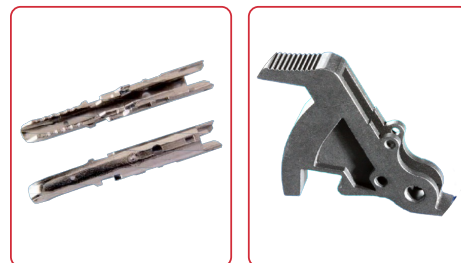


Parmatech

Metal Injection Molding (MIM) for Medical, Aerospace, Defense & Firearms

Parmatech Corporation is one of the most experienced metal injection molding houses in North America. The MIM process combines the design freedom of plastic injection molding with the mechanical properties of wrought metal — complex small parts with fine features, thin walls, and consistent repeatability from prototype through multi-million piece production.



Part Consolidation	Miniaturization	Repeatability	Material Portfolio
<ul style="list-style-type: none"> ● Replace 3–10 machined parts w/ 1 ● Undercuts & branding in-tool ● Lower cost, fewer suppliers ● Less scrap and handling ● Medical, firearms, industrial 	<ul style="list-style-type: none"> ● Min walls 0.3–1.0 mm typical ● Fine surfaces ~Ra 16–32 μin ● Lettering & logos formed in-tool ● Sintered mass 0.1–150 g typical ● No costly machining toolpaths 	<ul style="list-style-type: none"> ● As-molded ± 0.3–0.5% of nominal ● Post-ops for critical fits only ● SPC, CMM, vision inspection ● FAI & PPAP as required ● Full lot traceability per order 	<ul style="list-style-type: none"> ● 316L, 17-4PH, 420, 440C ● Soft-magnetic Fe-Ni & Fe-Si ● Kovar / F-15 (CTE-matched) ● Co-Cr, copper-base alloys ● Custom alloy dev. on review

SPECIFICATIONS

Best-Fit Parts	Small, complex geometries w/ multiple features benefiting from part consolidation
Part Size	Sintered mass ~0.1–150 g. Envelopes to ~75 mm/side; broader on review. Walls 0.3–1.0 mm.
Tolerances	As-molded ± 0.3 –0.5% of nominal. Selective post-machining for critical fits. Ra 16–32 μin .
Materials	316L, 17-4PH, 420, 440C, low-alloy steels, Fe-Ni/Fe-Si magnetic, Kovar/F-15, Co-Cr, copper-base
Volumes	Prototype through multi-million/yr. Strongest value at higher annual volumes (tooling amortization).
Lead Times	NPI & tooling: 8–14 wks. Production: 4–8 wks depending on finishes and material.
Secondary Ops	Heat treat, sizing/machining, grinding/polish, passivation, electropolish, coatings, laser marking
QA / Docs	Lot traceability, inspection to print, FAI & PPAP as required, Certificate of Conformance

IN-HOUSE PROCESS

- Injection Molding Presses
- Feedstock Mixing & Compounding
- Solvent & Thermal Debinding
- Vacuum/Inert Sintering Furnaces
- Sizing/Coin Presses & CNC Machining

MARKETS SERVED

- Medical Instruments & Devices
- Aerospace & Defense Hardware
- Firearms Components
- Industrial & Fluid Handling
- Electronics, Energy & Sensors

FULL MIM CAPABILITY SET

- DFM & Consolidation
- Tooling Design
- Feedstock Prep
- Injection Molding
- Debinding & Sintering
- Sizing & Machining
- Deburr & Bead Blast
- Laser Marking
- Metrology Lab
- Kitting & Assembly

