

Studio System 2

Printer & Furnace



 proto3000
ISO 9001:2015

Studio System™ 2 Printer Specifications

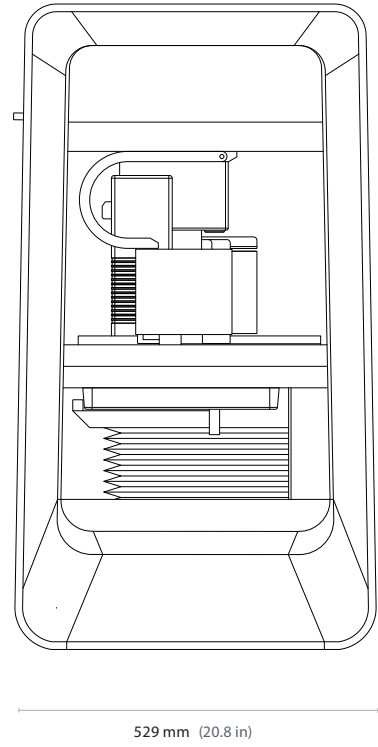
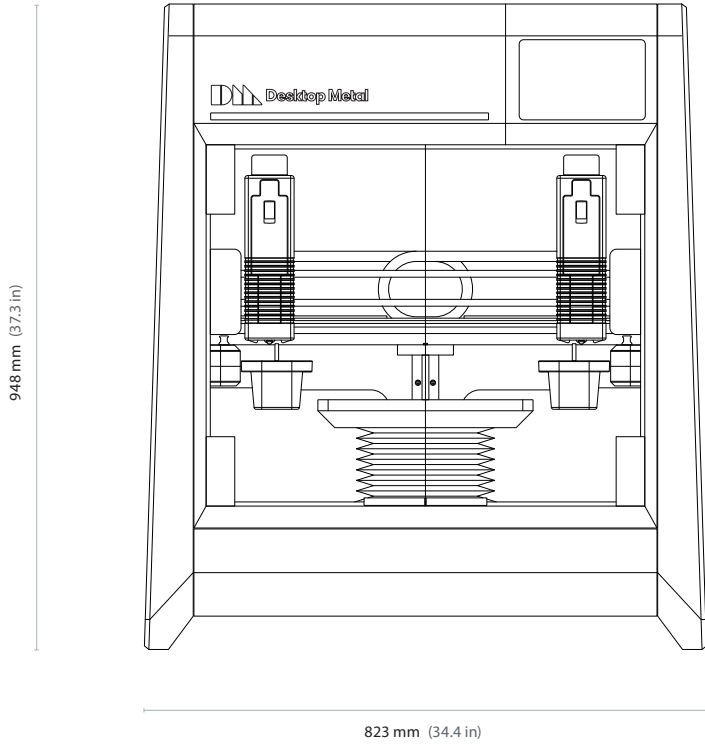
The printer was designed from the ground-up for simple installation and use. Its process is similar to the safest, most widely used 3D printing process—Fused Filament Fabrication (FFF). Unlike laser-based systems that selectively melt metal powder, the Studio System™ 2 printer extrudes

bound metal rods, eliminating requirements associated with metal 3D printing and enabling new features like gyroid infill for lightweight strength.

TECHNOLOGY	Print technology	Bound Metal Deposition™
	Support technology	Separable Supports™
	Interface technology	Ceramic Release Layer™
PERFORMANCE	Layer height (in green state)	<ul style="list-style-type: none"> • 50-150 µm, high resolution printhead • 150-300 µm, standard resolution printhead
	Max build weight (in green state)	6.5 kg (14.3 lbs)
PHYSICAL	External dimensions	94.8 x 82.3 x 52.9 cm (37.3 x 32.4 x 20.8 in)
	Weight	97 kg (214 lbs)
	Build chamber	Heated
	Extruder assembly	Dual quick-release print heads
	Build envelope	300 x 200 x 200 mm (12 x 8 x 8 in)
	Build plate	<ul style="list-style-type: none"> • Heated, up to 70 °C (158 °F) • Vacuum-enabled print bed
	Print sheets	Polypropylene, peel-away
	Nozzle diameter (Build media)	<ul style="list-style-type: none"> • 0.40 mm, standard resolution • 0.25 mm, high resolution
	Power requirements	100-130 VAC, 50/60Hz, 15 A, 1-phase 200-240 VAC, 50/60Hz, 10 A, 1-phase
	Onboard control	7-inch touchscreen display
	Chamber view	In-chamber build plate camera
MEDIA	Media holding / loading	Hot-swappable, push-to-release, user refillable cartridges
	Build media	Bound metal rods (metal powder + polymer binder)
	Interface media	Bound ceramic rods
PLATFORM	Network connectivity	Wireless and Ethernet
	Software	Fabricate® Cloud (local options also available at cost)
	Supported file types	STL, IGES, JT, STEP, VDA-FS, U3D, VRML and native file types (SolidWorks, ProE, etc)

