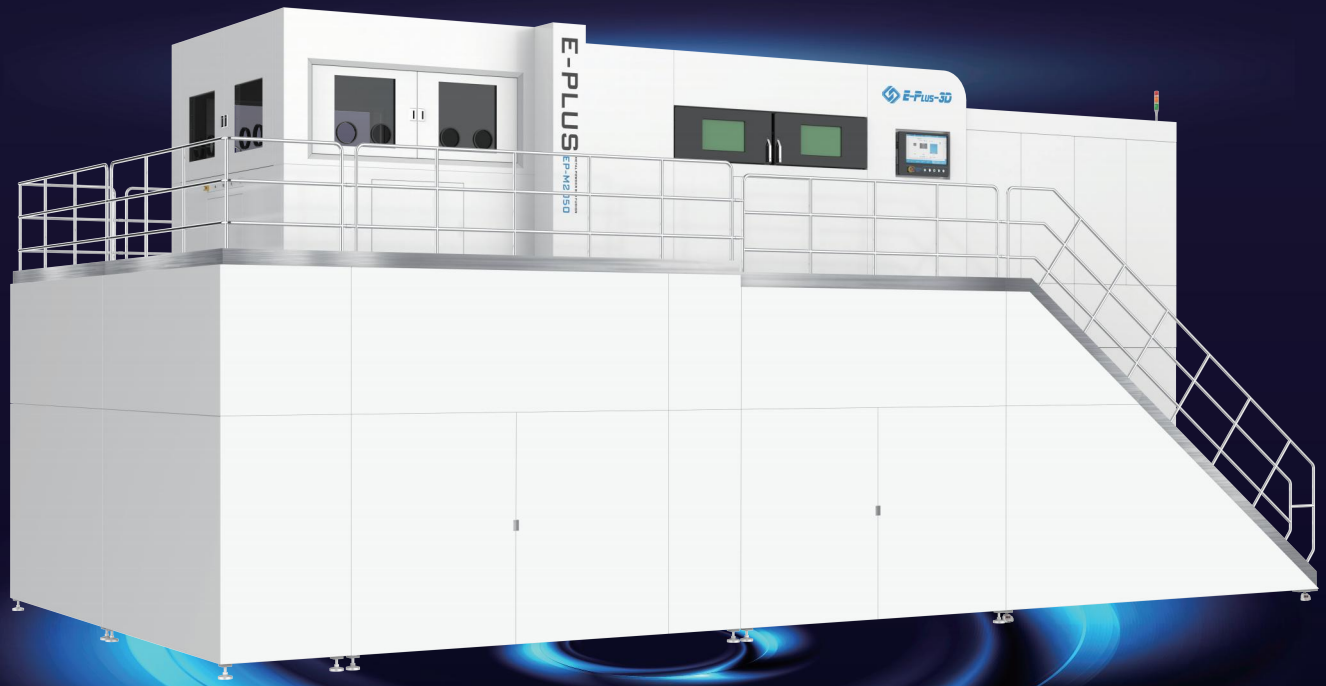


# EP-M2050

36-Laser Large Format  
Metal Additive Manufacturing System

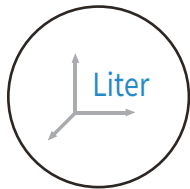


# EP-M2050

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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.



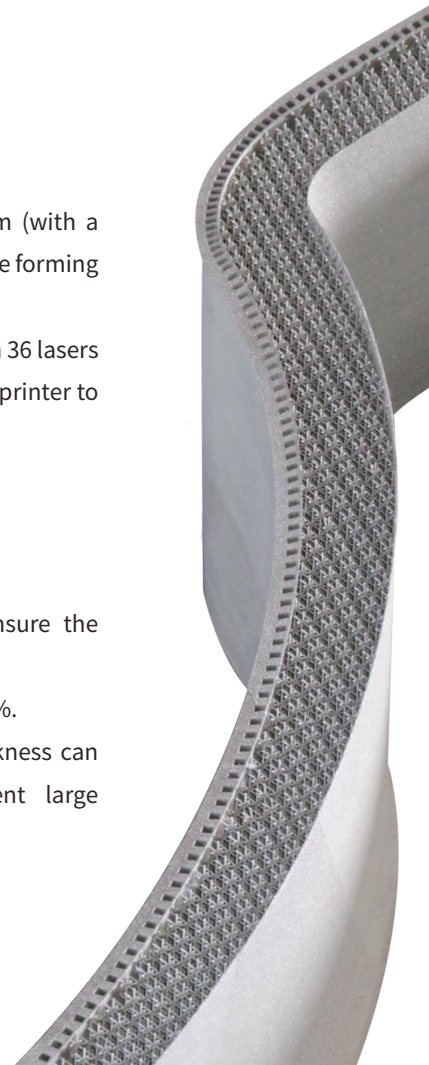
## « BREAKTHROUGH OF SIZE LIMITS & HIGH EFFICIENCY

- 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 cm<sup>3</sup>/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.





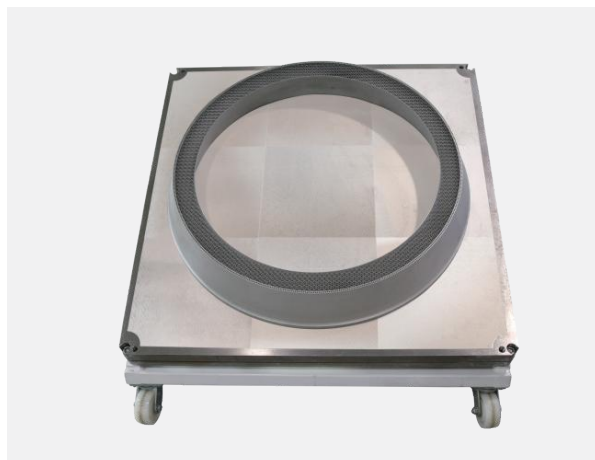
### « OPEN SYSTEM

- 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 is optional)                                                            |
| Spot Size                                           | 70 - 120 $\mu$ m                                                                                                |
| Max Scan Speed                                      | 8 m/s                                                                                                           |
| Layer Thickness                                     | 20 - 120 $\mu$ m                                                                                                |
| Theoretical Printspeed                              | Up to 1080 cm <sup>3</sup> /h                                                                                   |
| Material                                            | Titanium Alloy, Aluminum Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt Chrome, Copper Alloy, etc |
| Power Supply                                        | 380 V, 50 / 60 Hz, 117 kW                                                                                       |
| Gas Supply                                          | Ar / N <sub>2</sub>                                                                                             |
| Oxygen Content                                      | ≤100 ppm                                                                                                        |
| Dimension (W x D x H)                               | 12685 x 7185 x 6530 mm                                                                                          |
| Weight                                              | 145000 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.