

**Bambu Lab A2L**

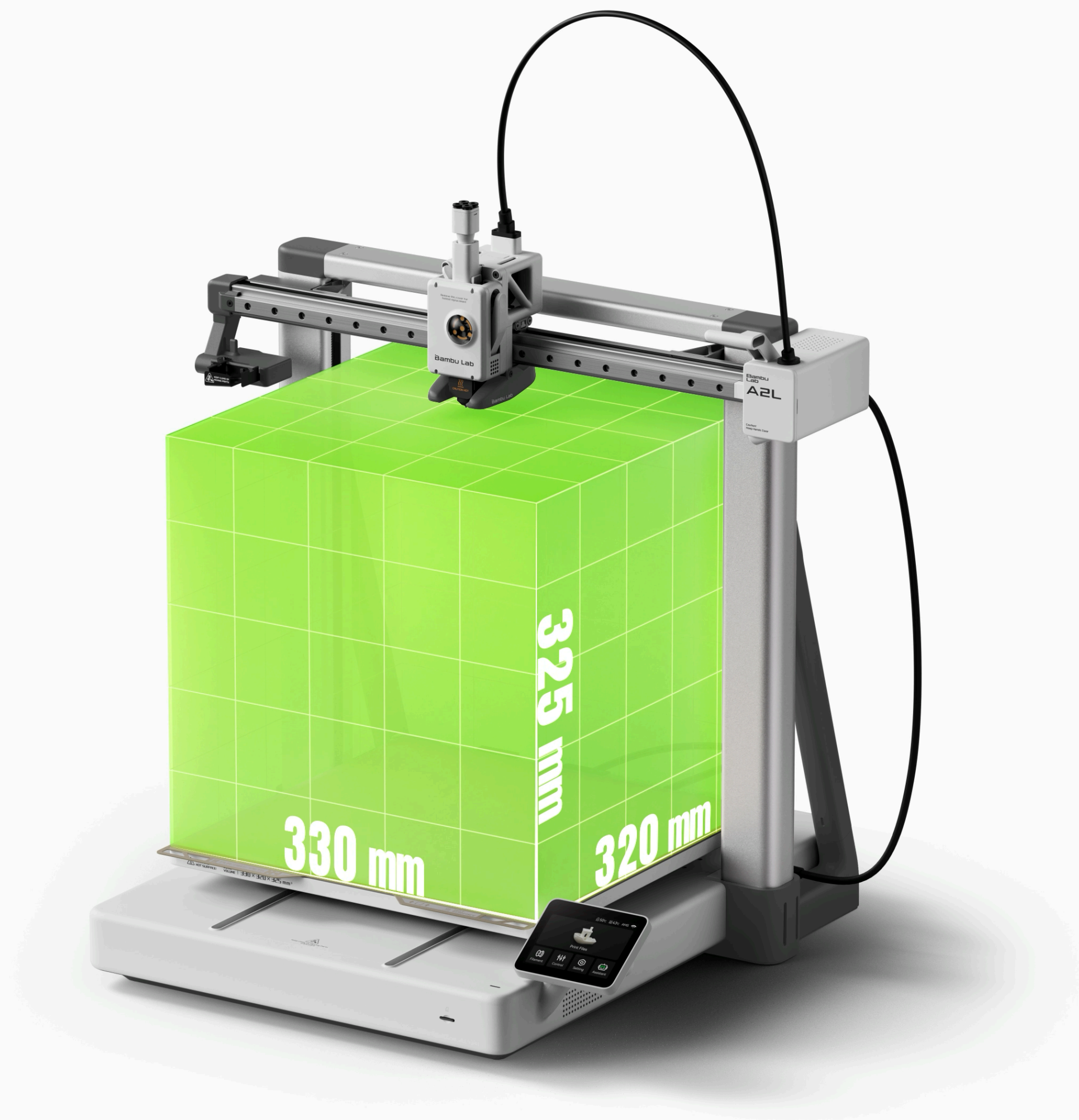
**Creative Playground.  
Extra Large.**



# A Versatile Creative Platform.

## Extra Large Volume for More Creative Freedom

330 × 320 × 325 mm. That's **105%** more space than the 256 mm class. A full-scale helmet, in one piece. A batch of 40 fidget toys, in one run. The kind of project that used to mean slicing your model into chunks—or starting over when the seams didn't line up—now just fits.



