

M450PRO-X SERIES

Kings Industrial SLM 3D Printers

2-Laser 2-galvanometer Large Size Metal 3D Printing
Equipment on the Same Radial Surface



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◆ Overview

Kings M450Pro-X Series is a high-efficiency solution launched by KINGS 3D for large-scale metal 3D printing applications. Multi-laser and multi-galvanometer systems are combined on the same platform, improving printing efficiency by more than 80%. For the first time, an entirely closed-loop powder handling system is adopted to reduce the harm of dust to human health.

◆ Advantage

-  **Large-size multi-laser high-efficiency forming on the same platform:**
The multi-laser and multi-galvanometer work together on the same platform synchronously, which can improve the printing efficiency by more than 80% and enable efficient printing of large-sized parts.
-  **Intelligent operation design:**
Unattended automatic printing operation, automatic/manual control with seamless switching, self-diagnosis function, safety protection, and automatic fault alarms.
-  **Dual circulation wind site protection system:**
Dual-circulation wind system for site protection, extending the lifespan of optical components.
-  **All closed looped powder handling system:**
Closed powder internal processing system, isolates the printing system from the external environment, and reduces the harm of powder to the human body.

◆ Ideal Applications

- Widely used in mold, automobile, aerospace, nuclear power military, orthopedic, etc.

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◆ Technical Data

Build Size	450mm × 450mm × 500mm
External Dimensions	4500mm × 2800mm × 3700mm
Forming Materials	Stainless Steel, Cobalt-Chromium Alloy, Titanium Alloy, Tool Steel, Aluminum Alloy, High-Temperature Alloy
Powder Supply Method	Top Powder Supply & One-Way Powder Feeding
Printing Accuracy	±0.1(L≤100 mm); ±0.1%*L(L>100 mm)
Layer Thickness	0.02~0.1mm
Protection System	Efficient Protective Gas Circulation System (Nitrogen, Argon)
Supporting Consumables	Stainless Steel Powder 316L, No Less Than 100kg, With Various Material Process Parameter Packages
Laser Type	500W*4 (IPG Optional)
Scanning Speed	7m/s
Laser Speed	Scanning:1~4m/s (Recommended); Jumping: 6~7m/s(Recommended); Up to 11m/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 15kW
Rated Power Consumption	15kW, Three-phase Electricity
Preheat Temperature	RT+20°C~80°C
Industrial Control Computer Configuration	Gen i7, 16GB RAM
Forming Efficiency	15~35cm ³ /h
Relative Humidity	Below 40%, Frost-free
Ambient Temperature	15-30 °C
Equipment Weight	10205kg



Shenzhen Kings 3D Co., Ltd

- 📍 Building B, No. 148 Huanli Road, Yungu Community, Xinhua Street, Guangming District, Shenzhen, China.
- 📍 No.178, Dingxing Road, High-tech Zone, Zhuhai City, Guangdong Province

Web: www.kings3dprinter.com

Mob/Whatsapp: +86 17727416895

Email: market@kings3dprinter.com