Welcome to Open Additive Manufacturing

Access to commercial-grade, validated materials from Origin's open network of material providers

Unique P³ technology that precisely orchestrates light, temperature, and other conditions, optimizing prints in real-time for the best possible results

A manufacturing-grade 3D printer that enables additive mass-production of end-use parts

Simple and fast post-processing

Optimized for production throughput and capacity per square foot

ORIGIN | ONE

System Specifications

General	
Technology	Programmable Photopolymerization (P³)
Materials	Photocurable materials from Origin's Open Materials Network
Build Volume (XYZ)	192mm x 108mm x 350mm (Up to 380mm for certain applications)
Feature Resolution	Material and design dependent, typically <50μm
Effective Voxel Resolution	50um (XY), <10um (Z) - Feature resolution typically higher with high accuracy materials
Process Energy	UV (385nm) and Thermal
Speed	Up to 50-300mm/hr+, material and part design dependent
Post Processing Time	5-15 minutes, batch processing available
Consumables	
Material Resins	Ordered through Origin account rep or direct from material manufacturer
Window Sheets	❶ Origin-provided ❷ Easy to replace ❸ Frequency depends on usage and printed materials, average lifetime 2-8 weeks
Post-Processing	
Cleaning	1-5 minute wash with Origin-recommended cleaning system (not included) and surfactant
UV Cure	1-5 minute cure with Origin-recommended curing system (not included)
Physical Footprint	
Dimensions (WxDxH)	400mm x 530mm x 1145mm (15.75" x 20.87" x 45.08")
Weight	160 lbs
Facility Requirements	
Power Requirements	120-240V, 4.7-2.35A, 560W (peak)
Network Connectivity	Ethernet / WiFi with secure network configuration
Ventilation	Refer to MSDS or contact Origin rep for guidelines
Gas Input (optional)	Facility air or inert gases
Gas Exhaust (optional)	Facility exhaust
Material Handling	
Resin Tray Capacity	1.5 - 3L (Customizable)
Resin Storage Temp	Typically 15-30 °C (59-86 °F)
Material Change	Swappable resin tray

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Operation	
Display Interface	Touchscreen operated, compatible with gloves
Calibration	Platform calibration (<2-minute procedure)
Calibration Frequency	Once a month or under special circumstances (e.g. when switching between different build head configurations)
Workflow Interface	Cloud-based web application

Safety Features	
Print Chamber	❶ Sealed gas environment ❷ Door sensor ❸ User-activated gas exhaust purge ❹ User-controllable gas environment ❺ Automatic pressure relief
Emergency Stop	E-stop ready. External E-Stop is optional

Software	
Supported Design File Formats	Most common CAD and mesh formats (STL, OBJ, STEP, IGES, Solidworks, Parasolid, etc.)
Application Features	❶ Web-based interface ❷ Basic build preparation and analysis ❸ Printer/fleet management ❹ Design file management ❺ Job management ❻ Remote print monitoring and management ❼ Materials library ❽ Production history ❾ Intra-organization sharing
Third-party Software	Origin-recommended build-preparation software
Upgrades	❶ Over-the-air, non-disruptive, user-approved printer software updates ❷ Seamless web application updates (major upgrades subject to SaaS pricing)

Security Features	
User Authentication	Secure login with organization verification and 2FA
Printer Authentication	Cryptographically-secure handshake
Network Security	Industry-standard end-to-end encryption
Data Security	Encryption in-transit and at-rest. Contact Origin rep for additional information

Support	
Dedicated Account Rep	Technical Account Managers are assigned to each client for onboarding, education, support, and engineering and design assistance
Remote Monitoring and Technical Support	Production monitoring and remote technical support/triaging is available under support plan (certain features subject to SaaS pricing)