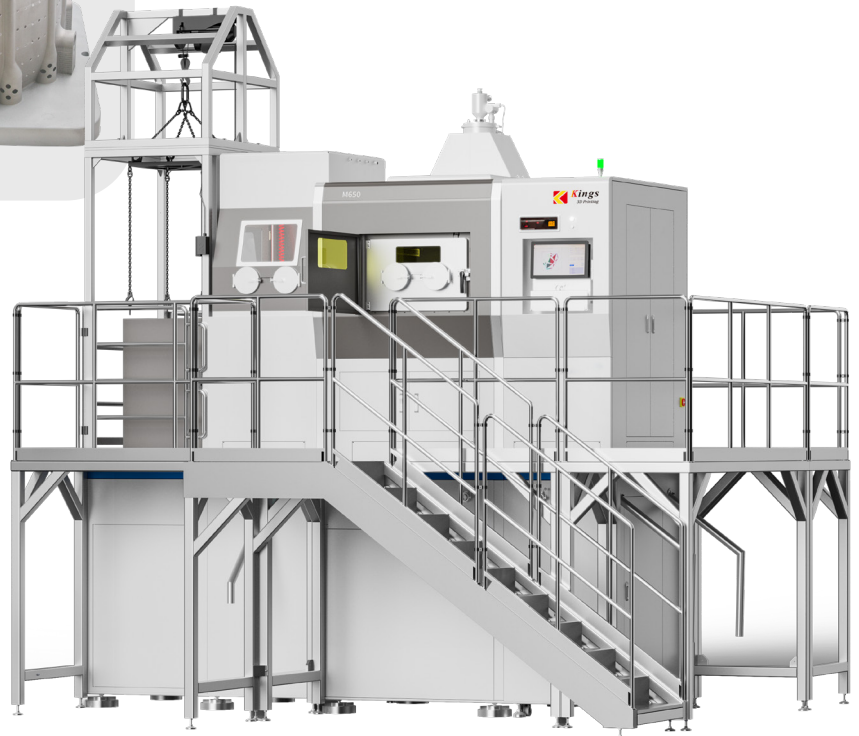


M650

Kings Industrial SLM 3D Printers

4-Laser 4-galvanometer Large-Sized
Metal 3D Printing Equipment



◆ Overview

Kings M650 is the largest laser selective melting equipment launched by Kings 3D, with a printing size of 625mmx625mmx1100mm. It is the representative work of KINGS 3D's many years of technology accumulation, and it is also a rare large-size laser selection melting equipment in the market. Its expansive build envelope opens new possibilities for large-scale metal production that couldn't be built before in industries such as aerospace, mold industry, automobile industry, etc and many others.

◆ Advantage



Large-size quad-laser high-efficiency printing on the same platform:

625mmx625mmx1100mm large forming size, opens new possibilities for large-scale metal production that couldn't be built before in industries.



Intelligent operation design:

Unattended automatic printing operation, automatic/manual control with seamless switching, self-diagnosis function, safety protection, and automatic fault alarms.



Double circulation wind site protection system:

Dual-circulation wind system for site protection, extending the lifespan of optical components.



All closed looped powder handling system:

The oxygen content is as low as 100PPM to ensure that the metal is not oxidized.



Forming efficiency:

Up to 100cm³/h

◆ Ideal Applications

- Aerospace, mold industry, automotive industry and other industries that have a wide range of applications for large-sized parts.

◆ Technical Data

Build Size	625mm × 625mm × 1100mm (Net Build Size)
External Dimensions	5490mm × 4710mm × 5480mm
Forming Materials	Stainless Steel, Cobalt-Chromium Alloy, Titanium Alloy, Tool Steel, Aluminum Alloy, High-Temperature Alloy
Powder Supply Method	Top Powder Feeding & Two-Way Powder Feeding
Printing Accuracy	±0.1(L≤100 mm); ±0.1%*L(L>100 mm)
Layer Thickness	0.03~0.1mm
Protection System	Efficient Protective Gas Circulation System (Nitrogen, Argon)
Supporting Consumables	Stainless Steel Powder 316L, No Less Than 200kg, With Various Material Process Parameter Packages
Laser Type	IPG 500W×4/8 (1064nm)
Scanning System	SCANLAB*4/8 (Equipped with F-theta Field Lens)
Laser Speed	Scanning:1.0~4.0m/s (Recommended); Jumping: 5~7m/s(Recommended); Up to 15m/s
Data Processing Software	Voxeldance Additive (STL file)
Equipment Control Software	Independently Developed by Kings
Operating System	Windows 7 and Above
Data Format	STL/SLC/JOB
Power Supply	380V 50/60 Hz
Rated Power Consumption	22kW, Three-phase Electricity
Preheat Temperature	RT+20°C~100°C
Industrial Control Computer Configuration	10th Gen i7, 16GB RAM
Forming Efficiency	50~100cm ³ /h
Relative Humidity	Below 40%, Frost-free
Ambient Temperature	15-30 °C
Equipment Weight	15000kg

