E-Plus-3D®

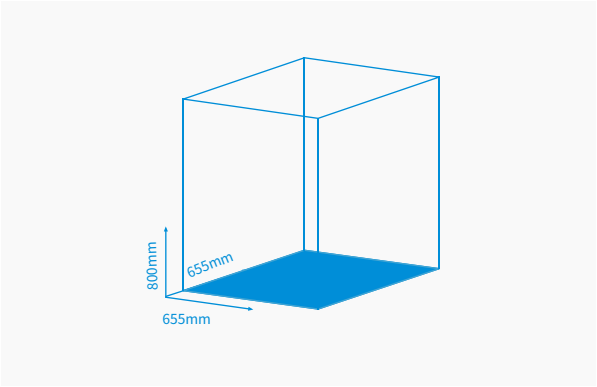
# EP-M650

## Quad Laser Large Size
## Metal Additive Manufacturing System

# EP-M650

Using MPBF (Metal Powder Bed Fusion) technology, the EP-M650 is using a 657 x 657 x 800 $mm^3$ 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.




## High Efficiency & Productivity

- Printing of mass-individualized parts in the 340 Liter (657 x 657 x 800 $mm^3$) build chamber. Four
- lasers are printing simultaneously with up to 120 $cm^3$, which increased efficiency of 3.5 times. Printing large layer thicknesses of more than 60
- um possible.

## Stable Quality&Good Consistency

- Excellent high beam quality (M2≤1.1).
- Accuracy deviation of lap area less than ± 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.

## 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

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|---|---|
| Machine Model | EP-M650 |
| Build Volume (XxYxZ) | 657 x 657 x 800 $mm^3$ |
| 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 $cm^3/h$ |
| 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 | $Ar/N_2$ |
| Forming chamber oxygen content | ≤100 ppm |
| Dimension (WxDxH) | 6800 x 3945 x 3785 $mm^3$ |
| 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.