

Raise3D MetalFuse



New Technology, A Leap in Efficiency

MetalFuse uses the Catalytic Debinding process, which can represent up to 60% less processing time, and an increase in the part's density of up to 97% of that of wrought iron.



High-End Metal Filament by BASF

By using BASF Forward AM's metal filaments, Ultrafuse® 316L and Ultrafuse® 17-4 PH, MetalFuse is capable of providing improved printing repeatability and a greater yield rate.



Adopting a Time-Tested Process

Both the catalytic debinding furnace (D200-E) and the sintering furnace (S200-C) are used to post-process the "Green Parts", in a way to the process that was developed based on BASF's know-how of Metal Injection Molding (MIM).



Specialized Slicing Software

A special edition of ideaMaker offers templates optimized for this kind of printing, while also taking into account the sintering and debinding process that can be paired with MetalFuse. This version of ideaMaker also features a simpler slicing process.



Complete In-house Solution

MetalFuse is a complete end-to-end solution for metal FFF printing. No need to put your IP at risk by using external services, and no waiting times for third-party completion, as everything is done in-house.



Touchscreen

A visual interface that needs only one click to select a template, and stores work history, keeping it available for review.



Environmentally Friendly

Filters that clean exhaust gas, bringing them to safe levels and reducing pollution.

S200-C
Sinter



Forge1
Printer



D200-E
Debinder



Technical Specifications

Printer	Forge1
Machine Size	620 × 626 × 1390 mm
Build Volume	300 × 300 × 300 mm
Print Technology	FFF
Print Head	Dual-Head with Electronic Lifting System
XYZ Positioning Resolution	0.78125, 0.78125, 0.078125 micron
Print Speed	30-150 mm/s
Max Build Plate Temperature	120°C
Supported Materials	Ultrafuse® 316L, Ultrafuse®17-4 PH
Filament Diameter	2.85 mm
Max Nozzle Temperature	300°C
Operating Ambient Temperature	15-30°C, 10-90% RH Non-Condensing
Slicing Software	ideaMaker Metal
Supported File Types	STL/ OBJ/ 3MF/ OLTP
Supported OS	WINDOWS
Machine Type	Ethanedioic Debinding D200-E
Machine Size	806 × 905 × 1583 mm
Build Volume	200 × 200 × 200 mm
Trays	Adjustable Multi-Level Tray (7 Positions)
Protection Gas	Argon or Nitrogen
Max Catalyst Storage	2 L/ 122 inch ³
Max Gas Flow	5 L/min
Max Debinding Speed	1.55 mm/h
Power Supply Input	220-230 V AC, 50/ 60 Hz, Single phase, 20A, 4.4 kW Peak Draw
Exhaust Treatment	Activated Carbon Adsorption Facilities
Machine Type	Sintering (Carbon) S200-C
Machine Size	1434 × 1137 × 1974 mm
Build Volume	200 × 200 × 200 mm
Sintering Processing Time	About 20 hours
Trays	Adjustable Multi-Level Tray (6 Positions)
Protection Gas	Argon, Nitrogen
Max Heat Load	14 kW
Peak Internal Temperature	1450°C/ 2642°F
Power Supply Input	380-400 V AC, 50/ 60Hz, 3-Phase (5-wire), 45A/ 30 kW Peak Draw
Front-Mounted E-Stop	Yes
Over-Heating Protection	1500°C