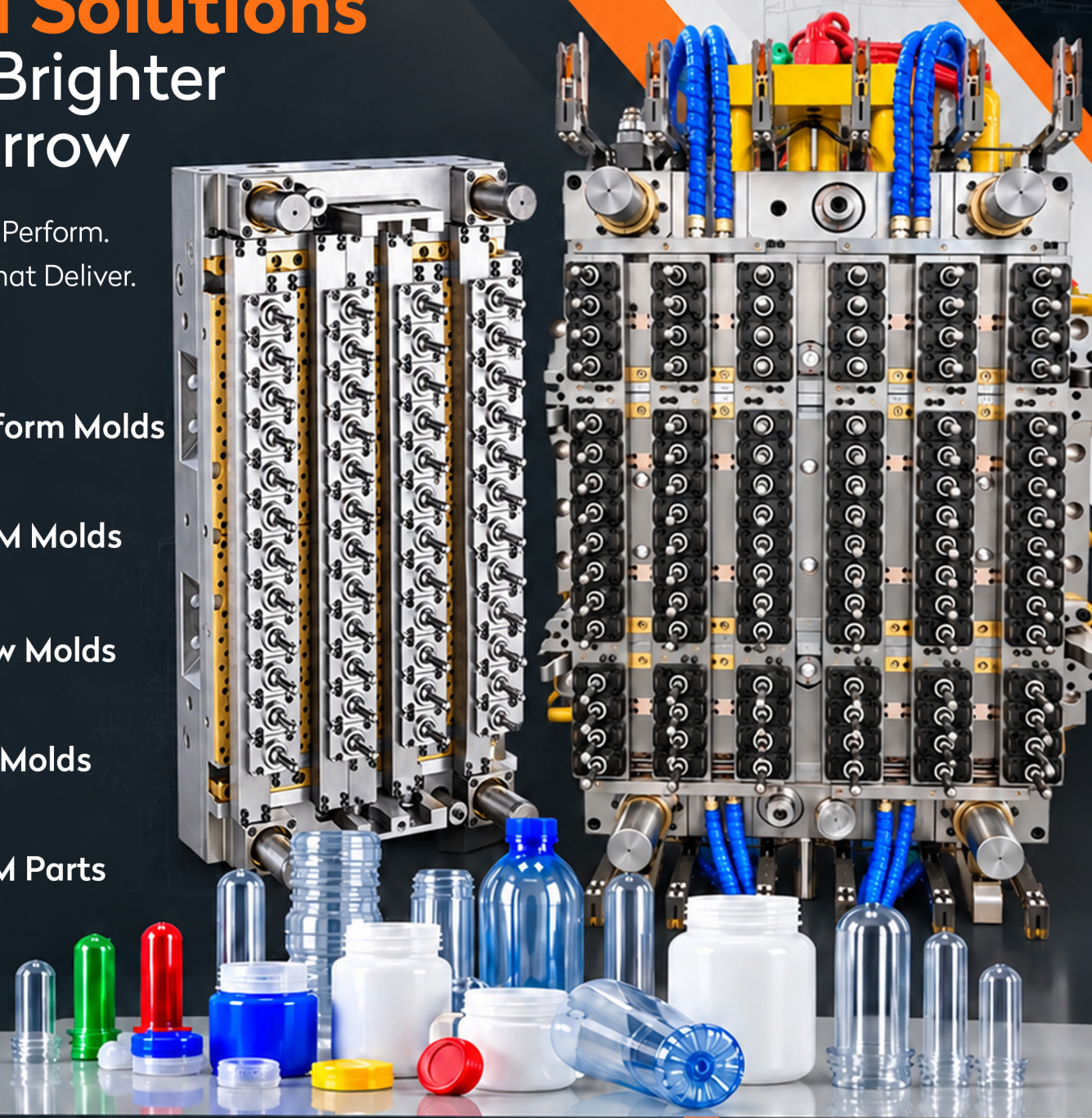
INNOPRECISION PVT LTD

PRECISION IN EVERY DETAIL & PERFECTION IN EVERY MOLD.

Precision Mold Solutions for a Brighter Tomorrow

Molds That Perform.
Solutions That Deliver.

