

QUAKELOGIC

LARGE CAPACITY FFF 3D
PRINTING SYSTEM



QL-FDM5060

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ADVANCE RAPID PROTOTYPING AND PRODUCTION WITH LARGE-CAPACITY FFF 3D PRINTING

QuakeLogic proudly offers the QL-FDM5060 Large Capacity 3D Printing System, a high-performance fused filament fabrication system designed for maker spaces, rapid prototyping, R&D, small-batch production, tooling, inspection fixtures, and industrial training environments. Featuring a large 500 × 500 × 600 mm build volume, high-speed printing capability, automatic bed leveling, industrial-grade linear guide motion, and compatibility with standard 1.75 mm filament materials, the system delivers reliable, flexible, and cost-effective additive manufacturing capability.

- Supports large-format printing with a 500 × 500 × 600 mm build volume, exceeding the required 14 × 14 × 13 inch print area.
- Enhances production efficiency with high-speed FFF printing, Klipper-based motion control, precision linear guides, servo-driven XY motion, and automatic bed leveling.
- Provides broad material compatibility for standard 1.75 mm filaments, including PLA, ABS, TPU, PETG, nylon, and carbon fiber-reinforced nylon materials.
- Improves operational reliability with a fully enclosed constant-temperature chamber, heated bed, detachable magnetic build surface, filament run-out alarm, air filtration system, and replacement maintenance accessories.

What's Included »

- QL-FDM5060 Large Capacity 3D Printing System
- 500 × 500 × 600 mm Build Volume
- Fully Enclosed Constant-Temperature Chamber
- Automatic Bed Leveling System
- Magnetic Tool Plate / Build Surface
- Status Indicator Light
- Heavy-Duty Rolling Platform Cart
- Filament Bay Dehumidifier / Filament Dry Box
- Replacement Print Tubes / Nozzles
- 0.4 mm × 1 and 0.8 mm × 1 per printer
- Replacement Filter Kits
- User Manual, Installation Guide & Support Documentation

TECHNICAL SPECIFICATIONS

- **Build Volume:** 500 × 500 × 600 mm
- **Machine Dimensions:** 680 × 730 × 1210 mm
- **Machine Structure:** Fully enclosed constant-temperature chamber with dual-swing door design
- **Motion System:** XY-axis synchronous belt linear guide rail and dual Z-axis mechanical integrated synchronous screw rod
- **XY Drive System:** Closed-loop servo motor set for XY-axis motion
- **Positioning Accuracy:** XY axis: 0.011 mm; Z axis: 0.0025 mm
- **Leveling Method:** Automatic bed leveling
- **Number of Nozzles:** 1
- **Nozzle Diameter Options:** 0.4 / 0.6 / 0.8 / 1.0 mm
- **Nozzle Temperature:** Up to 320°C
- **Printing Speed:** 30–600 mm/s
- **Heated Bed:** Independently powered silicone heated bed with 12 mm aluminum platform
- **Build Surface:** Detachable magnetic steel build plate
- **Filament Compatibility:** Standard 1.75 mm filament materials, including PLA, ABS, TPU, PETG, nylon, and carbon fiber-reinforced nylon
- **Filament Storage:** Externally mounted hanging-type filament storage box
- **Filament Run-Out Alarm:** Included
- **Air Filtration System:** Dual-fan filtration system
- **Internal Lighting:** Built-in LED lighting
- **Display:** 7-inch touchscreen
- **Connectivity:** USB drive, LAN, and WiFi
- **Supported Operating Systems:** Windows, Linux, and Mac
- **Supported File Formats:** STL, GCODE, and OBJ
- **Power Requirements:** AC100V–AC240V, 50/60Hz
- **Machine Surface Finish:** High-temperature baked sheet metal finish
- **Packaging:** Export-standard high-strength packaging
- **Gross Weight:** ≥130 kg

**Corporate
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About QuakeLogic:

QuakeLogic Inc. is a California - based engineering and technology company providing innovative, reliable, and high-quality solutions to customers worldwide.

Our Commitment

At QuakeLogic, we are committed to quality, innovation, and customer satisfaction. We build lasting partnerships by delivering reliable solutions and dependable support.

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