riton®

MLab
Desktop Dental Metal 3D Printer

Small in Size Big in Performance

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RITON ADDITIVE TECHNOLOGY CO., LTD

MLab

Desktop Metal 3D Printer

MLab is a high-performance desktop metal 3D printer tailored by Riton 3D for dental labs. Its compact and streamlined design addresses the spatial constraints in dental labs. Equipped with Riton's independently developed hardware and software control system, in collaboration with Riton's efficient and high-quality services, MLab provides robust empowerment for dental processing labs.

Fine craftsmanship tailored exclusively for dentistry

Personalized production at your fingertips

Three dimensions to assist you in efficient manufacturing

¥ More Economical

· **Optimal layout for dental labs**

With a compact size of 60×60×80cm, it supports highly flexible layouts, effectively addressing spatial constraints in dental labs

· **Dual reductions in air and power consumption, offering double savings and advantages**

Small in size, low in power consumption, further reducing production costs

Safer

· **Pre-soaking system**

The filter cartridge can be pre-soaked during cleaning, avoiding spontaneous combustion and eliminating safety hazards

· **Ergonomic design**

Placed at a height of 80cm on the desktop, eliminating the need for bending during operation, reducing occupational strain

More Efficient

· **Customized for dentistry**

Print area of φ100×80mm, In the fastest case,it only takes 2.5 hours to print 100 metal C&Bs or 7 metal RPDs (Actual time may vary due to different conditions)

· **Dual-module control**

Utilizing PLC and industrial computer dual-module control to effectively enhance equipment stability

· **Optimized layout of the cooling system**

Equipped with 6 fans for efficient heat dissipation, achieving an ideal thermal circulation state

· **Upward powder feeding structure design**

Allows for mid-print powder addition, effectively reducing the rate of discarded prints

· **Clear equipment status**

10.1-inch touchscreen, bird's-eye-view panel, providing real-time control of the device's working status.
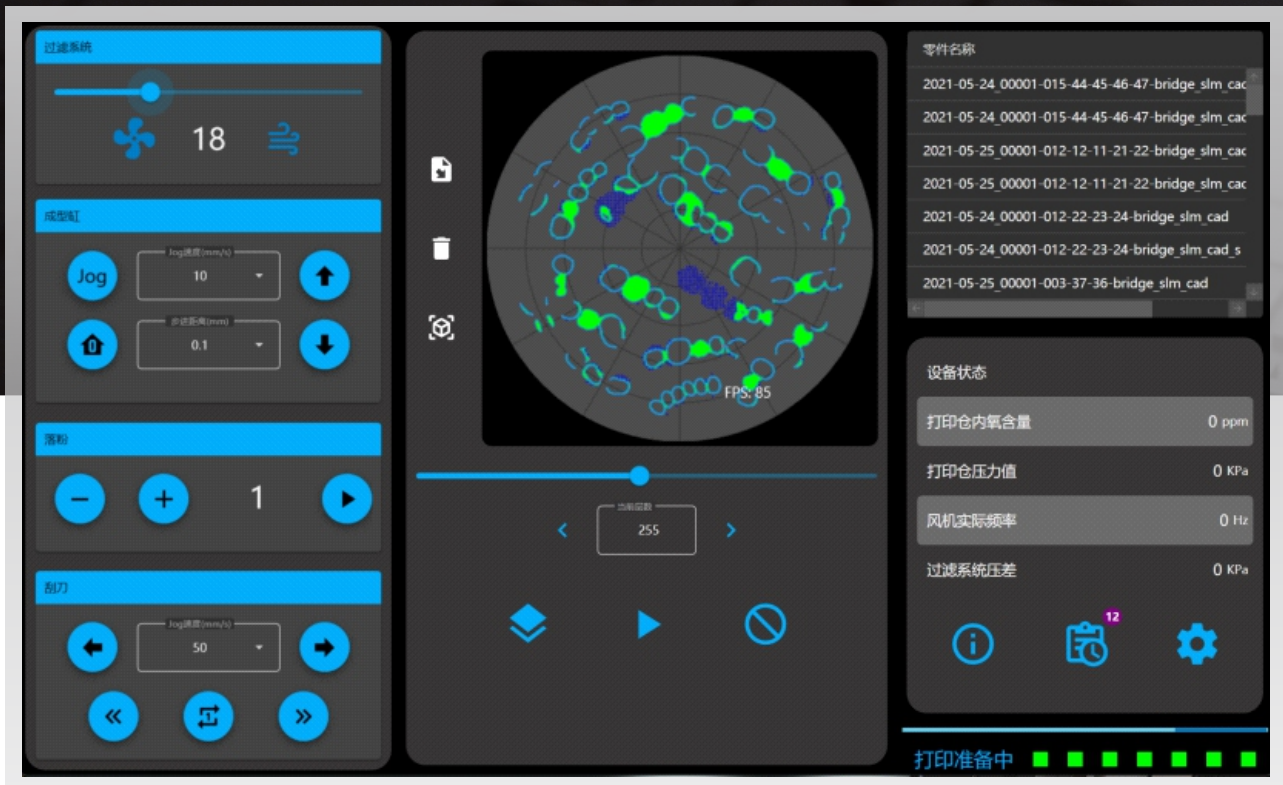
· **Intelligent connection to production equipment.**