- Preform Molds
- ISBM Molds
- Blow Molds
- Jar Molds
- OEM Parts



PRECISION MOLDS & COMPLETE SOLUTIONS IN PET & PP INDUSTRY.

www.uniquemold.in

About Us

INNOPRECISION PVT. LTD.



Innovation Drives Us... Quality Defines Us...

At Innoprecision Pvt. Ltd. (IPPL), we deliver high-performance, cost-effective packaging solutions with a focus on quality, precision, and reliable delivery.

Established in 2022, INNOPRECISION PVT LTD is driven by a leadership team with 15+ years of experience in mold manufacturing, precision engineering and end-user applications., we specialize in ISBM Single-Stage Molds, PET & PP Preform Molds, Blow Molds, Blood Collection Tube Molds, Injection Jar Cap Molds (HR), and OEM Parts.

Driven by innovation and technical excellence, IPPL delivers dependable molding solutions tailored to the evolving needs of the packaging industry.

15+ YEARS

OF MOLD-MAKING EXPERIENCE

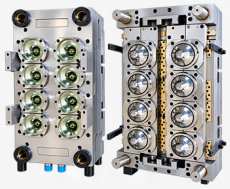
INNOVATION | PRECISION | EXCELLENCE

OUR APPROACH

We combine advanced technology, engineering capabilities, and a skilled team to deliver high-quality, reliable, and cost-effective molding solutions.



ISBM Single-Stage Molds



PET & PP Preform Molds



Blow Molds



Blood Collection Tube Molds



Injection Jar Cap Molds (HR)



OEM Parts

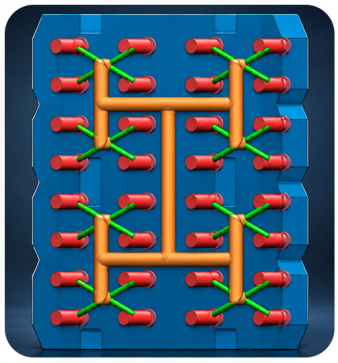


OUR COMMITMENT

- Advanced Technology
- Skilled & Experienced Team
- Consistent Quality
- Reliable Delivery

HOT RUNNER SYSTEM

1. Single Block hot runner manifold design, ensure material fills into all cavities at same time and better hot runner balance, less material stress and lower AA level.
2. Hot runner manifold is designed and made by IPPL,all hot runner spare parts are first-class brand from Japan and Europe.
3. Mirror face CNC Depth Drilling, Fuld polishing, Well balanced hot runner without dead angle and burr.
4. Optimized air and valve pin system design,less air pressure, smooth and fast.
5. Advanced nozzle tip design, no leakage and no PET material remain.





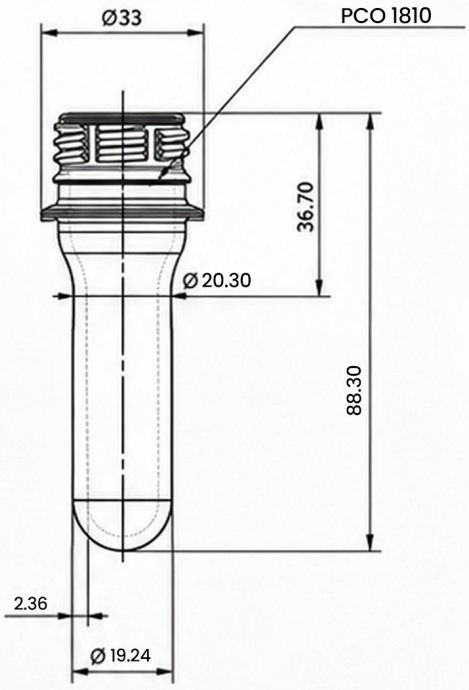
PREFORM DESIGN

WITH YEARS OF DESIGNING EXPERIENCE, OUR ENGINEERING TEAM CAN HELP YOU TURN ANY IDEA INTO A FINISHED PET BOTTLE. WE CAN START FROM:

1. AN IDEA
2. A PREFORM OR BOTTLE SAMPLE
3. YOUR SKETCH

WITHIN ITS OWN PROJECTIONG AND MANUFACTURING DEPARTMENTS, IPPL IS ABLE TO PROVIDE FOR STUDY OF THE PREFORM ACCORDING TO THE TYPE OF CONTAINER'S DESTINATION, THUS CONSIDERING SEVERAL FACTORS.

