

Cosine Additive
Think Big. Print Big.

M.A.A.M.
Medium Area Additive Manufacturing

Cosine Additive is on a mission to improve the state of the art in additive manufacturing / 3d printing. Our premise is simple: to increase the usefulness of industrial, large format, additive manufacturing technology by exponentially decreasing the cost barrier to industry professionals. Cosine achieves this goal by maintaining exceptional quality from manufacturing design to finished 3D prints. Thermoforming, layup tooling, high strength cores and jigs are all ideal applications for our thermoplastic and composite carbon fiber process. Cosine's Additive Machine1 (AM1) is a modular and upgradeable hardware platform. Our decoupled hardware, software, and open materials philosophy give users the ability to innovate large parts efficiently and cost-effectively.

Carbonfiber Composite Polymers



Manufacture in new materials, to larger application sizes, at a significantly reduced cost.

Size



1+ cubic yard -
Build Volume
(43x33x35 inches)
Our enclosed heated
build chamber enables
a repeatable
industrial process.

Cost



90% reduction in
material supply
costs compared to
existing industrial
polymer filament 3D
printing.
(\$15/kg)

Philosophy



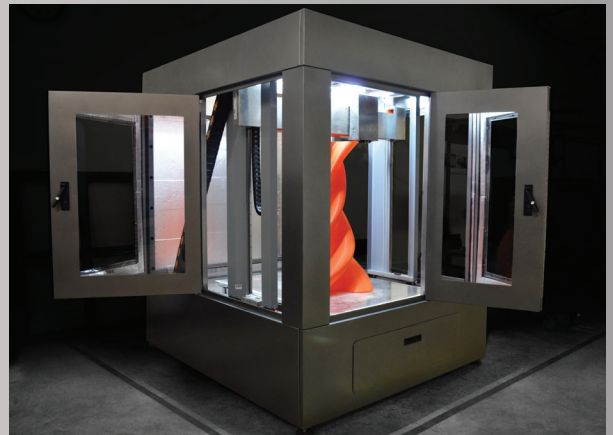
Open materials
Open software
Open platform
Upgradeable and
modular hardware.

Speed



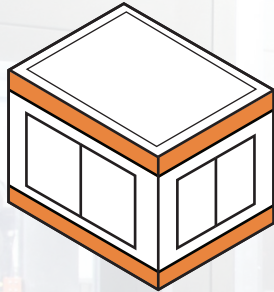
10x improvement
in filament based
printing.
6 kgs (10 lbs.)
per day material
deposition rate.

Cosine Additive is an open market for materials. We encourage our customers to procure new polymers (and fill combinations) directly from material suppliers allowing for advanced material research. From basic ABS and PLA options to advanced composite polymers with carbon fiber fill, Cosine Additive advances customer specific applications quickly and cost effectively.



AM1 Specifications

Machine Info



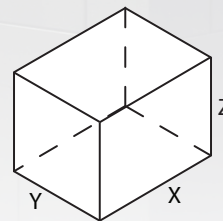
Weight	865 kg (1907 lb)
Size	1753mm x 1474mm x 1855mm (69 in. x 58 in. x 73 in.)
Power	30A 200-250V 1ph

Layer Resolution



.05mm - 1.5mm
(.002" - .060")

Build Volume



X	1100 mm (43 in.)
Y	850 mm (33 in.)
Z	900 mm (35 in.)

Temperature Options



	Extruder	Bed	Chamber
Basic	400°C (752°F)	200°C (392 °F)	60°C (140°F)
High Temperature	500°C (932°F)	200°C (392°F)	100°C (212°F)

Extruder Sizes

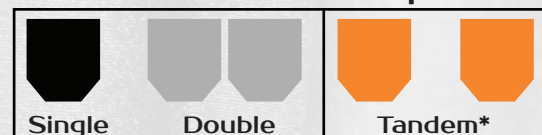


Nozzle	Flow Rate
.5 mm	1.75 kg/24hrs
1.0 mm	3 kg/24hrs
1.5 mm	4.5 kg/24hrs
2.0 mm	5.5 kg/24hrs
2.5 mm	6 kg/24hrs

Speed / Accuracy

Print Speed	3000 mm / min (118 in. / min)
Mechanical Resolution	x/y/z = .001 mm
Print Accuracy	.15mm / 100mm (.005 in. / 3 in.)

Available Extruder Options



*Simultaneously prints two of the same model