

STUDIO SYSTEM+

Furnace specifications

Fully-automated and sized to fit through a doorway, the furnace delivers industrial-strength sintering in an office-friendly package. The furnace uniformly heats parts to just below their melting point to remove secondary binder, causing the metal particles to fuse together and the part to densify up to 96 to 99.8%—without residual stresses introduced in laser-based systems. New features introduced with Studio System+ include a newly designed retort box with adjustable shelving designed for batch processing.

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	161.8 x 138.0 x 75.4 cm 63.7 x 54.3 x 29.7 in
	Height in open position	216 cm 85 in
	Weight	798 kg 1,760 lbs
	Workload envelope	30 x 20 x 20 cm 11.8 x 7.9 x 7.9 in
	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	<ul style="list-style-type: none"> • 208 VAC, 60 Hz, 30 A, 3-phase dedicated circuit • NEMA L15-30 plug (4-wire connection)
	Onboard control	7-inch touchscreen display
GAS	Gas types	Forming gas, nitrogen (material-dependent)
	Gas connection	<ul style="list-style-type: none"> • RFID-enabled, 900 L onboard canisters (x2) • External gas connection
PLATFORM	Network connectivity	Wireless and Ethernet
	Software	Fabricate™ software
	Browser requirements	Accessible via any web browser
	Automation	<ul style="list-style-type: none"> • Auto-generated temperature profiles • Automatic 2D nesting with part placement instructions • RFID-enabled gas supply monitoring (onboard canisters) • Live job progress tracking

*Temporary external line required pending final validation testing.

DIMENSIONS

Studio System™ Office-friendly metal 3D printing