1- STRETCH/BLOW RATIO
2 - WEIGHT
3-WALL THICKNESS
4-LENGTH OF PREFORM
5-TYPE OF FINISH
6- FINAL USE







PREFORM MOLDS

IPPL's tool room is equipped with advanced machinery and cutting-edge technology from reputed global manufacturers, ensuring high precision and process control at every stage.

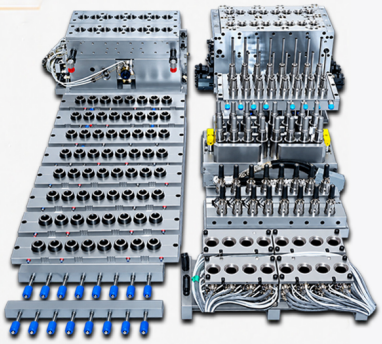
Our expertise enables Cavity-to-Cavity and Mold-to-Mold interchangeability, along with Cold Half development and Mold conversions for customers' existing Molds across various brands.

Precision, flexibility, and consistent quality - engineered to meet every customer requirement.

ISBM MOLDS & BLOW MOLDS

For ISBM Machines

IPPL designs and manufactures molds for Single-stage machines manufactured by Others our micro pitch molds deliver better cavitation and higher productivity for the same machines.





Single Stage Molds

Top-Class CNC machines lead us tour the micron world



IPPL uses advanced CNC technology for high-precision PET preform mold manufacturing, ensuring accuracy. surface finish, and interchangeability.

CNC LINES







VMC LINES







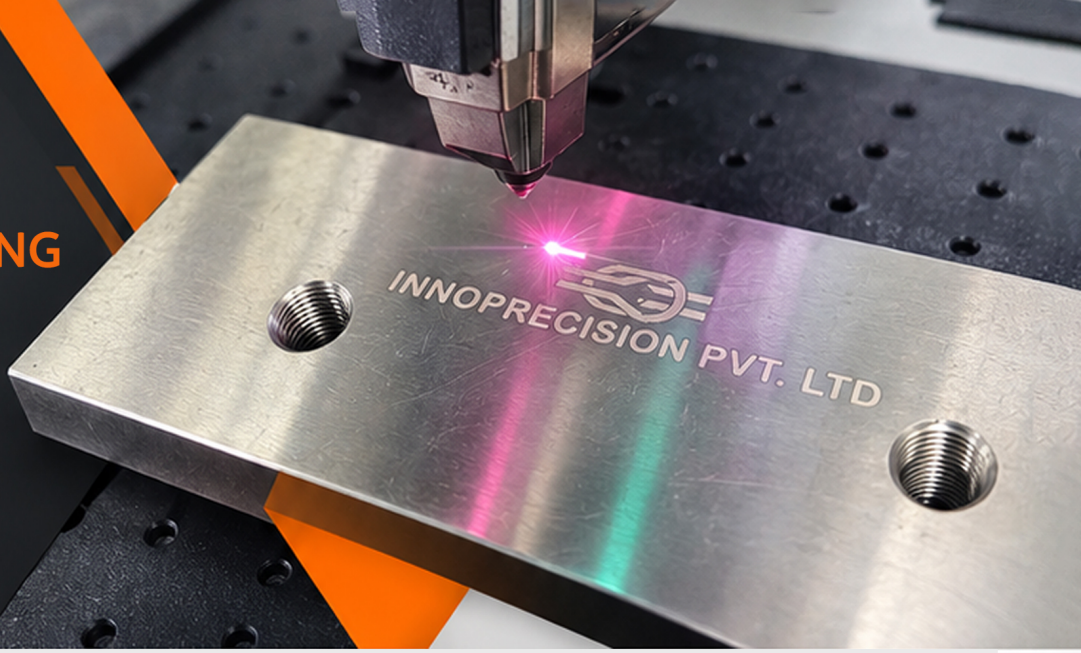
CNC MACHINING & PRECISION

- High-speed CNC machining for mold components
- Tight dimensional & surface control
- Micro-pitch machining for Multi Cavity molds
- Precision neck, thread, gate & cooling features
- 3D CAD/CAM machining for complex profiles
- In-process inspection & CMM measurement
- Cavity-to-cavity & mold-to-mold interchangeability



LASER ENGRAVING - PRECISION MARKING

High-precision, permanent laser marking on mould components for clear identification and traceability without affecting functional surfaces.



