

Avimetal-MT800H

Laser Powder Bed Fusion Equipment

High-Z Large-Part Solution

Productive | Open | Reliable

Mass Industrial Production Platform



1.5m Large-Format High-Axis Forming

Forming size:
835×835×1500mm
Z-axis net forming
height: 1500mm



Innovative Three-Layer Airflow System

Laminar flow, steady flow, purge
Three-layer synergy for uniform
printing consistency



High-Quality Multi-Laser System Modular layout

Full-build-area uniformity
deviation ≤5%



Closed-Loop Powder Path Management

Powder conveying, recovery,
sieving & part retrieval
Full-process powder-human
isolation



Integrated Three-Station Design

Integrated forming,
powder cleaning &
part removal
Compact structure,
easy operation



Highly Intelligent & Open Architecture

Self-developed preprocessing
software and control system
Controllable technology,
open interfaces



Long-Life Circulating Filtration System

Filter cartridge service
life ≥50000h
Safe and reliable



HCI Friendly

Safety circuit interlock,
anti-static treatment, etc.
Real-time monitoring of multiple
technical parameters

ISO CE Ex FDA SIL



Equipment Parameters

Build Material	Titanium Alloy, Superalloy, Aluminum Alloy, Cobalt-Chromium Alloy, Stainless Steel, Die Steel, Copper Alloy, etc.		
Build Size ^①	835×835×1500mm (X×Y×Z)	Recoating Mechanism	Uni/Bidirectional Variable-Speed Recoating
Laser System	500W×6 /×8 /×10	Gas Support	Ar/N ₂
Scanning System	High-Precision Scanning Galanometer	Working Oxygen Content	≤100ppm
Focusing System	F-theta Field Lens	Build Efficiency ^②	150cm ³ /h; 200cm ³ /h; 250cm ³ /h
Beam Quality	M ² ≤1.1	Host Dimensions	8100×5300×5400mm (L×W×H)
Beam Diameter	70~120μm	Installation Dimensions	11100×8300×6500mm (L×W×H)
Maximum Scanning Speed	7m/s	Power Supply	AC380V
Layer Thickness	20~100μm	Power Consumption	≤50kW
Platform Preheating Temperature	RT+20℃~200℃	Equipment Weight	Approx.18000kg

^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.

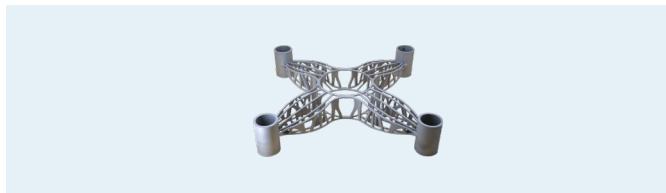
* The above data are obtained under AVIMETAL operating conditions. The final equipment parameters are subject to the actually sold products.



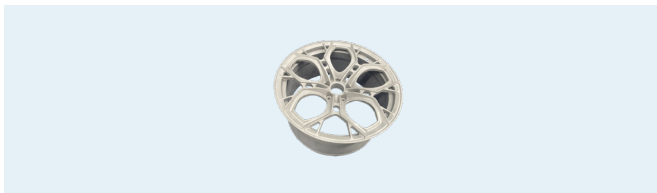
Application Areas

 Aerospace	 Automobile Manufacturing	 Industrial Mold	 Nuclear Power
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Application Cases



Quadrotor UAV Frame(MT-316L)



Automotive Wheel Hub(MT-AISI10Mg)

Automatic Powder Supply Solution



MPC-Q150
Powder Cleaning Machine



MPS-JS150
Powder Collection Tank



MPS-BF150
Pump Powder Feeder



MSF-Z150
Powder Screening Machine



MPS-XH10
Integrated Circulating
Powder Path System

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



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