Forge1 Technical Specifications

Raise3D Forge1 is a metal FFF printer which allows the use of dual materials and achieves a smooth surface finish, providing high progress for assembly and the ability to reliably handle batch printing. Raise3D Forge1 printers are cost-effective to build a print farm to manufacture parts on demand.

Printer		Raise3D Forge1	
Build Volume (W × D × H)		Single Extruder Print	Dual Extruder Print
		300 × 300 × 300 mm (11.8 × 11.8 × 11.8 inch)	255 × 300 × 300 mm (10 × 11.8 × 11.8 inch)
Machine Size (W × D × H)		620 × 626 × 1390 mm (24.4 × 24.6 × 54.7 inch)	
Net Weight		80.55 kg (177.58 lbs)	
Electrical	Power Supply Input	100-240 V AC, 50-60 Hz 230 V @3.3 A	
	Power Supply Output	24 V DC, 600 W	
General	Print Technology	Fused Filament Fabrication (FFF)	
	Print Head System	Dual-head with electronic lifting system	
	Filament Diameter	1.75 mm	
	XYZ Step Size	0.78125, 0.78125, 0.078125 micron	
	Print Head Travel Speed	30-150 mm/s	
	Build Plate	Glass Build Plate	
	Max Build Plate Temperature	120℃	
	Heated Bed Material	Silicone	
	Build Plate Leveling	Auto-Leveling	
	Filament Run-out Sensor	Available	
	Layer Height	0.1-0.25 mm	
	Nozzle Diameter	0.4 mm (Default), 0.6 (Available)	
	Max Nozzle Temperature	300℃	
	Connectivity	Wi-Fi, LAN, USB port, Live camera	
	Noise Emission (Acoustic)	< 55 dB (A) when building	
	Operating Ambient Temperature	15-30℃, 10-65% RH non-condensing	
	Storage Temperature	-25℃ to +55℃, 10-90% RH non-condensing	
Material	Material Type	Metals (Ultrafuse® 316L, Ultrafuse® 17-4PH)[1]	
		Support layer material: aluminum oxide (Ultrafuse® Support Layer)[2]	
Software	Slicing Software	ideaMaker for Metal	
	Supported File Types	STL/ OBJ/ 3MF/ OLTP	
	Supported OS	Windows	
	Machine Code Type	GCODE	
Printer Controller	User Interface	7-inch Touch Screen	
	Network	Wi-Fi, Ethernet	
	Power Loss Recovery	Available	
	Screen Resolution	1024 × 600	
	Motion Controller	Atmel ARM Cortex-M4 120 MHz FPU	
	Logic Controller	NXP ARM Cortex-A9 Quad 1 GHz	
	Memory	1 GB	
	Onboard Flash	16 GB	
	OS	Embedded Linux	
	Ports	USB 2.0 × 2, Ethernet × 1	

1. Metal materials are used to print parts and supports.

2. The support layer material can't be printed on its own and is only used for layer isolation, allowing for good separation between the support and the prints after sintering.

This product is intended exclusively for sales, distribution, and use within the European Union, Albania, Iceland, Liechtenstein, Monaco, North Macedonia, Norway, San Marino, Serbia, Switzerland, Turkey, and the United Kingdom, and is only available for customers located in those countries.

RAISE3D