



HBD 500

Metal Additive Manufacturing System

Tailored Metal Additive Manufacturing Systems for the Precision Manufacturing Profession



WHY HBD 500?



Spacious Build Volume

Benefit from a generous build volume, allowing for the production of larger metal components with high precision.



Intelligent Powder Recoating Monitoring System

The HBD 500 is equipped with monitoring system that ensures efficient powder recoating, optimizing print quality and production processes.



Marble Structure for Enhanced Stability and Accuracy

Designed with a marble structure, the HBD 500 offers improved long-term stability and printing accuracy in metal additive manufacturing operations.



Convenient Front and Rear Hatches

Featuring front and rear hatches, the HBD 500 provides easy access for part removal and cleaning, enhancing user convenience during operation.

3D Print Cases



Valve Body

Industry: Aerospace Material: Ni718 Size: 380*419*185mm

Weight: 17982g Time: 104h 15min

The metal 3D printing technology is used to re-optimize the design of the cooling channels to speed up the flow paths, and the cooling flow paths are uniform, which ensures even flow and high heat dissipation efficiency.



Topology Optimized Structural Components



Radiator





Automotive Part

Heat Exchanger

Technical Parameters

Build Volume	430mm × 520mm × 520mm (height incl. build plate)
Laser Power	2 Lasers, 500W/1000W 3 Lasers, 500W/1000W
Layer Thickness	20μm-120μm
Scanning Track Width	70μm-200μm
Scanning Speed	≤ 10m/s
Oxygen Content	≤ 100ppm
Protective Atmosphere	Integral sealed, automatic monitoring of oxygen content, recycling cleaning and collection coefficient ≥ 99%
Relative Density	99.9%+
Typical Accuracy	0.05-0.2mm
Metal Powder	Titanium alloy, aluminium alloy, high temperature alloy, stainless steel, mold steel, etc.
Process Parameter Configuration	Tailored parameter set for the specific application, user-modifiable
Weight	Est. 4500kg
External Dimensions	2280mm × 1560mm × 2570mm
Power Supply	500W: AC380V, 50/60Hz, peak power ≤16-16.5kW, average power ≤6.5-7kW 1000W: AC380V, 50/60Hz, peak power ≤17-18kW, average power ≤7.5-8.5kW

About Us



Global Leader

Recognized globally for developing and manufacturing metal additive manufacturing equipment, with over 200 patents and prestigious certifications.



Innovation and Quality

Continuous improvement and technological advancements to keep customers ahead.



Tailored to Industries

Customized metal additive manufacturing solutions for aerospace, automotive and more.



Cutting-edge Solutions

Acclaimed metal 3D printing machines installed in 30+ countries, offering advanced capabilities.

Email: marketing@prototech.co.kr

Website: www.prototech.co.kr

Tel: 02-6959-4113



Korea Offices:

19, Gasn digital 1-ro, Geumcheon-gu, Seoul, Korea #302