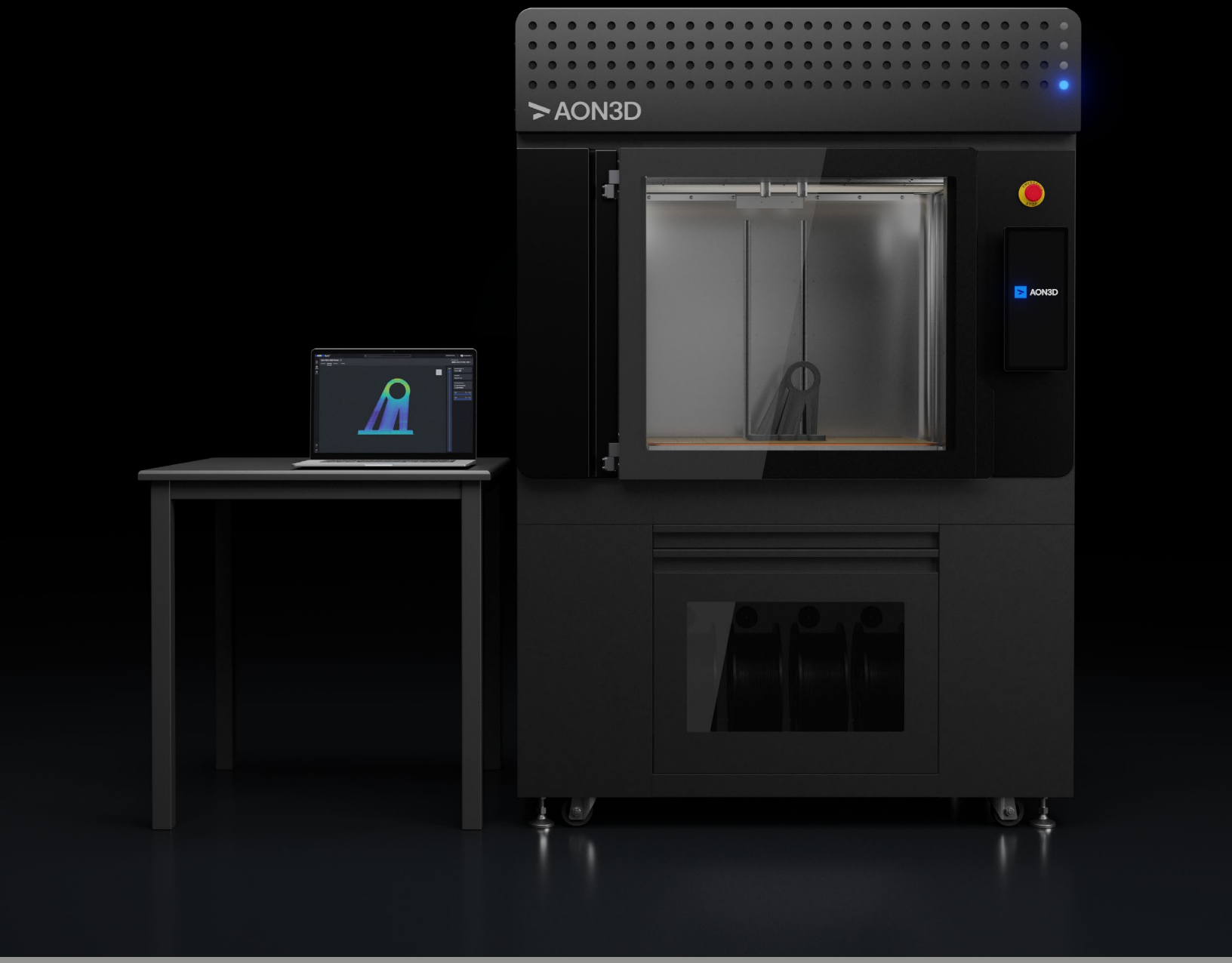

AON3D

Hylo™
Specifications

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Hylo™ Specifications

AON3D

Designed to close the gap between conventional manufacturing and additive, Hylo delivers industry-leading part performance and throughput while a fully automated printing experience and sensor-driven architecture enable new levels of accuracy and repeatability. Print stronger, larger, and faster in any material, no upgrades or unlock fees required.

