

Avimetal-MT280

Laser Powder Bed Fusion Equipment

Entry-Level Batch Production Printer

Low Cost | High Output | Easy Operation

Multi-Field Research Top Pick



Closed Loop Motion System

IP53 efficiently waterproof and dustproof



Large Capacity Powder Feeding Cylinder

No need to open the box and add powder, ensuring one-time forming

ISO CE FDA SIL



Wind Farm Optimization Design

Wide coverage material, consistent forming quality throughout the entire format



Modular and Compact Design

Easy to assemble and maintain



Efficient Circulating Filtration System

Flexible configuration, optional for long-term or three-level filtering



Real-time Monitoring

Real-time recording, output, self-diagnosis



Open-source Parameters

Laser power, scanning speed, etc. are open and adjustable



HCI Friendly

Modular and compact design for easy use



Equipment Parameters

Build Material	Titanium Alloy, Superalloy, Aluminum Alloy, Cobalt-Chromium Alloy, Stainless Steel, Die Steel, Copper Alloy, Nitinol Alloy, High-Entropy Alloy, Refractory Metal, etc.		
Build Size ^①	265×265×400mm (X×Y×Z)	Recoating Mechanism	Unidirectional Variable-Speed Recoating
Laser System	500W×1 /×2	Gas Support	Ar/N ₂
Scanning System	High-Precision Scanning Galanometer	Working Oxygen Content	≤100ppm
Focusing System	F-theta Field Lens	Build Efficiency ^②	25cm ³ /h; 50cm ³ /h
Beam Quality	M ² ≤1.1	Host Dimensions	3100×1000×2200mm (L×W×H)
Beam Diameter	50~100μm	Installation Dimensions	4000×2500×2800mm (L×W×H)
Maximum Scanning Speed	7m/s	Power Supply	AC380V
Layer Thickness	20~100μm	Power Consumption	≤8kW; 11kW
Platform Preheating Temperature	RT+20℃~200℃	Equipment Weight	Approx.2600kg

^① Excluding the thickness of the build platform.

^② The building efficiency can vary due to differences in equipment configuration, process parameters, and the operating status of the laser.
 * The above data are obtained under AVIMETAL operating conditions. The final equipment parameters are subject to the actually sold products.


Application Areas

 Aerospace	 Automobile Manufacturing	 Industrial Molds	 Medical Field	 Education and Research
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Application Cases



Combustion Chamber (MT-Hastelloy X)

Shoe Pattern (MT-PW01)

Orthopedic Implants (MT-CoCrMo)

Parameter Smart Module

Standard Configuration: AVIMETAL-Pretreatment data preprocessing software, AVIMETAL-Control system (intelligent process diagnosis, real-time data tracking, real-time status monitoring), permanent dust removal.

Optional Configuration: 3D part reconstruction, powder spreading monitoring, automatic splicing, path planning, AVIMETAL-MES management system.

Consumables

Rubber scraper, metal build plate, passivant

Pre-Sales & After-Sales : Multi-location service support, 24x7 rapid response

 Customized Matching Specialized technical team supports deep customization	 Assembly & Debugging Standardized installation, rapid optical system calibration	 Personnel Training Comprehensive tiered training: operation, process handling, etc.
 Product Upgrades Equipment iteration services including supporting software	 Spare Parts Service Provides maintenance parts and consumables	 Operational Support On-site equipment inspection and maintenance by engineers

Materials

More than 200 alloy grade powder materials, including superalloys, titanium alloys, aluminum alloys, cobalt chromium alloys, stainless steels, die steels, high entropy alloys, refractory metals, and copper alloys, etc.

Process

