

- ✓ Less Powder Waste
- ✓ Cleaner Operation
- ✓ Rock-Solid Stability
- ✓ Low Maintenance
- ✓ Faster Material Changes

riton



**Next-Gen Bottom-feed
Desktop SLM Metal 3D Printer**

MCUBE

Structural Innovation · Redefining Desktop Mass Production

5 Key Highlights



Exclusive Bottom-Feed Design

Precision-metered lifting from the bottom eliminates the gravity-fed drop limitations of conventional top-feed systems, keeping every recoating pass fully controlled.



Clean, Low-Maintenance Operation

A dust-free chamber protects laser optics from contamination, cutting down on cleaning and maintenance intervals.



Rapid Powder Changeover

Swap materials simply by wiping down the chamber—no drive-shaft disassembly required. Unlike conventional top-feed systems that demand a full spindle teardown, this streamlined process doubles material switching efficiency.



30%+ Higher Powder Utilization

On-demand feeding prevents powder scattering and waste, significantly reducing material costs for titanium and CoCr alloys during batch production.



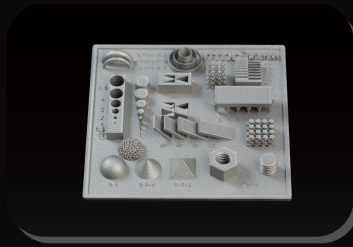
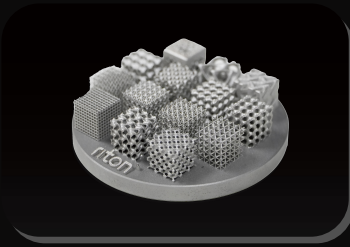
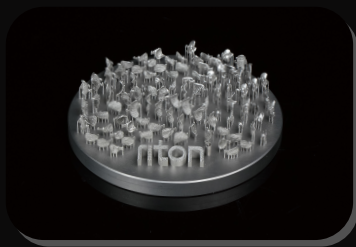
Air-Cooled Desktop Design

Plug-and-play via a standard 220V wall outlet. No water chillers, no industrial infrastructure—just a true desktop footprint.

Engineered for Small-to-Medium Batch Precision Metal Production

Exceptional Sample Quality & High-Precision Mass Production

Consistently produces fine lattices, thin-walled structures, and precision dental restorations. It delivers tight batch-to-batch dimensional consistency, smooth surface finishes, and high density—optimized for dental mass production, medical components, R&D specimens, and precision miniature parts.



Top-Feed vs. Bottom-Feed – A Structural Revolution

Conventional Top-Feed		MCUBE (Next-Gen Bottom-Feed)
Uncontrolled gravity drop.	Powder Feeding	✓ Mechanically metered bottom-lift (Fully controlled).
Heavy airborne dust; dirty optics.	Environment	✓ Sealed, dust-free chamber.
High powder spillage and waste.	Material Cost	✓ On-demand dispensing; minimal material loss.
High batch variation; unstable yields.	Print Quality	✓ Uniform across the build plate; rock-solid consistency.
Requires full spindle teardown (slow & tedious).	Material Changeover	✓ Simple chamber wipe-down for fast switching between CoCr, Titanium, etc.

Technical Specifications

Build Volume	Φ100 x 80 mm	Compatible Materials	CoCr alloy, titanium alloy, stainless steel, and other metal powders.
Laser Source	Single-mode fiber laser (300W / 500W), ultra-fine spot size.	Control System	Smart nesting + distortion-compensation process package
Layer Thickness	20 μm–60 μm (adjustable)	Power Supply	220V household power – fully air-cooled, no water chiller required.
Accuracy	Stable batch-production precision	Machine Dimensions	630 x 640 x 870 mm
Atmosphere Control	Intelligent Low-oxygen sealed chamber prevents oxidation and discoloration.	Machine Weight	140 kg

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