

FDM 500

Kings Industrial FDM 3D Printers

23 Innovative Technologies, High Speed FDM 3D Printing
Efficient and Cost-Effective Prototyping
Bring Your Idea into Reality



FDM 500

Kings

◆ Overview

The Kings FDM 500 3D Printer is a large-format industrial FDM printing system designed for rapid prototyping, functional parts production, and engineering applications. Featuring a 500×500×500mm build volume, high-speed Klipper control system, and fully enclosed structure, it delivers efficient and stable printing performance for large-scale models and complex components.

Equipped with high-precision linear guides, a rigid metal frame, and intelligent printing features, the M500 ensures excellent accuracy, reliability, and ease of operation. It supports a wide range of materials including PLA, ABS, and PETG, making it suitable for diverse industrial and creative applications.

◆ Advantages

→ Large Build Volume

Enables printing of large models and functional parts in one piece

→ Smart Printing Features

Supports filament detection and power-loss recovery

→ High-Speed Printing

Achieves efficient production with speeds up to 600mm/s

→ Wide Material Compatibility

Works with PLA, ABS, PETG, and other materials

→ Stable Structure

Rigid metal frame and linear rails ensure reliable accuracy

→ User-Friendly Operation

Equipped with intuitive control and automatic leveling

◆ Features

- 500×500×500mm Large Build Area
- Klipper High-Speed Printing System
- Fully Enclosed Printing Chamber
- Automatic Bed Leveling System
- Filament Runout Detection
- Power Loss Recovery Function
- High-Temperature Heated Build Plate
- High-Precision Linear Guide Rails
- Large Touchscreen Interface

◆ Applications

- Jigs & Fixtures, Tooling & Molds, Automotive Piping Applications, Vacuum Forming, Lost Foam Casting Patterns, Industrial Prototypes, R&D Components, Sculptures, Figurines & Models, Customized Non-Standard Parts, Mold Manufacturing, Lighting Components, Small-Batch Production Applications.

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◆ Technical Data

Build Size	500×500×500mm
Machine Size	680×640×820mm
Printing Technology	Fused Deposition Modeling (FDM)
Layer Thickness Setting	0.05-0.35mm
Connectivity	USB, Local Area Network (WiFi)
Display	4.3-inch Touch Color Screen (HDMI High-Definition Capacitive Screen)
Voice Interface	Chinese / English (Multiple Languages Available)
Nozzle Temperature	30-320°C
Heated Bed Temperature	30-100°C
Printing Platform	Removable Magnetic Steel Plate Platform
Printing Speed	Max 600mm/s
Nozzle Diameter	0.4mm (Standard Configuration)
Extruder Specification	1.75mm
Slicing Software	Supports Various Third-Party Software
File Format	STL, GCODE, OBJ
Operating System	Compatible with Windows, macOS, Linux, and Other Common Operating Systems
Input Voltage	220V
Rated Power	1000-2000W
Maximum Power	3000W
Power Loss Recovery	Supported
Filament Runout Detection	Supported
Leveling Method	Automatic Leveling
Motion Structure	Core XY Synchronous Belt Linear Guide System, 4-Z-Axis Integrated Synchronous Lead Screw Structure
Molding Drive	XY Axis Closed-Loop Servo Motor System by Leadshine
CPU	32-bit ARM CPU Main Control Board
Power Requirements	AC100V-AC240V/15A 50Hz/60Hz
Material Storage Box	Suspended Design
Lighting Function	Built-in LED Lighting System
Machine Exterior Surface Treatment	High-Strength Aluminum Alloy Frame
Recommended Operating Temperature	0°C-40°C
Storage Temperature	0°C-32°C(32-90°F)
Printing Materials	PLA, ABS, TPU, TEPG, Carbon Fiber, Wood-Filled Materials, Metal-Filled Materials, Marble-Filled Materials, etc.



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