



INDO-MIM[®]
COMPLEXITY SIMPLIFIED

CASE STUDIES - INDUSTRIAL



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>AS 9100:2016</p> <p>AEROSPACE</p> |  <p>CERTIFICATE</p> <p>INDO-MIM PVT. LTD.</p> <p>IATF 16949:2016</p> <p>AUTOMOBILE</p> |  <p>CERTIFICATE</p> <p>INDO-MIM PVT. LTD.</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 PVT. LTD.</p> <p>ISO 9001:2015</p> <p>QMS</p> |  <p>CERTIFICATE</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 – DOOR LOCKS

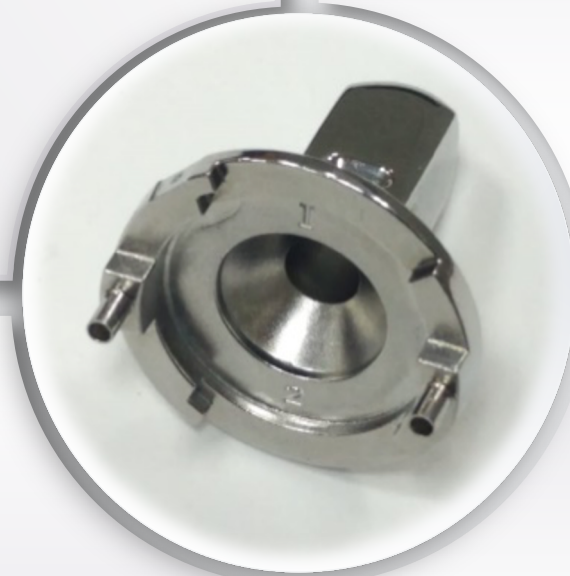


APPLICATION – DOOR LOCKS



PRODUCT DESCRIPTION

- Material :- MIM 17-4PH
- Weight :- 13gm
- Segment :- Consumer
- Annual Required :- 20K



- Complete part profile with Pip wall thickness achieved
- Lesser lead time

- Pip wall thickness of 0.35mm
- Higher lead time
- Multiple machining operations

SOLUTION

CUSTOMER PAIN POINTS

CASE STUDY – SANITARY APPLICATION



APPLICATION – UPPER STOP RING



- Entire component was produced through MIM with no additional machining operation.
- Three complex parts are fabricated close to net shape and special ceramic setters are employed for enhanced shape retention during sintering.

SOLUTION

PRODUCT DESCRIPTION

- Material :- MIM 316L
- Weight :- 20-40gm
- Segment :- Consumer
- Annual Quantity :- 1000K



- High lead time, low repeatability & difficult to produce component in high volumes.
- Fragile features and thin walls difficult to develop through conventional process.
- Burr folding at sharp corners.

CUSTOMER PAIN POINTS

CASE STUDY— SENSOR



APPLICATION – PHOTOELECTRIC SENSOR



Complex shaped parts with thin wall section produced through MIM used in Photoelectric Sensors

- All the features were produced through MIM with minor machining resulting in better functioning of the part

SOLUTION

PRODUCT DESCRIPTION

- Material :- MIM 4605 (Hardened & Tempered steel)
- Weight :- 43gm
- Segment :- Consumer
- Annual Requirement :- 36K



Initially parts were produced through machining

- Burr resulting in sensor failure
- More lead time
- More material wastage
- Aesthetic features difficult to achieve due to more operations

CUSTOMER PAIN POINTS

CASE STUDY – CERAMIC YARN SEPERATOR



APPLICATION – YARN MAKING MACHINE



PRODUCT DESCRIPTION

- Material :- 96% of Alumina (Ceramic)
- Weight :- 8gm
- Segment :- Consumer
- Annual Requirement :- 500K

- Replacing the aluminum to ceramic.
- Withstand high temperatures.
- Wear and Corrosion resistance.
- Complicated profile achievable in mold tool

SOLUTION

- Wearing of aluminum notch due to high speed yarn spinning method.
- Complicated profile at the functional area.

CUSTOMER PAIN POINTS

CASE STUDY – SEWING MACHINE



APPLICATION – SEWING MACHINE



Complex shaped parts
produced through MIM used in
Sewing Machine

- Complex shape achieved through MIM with lesser lead time

SOLUTION

PRODUCT DESCRIPTION

- Material :– MIM 4605
- Weight :- 14gm
- Segment :- Consumer
- Annual Requirement :- 50K



- Complex profile makes it difficult to produce the parts through machining and also results in more material wastage
- Difficult to hold the part while machining due to part complexity

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

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