Applications

- Cavity, core & insert identification
- Cavity numbering & traceability
- Logos, codes & part numbers
- Batch & production marking
- Fine marking on hardened moulds

Key Benefits:

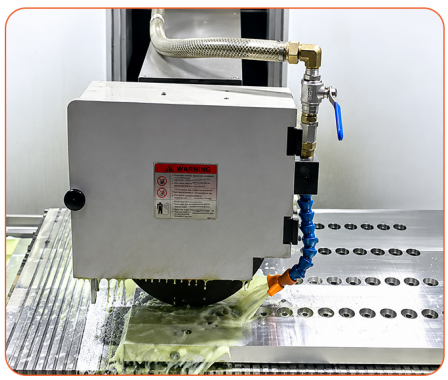
- Sharp, accurate micro-marking.
- Permanent & wear-resistant.
- Excellent repeatability.
- Non-contact, minimal surface impact.
- Improved cavity-to-cavity traceability.
- Clean, professional identification.

CNC GRINDER

SURFACE GRINDING MACHINE — Ultra-Precision Surface Finishing for Mold Plates

Precision surface grinding delivers accuracy up to 3 µm with a superior surface finish of Ra 0.3 µm, ensuring highly flat and consistent mold plates.





Key Benefits:

- Up to 3 µm dimensional accuracy.
- Ra 0.3 µm surface roughness.
- Reduced friction and improved sliding performance.
- Better plate flatness and assembly precision.
- Enhanced mold durability and longer service life.

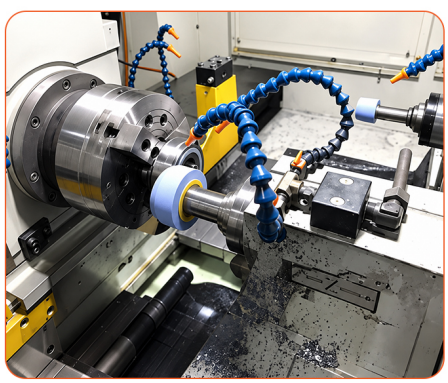
CNC INTERNAL AND EXTERNAL GRINDER

INTERNAL & EXTERNAL CNC GRINDING

Ultra-Precision Grinding for Critical Taper Components

Our CNC internal and external grinding capability delivers up to 1 µm accuracy with an exceptional Ra 0.2 µm surface finish, ensuring precise taper geometry and smooth component engagement.





Applications

- Core Tapers
- Lock Rings
- Lip Cavities
- Taper Rings
- Other Precision Taper-Locking Components

Key Benefits

- Up to 1 um grinding accuracy.
- Ra 0.2 µm surface finish.
- Precise taper matching and alignment.
- Reduced friction and wear.
- Improved locking performance.
- Extended component and mold service life.

Dedicated CNC Lathe Machine Only for Cores Manufacturing.



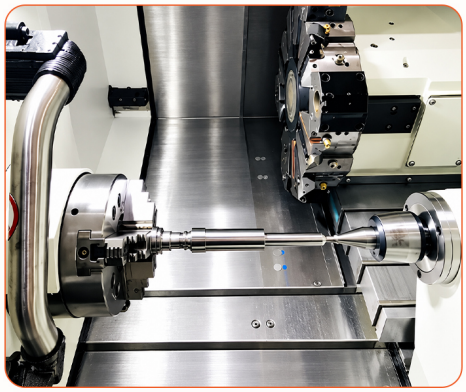
Specialized CNC turning exclusively for mold cores, delivering high precision, consistent dimensions, and repeatable quality across every production batch.

DEDICATED CNC CORE MACHINING

Specialized CNC Turning for High-Precision Cores

Dedicated CNC lathe machines exclusively for core manufacturing, ensuring consistent geometry, repeatability, and process control.





- Accuracy up to 5 µm to 10 µm
- Dedicated machining process for cores
- High dimensional consistency and repeatability.
- Precise core geometry for reliable mold performance
- Consistent quality across production batches.

