

SINTAVIA CAPABILITIES

Rev. 09/22

Design

- Thermodynamic System Design
- Computational Fluid Dynamics Analysis
- Heat Transfer Analysis
- Mechanical/Structural Analysis
- Topology Optimization
- Vibration Analysis
- Fatigue Analysis
- Thermal Performance Testing
- Flow Testing

Printing

- Laser Powder Bed Fusion
 - 2 x SLM 280HL Dual
 - 1 x SLM 280HL Single
 - 1 x SLM NXG XII 600
 - 5 x EOS M290
 - 2 x EOS M400-1
 - 8 x EOS M400-4
- 2 x AMCM M4K-4
- 1 x TRUMPF Truprint 3000
- Electron Beam Powder Bed Fusion
 - 3 x Arcam Q20+
- Base alloys include Nickel, Aluminum, Stainless Steel, Copper, Titanium, and Niobium
- Additional refractory alloy development is ongoing

Surface Finishing

- Wet and Dry Blasting
- Multi Vibration Finishing
- Vibratory Polishing
- Belt Sanding
- Extrude Hone Abrasive Flow Machine Finishing
- Centrifugal Barrel Finishing

Mechanical Testing

- Ambient High Temperature Fatigue
 - Fracture Toughness
- Ambient and High Temperature Tensile
- Impact Testing
 - Charpy
- Creep Testing

Lab Services

- Chemistry Analysis
 - ICP-OES
 - Interstitial Element N, O, H, C, S
 - Sub-ppm Elemental Analysis
- True Density Testing
- Metallographic Evaluation
 - Preparation
 - Grain Size
 - Microstructure
 - Macro Etch
 - Micro Etch
 - Porosity
 - Density Evaluation
- Particle Size Distribution Analysis
- Scanning Electron Microscope (SEM) with Energy Dispersive X-Ray Analysis (EDS)
- Morphology Evaluation
- Failure Analysis
- Hardness Testing
 - Rockwell
 - Superficial
 - Microhardness
 - Vickers
- Powder Flow Testing
- Tap Density Testing

Post Processing

- CNC and Manual Milling
- CNC and Manual Lathe Turning
- Wire EDM Cutting
- Band Saw Cutting
- 5 and 3 Axis VMC
- Build Plate Grinding
- Ultrasonic Cleaner
- Depowdering

Thermal Processing

- Vacuum Heat Treatment
- Hot Isostatic Pressing
- Aluminum Box Oven
- Binder Oven

Quality & Inspection

- CT Scanning
- Radiographic Scanning
- Blue Light Scanning
- Fluorescent Penetrant Inspection
- Coordinate Measurement Machine
- Surface Roughness Profilometer Testing
- Eddy Current
- X-Ray
- Ultrasonic
- Shop X-Ray
- Magnetic Particle Testing
 - Magnaflux
- Welding Inspection
- Formtrace
 - Fine Profile and Radii Measurement



SINTAVIA

2500 SW 39th Street, Hollywood, FL 33312
www.sintavia.com | +1 (954) 474-7800