.2m/min
Thermal Deformation	Very Low	High
Welding Quality	Consistent superior quality Smooth welding seam High welding intensity	Heavy double welding Unaesthetic welding seam or gaps Low welding intensity
Physical Harm	Indirect Low radiation	Potentially being exposed to occupational hazards like glaucoma and pneumoconiosis

Machine Parameter

Output Power	1200W/900W/600W	Overall Weight	CE: 60kg / GB: 42kg (Air 1200) GB:39kg (Air 900) CE: 57kg / GB: 36kg (Air 600)
Optical Fiber Cable Length	5m±0.5m	Dimensions	530mm×380mm×590mm/ 530mm×380mm×530mm
Cooling Method	Self-cooling	Components	Handheld welding head, laser welding power source, wire feeder
Laser Output	Continuous		
Operating Ambient Temperature Range	-20℃ – 40℃		

Nozzle Options (For various processing scenarios)

No.	AS-12	BS-16	BS-20	CS-12	CS-16	C	Cutting Nozzle
Welding Wire Diameters(mm)	0.8/1.0/1.2	1.6	2.0	0.8/1.0/1.2	1.6	–	–
Techniques	Flat fillet weld Inside corner weld Outside corner weld	Flat fillet weld Inside corner weld Outside corner weld	Flat fillet weld Inside corner weld Outside corner weld	Outside corner weld	Outside corner weld	Outside corner weld	Cutting

Bodor, the world leading laser cutting solution provider

Established in 2008, Bodor Laser is a global leader in intelligent laser processing solutions, specializing in R&D, manufacturing, sales, and service. The company has ranked global No.1 in fiber laser cutting machine sales volume for six consecutive years from 2019 to 2024. Bodor operates over 20 subsidiaries worldwide, employing more than 3,000 professionals from 18 countries. With comprehensive in-house capabilities, Bodor offers a wide range of laser cutting and welding machines, including pioneering laser scanning cutting machines, defining the industry's future.

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