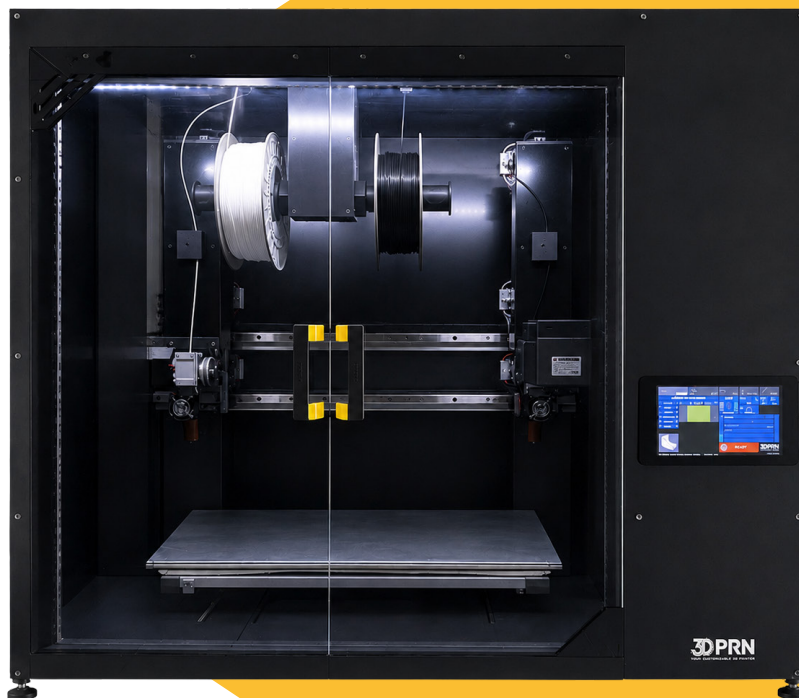


LAB CLOSED

OPTIMISED PRODUCTION OF LARGE VOLUMES

LAB CLOSED is the enclosed-chamber industrial 3D printer for those who cannot afford mistakes. Designed for high-performance technical materials, it maintains constant ambient conditions throughout the entire production cycle, guaranteeing impeccable quality, absolute repeatability and maximum operational safety.



Multiple and independent axes

One machine, endless configurations. Each axis works independently and can be equipped with extruders, dispensers, a milling head or dedicated automation, adapting the LAB CLOSED to any production process.



Printing environment under control

Active enclosed chamber, insulated and temperature-controlled up to 65°C, with an activated-carbon extractor: constant ambient conditions to get the best out of the most demanding technical materials.



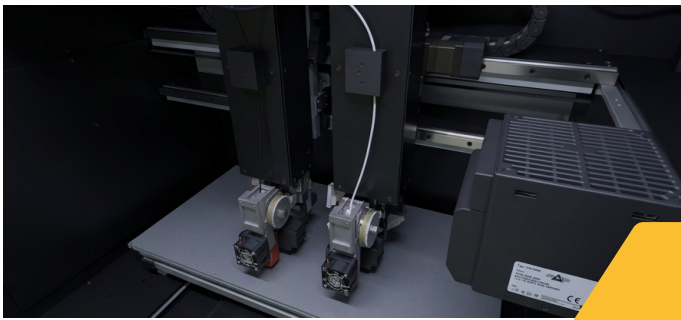
Advanced industrial technology

Advanced electronics and high-performance drives for unrivalled quality. Industrial proprietary electronics and Hybrid Step Servo drives in Closed Loop guarantee controlled movements and consistent repeatability.



Touch screen on board

Proprietary embedded control system with a touchscreen display (HMI) for advanced printer management. An intuitive interface, right on board the machine, to set and monitor every printing parameter.



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Main functionalities

Integrated dryer. The dryer stays active throughout the entire print: it keeps the filament at optimum humidity levels, ensuring consistent quality and perfectly repeatable results in every cycle.

Dual filament feeder. Two-stage feed system with active filament push: it ensures precise, continuous extrusion even with large-format spools, eliminating slippage and irregularities.

Multi-Axis. A modular multi-axis architecture that allows the machine to be equipped with extruders, dispensers, a milling head or bespoke automation, turning it into a high-value multifunction production platform.

3DPRN-LOAD. Automatic bed-levelling technology that runs before every start: no manual intervention, maximum precision guaranteed print after print, with no human input.

Smart Power. Integrated UPS system with automatic print recovery: in the event of a power cut, the job resumes exactly from the last saved point, with no wasted material or lost production hours.

Controlled environment. Temperature-controlled build chamber up to 65°C, fitted with an intelligent activated-carbon extractor: it creates and maintains the ideal ambient conditions for the most demanding technical materials.

Single and dual-stage extruder. Extrusion system configurable in one or two stages with a dual thermal zone: it optimises material flow at higher speeds and significantly improves the mechanical properties of the printed part.

Touch screen on board. Proprietary embedded control system with a touchscreen display (HMI) for advanced printer management.

Filament encoder. Continuous filament monitoring with real-time readings: the system constantly compares extruder output against the encoder, instantly detecting and flagging any anomaly.

Advanced kinematics. Next-generation kinematics with higher speeds than printers in the same class: smooth, highly precise movements, with instant position recovery should the axes slip.

3DPRN-WEIGHT. Integrated weight sensor for spool monitoring: it detects when material runs out and switches automatically to the second spool, pausing immediately if the filament tangles, so nothing goes to waste.

***PRINT ON AIR.** Technology designed and built by 3DPRN: printing of inclined surfaces and undercut geometries without support structures. Immediate material savings and zero post-processing time.

Heated build plate. Build plate heated up to 100°C, available in various power and surface configurations for maximum compatibility with all technical materials.

Magnetic rows. Hundredth-of-a-millimetre magnetic linear encoders for active, continuous control of axis position: absolute dimensional accuracy and automatic error compensation on every print.

3DPRN-WARE. Proprietary software suite developed specifically for 3DPRN printers: advanced print parameter management, real-time monitoring and an intuitive interface for total production control.

AI integration. Integrated artificial intelligence checks print quality in real time, runs predictive analysis of printing processes and also provides a virtual assistant, always on hand for immediate technical support.

Guaranteed upgradability. 3DPRN printers are designed with an open, modular architecture: hardware and software can be updated over time to incorporate the latest technological innovations, without replacing the machine. An investment that never ages.

Main features

Frame	Aluminium, Dibond panels
Technology	FDM-FFF
Plate	Aluminium, Glass, Polycarbonate, Carbon fibre, Ultem
Drives	Hybrid Step Servo, Closed Loop
Axis	1-2 or more Extruders, Spindle
Extruder type	Steel ($\leq 300^\circ$) Aluminium ($\leq 500^\circ$)
Filament diameter	1.75mm, 3mm
Nozzle	Steel, Brass
Nozzle diameter	0.4mm, 0.6mm, 0.8mm, 1.2mm, 1.4mm

Print Area (mm)

LAB 65	H2	600x500x200	H3	600x500x300
LAB 95	H2	900x500x200	H3	900x500x300

Compatible materials

Pla, Pet, Carbon fibre Pet, Petg, Carbon fibre Petg, Pla-Flex, Tpe, Tpu (from 98 A to 60 A), Pva, Bvoh, Abs, Abs VO, Carbon fibre Abs, Glass fibre Abs, Asa, Porolay, Moldlay, Pc Abs, Pc Abs VO, Pc-Pbt, PPS, Carbon fibre PPS, PA 66, Short carbon fibre PA 6, Glass fibre PA6, Carbon fibre PA 12, Hips, Carbon fibre PP, Iglidur...