impac SYSTEMS ENGINEERING

FUNMAT PRO 310 APOLLO

From PEEK-Ready to PAEK at Production Scale

APOLLO

INTAMSYS

High-Performance Material Printing

Supports the full PAEK family with 2× higher Z-axis mechanical strength and 40+ MPa tensile strength.
Delivers reliable mechanical performance under high temperature and load-bearing conditions for aerospace and medicalcritical applications.

High-Speed Printing System

Dual independent extruders optimized for PAEK achieve speeds up to 200 mm/s, 3× faster than conventional printers.
Combines speed and mechanical strength to cut lead times and enable true production throughput.

Continuous Production Solution

Built for continuous manufacturing with a 3 kg active-drying filament box and INTAMQuality data tracking.
Ensures week-long printing, full traceability, and consistent high-temperature performance.

Intelligent Control Platform

Driven by INTAMSUITE NEO, integrating multi-physics control of temperature, flow, and path.
Smart monitoring and remote management deliver stable, efficient, and predictable high-performance printing.

The FUNMAT PRO 310 APOLLO marks a new era of industrial-grade FFF 3D printing - combining high-performance materials, ultra-fast printing, and production-level consistency.
From PEEK prototyping to PAEK end-use part manufacturing, INTAMSYS redefines the benchmark for industrial FFF performance and reliability.

Technical Parameters

Printing

Technology	FFF (Fused Filament Fabrication)	Filament Diameter	1.75 mm
Build Volume	Single nozzle: 305 x 260 x 260 mm;	Materials*	PEEK, PEEK-CF/GF, PEKK, VICTREX AM 200 FIL, PC,
	Dual nozzle: 260 x 260 x 260 mm		PC-ABS, PC-FR, ABS-HS, PPA-CF/GF, PA6/66, PA12, ASA,
Layer Thickness	0.1 - 0.3 mm		PPS, PPS-CF/GF, and various fiber-reinforced and
Number of nozzles	2 (IDEX)		support materials
Nozzle Temperature	Max. 450 °C	Functions	Nozzle clogging alarm, platform over-temperature
Printing Speed	Max. 500 mm/s PAEK: Max. 200mm/s		alarm, filament run-out detection, printing recovery
Printing Acceleration	Max. 8000 mm/s^2		from power loss, remote monitoring, remote control,
Chamber Temperature	Max. 100 °C		remote printing, software and hardware OTA, filament
Platform Temperature	Max. 160 °C		auto-loading, material Identification, dual side
Leveling	Mesh Leveling (Max.100 Points)		brushes (for prime tower removal), INTAMQuality
	Dual-extruder auto calibration		

Machine

Voltage	100-120V/16A or	Cooling	Fan
	200-240V/8A 50-60Hz	Filament Box	3 kg sealed chamber with
Max. Power	1800 W		reusable molecular sieve, real-time temp/humidity
Connectivity	WiFi, Ethernet, USB		monitoring, and 65°C internal heating
Screen	7-inch Touch Screen	Number of Spools	2（Max. 3 Kg/pcs）
Build Plate	HPP build plate; EP build plate	Resolution	XY：16 μm；Z：1.25 μm
Build Chamber	Fully enclosed heated chamber	Filtering System	HEPA +Activated Carbon, Replaceable
Nozzle Maintenance	Modular design for fast maintenance	Overall Dimensions	700 x 655 x 700 mm
	and quick replacement		

Safety

Safety design	Safety door lock, over temperature protection, overload protection, warning labels

Slicing

Slicing Software	INTAMSUITE NEO
Supported File Types	.stl/.3mf/.obj/.x3d/.g/oltp/.stp/
	.step/.iges
Operating System	Windows 10/11

Operating Environment

Working Temperature	0°C ～ 30°C（32°F ～ 86°F）
Working Humidity	20 % ～ 70 %
Storage Temperature	-20°C ～ 55°C（-4°F ～ 131°F）
Storage Humidity	10 % ～ 90 %

*Printing materials are not limited to this table, recommended printing materials are fully validated on the printer.