EDM & EDM DRILLING MACHINES

Precision Erosion Technology for Complex Preform Mold Features

Advanced EDM and EDM drilling technology enables accurate machining of intricate and difficult-to-machine mold components, delivering accuracy up to 10 µm and a superior Ra 0.15 µm surface finish.



EDM



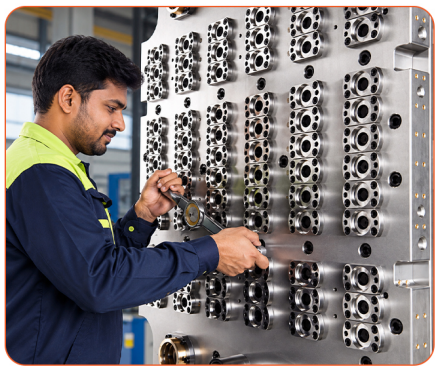
EDM Driling

Key Benefits:

- Up to 10 µm machining accuracy.
- Ra 0.15 µm surface finish.
- Precise machining of complex cavities and critical details.
- Accurate cooling-hole and deep-hole machining with EDM drilling.
- Improved dimensional consistency and repeatability.

PRECISE MOLD ASSEMBLY

Precision mold assembly ensuring accurate fitment, smooth operation, and cavity-to-cavity interchangeability, backed by systematic dimensional and functional inspections.





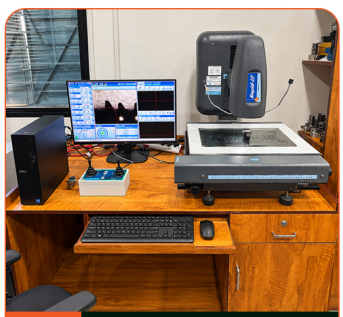
CustomerBenefits:

- Smooth Mold Operation
- Consistent Preform Quality
- Reliable Cavity Performance
- Faster Installation
- Reduced Trial & Commissioning Time

Quality Control

Taking international standard as coordinate,weed out any inferior-quality workpiece through full inspection.

High accuracy detection device.



01 VMS



02 2D HEIGHT INDICATOR



03 CMM



04 ROCKWELL HARDNESS TESTER



HIGH-PRECISION

Inspection Equipment

2D Height Gauge
DIGIMAR - Mahr Group, Germany

Hardness Tester
Rockwell, Sweden

Vernier Calipers & Micrometers
Mitutoyo, Japan

Dial Height Gauge & Bore Gauges
Mitutoyo, Japan

Complete range for precise dimensional inspection and high accuracy measurement.

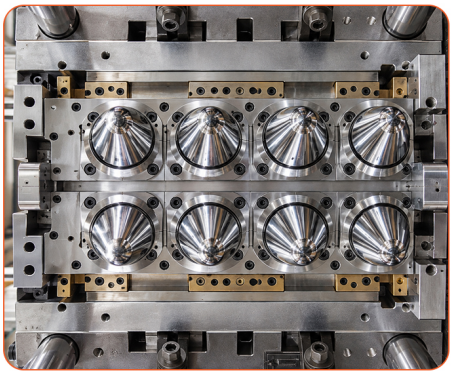


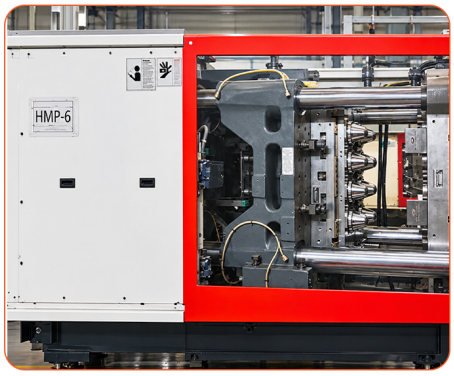
VISION MEASUREMENT SYSTEM

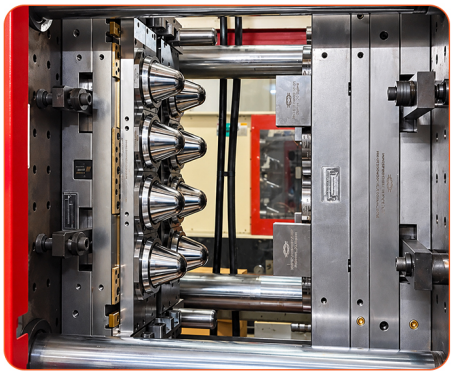
Advanced vision measuring system for high-accuracy inspection of complex profiles and critical dimensions.

