



Precision Injection Molding Partner

EXECUTIVE SUMMARY

Moldrite Innovations Pvt. Ltd. is a Bangalore-based plastic injection molding company established in **2012**, backed by over 50 years of collective industrial expertise. We specialize in precision molded components and mold development execution for demanding sectors including FMCG, Automotive, Healthcare, Electrical, and Electronics.

Operating from a strategically located 5,000+ sq. ft. manufacturing facility in Peenya Industrial Area, Bangalore, we deliver an end-to-end execution model — from DFM validation and prototyping through mold manufacturing to **24×7 controlled production** with single-point accountability.

Our capabilities include localized **dimensional control** in critical functional areas and high-speed thin-wall molding, supported by the **all-electric Fanuc Roboshot** machine and structured production reviews.

An **ISO 9001:2015** certified organization, we have been directly exporting to the USA, UAE, Qatar, and Australia since 2017, demonstrating sustained production reliability and global execution capability.

At a Glance



GLOBAL REACH

Exporting since **2017**



USA | UAE | Qatar | Australia



CYCLE SPEED

As low as **4.2** seconds



PRECISION

- Localized tolerance control up to **±0.02 mm**
- All-electric Fanuc **Roboshot** molding with enhanced dimensional stability



OPERATIONS

- 24×7 controlled production
- ISO 9001:2015 certified systems



POLYMERS PROCESSED

- Engineering polymers: PA6, PA66, PC, PBT, ABS
- Consumer grades: PP, PE, HIPS, GPPS

CORE STRENGTHS

- Structured production planning and shift-based execution
- Engineering polymer processing expertise (PC, PA6-GF, PA66, ABS and specialty grades)
- High-speed thin wall molding
- Integrated mold development and manufacturing execution with single-point accountability
- Functional tolerance control in critical geometry
- Structured daily production review system ensuring disciplined execution



TECHNICAL CAPABILITY

Moldrite Innovations Pvt Ltd is an ISO 9001:2015 certified company.

Localized dimensional control up to ± 0.02 mm achieved in critical functional zones — such as locating features, mating interfaces, and precision pin geometry — under validated and controlled processing conditions. Typical mold manufacturing lead times range between 4–10 weeks depending on complexity and cavity configuration.

OUR SERVICES

Moldrite Innovations Pvt. Ltd. offers services through all stages of product development including:

- Design
- Prototyping / 3D Printing
- Mold Development
- Production
- Assembly and Distribution



INFRASTRUCTURE SNAPSHOT

Manufacturing Facility

- 5,000+ sq. ft. production facility located in Peenya Industrial Area, Bangalore
- Structured production layout with dedicated zones for Raw Material, Molding, Finished Goods, Inspection, Assembly, and Dispatch
- 24 × 7 operational capability

Injection Molding Infrastructure

- 5 precision injection molding machines
- In-House clamping force range: 100T to 150T
 - 1 All-electric FANUC Roboshot machine
 - 3 Milacron machines (high-speed & general purpose)
 - 1 Shibaura general-purpose machine
- Extended capacity access
 - For project-specific requirements, Moldrite leverages an extended machine network ranging from 25T to 775T, executing larger programs under Moldrite's technical supervision and full delivery responsibility.
- High-speed thin wall molding capability
- Installed capacity exceeding 1.5 million components per month (scalable based on cavity configuration and cycle time)

Processing Capability

- Engineering polymers: PA6, PA66 (GF/UF), PC, PBT, POM, ABS, PMMA, SAN
- Commodity polymers: PP, HDPE, LDPE, HIPS
- Part weight range: ~0.5 g to 450 g
- Thin wall molding capability: 2.2g–20g high-speed applications (cycle time as low as 4.2 seconds)
- Dedicated hopper dryers with auto-loader for moisture-sensitive engineering polymers

Tooling & Mold Development

- Supported by a closely aligned tooling partner facility
 - Mold manufacturing executed through a dedicated in-network tooling facility
 - Operated under Moldrite's direct engineering coordination and validation
 - Single-point accountability maintained from DFM sign-off through production release
- CNC machining, EDM, WEDM, precision grinding
- Maximum mold size handled: 700 × 700 mm
- Maximum mold weight handled: up to 1.7 MT
- Hardened tool steels (Stavax & equivalents)
- Hot runner and cold runner mold capability
- Multi-million shot tool life design



Quality & Precision

- ISO 9001:2015 Certified
- Demonstrated high tolerance capability
- Controlled process parameters for repeatability and dimensional consistency

Workforce Structure

- 1 Operations Manager
- 2 Production Supervisors
- 3 Junior Supervisors
- 2 QA Assistants
- 15 Skilled Operators & Helpers

Leadership

Moldrite is led by Mr. Jordy Joseph, Founder & Director, who brings over 25 years of cross-industry experience spanning IT, operations, and manufacturing across the USA, UK, UAE and Canada. His background in international business culture and structured process execution shapes Moldrite's operating philosophy — bringing the discipline, transparency, and customer-centricity of global industry to manufacturing.

