

# EP-M650

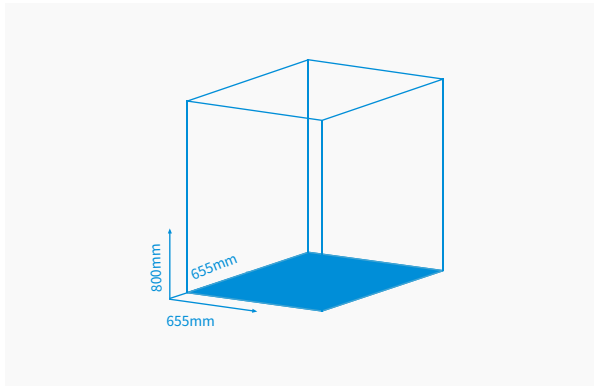
Quad Laser Large Size  
Metal Additive Manufacturing System



# EP-M650

Using MPBF (Metal Powder Bed Fusion) technology, the EP-M650 is using a 655 x 655 x 800 mm<sup>3</sup> build envelope and quad laser systems to ensure a high efficiency production. The precise positioning and innovative area splicing control technology offers uniformity and stability throughout the whole printing phase.

The system can operate with various metal powders such as Titanium, Aluminum and Nickel-based alloys, Maraging Steel, Stainless Steel, Chrome Cobalt Alloys and other materials. It is suitable for the direct manufacturing of large-size, high-precision and high-performance parts in the aerospace, aviation, automotive and defense industry.



## « Stable Quality&Good Consistency

- Excellent high beam quality ( $M2 \leq 1.1$ ).
- Accuracy deviation of lap area less than  $\pm 0.1$  mm.
- High parts accuracy in the overlap area of 0.1 mm.
- Optimized design of gas flow ensures the effective removal of dust and splatter.
- The strict calibration ensures the consistency between parts and batches.

## « High Efficiency & Productivity

- Printing of mass-individualized parts in the 340 Liter (655 x 655 x 800 mm<sup>3</sup>) build chamber.
- Four lasers are printing simultaneously with up to 120 cm<sup>3</sup>, which increased efficiency of 3.5 times.
- Printing large layer thicknesses of more than 60  $\mu$ m possible.



## » Humanized Design & High Automation

- Friendly user interface with fully automatic one-click printing function.
- The build job information is displayed in real time with traceable printing parameters report.
- The one-piece take out function ensures a high automation.



## « Real Time Monitoring & High Security

- Safety design, prevent mis-operation, electric shock, fire, waste and pollution.
- Outstanding overall sealing performance, use and recovery of powder in a closed state.
- Environment and gas source state Real-Time Monitoring, safe and reliable.

## » Perfect After&sales Service

- We support our customers with technical consulting services, including data evaluation, application development.
- Assisting our customers in new material parameter development, existing parameter packages are provided free of charge.
- Free equipment installation and maintenance during warranty period, full set of technical training is provided.



# EP-M650

## PARAMETER

Machine Model	EP-M650
Build Volume (XxYxZ)	655 x 655 x 800 mm <sup>3</sup>
Optical System	Fiber Laser 4 x 500W
Spot Size	80-120 µm
Max Scan Speed	8 m/s
Layer Thickness	20-120 µm
Building Speed	120 cm <sup>3</sup> /h
Material	Titanium Alloy, Aluminium Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt Chrome, Copper Alloy, etc.
Substrate heating	Substrate heating temperature 200 °C
Power Supply	380 V, 64 A, 23 kW, 50 / 60 Hz
Gas Supply	Ar/N <sub>2</sub>
Forming chamber oxygen content	≤100 ppm
Dimension (WxDxH)	6800 x 3945 x 3785 mm <sup>3</sup>
Weight	15000 kg
Software	EP-Hatch ,EP Control
Input Data Format	STL file or other convertible format

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