Technology	Material Extrusion (MEX)
Build Volume	650 x 450 x 450 mm (XYZ) 25.6 x 17.7 x 17.7 in (XYZ)
Extruders	Dual Independent (Composite-ready)
Print Modes	Single toolhead mode Duplication mode Multimaterial mode Support mode (Water soluble, detergent soluble, breakaway)
Layer Height	0.05 - 1.2 mm
Chamber Heat Up Time	< 60 min (Ambient to 250 °C)
Chamber Temperature	250°C
Bed Temperature	250°C
Nozzle Temperature	500°C
Nozzle Sizes	0.25, 0.4, 0.6 (Standard), 0.8, 1.0, 1.2 mm
Build Platform	Auto-leveling with vacuum chuck
Print Surface Options	CF PEEK, PEI, Garolite, and more. (Reusable sheets or plates)
Max Print Speed	500 mm/s
Max Travel Speed	600 mm/s
Max Acceleration	1 g
Max Build Rate	Up to 100 mm^3/s or 385 cm^3/hr (Polymer dependent)
Material Format	Open material system, 1.75 mm filament
Compatible Materials	ABS, ASA, Nylon (PA 6, 6/66, 12), PAEK, PC, PEBA, PEEK, PEI (ULTEM™ 9085, 1010), PI, PEKK, PETG, PLA, POM, PP, PPSU, PSU, PVDF, TPE, TPU, and many more. Carbon fiber, glass fiber, Kevlar®, and ESD safe variants of the above. Various soluble and breakaway support materials.
Material Storage Capacity	Up to four 2.2 kg reels or two 5kg reels
Material Loading/Changeover	Fully automated
Error Detection	Filament feed error, jam detection, and runout detection
Material Storage Dewpoint	-25°C

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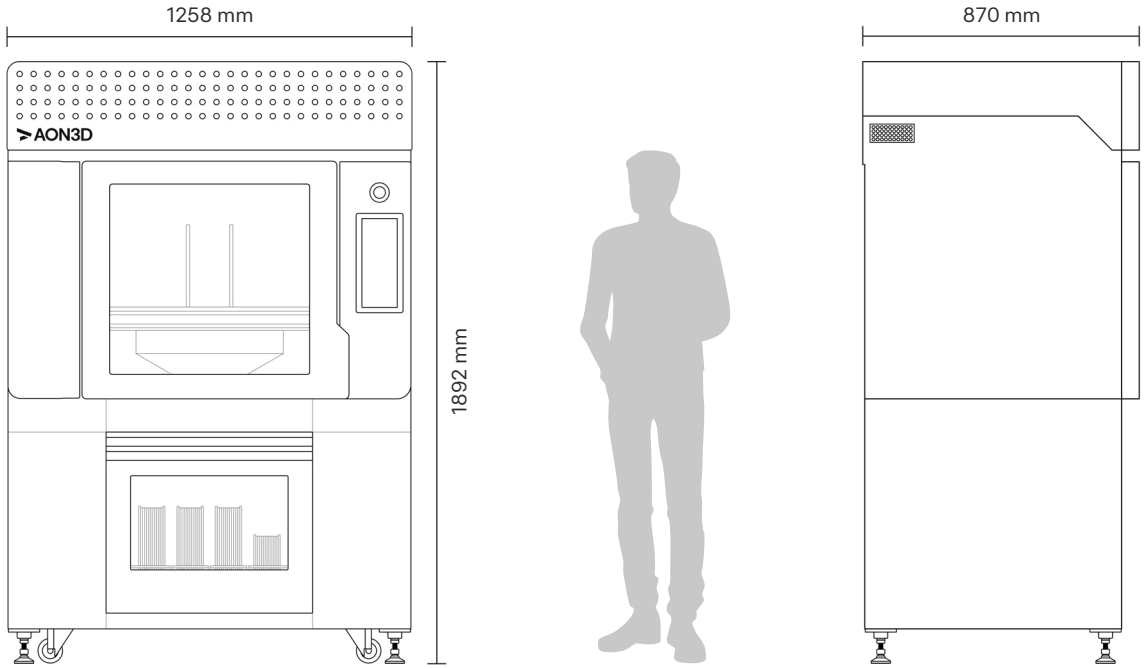
Connectivity	Wi-Fi (Removable), Ethernet, USB port (File upload only)
Control Interface	12.3 in. LCD touch screen, cloud management
Installed Dimensions	1296 x 870 x 1892 mm (XYZ)
Weight	650 kg
Compressed Air Requirement	75-135 psig, minimum flow 1 CFM continuous, <50C (122F)
Supply Voltage	208-240VAC, 40 Amp, Single Phase
Sensors and Accessible Data	Microstep logging (As-executed motion) X/Y/Z linear encoders Nozzle, chamber, and bed thermals Nozzle force Optical nozzle inspection camera & automatic XY offset calibration Filament feed rate Filament diameter Filament feed tension/compression Material storage temperature, humidity, and pressure Ambient temperature, humidity, and pressure 4K chamber camera (Removable)

Dimensions



Hylo™
Smart Hardware

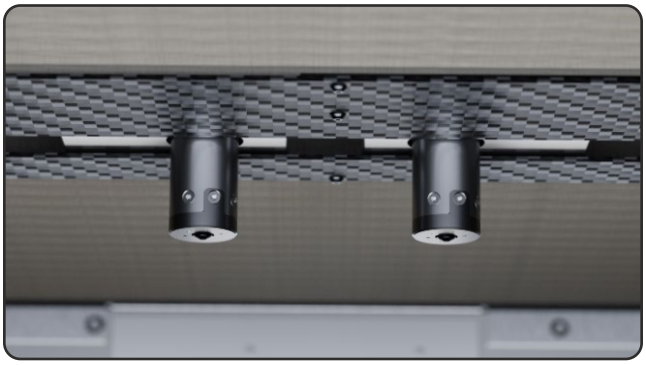
A sensor-driven, software enhanced industrial 3D printer for manufacturing high performance parts with **PEEK, ULTEM™, and open market materials** – larger, stronger, faster, and easier than ever.

