



MIM3000 DEBIND & SINTER FURNACE

The most versatile tool in the metal injection molding part making process.

- All Metal Hotzone & Retort
- 27 - 339L process volume
- H₂, N₂, Ar, Vacuum Atmosphere
- Up to 1600°C
- Functional & Flexible User Experience



QUALITY FIRST. INNOVATION. EXCELLENCE.



The most advanced Debind & Sinter furnace

Based on an All-Metal hotzone and retort design, this furnace allows users to thermally remove backbone or 2nd stage binder and sinter metal parts to the highest density and mechanical properties. Utilizing Elnik's technical innovations this equipment is the Swiss Army Knife of all furnaces available to process MIM parts.

Processed Alloys

- Stainless Steel
- Low Alloy Steel
- Tool Steel
- Carbon Steel
- Titanium
- Copper
- Tungsten Carbide
- Precious Metals
- Super Alloys (Inconel/Hastealloy)
- Aluminum
- and more....

Furnace Options

- Gas Fired Venturi Burner
- High Vacuum Diffusion Pump
 - 10x -5/6 vacuum processing atmosphere
- Air Conditioner for Electrical Cabinet
- Argon Purifier (option oxygen analyzer)
- Process Gas Dew Point Sensor (Ar,H2)
- Flexible Survey Thermocouples
- Rigid TUS/SAT Thermocouples
- TZM Molybdenum Shelves
 - <1,425C
- Lanthanated Molybdenum Shelves
 - >1,425C
- 0.040" (1mm) 96% pure alumina plates
 - 4" x 6" (100x150mm)
- 0.25" (6.3mm) porous ZTA alumina plates
 - 4" x 6" (100x150mm)
- Mobile Part Cart
- Removable Center Retort Rack
- Emergency Purge Regulator Kit
- Personalizing Color Options

Technical Innovations

Gas Plenum Retort

- High efficiency binder removal
- Superior gas distribution
- Pre-heated gas for low temperature convection

Intelligent Process Control

- Ensures all parts see required temperature, regardless of load size
- Process safety deviation monitoring

AccuTemp® + Offset Manager

- Proprietary Thermocouple program providing tight temperature control
- Offset manager to tune furnace temperature

Coldfinger® Debind Trap

- Forced flow enhanced binder trap

Service Management

- Component specific time and usage management software

Process Control Reports

- Supplemental or replacement for in house documentation

Ease of Use

- MS Excel recipe builder
- Easy to use HMI with enhanced visual management
- Data recording and detailed process trend review

Contact Us



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www.elnik.com

Technical Details

Below are the technical specifications of all the MIM3000 series furnaces

MIM3000 Series Debind & Sinter Furnaces

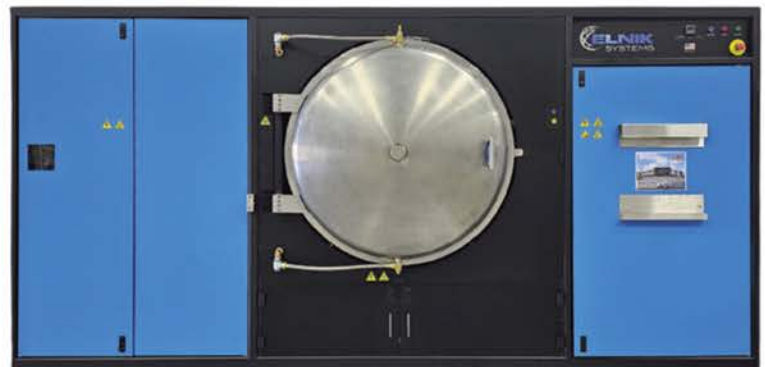
Model	MIM3001L	MIM3015	MIM3025	MIM3045	MIM3675	MIM3009
Max Temperature	up to 1600°C					
Atmosphere	Ar,N2, H2, Vacuum					
Temperature Uniformity	+/- 2-3°C (vacuum) / +/- 5-10°C (N2,Ar,H2)					
Heating zones	2	2	6	6	6	6
Retort Volume	18 L	41 L	68 L	117 L	175 L	234 L
Retort Shelves	14	16	32	44	66	88
Outside Dimensions	108 x 80 x 100 (inches)	179 x 102 x 100 (inches)				
	2743 x 1905 x 2172 (mm)	4547 x 2591 x 2540 (mm)				
Voltage	380/400V, 415V, 460/480V, 575V / 3Phase / 50,60 Hz					

Applications

- Metal Injection Molding
- Sinter Based Metal Additive Manufacturing
- Annealing
- Brazing
- Aging
- Tempering

Industries Served

- Medical
- Aerospace
- Firearms/Defense
- Fashion/Lifestyle
- Electronics
- Industrial Tools
- Automotive
- And More...





MORE THAN A FURNACE COMPANY

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