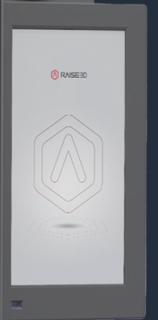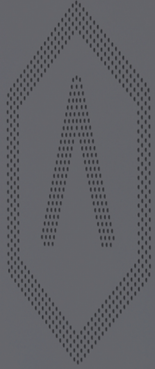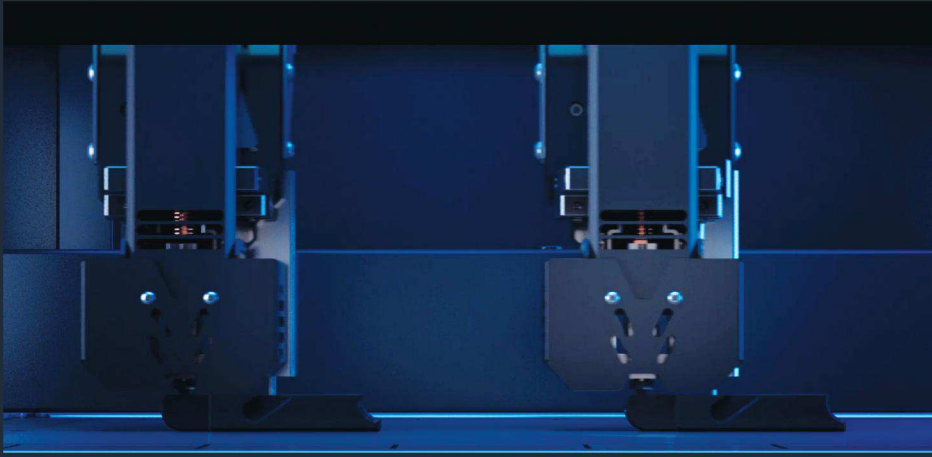# RMF500 Industrial 3D Printer

Delivering Productivity and Repeatability on a huge scale

FAST IDEX EXTRUSION

Double your productivity without sacrificing quality

300 mm / sec
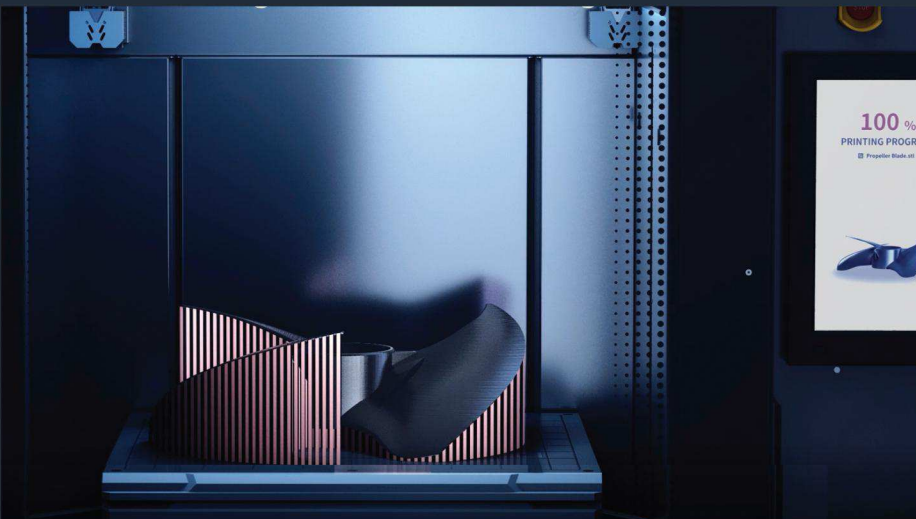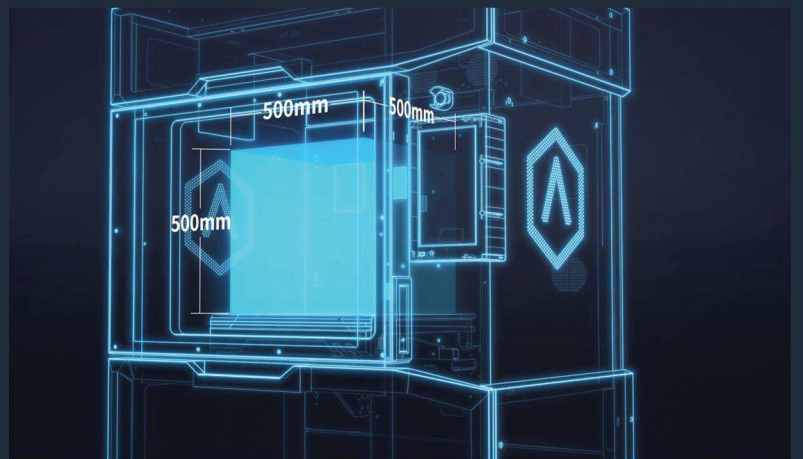
Simultaneous dual extruder printing

