RAISE3D

2015 - 2025
10th Anniversary

Raise3D RMS220 Series

Rapid Manufacturing Simplified

Raise3D RMS220
SLS Printer

Raise3D Build Unit 220
Build Unit

Raise3D C220-P
Cleaning Station

Raise3D RMS220 Series is a set of powerful selective laser sintering (SLS) production system, optimized for productivity, stability, easy to use and maintain. It enables the highspeed printing of engineering plastics and composites. When running at full capacity, the max throughput for parts can reach up to 5kg/day*, which allows the users to produce end-use parts efficiently.

* (at 20% packing density)

High-Efficiency Batch Production

- Maximum daily output of 5 kg* (using PA12)
- Large build volume of 220 × 220 × 350 mm
- Print speed of 2.2 L/h*
- Maximum scanning speed of 30,000 mm/s

  * (at 20% packing density)

Low Total Cost of Ownership (TCO) and High Output

- 75W laser ensures high productivity and faster return of investment
- Only 10 minutes preparation time for each job
- 0.58 m^2 footprint* minimizes space requirements and reduces energy consumption
- Two atmosphere types available: air/ nitrogen
- Nitrogen generator included and built in

  * (printer only)

Extraordinary Precision and Reliability

- Uncompromising dimensional accuracy
- Minimum wall thickness of 0.5 mm (using Raise3D PA11)
- 4 zone self-calibrating IR heating system ensures consistent and repeatable print results

Industrial and Functional SLS Material

- Supports a broad range of materials: Raise3D PA12, Raise3D PA12 GB, Raise3D TPU90A, Raise3D TPU86A, Raise3D PA11(For more details, please refer to TDS)
- Fast material switch, taking only 45 minutes (1/3 the time of traditional SLS printers)
- Third party material option

Application

- Tools and fixtures
- Industrial complex parts
- Circuit housings
- Orthotics and prosthetics
- Customized shoe insoles
- Automative spare parts

Raise3D RMS220 Series Technical Specification

Raise3D RMS220 Specification	
Print Technology	Selective laser sintering (SLS)
Print Volume (W × D × H)	220 × 220 × 350 mm (8.7 × 8.7 × 13.8 inch) / 17 L
Laser	75 W infrared fiber laser, wavelength 1064 nm
Galvo	High speed, high precision galvo system, with F-theta length
	max scanning speed 30000 mm/s
Material type	Powder
Printing Speed	2.2 L/h (packing density 20% by weight)
Max Powder Temp.	220 °C
Max Platform Temp.	180 °C
Max Cylinder Temp.	180 °C
Active Cooling	Yes
RFID	Yes
Hopper Size	31.5 L, 40 L if extended with powder container
Powder Level Sensor	Yes
Layer Height	0.05-0.40 mm
	We recommend 0.1-0.2 mm layer height for stable printing.
Connectivity	Wi-Fi, LAN, USB, real-time camera
Air Filter	HEPA + activated carbon filter
Slicer	ideaMaker
Input File Formats	STL/ OBJ/ 3MF/ OLTP/ STEP/ STP/ IGES/ IGS
Operation System	WINDOWS/ macOS/ LINUX
Export File Format	.slscode
Machine Size (W × D × H)	Machine body: 861 × 685 × 1560 mm (33.9 × 27 × 61.4 inch)
	With tower light: 861 × 685 × 1760 mm (33.9 × 27 × 69.3 inch)
Input	Printer: 190-240VAC, 50/60Hz, 230V@16A
	Build Unit 220: 100~240VAC, 50/60Hz, 160.08W
Atmosphere	Air/ Nitrogen (Built in nitrogen generator in RMS220, compressed air required.)

Raise3D C220-P Specification	
Print Volume (W × D × H)	220 × 220 × 350 mm (8.7 × 8.7 × 13.8 inch)
Supported Printer	Raise3D RMS220 Series SLS Printer
Hopper Size	Fresh powder hopper: 20L
	Used powder hopper: 20L
RFID	Yes
Machine Size (W × D × H)	Machine body: 1238 × 823 × 1740 mm (48.7 × 32.4 × 68.5 inch)
	Incl. control panel & tower light: 1384 × 823 × 1928 mm (54.5 × 32.4 × 75.9 inch)

Materials	
Supported Materials	Raise3D PA12 Black Powder/ Raise3D PA11 Black Powder/ Raise3D PA12 GB Black Powder/
	Raise3D TPU90A Black Powder/ Raise3D TPU90A White Powder/ Raise3D TPU86A Black Powder/
	Raise3D TPU86A White Powder
OMP (Open Material Program)	Support selected third-party materials
	Optional fully open material license available

13310 Pike Road, Stafford, TX 77477, USA
Tenorweg 6, 3363LN, Sliedrecht, The Netherlands
R. do Vergão 80, 4520-614, São João de Ver, Portugal
www.raise3d.com