

Print today. Parts tomorrow.

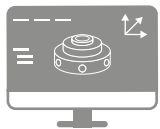
Make metal with Conflux 1.

RAPIDIA

www.rapidia.com



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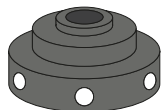


3D MODELING



3D PRINTING

Rapidia's 3D printing systems use water-based metal, ceramic, or support material feedstock. The proprietary evaporative support technology allows users to create complex parts with automatically generated polymer supports which evaporate during sintering, or hand-removable metal structures when sintering support is required to prevent sagging. Our metal extrusion 3D printing technology allows a fast, debinding-free, and solvent-free 3D printing workflow.



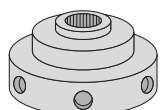
GREEN STATE

GREEN-MACHINING, SMOOTHING, WATER-BONDING



SINTERING

The Rapidia sintering furnace is easy to install, safe, and user friendly. Our hot zone design guarantees temperature uniformity and ultra-high atmospheric purity. Fully qualified cycles can sinter parts of any thickness in under 24 hrs. An open interface on the furnace allows users to program custom sintering, heat treating, and brazing cycles. The unique combination of our rapid cooling feature and low binder content slashes sinter time up to 80% over competitors.



FINISHED PRODUCT

POST-MACHINING, SURFACE FINISHING TREATMENTS

Conflux 1 Printer

Specifications

RAPIDIA

PRINT TECHNOLOGY	Extrusion of water-based paste (metals, support material) Independent Dual Extruder
FEEDSTOCK	Refillable stainless-steel cartridges 1L/ 1000 cc of paste
BUILD BED	Heated, magnetic
PRINT PLATE	Reusable flexible stainless steel sheet
NOZZLE ID	0.4 mm
DEPOSITION SPEED	~50 g / hour (316L, 17-4PH)
MAX BUILD ENVELOPE	200 mm x 240 mm x 150 mm, 7.87" x 9.45" x 5.9"
SUPPORT TECHNOLOGY	<ol style="list-style-type: none"> 1. Evaporative polymer supports. This material also acts as a separation layer for metal supports if needed. 2. Metal supports (hand removable) 3. Support elimination by water bonding



Conflux 1 Furnace

Specifications

ATMOSPHERE	Partial-pressure vacuum sintering
GAS TYPES	Argon, Argon with 3% Hydrogen
MAXIMUM TEMPERATURE	1400 °C
EXTERNAL DIMENSIONS	210x110x84 cm (HxDxW) 83x43x33" (HxDxW)
RETORT DIMENSIONS	245 mm ID by 295 mm long 9.64" ID by 11.61" long
POWER OPTIONS	Single Phase: 208-240 V, 48 A, 50/60 Hz Three Phase: 208-230 V, 32 A, 50/60 Hz 400 V, 25 A, 50/60 Hz.
RETORT FURNITURE	Single or double shelf configuration
VENTILATION	¾" ID hose vented to exterior of building
BINDER MANAGEMENT	Two stage trapping system
FAIL-SAFES	Overtemperature protection, backup battery system for safe shut down in case of power failure