Print Faster!

LARGE BUILD VOLUME

Vacuum manifold platform with PEI building plate and pressure detection to deliver worry-free startup and easy removal of prints.

500 x 500 x 500mm build for both single and dual printing.

Print Bigger!

500mm 500mm

500mm

100 %
PRINTING PROGRE
Propeller Blade.stl

GREATER POSSIBILITIES

High-End Manufacturing at your fingertips with a large range of material options

Pre tested with
PA12 CF / PPA CF / PPA GF
PET CF / PPS CF
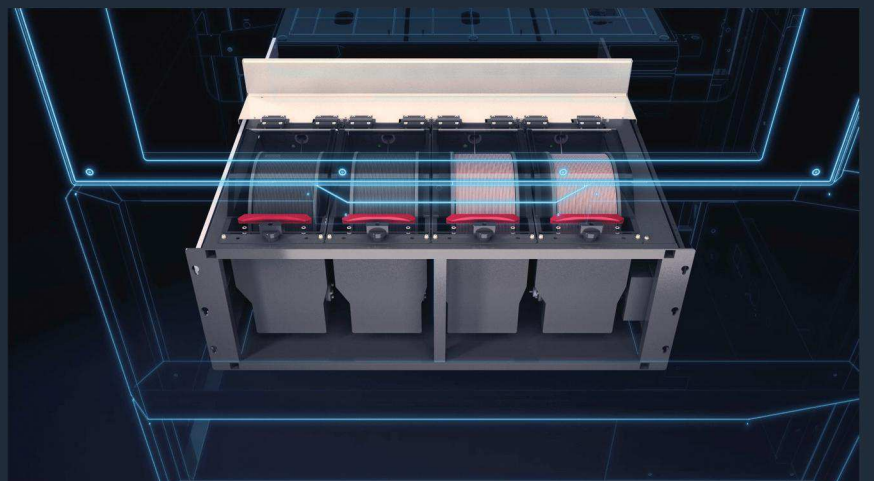More materials coming

Print Professionally!

FILAMENT MANAGEMENT

Leading edge design automatically switchable filament carriage to support continuous printing

4 filament cartridges, each with a max load of 2.5kg and positive pressure humidity control below 5% RH.
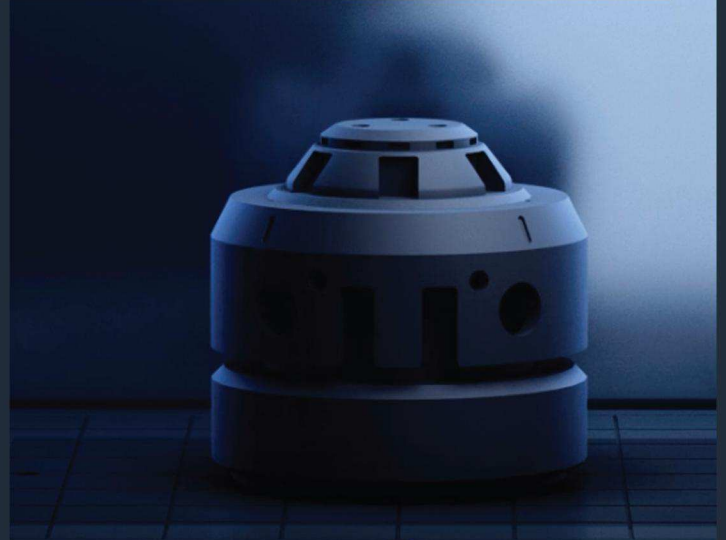
Print it Dry and Accurate!

