



XH-M660G

Large-Size Production Solution for Copper-Based Materials

Features

✦ Outstanding Printing Performance in Pure Copper and Copper Alloys

Green Laser enables the additive manufacturing of highly reflective materials, allowing for more effective and efficient printing. It delivers a high absorption rate, and generates less spatter during printing. Finer details can be achieved due to the small spot size of green laser. The performance of the printed copper and its alloy parts are enhanced.



Electrical conductivity $\approx 101\%$ IACS⁽¹⁾



Thermal conductivity $\approx 390\text{W}/(\text{m}\cdot\text{K})$ ⁽¹⁾



Density $\geq 99.8\%$ ⁽¹⁾



Max. print height 1.2m

✦ Fast Printing Speed in Copper and Copper Alloys

65-140cm³/h

✦ Efficient and Precise

Four-laser bidirectional powder spreading and large layer thickness printing enhance efficiency, while the small beam diameter ensures finer details.

Note: (1) Pure copper heat treated. The test parameter can vary according to factors like printing parameter, material used.

M660G leads large-size pure copper and copper alloy additive manufacturing with a 660*660*1300mm molding size and up to 1.2m print height. It enables high accuracy and consistent printing with four self-developed continuous single-mode green fiber lasers and a well calibrated multi-laser precision optical system. The intelligent multi-laser splicing technology ensures $\leq 5\%$ performance variation in splicing areas, enhancing print consistency. Designed for long-term, high-load operation, M660G excels in producing large, high-quality components from pure copper and other highly reflective metals, delivering efficient and reliable metal additive manufacturing.

Machine Specifications

| Model | XH-M660G |
|-----------------------------|---|
| Build Volume ⁽¹⁾ | 660*660*1300mm |
| Laser Source | Continuous single-mode green fiber laser, wavelength 532nm, (500W/700W/1000W)x4 |
| Focus Diameter | 40-60 μm |
| Focusing System | F-theta lens focusing |
| Scanning Speed | 8m/s |
| Printing Speed | 65-140cm ³ /h |
| Layer Thickness | 20-120 μm |
| Machine Dimensions | 6325*3815*5268mm |
| Weight | Approx. 16T |
| Materials | Pure Copper, Copper Alloys, Refractory Metals, Composite Materials (Cu-based Diamond Composite, Cu-based Graphene), other Common Metal Materials. |

Note : (1)Height of build plate is not included.

Applications



Thrust Chamber
Material: Pure copper