A2L



A1

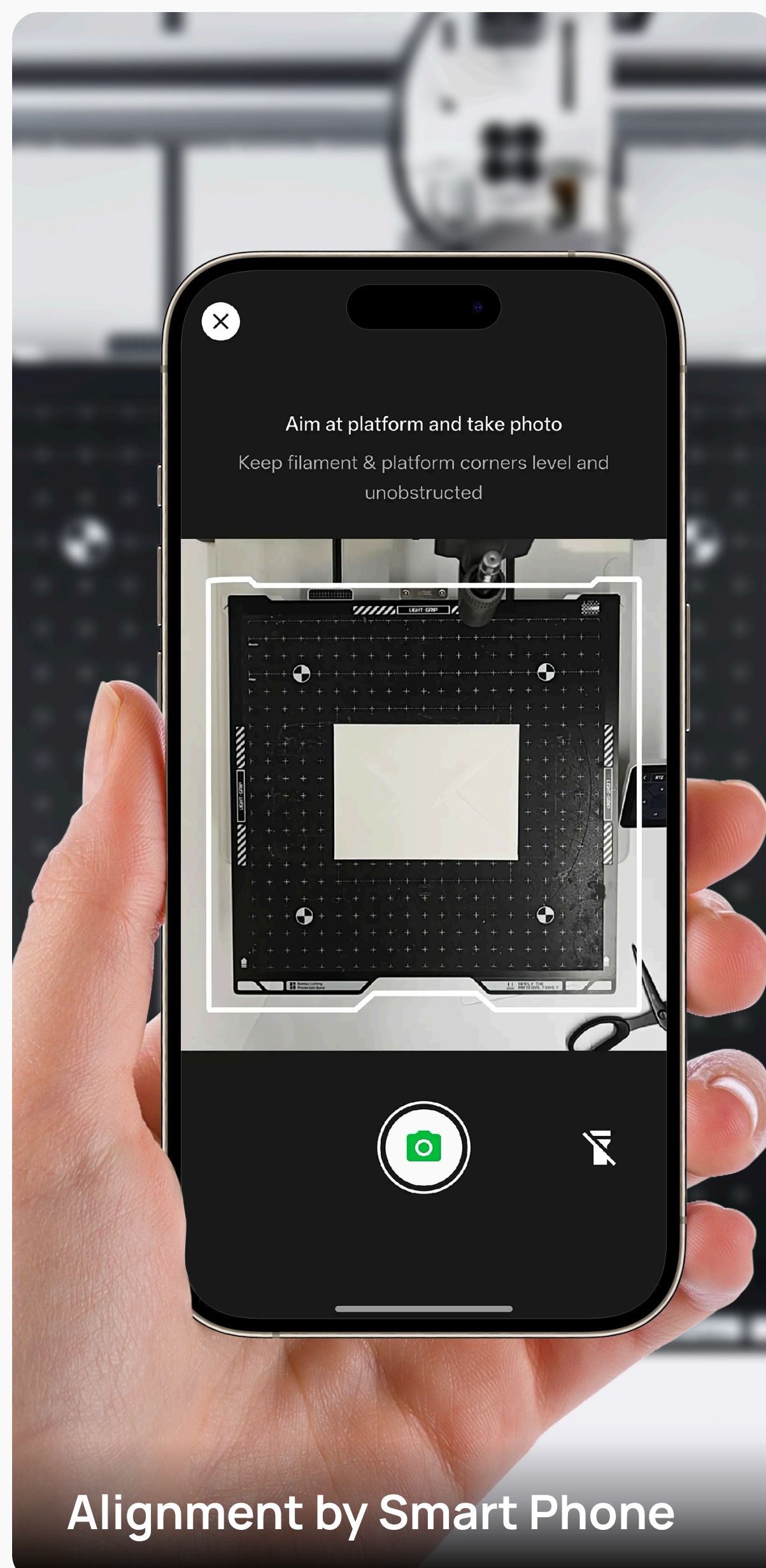


## Modular Add-ons for Plotting

Swap the toolhead cover for the cutting module, and the A2L isn't just a printer anymore—it cuts. Stickers, leather, fabric, paper. Custom livery for your model plane? Done. A leather wrap for the handle of your Excalibur? Done.