End-to-End Automation

From XYZ calibration to nozzle offsets, optical nozzle inspection, and automatic material loading, Hylo delivers a seamless 3D printing experience, allowing engineers to focus on parts, not printers.

Material Management

Start prints from your desk with automated material loading, changeover and feed error detection. In addition, a humidity controlled material bay with filament diameter detection and flow compensation ensure consistent, high-quality results.



Advanced Extruders

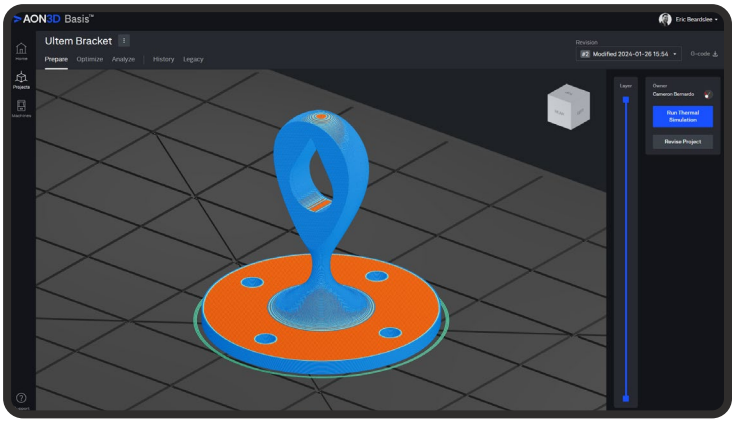
Independent active-leveling extruders ensure perfect first layers and high speed duplication mode printing while 360° coil heaters enable industry-leading build rates. Onboard sensors capture process data and detect part warping or print failures.

Integrated Sensors

Hylo features over 25 onboard sensors for in-situ process monitoring and logging. Use the data and sensors to monitor prints, enable non destructive testing, identify and remedy print defects/failures, and achieve new levels of repeatability.

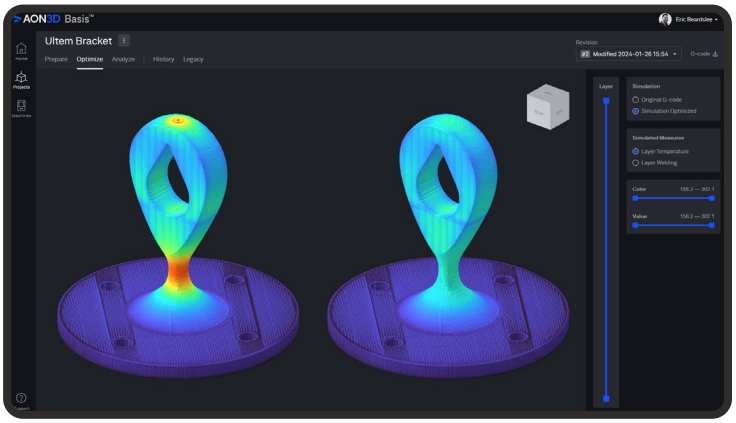
Basis™
Smart Software

AON3D Basis closes the loop in additive manufacturing. Manage your projects and printers, achieve new levels of repeatability and part performance with machine learning optimization, and access process logs to aid in part qualification and quality assurance, all from a central platform.



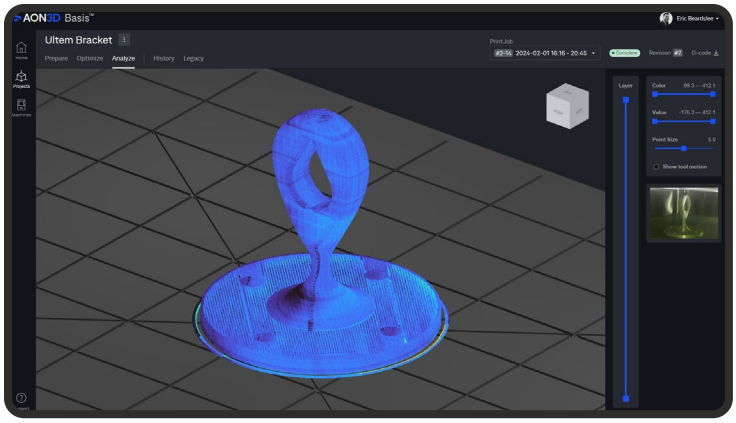
Prepare

Streamline production from the comfort of your desk. AON3D's secure cloud platform centralizes management of projects, printers, material inventory, maintenance schedules, users, and more.



Optimize

Identify and correct print issues before ever pushing print. AON3D's ultra-fast process simulation software utilizes machine learning to create dynamic process parameters based on part geometry and material, reducing print failures/defects and maximizing final part properties.



Analyze

Understand what's going on inside your parts by leveraging Hylo's sensor suite. View data-rich point clouds to identify internal defects, reduce QC burdens, assist in part qualification, and aid in troubleshooting.

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