LANDR 500 - Large-format Fused Filament Fabrication (FFF)

Technology: LANDR 500

Use: Enables rapid prototyping and the production of larger and bigger volume, complex components across various industries, including automotive, aerospace, healthcare and consumer goods.

About: The LANDR 500 is a high-performance, (FFF) 3D printer designed for professional and industrial applications. This advanced system offers precision, reliability and efficiency in additive manufacturing. Ideal for SMEs and larger enterprises, the LANDR 500 enables rapid prototyping and small-batch production using a variety of engineering-grade materials.

- ✓ **Prototyping & Product Development:** Rapid iteration and design validation
- ✓ **Manufacturing & Tooling:** Jigs, fixtures and low-volume production runs
- ✓ **Automotive & Aerospace:** High-performance parts with lightweight and durable materials
- ✓ **Healthcare & Medical Devices:** Custom prosthetics, orthotics and bio-compatible materials
- ✓ **Education & Research:** Ideal for universities and research institutions to explore advanced manufacturing techniques

Key specifications

- ✓ **Build Volume:** 500 x 500 x 500 mm
- ✓ **Print Technology:** Fused Filament Fabrication (FFF)
- ✓ **Extruder System:** Bondtech LGX extruder for high-performance material feeding
- ✓ **Nozzle Temperature:** Up to 500°C
- ✓ **Print Bed Temperature:** Up to 140°C
- ✓ **Heated Chamber Temperature:** Up to 100°C for optimal material stability
- ✓ **Filament Compatibility:** Wide range of thermoplastics, including:
  - ➢ PLA, ABS, PETG
  - ➢ Nylon (PA), Carbon Fibre-Reinforced Nylon
  - ➢ High-temperature and engineering-grade materials
- ✓ **Layer Resolution:** Variable, with a minimum resolution of 50 microns
- ✓ **Print Speed:** Up to 500 mm/s
- ✓ **Bed Levelling:** Automated calibration for precise first-layer adhesion
- ✓ **Enclosure:** Fully enclosed build chamber with double-skin gold reflective insulation for heat efficiency
- ✓ **Filament Management:** Integrated filament dryer to reduce moisture absorption and improve print consistency
- ✓ **User Interface:** Intuitive touchscreen display for ease of use

- ✓ **Connectivity:** USB, Ethernet, Wi-Fi for remote monitoring and control
- ✓ **Software Compatibility:** Compatible with Slic3r, LandrSlicer and industry-standard slicing software (Simplify3D, Cura, PrusaSlicer, etc.)
- ✓ **Power Requirements:** 220-240V, 50-60Hz

Advantages:

- ✓ Large-format printing for industrial applications
- ✓ High-temperature capability for engineering-grade materials
- ✓ Precision and reliability with advanced extruder and heated chamber
- ✓ Flexible material compatibility
- ✓ UK-manufactured for quality assurance

For further inquiries or to schedule a demonstration, contact the 3M BIC Technology Team on 01484 505601 or email technology@3mbic.com.