



FuseLab

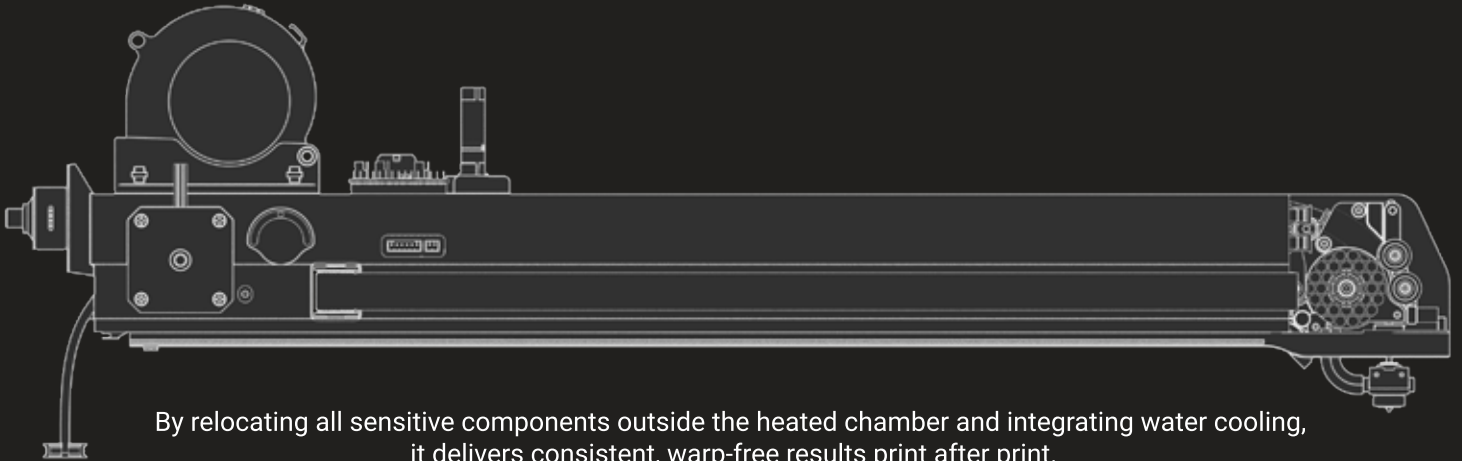
# FL500P

High Temperature Polymer Printer



## Purpose-built for high-temperature environments

The FL500P extruder combines speed, reliability and precision.

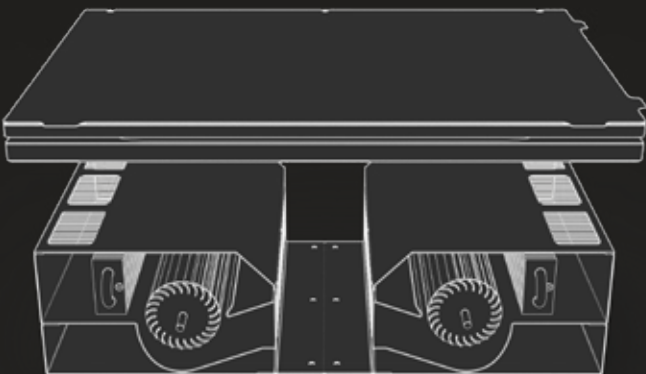


By relocating all sensitive components outside the heated chamber and integrating water cooling, it delivers consistent, warp-free results print after print.

The smart nozzle-toggling system prevents interference and guarantees clean, accurate surfaces.

## Ready for high-performance engineering materials

With a build plate reaching up to 200°C and build chamber up to 100 °C



- A compact yet powerful heating unit raises the chamber temperature to 100 °C, enabling perfect layer adhesion and warpfree printing even on large parts.
- The balanced, symmetrical airflow design ensures uniform heat distribution throughout the build chamber essential for consistent, high-quality prints.

## Filament management

Heated filament storage keep up to four spools perfectly dry at up to 100 °C

- Ensuring consistent print quality with high-performance materials.
- Automatic loading and unloading let any filament feed any extruder for seamless, flexible operation.

# FL500P specifications

Technology	Fused Filament Fabrication (FFF)
Build volume (XYZ)	500 x 300 x 450 mm (19.7 x 11.8 x 17.7 in)
Build chamber	Actively heated up to 100 °C (212 °F)
Build plate	- PEI coated interchangeable magnetic flex plate - Heated build plate up to 200 °C (392 °F)
Motion system resolution	X: 3 µm Y: 3 µm Z: 0.25 µm
Dimensional accuracy	±0.2 mm ±0.2%
Filament diameter	1.75 mm
Extruder system	- Direct drive Fuselab extruder with 32mm drive hob - Dual extruder with toggle system to clear part - Water cooled - Continuous extrusion force measurement for flow calibration
Nozzle system	- Diameters: 0.15 - 0.25 - 0.4 - 0.6 - 0.8 (mm) - E3D REVO compatible quick swap nozzle system - Temperature up to 300 °C (572 °F) optional up to 500 °C (932 °F)
Build plate probing system	Direct nozzle to bed contact probing
Air filtration	Recirculating filtration with H13 HEPA filter and active carbon
Cooling	- Part cooling fan on extruders - Axillary part cooling fan from printer side wall
Filament handling	- 4 filament bays (max 3 kg spool size) Filament drying by heating up to 100 °C - Automatic loading and unloading All 4 filaments can be fed to each extruder. Temperature and humidity readings on GUI
Operating display	10.4" ISP capacitive touch (1600 x 700 px)
Connectivity	- On device USB port - Ethernet + Dual-band 802.11ac Wi-Fi
Slicer	All major slicers supported
Power requirements	220 - 240 V AC 50Hz max. 10A
Safety	- Emergency stop button
Warranty	12 Months
Physical dimensions	720 x 962 x 1602 mm (WDH) (28.3 x 37.9 x 63.1 in) Weight: 205 kg (452 lbs)



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