Studio System™ 2, Printer Specifications

DIMENSIONS



Furnace Specifications

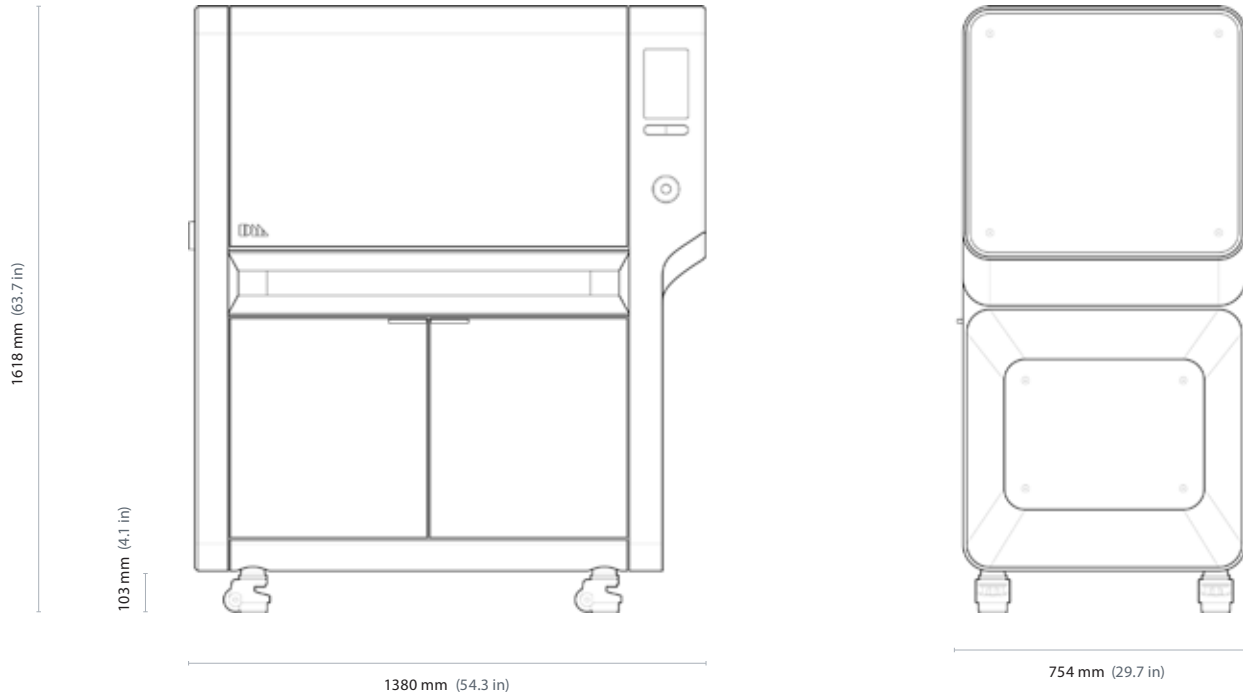
Fully-automated and sized to fit through a doorway, the furnace delivers industrial-strength sintering in a form factor suitable for shop environments. With high thermal uniformity and low gas usage, the furnace heats parts in a vacuum-enabled chamber to just below their melting point, fusing the metal particles together to create sintered parts with densities up to 98%. Featuring an external gas hookup and adjustable

shelving totaling 3,000 cm² of surface area for sintering parts, the furnace scales to support mid-volume production of high-quality, dense metal parts ready for end-use applications.

PERFORMANCE	Atmosphere	Partial-pressure sintering (vacuum-enabled)
	Heating	SiC heating elements (4 sides)
	Max temperature	1400 °C (2552 °F)
	Average heat load	8,100 BTU/hr
	Max heat load	15,600 BTU/hr for 2 hours
	Thermal uniformity	±5 °C at sintering temperatures
PHYSICAL	External dimensions	1618 x 1380 x 754 mm (63.7 x 54.3 x 29.7 in)
	Height in open position	2160 mm (85.0 in)
	Weight	798 kg (1,760 lbs)
	Workload envelope	300 x 200 x 200 mm (11.8 x 7.9 x 7.9 in)
	Workload surface area	3,000 cm ² (465 in ²)
	Workholding	Adjustable multi-level trays with ceramic setters (6-position)
	Retort	Stacking graphite rings
	Ventilation	<ul style="list-style-type: none"> • Effluent air exhaust line (0.5 in, push-to-connect) • Liquid drain line (0.5 in, push-to-connect)
	Binder management	Removable binder cold trap liner
	Pinch-point handling	Finger-safe light curtain protection
	Fail safes	<ul style="list-style-type: none"> • Thermal interlocks • Front-mounted E-stop • Over-temperature protection
	Power requirements	208 VAC, 60 Hz, 30 A, 3-phase dedicated circuit
	Onboard controls	7-inch touchscreen display
	GAS	Gas types
Gas connection		<ul style="list-style-type: none"> • External gas connection
PLATFORM	Network connectivity	Wireless and Ethernet
	Automation	<ul style="list-style-type: none"> • Auto-generated sintering profiles • Live job progress tracking

Furnace Specifications

DIMENSIONS



DESIGN

ADDITIVE MANUFACTURING

METROLOGY