The leadership team collectively represents 50+ years of hands-on manufacturing expertise, with active involvement in production planning and quality oversight supported by structured daily production review meetings for real-time issue resolution and continuous process improvement.

PRODUCTS DEVELOPED

➤ FMCG & PACKAGING

- Thin wall containers and lids (incorporating air-assisted ejection for high-speed production)
- Caps and closures
- Measuring cups and accessories
- Rice Husk Reinforced PP Consumer Mugs
- Masala Container sprinklers



➤ HEALTHCARE

- Lab Disposables
- Petri Dishes
- Dialyzer Cap & other Accessories
- Mouth Wash Bottles
- PPE Kits
- Safety Goggles



➤ ELECTRICAL & ELECTRONICS

- High-precision enclosures and housings
- Smoke Detector Enclosures
- Electrical Panel Enclosures
- Hydraulic Die Holder



➤ AUTOMOTIVE COMPONENTS (Sub-Vendor)

- Battery Holder for EV Bikes
- Precision molded brackets
- Enclosures and housing components
- Engine bay connectors and adapters
- Engineering polymer components (PA6, PA66 GF, PBT, POM)

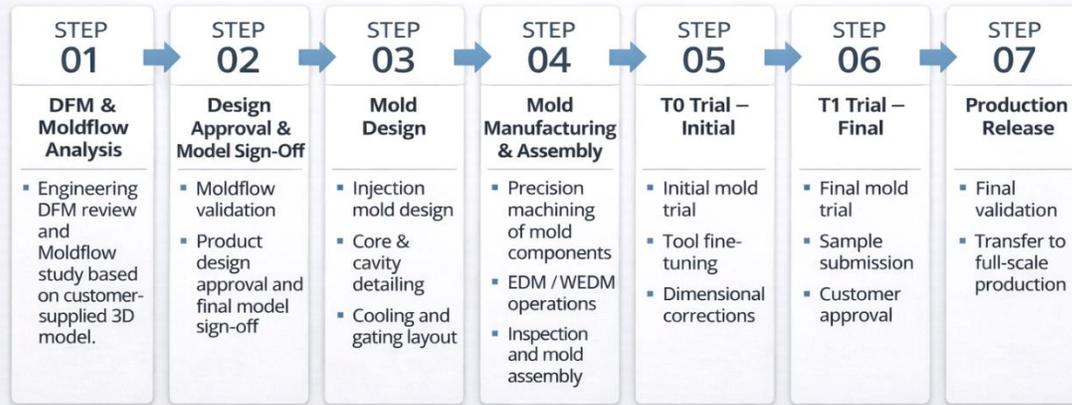


➤ CONSUMER & HOUSEHOLD PRODUCTS

- Scrub Pad Holder
- Hardware Braces, Brackets
- Utility plastic components



PLASTIC PRODUCT DEVELOPMENT PROCESS



Controlled engineering process ensuring dimensional accuracy and production stability.

MANUFACTURING INFRASTRUCTURE

Injection Molding Capability

- ✓ 5 Precision Injection Molding Machines
- ✓ Clamping force range (in-house): 100T - 150T
- ✓ 1 All-electric Fanuc Roboshot 150T Machine
- ✓ 2 Milacron Q-Series VDP - 110T Machine
- ✓ 1 Milacron Nova Servo 150T machine
- ✓ 1 Shibaura TS-Series 100T machine
- ✓ High-speed thin wall capability (cycle time as low as 4.2 seconds)
- ✓ Part weight range: 0.5 g - 450 g

Extended Machine Access (Project-Specific)

- ✓ For larger or project-specific programs, Moldrite executes through an extended 25T-775T clamping force network, maintaining full technical control and single-point accountability.



Integrated Tooling Support

ENGINEERING SUPPORT

- Engineering & Design Support
- Mold design execution & DFM validation
- Engineering validation before manufacturing
- Core & cavity optimization support

TOOL MANUFACTURING

- CNC machining
- EDM & WEDM
- Precision surface grinding
- Hot runner & cold runner mold capability

MOLD VALIDATION

- Maximum mold size handled: 700 × 700 mm
- Maximum mold weight handled: up to 1.7T
- Tool trials and validation support

QUALITY CONTROL

- Dimensional validation support during mold trials
- Coordinated inspection prior to production release

Moldrite Innovations Pvt. Ltd.

QUALITY ASSURANCE & PROCESS CONTROL



GLOBAL EXPORT OPERATIONS

Exporting Since 2017

Moldrite has been directly exporting precision injection molded components since 2017, serving customers across the United States, Australia, UAE, and Qatar. Current direct export programs include hardware components supplied to the USA and hydroponics-related agricultural products supplied to Australia. In addition, several of Moldrite's domestic customers — including electronics manufacturers — export Moldrite-produced components to international markets as part of their own supply chains, further extending Moldrite's global production footprint.

