

EP-M650

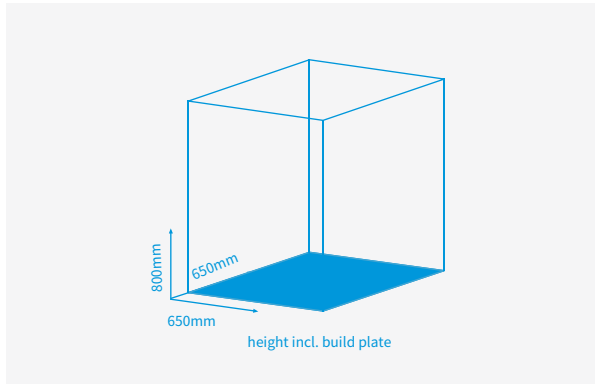
Quad Laser Large Size
Metal Additive Manufacturing System



EP-M650

Using MPBF (Metal Powder Bed Fusion) technology, EP-M650 is using a large building 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 build chamber.
- Four lasers are printing simultaneously with speed up to 120 cm^3 , which increased efficiency of 3.5 times.
- Printing large layer thicknesses of more than 60 μm possible.

« STABLE QUALITY & GOOD CONSISTENCY

- Excellent high beam quality ($M2 \leq 1.1$).
- Accuracy deviation of lap area less than $\pm 0.1 \text{ mm}$.
- 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

- User-friendly 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-SALE 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.



Safe Design



Electricity-proof



Misoperating



Fire-proof



Anti-pollution



Environment
Real Time
Monitoring



Gas Real Time
Monitoring



Waste
Prevention

EP-M650

PARAMETER

Machine Model	EP-M650
Build Volume (X x Y x Z) (height incl. build plate)	650 x 650 x 800 mm (25.59 x 25.59 x 31.49 in)
Optical System	Fiber Laser 4 x 500 W / 4 x 700 W / 4 x 1000 W
Spot Size	70 - 120 μ m
Max Scan Speed	9 m/s
Layer Thickness	20 - 120 μ m
Theoretical Printspeed	Up to 190 cm ³ /h
Material	Titanium Alloy, Aluminum Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt Chrome, Copper Alloy, etc.
Substrate Heating	Substrate Heating Temperature 200 °C
Power Supply	380 V, 65 A, 50 / 60 Hz, 30 kW
Gas Supply	Ar / N ₂
Oxygen Content	≤100 ppm
Dimension (W x D x H)	6800 x 3945 x 3785 mm
Weight	15000 kg
Software	EPControl, EP Hatch
Input Data Format	STL or other Convertible File

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