



易加三维
E-Plus-3D

EP-M650

Four Laser Large Size Metal
Additive Manufacturing System



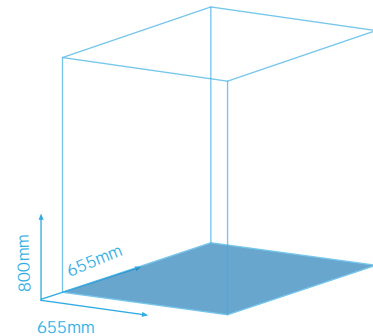
EP-M650

Using MPBF (Metal Powder Bed Fusion) technology, the EP-M650 is using a 655 x 655 x 800 mm build envelope and four laser systems to ensure a high efficiency printing production. The precise positioning and innovative area splicing control technology hereby 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 or Die 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, automotive and defense industry.

High Efficiency & Productivity

- Printing of mass-individualized parts in the 340 Liter (655 x 655 x 800 mm) build chamber.
- Four lasers are printing simultaneously with up to 120 cm³, which is an increased efficiency of 3.5 times compared to a single laser system.
- Printing large layer thicknesses of more than 60 μm possible.



Stable Quality, Good Consistency

- Excellent high beam quality (M2 = 1.1) and detail resolution ensure the forming accuracy and mechanical properties of printing parts.
- Accuracy deviation of lap area less than ± 0.1 mm, consistency of
- High parts accuracy in the overlap area of 0.1 mm. The deviation of mechanical properties compared to a single laser system is lower than 3%.
- Optimized design the air flow ensures the effective removal of dust and splatter as well as a uniform parts quality in the whole print bed.
- The strict calibration ensures the consistency between parts and batches.



Humanized Design, High Automation Degree

- Friendly user interface with fully automatic one-click printing function.
- The buildjob information is displayed in real time with traceable printing parameters and a detailed printing report.
- The one-piece take out function ensures a high automation and low down time, due to an automatic movement of the building cylinder into the cleaning module after the print is finished.



Real Time Monitoring, High Security

- Safety design, prevent misoperation, 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.



Safe Design



Electricity-proof



Misoperating



Fire-proof



Anti-pollution



Environment
Real Time
Monitoring



Gas Real Time
Monitoring



Waste
Prevention

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: equipment and software operation training, real-time support in other ways such as online, telephone, email, etc



PARAMETER

EP-M650

Model	EP-M650
Forming chamber(XYZ)	655x655x800mm ³ (Including substrate)
Laser	Fiber Laser , 4*500W
Spot	80-120 μ m
Scan Speed	8m/s
Thickness	20-100μm
Molding Speed ⁽¹⁾	Up to 120m ³ /h
Materials	Titanium alloy, aluminum alloy, high temperature nickel base alloy, die steel, stainless steel, cobalt chromium molybdenum powder
Substrate heating	Substrate heating temperature 200
Electrical and power consumption	380V, triphase, five wire, 50 / 60Hz, 25kW, 65A
Protective gas	Double interface of nitrogen and argon
Forming chamber oxygen content	100ppm
Dimension	5700*3000*4500mm ³ (X*Y*Z)
Weight	16000kg
Soft	EP-Hatch & E-Plus-3D
Data Format	STL file or other convertible format

⁽¹⁾: The speed of printing and forming will be different according to the equipment, process parameters and the number of laser work.