Decal Cutting



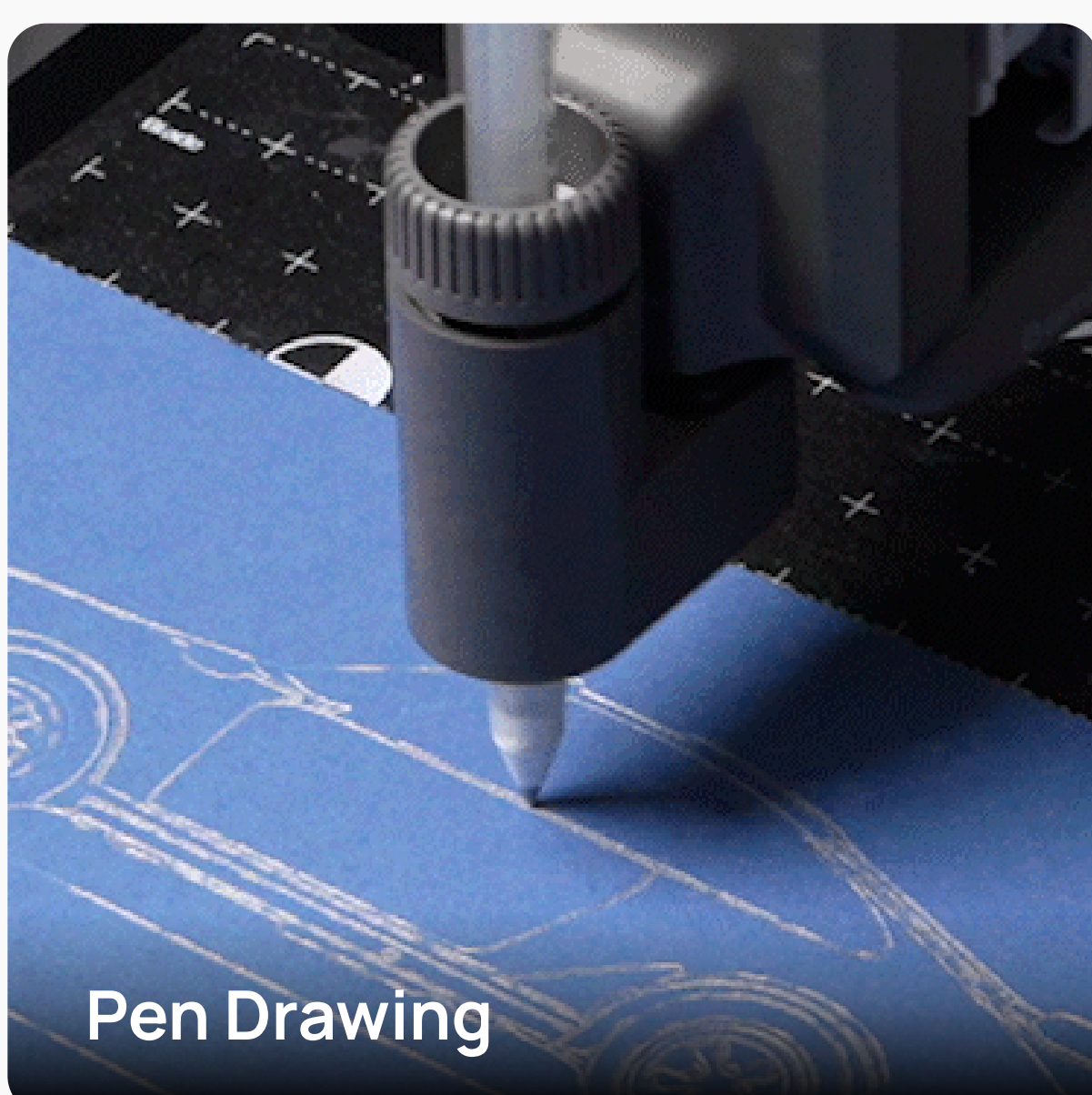
Alignment by Smart Phone



Anaglyph 3D Glasses



Sticker Vinyl



Pen Drawing



Ocean Waves Mandalay



911 Blueprint



Features

Use Cases

# Superior Print Quality.

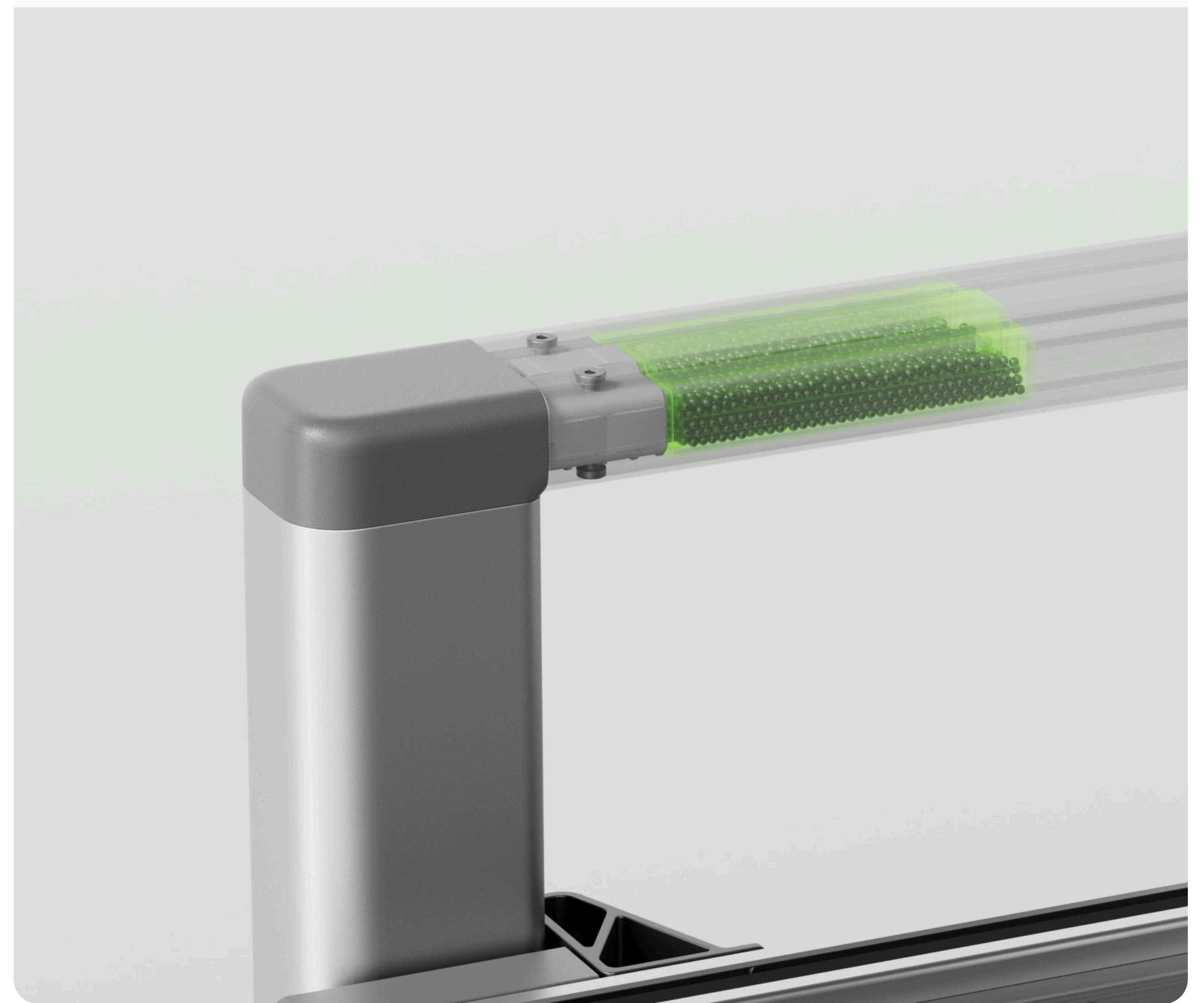
## Adaptive Vibration Compensation

A model gets taller. It gets heavier. The way the machine vibrates changes with it. Most printers run input shaping once at startup and call it done. The A2L runs Adaptive Vibration Compensation—a real-time calibration matrix that factors in both toolhead position and shifting bed load, retuning the resonance model layer by layer as the print grows. The last layer comes out as clean as the first.