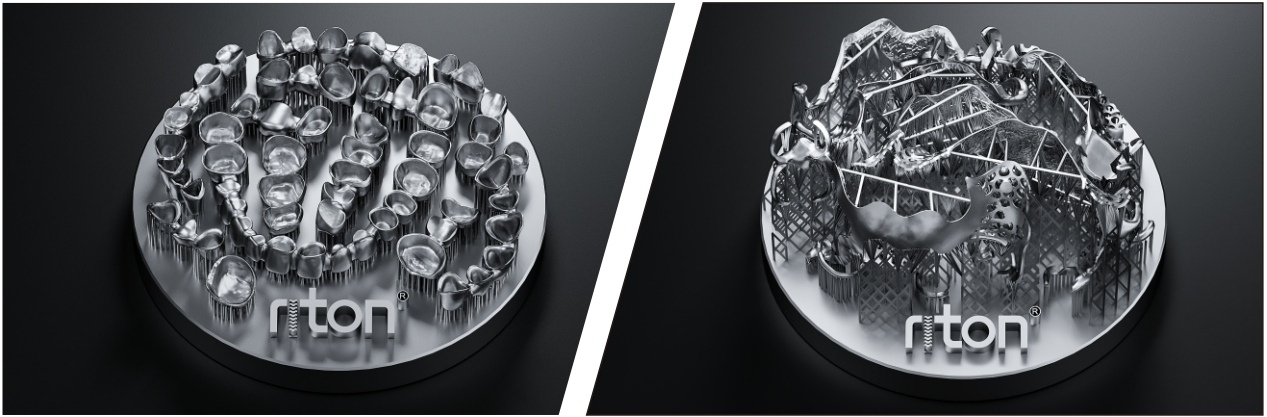Wireless transmission of printing data enables remote operation of printing.

Intelligent monitoring and feedback

Monitoring of the overall machine operation status: PLC connection status, laser status, emergency stop, lifting axis status of the forming chamber, powder falling axis status, scraper axis status, and powder shortage status, providing a comprehensive understanding of component status

Real-time recording and traceability

The interface now includes a "One-Click Filter" function: errors, warnings, and normal execution information

Intuitive and easy to use

The user interface is simple, intuitive, and easy to operate

Technical Specifications

Laser Source	Single-fiber laser
Laser Power	250W
Maximum Scanning Speed	11200 mm/s
Layer Thickness	20-60μm
Protective Gas	Nitrogen or Argon
Printing Materials	Cobalt-chromium alloy / Titanium alloy / Stainless steel
Printer Weight	135kg
Input Voltage	220V
Installation Environment	15℃-35℃, Humidity: ≤95%, No vibrations

Printed Samples

AUXILIARY EQUIPMENT

SMALL IN SIZE   BIG IN PERFORMANCE

Vacuum Cleaner
φ28.5×50cm (H)

Nitrogen Generator
55×55×85cm (L×W×H)

Tube Furnace
60×67×72cm (L×W×H)

Mini Sawing Machine
68×37×30cm (L×W×H)

TECHNICAL SERVICES

Installation Consultation Service
· Equipment Consultation
· Site Space Consultation
· On-site Installation

Professional Training Services
· Design Training
· 3D Printer Operation Training
· Post-Processing Training

Worry-Free After-Sales Service
· Online Technical Support
· On-site Repair within 48 Hours
· Providing Proxy Printing Services during
  Equipment Maintenance Period