

# HBD 1000Pro

## Metal Additive Manufacturing System

Build limitlessly, boost your productivity  
with HBD 1000Pro!

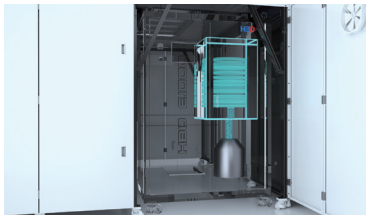


### ► WHY HBD 1000Pro?



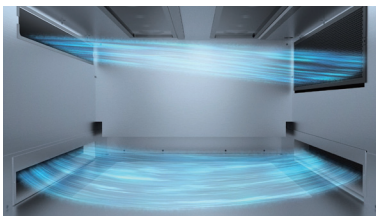
#### Enhanced Production Capacity

With a high production capacity and equipped with 8 lasers, this system has a forming size of 660mm\*660mm\*1250mm and a forming volume of more than 500L. It achieves large layer thickness printing between 20μm and 120μm, significantly boosting printing efficiency and productivity to a new level.



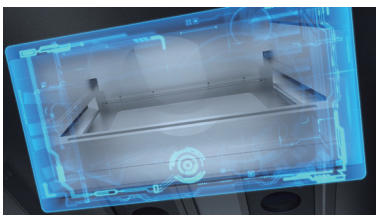
#### Cost-Effective & Efficient Operations

Our standard permanent filtration purification system minimizes filter replacement frequency, significantly reducing operating costs - perfect for long-term printing needs. The closed-loop intelligent powder handling system under inert gas protection enhances powder utilization rates and production safety.



#### Superior Quality Printing

Our advanced gas flow structure effectively eliminates smoke and splatter, ensuring uniform consistency in large-format printed parts. The high-quality beam ( $M2 \leq 1.1$ ) and seamless alignment guarantees forming accuracy and mechanical performance of printed parts.



#### Intelligent Management System

The built-in industrial-grade camera can monitor powder coating quality and intelligently handle various abnormal situations. The optional thermal imaging online monitoring module can detect temperatures in real-time at different positions of the printing slot, helping optimize printing process parameters. The HBD AMES intelligent management system integrates the HBD System equipment control system and HBD Build expert path planning software, offering parameter openness and customized services.

## ► 3D Print Cases



### Mixed Flow Impeller

*Material* : Aluminum Alloy

*Size* : 600×600×710mm

*Weight* : 32kg

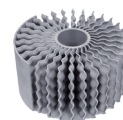
*Industry* : Aerospace

*Time* : 132h

The large sealed impeller structure is composed of 15 complex thin-walled curved blades, which can be printed in an integrated unit by metal 3D printing to shorten the manufacturing cycle, reduce the production process, and ensure the accuracy and consistency.



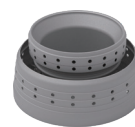
Aero-engine  
Impeller



Helix-Radiator



Heat Exchanger



Aero-Engine

## ► Technical Parameters

|                                 |                                                                                                                                                                              |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Build Volume                    | 660mm × 660mm × 1250mm(height incl. build plate)                                                                                                                             |
| Laser Power                     | 8 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%                                                                 |
| Typical Accuracy                | 0.05-0.2mm                                                                                                                                                                   |
| Metal Powder                    | Stainless steel, cobalt-chrome alloy, Hastelloy, Titanium alloy, Nickel-based alloy, Tool Steel, Aluminum alloy, and some refractory metals like Tungsten and Tantalum, etc. |
| Relative Density                | 99.9%+                                                                                                                                                                       |
| Process Parameter Configuration | Tailored parameter set for the specific application, user-modifiable                                                                                                         |
| Weight                          | Est. 16000kg                                                                                                                                                                 |
| External Dimensions             | 7050mm × 3630mm × 4480mm                                                                                                                                                     |
| Power Supply                    | 500W: AC380V, 50/60Hz, peak power ≤35kW, average power ≤25kW<br>1000W: AC380V, 50/60Hz, peak power ≤40kW, average power ≤30kW                                                |

## ► 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 37 countries, offering advanced capabilities.

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