GLOBAL EXPORT OPERATIONS



| Established Export Markets | Export Execution Capability | Program Continuity |
|---|---|---|
| <ul style="list-style-type: none"> • United States • Australia • United Arab Emirates • Qatar | <ul style="list-style-type: none"> • Direct international billing & commercial compliance • Structured production planning for overseas schedules • Repeat export programs across multiple regions | <ul style="list-style-type: none"> • Dedicated production allocation for export programs • Sustained export track record since 2017 |

PRODUCTION & MOLD HANDLING CAPABILITY

- Dedicated molding zone
- Structured raw material & finished goods flow
- Mold handling up to 1.7 MT
- Controlled shop floor layout



Integrated Tooling Execution Capability



MITSUBISHI EA12



MAKINO U6 HEAT



Representative capabilities of integrated tooling partner including CNC machining, EDM, WEDM

ENGINEERING CASE STUDY

(Functional Precision Control in ABS Electronic Housing ± 20 Micron Critical Zones)

Project Overview

Moldrite Innovations developed a precision ABS electronic housing designed to accommodate an internal PCB assembly. The component required localized dimensional control on specific functional features to ensure accurate PCB seating and long-term assembly stability.

Material: ABS

Part Size: ~37 mm profile

Application: PCB mounting enclosure

Production Volume: 100,000+ parts supplied over 2 years

Engineering Challenge

- 37 mm ABS housing with internal PCB location requirement
- Critical locating pins ($\varnothing \sim 1.7$ mm) requiring ± 0.02 mm positional accuracy
- Localized thin wall section (~ 0.30 – 0.35 mm)
- Zero visible gate mark requirement (cosmetic surface)
- PCB seating failure if deviation exceeded 0.02 mm

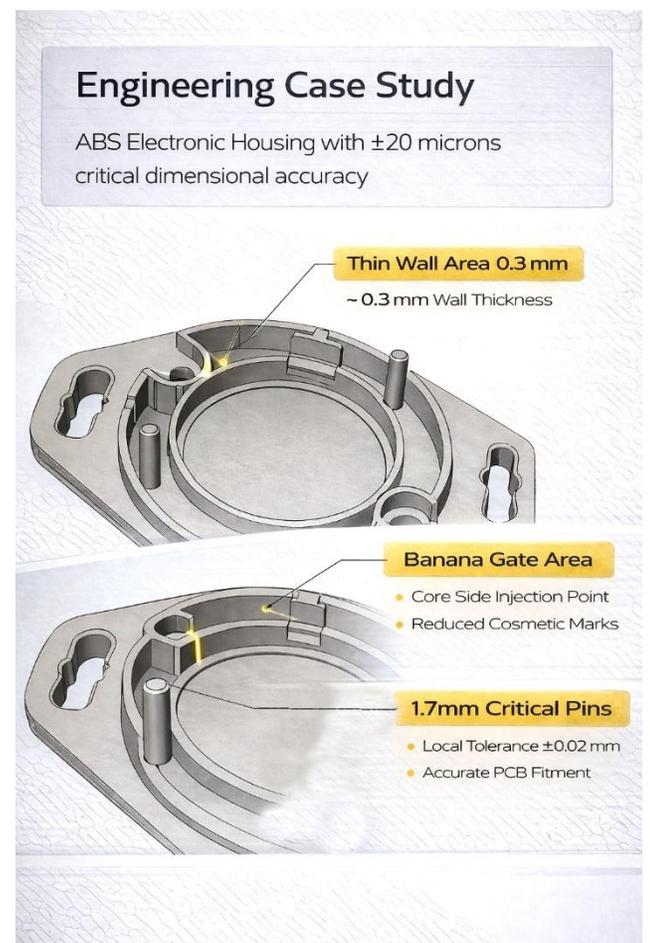
Even minor shrinkage variation resulted in PCB misalignment and assembly rejection risk.

Engineering Solution

- Dual DFM review iterations with dimensional refinement
- Core-side banana gate to eliminate cosmetic defects
- Localized shrinkage control near thin wall geometry
- Controlled cooling and dimensional stabilization
- Tool fine-tuning through structured T0 and T1 validation

Production Outcome

- ± 0.02 mm achieved in critical localized zones
- Stable dimensional repeatability under locked production parameters
- Sustained dimensional stability during serial production
- No customer complaint related to dimensional misfit
- 100% PCB fitment consistency during sustained mass production
- Localized tolerance control achieved in functional geometry rather than full-part envelope tolerance.



FEW MOLDS DEVELOPED



REPRESENTATIVE CUSTOMER PORTFOLIO*



Representative selection of customers served across automotive, FMCG, electronics, and healthcare sectors.

*Logos used for representation only.



MOLDRITE INNOVATIONS PVT. LTD

Why Partner with Moldrite?

We are a dependable, engineering-aware injection molding partner — equally comfortable with high-volume commodity components and technically demanding applications. Our strength is consistent execution: reliable delivery, controlled processes, and a team that communicates clearly and takes ownership.

Whether you need a straightforward PP component or a complex engineering polymer assembly, we bring the same structured approach — and we're easy to work with.

We'd welcome a conversation about your next project.

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