

PureSinter™ Furnace Specifications

PureSinter delivers a breakthrough in premium vacuum furnace design for sintered powder metal applications. Its new approach turns furnace design inside out, enabling heat to work as a purifier and preventing contaminants such as oxygen from entering the retort during sintering.

The benefits include improved reliability and final material properties as well as a pure atmosphere that enables faster production for scaling of metal powder projects across a wide array of materials.

PERFORMANCE	Atmosphere	Partial-pressure sintering (5-500 Torr)
	Heating	12 Standard Resistive Heating Elements surrounding a silicon carbide retort
	Max temperature	1,420°C (2,588°F)
	Average heat load	16,700 BTU/hr
	Max heat load	83,300 BTU/hr for 2 hours
	Thermal uniformity	±5°C at steady-state sintering temperatures
PHYSICAL	External dimensions	1,440 x 830 x 1,922 mm (56.69 x 32.67 x 75.66 in)
	Height in open position	2,697 mm (106.18 in)
	Weight	680 kg (1,496 lbs)
	Workload envelope	244 x 270 x 265 mm (9.60 x 10.63 x 10.43 in)
	Retort volume	15.8 L (0.56 ft³)
	Workholding	7 removable high purity graphite shelves
	Retort	Airtight silicon carbide vacuum retort with pecclet gas flow sealed mating interface
	Ventilation	Effluent air exhaust line (0.75 in, barbed fitting)
	Binder management	Two stage management with trap and disposable filtration
	Pinch-point handling	Two-hand touch close
	Fail safes	<ul style="list-style-type: none"> • Thermal interlocks • Front-mounted E-stop • Over-temperature protection
	Power requirements	200-220 V, 40A, 3ph, 50/60hZ or 380-415V, 20A, 3ph, 50/60hZ
	Onboard controls	25.4 cm (10-inch) touchscreen display
GAS	Gas types	Argon, nitrogen, forming gas, or clean dry air (binder, material, and temperature dependent)
	Gas connection	External gas connection; fitting type: 1/4" VCO male
PLATFORM	Network connectivity	Ethernet
	Automation	<ul style="list-style-type: none"> • Auto-generated sintering cycles • Live job progress tracking • Live Monitor cloud enabled

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DIMENSIONS