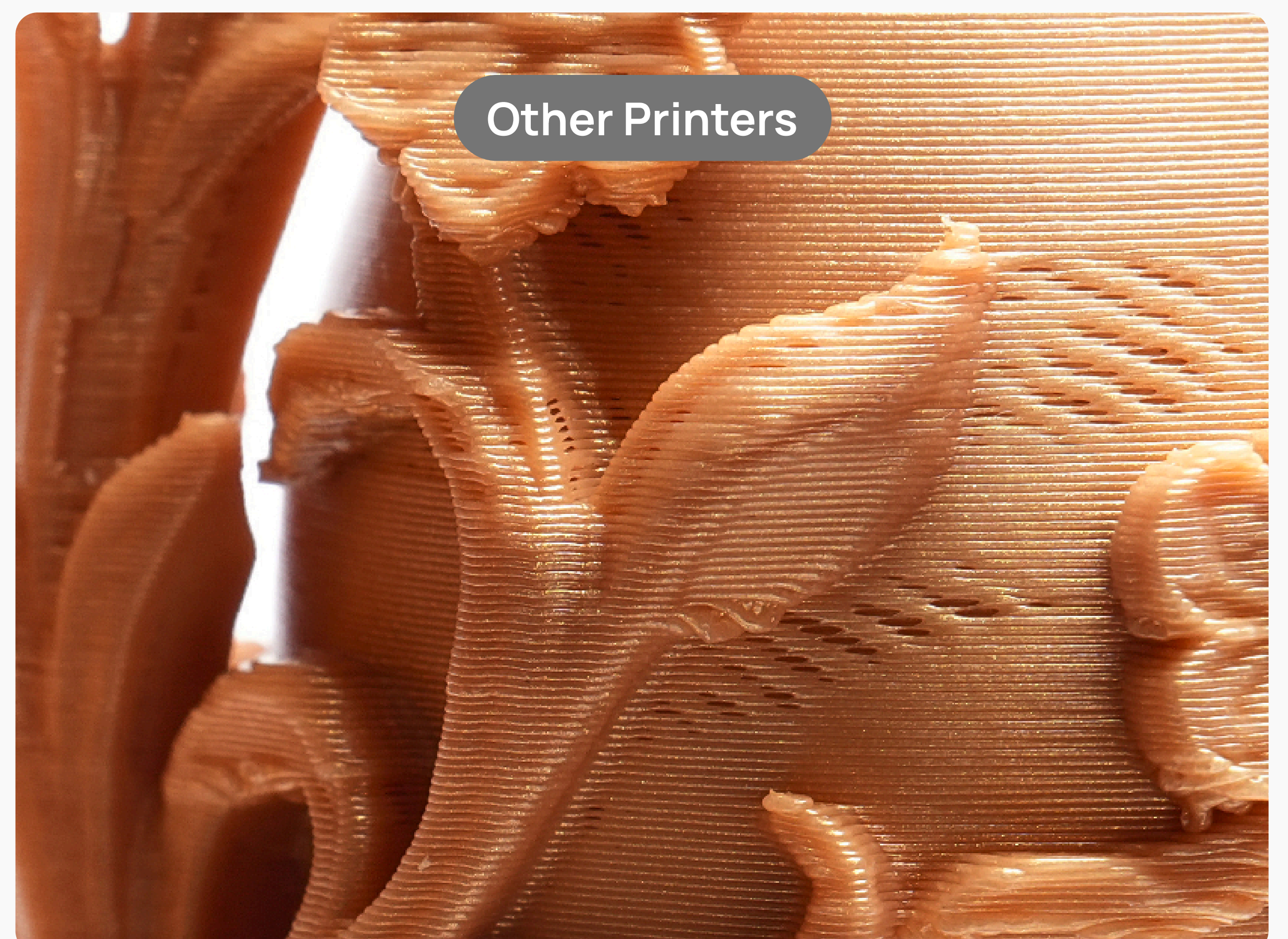
