

Raise3D RMS220 Series Technical Specifications

Raise3D RMS220 Series is a set of powerful selective laser sintering (SLS) production system, optimized for productivity, stability, and easy to use and maintenance. 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.

Printer	Raise3D RMS220	
Print Volume (W × D × H)	220 × 220 × 350 mm (8.7 × 8.7 × 13.8 inch) / 17 L	
	Printer	Build Unit 220
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)	536.5 × 333 × 1005 mm (21.1 × 13.1 × 39.6 inch)
Weight	Net Weight: 283 kg (623.9 lbs) (Powder container & powder not included)	Net Weight: 62 kg (136.7 lbs) (Powder not included)
Input	200-240VAC, 50/60Hz, 230VAC@15A	20-26VDC, 24VDC@6A
General	<p>Technology Selective laser sintering (SLS)</p> <p>Laser 75 W infrared fiber laser, wavelength 1064 nm</p> <p>Galvo High speed, high precision galvo system, with F-theta lens max scanning speed 30000 mm/s</p> <p>Material type Powder</p> <p>Printing Speed 2.2 L/h (packing density 20% by weight)</p> <p>Max Powder Temp. 220 °C</p> <p>Max Platform Temp. 180 °C</p> <p>Max Cylinder Temp. 180 °C</p> <p>Active Cooling Yes</p> <p>RFID Yes</p> <p>Hopper Size 31.5 L, 40 L if extended with material box</p> <p>Powder Level Sensor Yes</p> <p>Layer Height 0.05-0.40 mm We recommend 0.1-0.2 mm layer height for stable printing.</p> <p>Connectivity Wi-Fi, LAN, USB, real-time camera</p> <p>Noise <65 dB(A) when running</p> <p>Environment Operating: temperature 15-30°C, humidity ≤ 30-70%RH without condensing Storage: temperature -10°C-60°C, humidity ≤ 30-70%RH without condensing</p> <p>Air Filter HEPA + activated carbon filter</p> <p>Atmosphere Air/ Nitrogen (Built in nitrogen generator in RMS220, compressed air required.)</p>	
Materials	<p>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/ Raise3D PA NEXT Black Powder/ Raise3D PA NEXT GB Black Powder</p> <p>OMP (Open Material Program) Support selected third-party materials Optional fully open material license available</p>	
Software	<p>Slicer ideaMaker</p> <p>Input File Formats STL/ OBJ/ 3MF/ OLTP/ STEP/ STP/ IGES/ IGS</p> <p>Operation System WINDOWS/ macOS/ LINUX</p> <p>Export File Format .slscode</p>	
Controls	<p>User Interface 11.5" Touchscreen</p> <p>Network Wi-Fi, Ethernet</p> <p>Screen Resolution 2560 × 1600</p> <p>Motion Controller GigaDevice Arm Cortex-M4 200MHz FPU</p> <p>Logic Controller Rockchip RK3568 Arm Quad Cortex-A55 2GHz</p> <p>Memory 4 GB</p> <p>Flash 32 GB</p> <p>Operating System LINUX</p> <p>Interfaces USB 3.0 × 1, Ethernet × 1</p>	

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Cleaning Station	Raise3D C220-P	
Print Volume (W × D × H)	220 × 220 × 350 mm (8.7 × 8.7 × 13.8 inch)	
Machine Size (W × D × H)	Machine body	Incl. control panel & tower light
	1238 × 823 × 1740 mm (48.7 × 32.4 × 68.5 inch)	1384 × 823 × 1928 mm (54.5 × 32.4 × 75.9 inch)
Weight	Net Weight (Powder container & powder not included)	
	263 kg (579.8 lbs)	
Power	Input	C220-P (220V): 200-240VAC, 50/60Hz, 230VAC@8A (External vacuum is included) C220-P (110V): 100-120VAC, 50/60Hz, 110VAC@16A (External vacuum is included)
General	Supported Printer	Raise3D RMS220 Series SLS Printer
	Hopper Size	Fresh powder hopper: 20L Used powder hopper: 20L
	RFID	Yes
	Connectivity	Wi-Fi, LAN, USB
	Noise	<70 dB(A) when running, external vacuum not included
	Environment	Operating: temperature 15-30°C, humidity ≤ 30-70%RH without condensing Storage: temperature -10°-60°C, humidity ≤ 30-70 %RH without condensing
	Air Filter	HEPA
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/ Raise3D PA NEXT Black Powder/ Raise3D PA NEXT GB Black Powder
Controls	User Interface	7" Touchscreen, buttons with backlight
	Connectivity	Wi-Fi, Ethernet
	Screen Resolution	1280 × 800
	Motion Controller	GigaDevice Arm Cortex-M4 200MHz FPU
	Logic Controller	Rockchip RK3568 Arm Quad Cortex-A55 2GHz
	Memory	2 GB
	Flash	16 GB
	Operating System	LINUX
	Interfaces	USB 3.0 × 1, Ethernet × 1

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Sandblasting Station	Raise3D B520	
Compatibility	Raise3D RMS220 Third-party powder sintering 3D printers	
Machine Size (W × D × H)	Incl. door handle	Door handle not included
	765 × 990 × 1790 mm (30.1 × 39 × 70.5 inch)	695 × 990 × 1790 mm (27.4 × 39 × 70.5 inch)
Weight	200 kg (441 lbs)	
Power	100-240VAC, 50/60Hz, 230V@2A	
General	Supported Process	Sandblasting: Automatic / Manual Polishing (polishing module required): Automatic
	Blasting Basket Size	Standard: φ262 × 520 mm / φ10.3 × 20.5 inch Large: φ467 × 520 mm / φ18.4 × 20.5 inch
	Recommended Capacity	Standard: 10L Large: 30L
	Media Hopper Size	9L, approximately equal to 14kg of glass beads
	Waste Hopper Size	15L
	Noise	<75dB(A) when running, excluding external air compressor
	Environment	Operating: temperature 15-30°C, humidity ≤ 50%RH without condensing Storage: temperature -10°C-60°C, humidity ≤ 50%RH without condensing
	Ventilation	HEPA
	Compressed Air Input	Flow rate: >360 SLPM @ 6 bar Pressure: 6-8 bar
Controls	User Interface	7" Touchscreen; Foot switch
	Screen Resolution	1024 × 600
	Interlocks	Emergency stop switch; Safety door lock
	Interfaces	TF × 2