



INDO-MIM[®]
COMPLEXITY SIMPLIFIED

CASE STUDIES - CONSUMER



ABOUT US



85+

Material Options

24

**MPIF
Awards**

6000+

**MIM Parts
Variety**

650+

**Customers
Globally**



150M+

**Parts Shipped
Annually**



3000+

Employees



\$200M+

Annual Revenue

METAL INJECTION MOLDING PLANTS



Over 8,90,000 sq. ft. of MIM manufacturing in multiple locations in 2 countries



**Manufacturing Plant – 1
Hoskote, Bengaluru**



**MIM Manufacturing Plant – 2
Doddaballapur, Bengaluru**



**MIM Manufacturing Plant – 3
INDO-MIM Inc., USA**

INTEGRATED VALUE CHAIN



One-Stop Solution Provider

MIM

**METAL INJECTION
MOLDING**

Largest installed
capacity



CIM

**CERAMIC INJECTION
MOLDING**

ISO 9001 and
ISO 14001 Certified



IC

**INVESTMENT
CASTING**

Temperature and
Humidity controlled



PMG

**PRECISION
MACHINING**

Aerospace, Oil & Gas,
Medical



**SURFACE
TREATMENT**

**SPECIAL
PROCESSES**

AS9100 & NADCAP
Approved



MBJ

**METAL BINDER JET
3D PRINTING**

New Addition to
INDO-MIM



GLOBAL PRESENCE

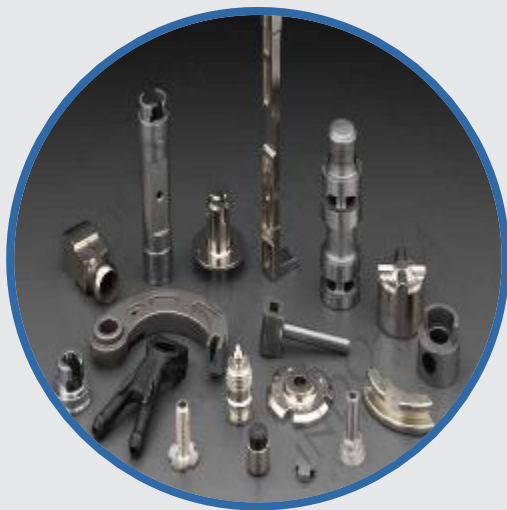


CERTIFICATIONS



 <p>CERTIFICATE</p> <p>INDO-MIM Private Limited</p> <p>ISO 9001:2015</p> <p>AS 9100:2016</p> <p>AEROSPACE</p>	 <p>CERTIFICATE</p> <p>INDO-MIM Private Limited</p> <p>IATF 16949:2016</p> <p>AUTOMOBILE</p>	 <p>CERTIFICATE</p> <p>INDO-MIM Private Limited</p> <p>ISO 13485:2016</p> <p>MEDICAL</p>	 <p>CERTIFICATE</p> <p>INDO-MIM Private Limited</p> <p>ISO 14001:2015</p> <p>ENVIRONMENT</p>	 <p>CERTIFICATE</p> <p>INDO-MIM Private Limited</p> <p>ISO 9001:2015</p> <p>QMS</p>	 <p>CERTIFICATE</p> <p>INDO-MIM Private Limited</p> <p>ISO CLASS 8</p> <p>CLEAN ROOM</p>	 <p>CERTIFICATE</p> <p>INDO-MIM Private Limited</p> <p>OHSAS 18001:2007</p> <p>HEALTH & SAFETY</p>	 <p>GC-MARK CERTIFICATE</p> <p>INDO-MIM Private Limited</p> <p>GC-MARK</p> <p>ENERGY EFFICIENT</p>
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PRODUCT PORTFOLIO



AUTOMOTIVE

Turbochargers, sensors,
pumps, seating, door
mechanism, nozzle,
etc.



CONSUMER

Fashion accessory,
Mountaineering, Lock
parts, Home appliances,
Personal care etc.



DEFENSE

Firearm parts, sights



AERO & MEDICAL

Surgical parts,
Staplers, Implants,
Brackets

CASE STUDY – BELAY DEVICE



APPLICATION – ROCK CLIMBING



PRODUCT DESCRIPTION

- Material :- MIM 17-4PH
- Weight :- 15gm
- Segment :- Consumer
- Annual Required :- 30K

- Near-net shape achieved in the tool itself with all the complex profile features, eliminating all the secondary machining operations.

SOLUTION



**MPIF AWARD
WINNER – 2018**

- Complex profile with features like curved profile , undercut and inclined geometry is difficult for conventional machining.

CUSTOMER PAIN POINTS

CASE STUDY – MIM PARTS USED IN PRINTERS



APPLICATION – PRINTERS



- Cost benefit of 25% after migrating to MIM.
- High volumes are easily achievable.
- Entire component was produced through MIM technology, quality standard of parts enhanced compared to traditional process.

SOLUTION

PRODUCT DESCRIPTION

- Material :- MIM Fe-3Si
- Weight :- 12gm
- Segment :- Consumer
- Annual Requirement :- 30K



- Earlier manufacturing process:-
Stamping + Bar Stock Pins + Riveting of Pins + Centre Ring Brazing + Plating
- Difficult to produce component in high volumes.
 - Perpendicularity of welded pins with face reference.

CUSTOMER PAIN POINTS

CASE STUDY – BICYCLE GEAR ASSEMBLY



APPLICATION – BICYCLE GEAR ASSEMBLY



PRODUCT DESCRIPTION

- Material :- MIM 17-4PH
- Weight :- 1.2gm
- Segment :- Consumer
- Annual Required :- 80K



- Implemented robot handling
- Salt Bath nitriding done to increase the surface hardness

- Handling and manufacturing
- Continuous wear and tear during gear transmission

SOLUTION

CUSTOMER PAIN POINTS

CASE STUDY – TRIMMER & CLIPPER BLADE



APPLICATION – TRIMMER & CLIPPER



- Near-net shape achieved in the tool itself
- Lesser part price
- Material properties enhanced with modified material

SOLUTION

PRODUCT DESCRIPTION

- Material :- MIM SS420
- Weight :- 14gm
- Segment :- Consumer
- Annual Required :- 150K



- Critical teeth profile
- Higher lead time
- Corrosion and hardness

CUSTOMER PAIN POINTS

CASE STUDY – POWER TOOL



APPLICATION – POWER TOOL



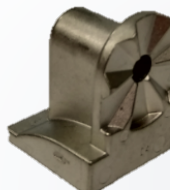
Parts with non uniform wall thickness produced with MIM

- Lead time reduced by almost 50% resulting in no line down situation at customer end
- Material wastage reduced by 30% when compared with bar stock machining

SOLUTION

PRODUCT DESCRIPTION

- Material :- MIM 4605 (Hardened & Tempered steel)
- Weight :- 23gm
- Segment :- Consumer
- Annual Requirement :- 70K



- Producing the parts in conventional methods results in more material wastage
- The part has to be loaded in different orientations to machine which requires more lead time

CUSTOMER PAIN POINTS

MORE THAN 3000 HEARTS – ONE TARGET

Creating Value :

In-depth technical competence

International presence

Application and Industry Expertise

Long-term Relationships

THANK YOU

www.indo-mim.com