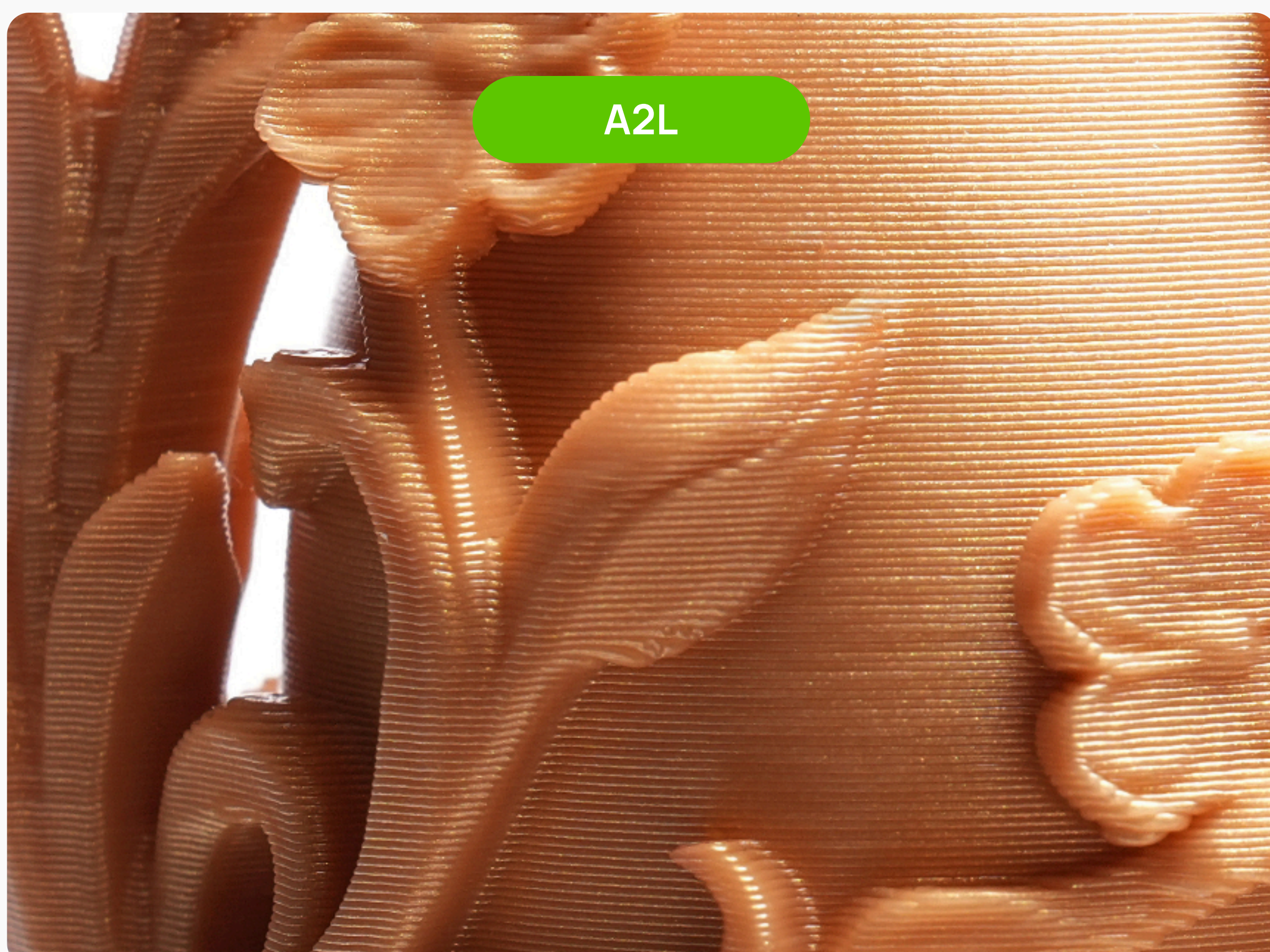
## Granular Damper to Reduce Ringing

