INJECTION MOLD MAKER/DIE FITTER

Job Description – Injection Mold Maker/DIE FITTER
Position Title: Injection Mold Maker
Department: Tool Room / Mold Manufacturing
Experience: 5–8 Years (preferred)
Location: Sonipat
Reporting To: Tool Room Manager / Engineering Design Head

Role Summary
The Injection Mold Maker is responsible for precision assembly, fitting, troubleshooting, and validation of plastic injection molds. The role demands strong interpretation of 2D drawings and 3D models, hands-on experience with hardened components, and deep understanding of mold mechanisms such as sliders, lifters, and dog houses. The individual must ensure dimensional accuracy, functional reliability, and trial readiness of molds.

Key Responsibilities

1. Mold Assembly & Fitting

- Perform complete mold assembly including cavity/core blocks, sliders, lifters, ejector systems, and hot runner interfaces.
- Hand-fit critical components to achieve smooth operation and correct shut-offs.
- Process and assemble hardened inserts (HRC 48–56 typically) with care, ensuring zero damage to edges and profiles.
- Conduct spotting, blue matching, and correction cycles to achieve proper parting line and sealing.

2. Drawing & Model Interpretation

- Read and interpret **2D manufacturing drawings** accurately (dimensions, GD&T, tolerances, fits).
- Understand **3D CAD assemblies** for spatial orientation of components and mold mechanisms.
- Translate design intent into physical assembly with minimal supervision.

3. Tolerances & Fits

- Apply practical knowledge of:
  - Clearance fits (sliders, ejectors)
  - Interference fits (bushings, dowels)
  - Transition fits (guides, inserts)
- Maintain stack-up control and functional tolerances during assembly.

4. Hot Runner Systems

- Assemble and service hot runner molds including:
  - Manifolds
  - Nozzles
  - Heaters and thermocouples

- Ensure leak-free interfaces, proper wiring routing, and thermal expansion allowances.
- Support hot runner start-up during trials.

5. Mold Mechanisms

- Strong hands-on experience with:
  - Sliders (angle pins, wear plates, gibs)
  - Lifters (kick angles, return systems, wear control)
  - Dog houses (steel safety, draft integrity, ejection feasibility)
- Verify smooth actuation and zero binding under manual cycling.

6. Trial Support & Troubleshooting

- Support T0/T1 trials: analyse short shots, flash, drag marks, sticking, and ejection issues.
- Implement corrective actions on Mold hardware.
- Coordinate with design and machining teams for modification feedback.

7. General Tool Room Activities

- Operate basic tool room equipment (surface grinder, drill, tapping, spotting press).
- Maintain Mold cleanliness, rust prevention, and documentation.
- Follow SOPs for safety and Mold handling.

Required Skills & Competencies

- Ability to read **2D drawings** independently.
- Ability to understand **3D CAD models and assemblies**.
- Strong knowledge of **tolerances and fits** in Mold components.
- Practical experience with **hot runner Molds and applications**.
- Proven capability in **processing hardened inserts** and handling them safely.
- Hands-on expertise in **sliders, lifters, and dog house construction**.
- Good diagnostic mindset for Mold-related issues.
- High attention to detail and workmanship quality.
- Team-oriented with clear communication skills.

Preferred Qualifications

- ITI / Diploma in Tool & Die / Mechanical or equivalent.
- Prior experience in automotive or precision plastic tooling environment.
- Exposure to DFM feedback and trial-readiness practices.