

EP-M2050

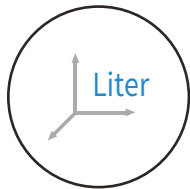
36-Laser Large Format
Metal Additive Manufacturing System



EP-M2050

EP-M2050 adopts Metal Powder Bed Fusion(MPBF™) technology, featuring a large forming chamber that reaches up to 2050 x 2050 x 1100 mm (with a customizable Z-axis up to 2000 mm). Equipped with 36 lasers and 36 galvanometers, EP-M2050 uses the technologies of multi-laser precision positioning and precise control of overlapping areas.

Compatible with titanium alloy, aluminum alloy, nickel alloy, maraging steel, stainless steel and cobalt chrome, copper alloy, etc., EP-M2050 is an ideal choice for the direct manufacturing of large-size, high-precision and high-performance parts for aerospace and other relevant industries.



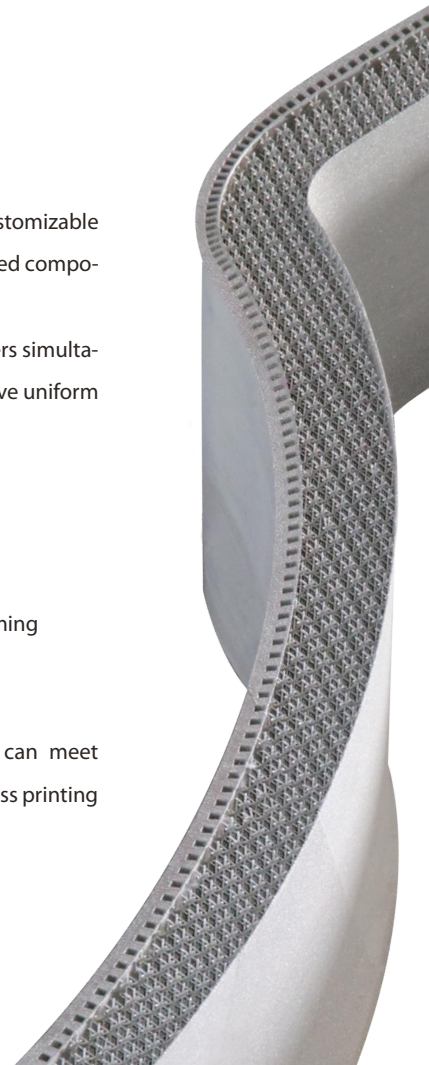
« BREAKTHROUGH OF SIZE LIMITS & HIGH EFFICIENCY

- A large forming chamber, reaching up to 2050 x 2050 x 1100 mm (with a customizable Z-axis up to 2000 mm), is equipped to handle one-piece forming of large-sized components and parts mass production.
- The printer is capable of printing at speeds of up to 1080 cm³/h, with 36 lasers simultaneously engaged in the printing process, which enables the printer to achieve uniform and consistent full-size printing.



« EXCELLENT QUALITY & GOOD CONSISTENCY

- Excellent high beam quality ($M^2 \leq 1.1$) and detail resolution ensure the forming accuracy and mechanical properties of printed parts.
- Print density > 99.9% and fluctuation of mechanical properties < 5%.
- Large layerthickness printing with adjustable recoating layerthickness can meet different printing requirements, demonstrating excellent large layerthickness printing performance.





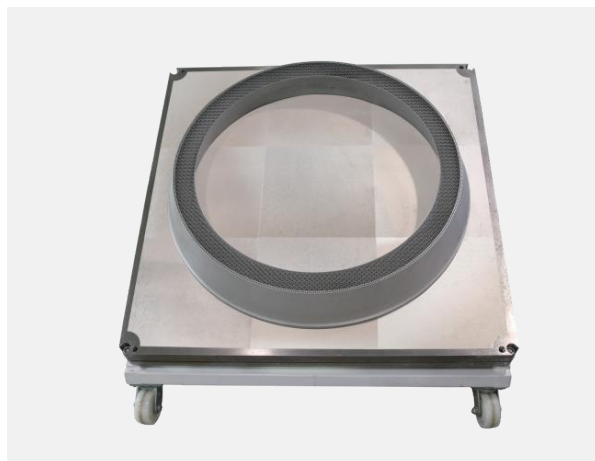
« OPEN SYSTEM

- Open parameters for editing such as laser power, scan speed, scan direction and up and down contours.
- Process software enables the effective planning of design, simulation and printing path planning, within one software and highly improving the production efficiency.
- Process software supports SLC and CLI formats, enabling real-time modification of printing parameters during the printing process.



« COST EFFECTIVE & RESOURCE EFFICIENT

- Three-stage filtration, which can use blow back function to remove the fume, equipped with permanent filter element.
- Low gas consumption, effectively controls gas consumption during processing, and reduces production costs.
- Offering diverse scraper options (rubber, alloy steel) for selection based on printing materials and part needs, further optimizing printing results.



EP-M2050

PARAMETER

Machine Model	EP-M2050
Build Volume (X x Y x Z) (height incl. build plate)	2050 x 2050 x 1100 mm (80.71 x 80.71 x 43.31 in)
Optical System	Fiber Laser 36 / 49 / 64 x 500 W (700 W and 1000 W are optional)
Spot Size	70 - 120 μ m
Max Scan Speed	8 m/s
Layer Thickness	20 - 120 μ m
Theoretical Printspeed	Up to 1080 cm ³ /h
Material	Titanium Alloy, Aluminum Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt Chrome, Copper Alloy, etc
Power Supply	380 V, 50 / 60 Hz, 53 kW
Gas Supply	Ar / N ₂
Oxygen Content	≤100 ppm
Dimension (W x D x H)	12700 x 8330 x 6495 mm
Weight	127000 kg
Software	EPControl, EP Hatch
Input Data Format	STL or other Convertible File

Notice: Eplus3D reserves the right to explain any alteration of the specifications and pictures.