Software handles the vibration it can predict. Hardware handles the rest. Inside the A2L's gantry sit two Granular Dampers—sealed chambers packed with fine particles that dissipate vibration through countless micro-collisions. It's a damping technique borrowed from aerospace and precision machinery, rarely seen in desktop 3D printers. The result: surface ripples and ghost lines stay out of your prints, even at full build height.



## Repeatable Sharp Print Details

Most printers calibrate flow once and trust it for every print after. A2L recalibrates every time. Before each job, Flow Dynamics Calibration measures how filament actually flows through this nozzle, with this spool, today—and builds a nonlinear model of the entire extrusion path. Nozzle wear, filament moisture, a fresh roll—all factored in before the first layer goes down. Sharp corners. Clean details. Print after print.



Nozzle wear (+0.05mm), Damp filament (>20% moisture), Nozzle residue

A2L VS. Printer without Auto Flow Dynamics Calibration

# Intuitive. Seamless. Home-Safe.

## UL GREENGUARD Certified

The A2L is certified under the UL 2904 standard for 3D printing indoor air quality when used with official filaments. Testing with our core lineup—including Bambu PLA Basic, PLA Pure, and PETG Basic—confirms ultra-low emissions, making the A2L safe for indoor use.



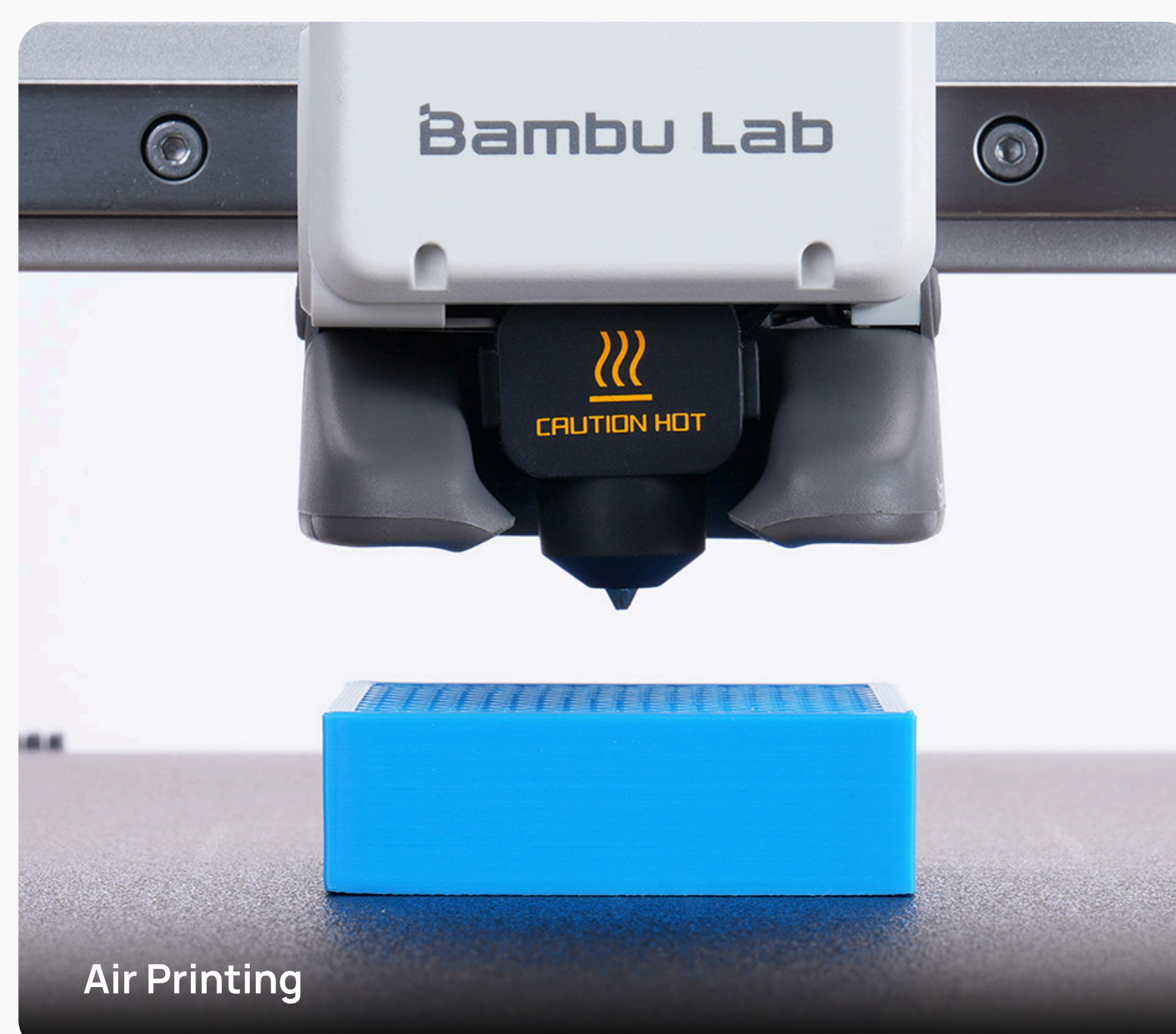
## 49dB Whisper-Quiet Operation

The A2L uses active motor noise cancellation, precision linear rails, and intelligent fan scaling to deliver a seamless experience. In Silent Mode, it operates at just 49dB—as peaceful as a quiet library.



## Smart Print Monitoring

Most print failures happen quietly—the nozzle keeps moving, but the part stopped forming hours ago. Sensors along the extrusion path, paired with the PMSM extruder as a feedback node, feed a Bambu-trained algorithm that catches filament tangle, runout, nozzle clumping, and air printing—then pauses A2L and guides you through the fix on Bambu Handy.



