GLOSSARY OF TOOLING TERMS

Plain-language definitions for common injection mould engineering, manufacturing and validation terms.



ENGINEERING-LED	PRODUCTION-AWARE	CMS MANAGED

ENGINEERING CONTEXT

This resource supports early technical discussions and structured programme reviews. It does not replace project-specific DFM, material data, simulation, trial evidence or an authorised commercial agreement.

MOULD ARCHITECTURE

+ Core - mould element that commonly forms internal component geometry.
+ Cavity - mould element that commonly forms the external surface.
+ Parting line - interface where the fixed and moving mould halves separate.
+ Insert - replaceable or separately manufactured element fitted into the mould.
+ Shut-off - mating steel surfaces that close to form an opening or prevent flash.
+ Mould base - plate and guidance structure carrying the moulding elements.

MECHANISMS

+ Slider - side action used to form and release an external undercut.
+ Lifter - angled ejection element used to release an internal undercut.
+ Wedge or heel block - surface that supports and locks a slider under pressure.
+ Ejector pin - pin that transfers ejection force to the moulded component.
+ Return pin - element ensuring the ejection system returns before closing.
+ Leader pin and bush - guidance pair maintaining alignment between mould halves.

PROCESS AND SIMULATION

+ Packing - pressure applied after filling to compensate material shrinkage.
+ Weld line - meeting line formed when separate melt fronts join.
+ Air trap - region where displaced air can become enclosed during filling.
+ Warpage - dimensional distortion caused by non-uniform shrinkage and stress.
+ Cycle time - elapsed time for one complete moulding sequence.
+ Clamp force - force holding the mould closed against cavity pressure.

MANUFACTURE AND VALIDATION

+ EDM - electrical discharge machining used to erode hard conductive material.
+ Electrode - shaped conductive tool used in die-sinking EDM.

+ Spotting - controlled checking and correction of mould mating surfaces.
+ First-off sample - initial part produced for technical review.
+ Correction loop - documented sequence of issue, action, re-trial and closure.
+ Handover - controlled release of the validated tool, records and agreed spares.

REVIEW RECORD

PROGRAMME CHECKLIST

Use the final column for the document, model view, report, decision reference or responsible owner that closes each point.

CHECK	REVIEW POINT	EVIDENCE / DECISION
[ ]	Term understood in programme context	
[ ]	Drawing or model reference identified	
[ ]	Owner and acceptance method agreed	
[ ]	Evidence linked to revision	
[ ]	Change recorded before release	