High Performance IDEX

Manufactured using high-temperature alloys and industrial ceramic composite materials. Each extruder has a heating capacity of up to 300 W, ensuring a stable and high extrusion rate of up to 500 g/hr

Distinct Cost-Efficiency Among Peers

The RMF500 is designed to achieve the maximum cost-efficiency in terms of material performance vs the process cost and a much lower energy consumption

High Performance and Lightweight Fiber Reinforced Material

The RMF500 is specialized in printing complex workpieces with a high strength-to-weight ratio in a single job, using fiber-reinforced thermoplastics. Raise3D ensures performance from each filament spool, and is continuously expanding material choices

RMF500 Technical Specifications

Printing

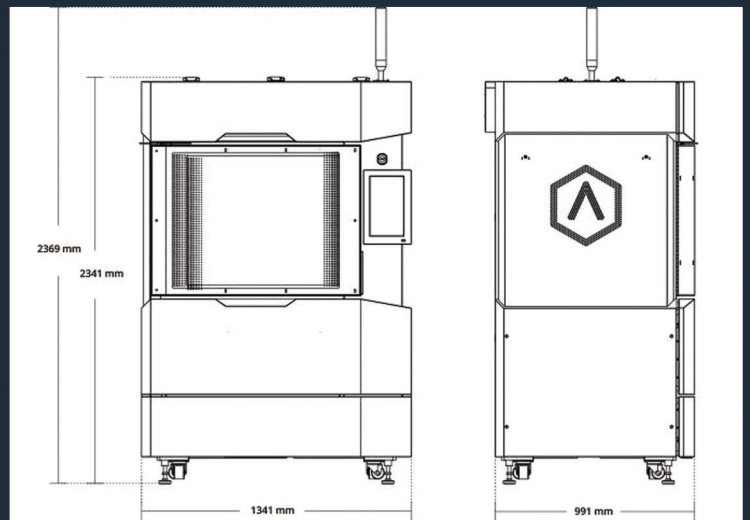|	
Build Size:	500 x 500 x 500 mm (Single and Dual Extruder Printing)
Build Plate:	PEI Build Plate with Vacuum Manifold, on a steel plate
Build Plate Leveling:	Auto
Max Print Speed:	300 mm/s	Travel Speed:	1000m/s
Max Bed Temp:	110°C	Max Extrusion Temp:	330°C

Filament Materials

Filament Size:	1.75 mm
Supported Materials:	Raise3D Industrial PA12 CF, Raise3D Industrial PA12 CF Support, PPA CF, PPS CF, PET CF and PPAGF

Resolution and Precision

XY Precision:	1 micron
Z Precision:	0.09765 micron
Layer Height	0.05-0.75 mm = 50 to 750 microns

Machine Specification

Nozzle Type:	Silicon Carbide
Nozzle diameter:	0.6mm default (0.8 optional)
Extrusion System:	IDEX
Machine Size:	1340 x 990 x 2370
Packaging Size:	1750 x 1210 x 2310
Packaging Weight:	100kg
Delivery Notes:	Requires forklift

2369 mm
2341 mm
1341 mm
991 mm

Operating Requirements

Electrical Connection:	30A @ 3-Phase 380V AC
Ambient Temperature:	15-30°C, 30-70% RH Non-Condensing (HOLD)
Storage Temperature:	-40 to 54°C, 10-85% RH Non-Condensing (HOLD)
Slicing Software:	IdeaMaker
Supported Files:	STL, OBJ, 3MF, OLTP
Supported OS:	Windows, macOS, Linux
Machine Code Type:	GCODE
Networking:	Ethernet, Wireless 802.11 b/g/n, Dual Mode Wi-Fi
Ports:	USB 2.0 x 1