# Spec

Item		Specification
Printing Technology		Fused Deposition Modeling
Body	Build Volume (W*D*H)	330*320*325 mm
	Chassis	Aluminum and Steel
	Outer Frame	Plastic
Physical Dimensions	Physical Dimensions	544*529*505 mm
	Net Weight	12.8 kg
Toolhead	Extruder Gear	Hardened Steel
	Nozzle	Stainless Steel
	Max Nozzle Temperature	300 °C
	Supported Nozzle Diameter	0.2 mm, 0.4 mm, 0.6 mm, 0.8 mm
	Filament Cutter	Built-in
	Filament Diameter	1.75 mm
	Extruder Motor	Servo Extruder Motor
Heatbed	Build Plate Material	Flexible Steel Plate
	Included Build Plate Type	Textured PEI Plate
	Supported Build Plate Type	Textured PEI plate, Engineering Plate, Cool Plate SuperTack
	Max Heatbed Temperature	80 °C
Speed	Max Speed of Toolhead	500 mm/s
	Max Acceleration of Toolhead	10 m/s <sup>2</sup>
	Max Flow for Hotend	28 mm <sup>3</sup> /s (Test parameters: 150 mm round model with a single outer wall; Bambu Lab PLA Basic; 220 °C printing temperature)
Cooling	Part Cooling Fan	Closed Loop Control
	Hotend Cooling Fan	Closed Loop Control
Supported Filament Type	PLA, PETG, TPU, PVA	Suitable for Printing
	PLA-CF、PETG-CF	Suitable for Printing (Replace with Hardened Steel Nozzle)
Sensor	Camera	Low-frame-rate camera, up to 1080P, supports timelapse photography
	Filament Run Out Sensor	Supported
	Filament Tangle Sensor	Supported
	Filament Odometry	Supported
	Power Loss Recovery	Supported
	Clumping Detection	Supported
Electrical Requirements*	Voltage	High-voltage Version: 200-240 VAC, 50/60 Hz Low-voltage Version: 100-120 VAC, 50/60 Hz
	Max Power*	High-voltage Version: 1000 W@220 V Low-voltage Version: 1000 W@110 V
Environment Requirement	15 - 30 °C	

<b>Electronics</b>	Touchscreen	3.5 inch, 240*320 Touchscreen
	Storage	MicroSD Card
	Control Interface	Touchscreen, mobile App, PC App
	Motion Controller	Single-core Cortex-M4 Processor & Single-core Cortex-M7 Processor
	Communication	Wi-Fi, Bambu-Bus
<b>Software</b>	Slicer	Bambu Studio Supports third-party slicers which export standard Gcode, such as Super Slicer, PrusaSlicer and Cura, but certain advanced features may not be supported.
	Supported Operating System	MacOS, Windows, Linux
<b>Network Control</b>	Ethernet	Not Available
	Wireless Network	2.4G Wi-Fi
	Network Kill Switch	Not Available
	Removable Network Module	Not Available
	802.1X Network Access Control	Not Available
<b>Wi-Fi</b>	Operating Frequency	2412 - 2472 MHz (CE/MIC) 2412 - 2462 MHz (FCC) 2400 - 2483.5 MHz (SRRC)
	Wi-Fi Transmitter Power (EIRP)	< 23 dBm (FCC), < 20 dBm (CE/SRRC)
	Wi-Fi Protocol	IEEE 802.11 b/g/n
<b>Speed</b>	Cutting Area	300mm*300mm
	Drawing Area	300mm*255 mm
	Supported Pen Diameter	10.5 mm-12.5 mm
	Cutting Mat Type	LightGrip and StrongGrip Cutting Mats
	Blade Type	45°*0.35 mm
	Blade Pressure Range	50 gf-600 gf
	Max Cutting Thickness	0.5 mm
	Blade and Pen Recognition	Supported
	Cutting Mat Type Detection	Supported
	Supported Image Type	Bitmap and Vector Images
	Supported Material Type	Paper, PVC, vinyl, leather, and more

\*The printer's voltage specifications vary by sales region. Before use, check the label next to the power socket to ensure the supply voltage matches the indicated voltage.

\*To ensure the heatbed quickly reaches the needed temperature, the printer will maintain maximum power for about 3 minutes.