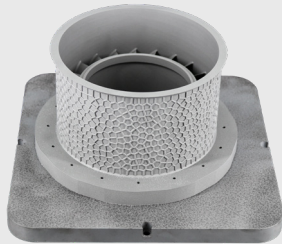


KINGS M450F

Kings Industrial SLM 3D Printers

Four-Laser System

Metal 3D Printing Equipment



◆ Overview

The M450F is a mid-sized industrial metal 3D printer with a 450 × 370 × 400mm (Excluding 50mm Base Thickness) build volume. Designed for aerospace, defense, nuclear, automotive, and tooling sectors, it features a four-laser system for fast, precise production of large, complex parts. With closed-loop powder handling, intelligent recoating, and real-time monitoring, it ensures stable 24/7 operation and high-quality output.

◆ Features

-  **Four-Laser System**
High productivity and precision for complex components
-  **Intelligent Dual Recoating**
Single/dual blade dynamic bidirectional powder spreading
-  **Closed-Loop Powder Handling**
Continuous inert powder supply and recovery without downtime
-  **Real-Time Monitoring**
Tracks powder spreading, quality, and system status
-  **Permanent Filtration**
Long service life without filter replacement

◆ Advantages

- Large Build Volume – Produces oversized parts in one print
- Reduced Assembly Time – Cuts production time and costs
- Stable 24/7 Operation – Ensures continuous, reliable output
- Broad Material Support – Compatible with titanium, high-temp alloys, and stainless steel

◆ Technical Data

Build Size	450 × 370 × 400mm (Excluding 50mm Base Thickness)
External Dimensions	4200 × 2300 × 2520mm (Excluding 900mm Powder Supply Module)
Layer Thickness	30 ~ 100μm
Fiber Laser Power	500W*4 (IPG Optional)
Fiber Laser Beam Quality	M ² < 1.1
Software	Self-Developed Control Software and BP Slicing Software Options (Self-Developed, VoxelDance or Materialise)
Optical Structure	F-theta Lens (2-4 galvanometers)
Scanning Speed	Max 7m/s
Recoating System	Single Scraper Bidirectional Powder Recoating
Maximum Preheating Temperature	RT+20°C ~ 200°C
Minimum Oxygen Concentration	≤100ppm
Inert Gas	Ar/N ₂
Power Consumption	≤15kW
Data Format	STL Files or Other Convertible Formats
Powder Supply	Top-Feed, Bidirectional, Intelligent Dynamic Powder Recoating
Supply Voltage	380VAC 3ph/N/PE
Environmental Requirements	Temperature +17°C~+28°C, No Condensation
Forming Materials	Titanium Alloys, Aluminum Alloys, High-Temperature Alloys, Cobalt-Chrome Alloys, Stainless Steel, High-Strength Steel, Mold Steel