Accurate measurement | Reliable data analysis | Consistent quality control

MOLD VALIDATION & TRIAL FACILITIES







200T Milacron 1540/570 STD for Mold Validation purpose





IPPL supports comprehensive mold validation across multiple machine platforms:

- 200T Milacron 1540/570 STD – Mold validation and performance trials.
- 230T Milacron Q PET Series – PET preform mold validation.
- 50MB / 12M / PM 70/65NII & NIII – ISBM and high-speed preform mold validation.
- Blow Molds – Trials conducted at the customer's facility based on machine availability and production requirements.

OUR PRODUCT SHOWCASE :

To validate mold performance, productivity, and process compatibility under actual production conditions.









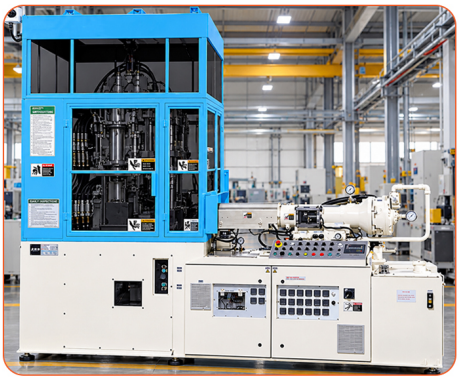


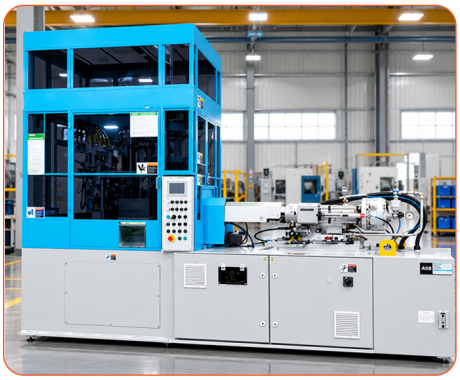






MOLD TRIAL & VALIDATION PROCESS







T1 – DIMENSIONAL & MOLD FUNCTION CHECK

Comprehensive inspection of all critical preform dimensions, mold actions, and functional movements.

T2 – PRODUCTION SIMULATION TRIAL

Mold is operated under production-like conditions to validate performance and collect representative preform samples.

T3 – PRE-SHIPMENT VALIDATION

Final trial is conducted before dispatch to identify and eliminate any potential issues, ensuring shipment readiness.

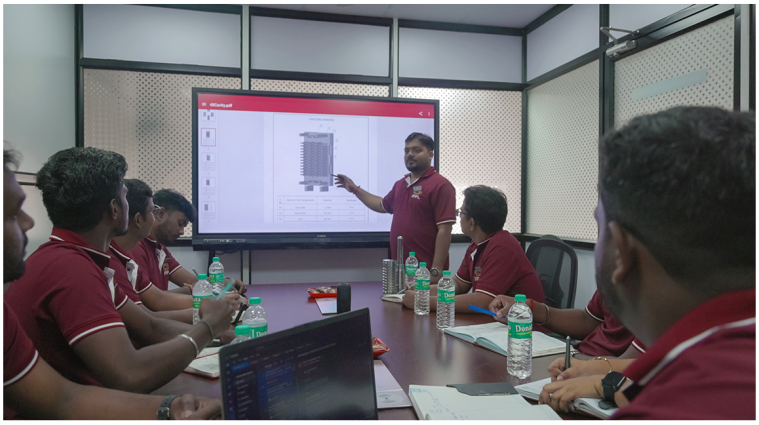
PREFORM TRIAL REPORT

A detailed preform inspection and trial report is prepared and made available to the customer for validation and reference.

THE TEAM BEHIND IPPL



TEAM CONNECT







Better Ideas
for a Brighter Future

INNOPRECISION PVT LTD

+91 60026 87832 | 80569 33556

thambu@uniquemold.in/info@uniquemold.in

www.uniquemold.in

Factory: Innoprecision Pvt. Ltd..
No.83/91, Lakshmi nagar, Malumichampatti,
Coimbatore 641 050. Tamilnadu, INDIA.

MAKE IN INDIA

(Scan for Website)